

# **States Close the Loop**

## **A Survey of Recycled Content Laws And Other Market Development Strategies**

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**with contributions by the  
Institute for Local Self-Reliance  
and  
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# Organizations

The National Environmental Law Center is a non-profit environmental policy and litigation center dedicated to promoting long-term, sustainable solutions to the nation's most pressing environmental problems, and enforcing anti-pollution laws. NELC works with activists at the state and local level to promote policies for pollution prevention and resource conservation. Areas of specialization include recycling market development, toxics use reduction, and clean water.

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The Institute for Local Self-Reliance (ILSR) is a non-profit research and educational organization that provides technical assistance and information to city and state government, citizen organizations, and industry. Since 1974, ILSR has researched the technical feasibility and commercial viability of environmentally sound, state-of-the-art technologies with a view to strengthening local economies. The Institute works to involve citizens, government, and private enterprise in the development of a comprehensive materials policy towards efficiency, recycling and maximum utilization of renewable energy sources.

Californians Against Waste Foundation is a non-profit research and education organization devoted to creating a sustainable economy by promoting the reuse, recycling and renewal of our natural resources. The Foundation is leading two ground-breaking market development projects, one designed to incorporate recycling and reuse enterprises in local economic development strategies, and the second a major California-based Buy Recycled Campaign targeting business and government markets for recycled products.

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# Executive Summary

## INTRODUCTION

In 1992, 5,404 curbside collection programs (a 38 percent increase over the number of programs in 1991) served at least 78 million people.<sup>1</sup> A major obstacle to these programs' success is the lack of markets for collected materials.

This threat to recycling was predicted in 1988, when recycling collection programs had just begun to expand. In his article *The Coming Era of Conservation and Industrial Utilization of Recovered Materials*, William Kovacs warned that the federal government and most states were not addressing "the central issue — how to find markets for the additional materials separated from solid waste. . . . Unless new uses for these materials are developed, . . . recycling efforts will fail."<sup>2</sup>

In 1993 it is more evident than ever that the survival or recycling depends upon development of stable markets. The nation has not yet reached EPA's modest 25% recycling goal<sup>3</sup>, and already many communities and processors are struggling to find stable markets. Economic as well as environmental benefits will go unrealized if recycling fails to thrive.

The following report is based on research conducted by the National Environmental Law Center, Institute for Local Self-Reliance, and Californians Against Waste Foundation. The report offers guidance on recycled content policies by relating the experiences of states that have adopted such policies, and identifies other market development strategies and resources.

## Research Methodology

The research consisted of four general stages: (1) a review of existing state legislation and literature; (2) questionnaires sent to state officials; (3) follow up interviews with state officials; and (4) solicitation of comments on the draft report. In total, 150 forms were sent to officials in 50 states and Washington D.C. Sixty-three forms were returned from 39 states. More than 25 telephone interviews were conducted. The questionnaires were not scientifically designed and were not intended to result in quantitative ranking of programs. Questionnaire responses served as a basis for follow-up interviews.

Our research focused on understanding how state recycled content laws ("RCLs") are being implemented. We focused on RCLs because, while they have been identified as market development policies, there has been little information about how they are working.

Obviously, states should not ignore programs to increase supply of materials and provide financial assistance where needed and possible. States should also clear the way for recovery and reuse by leveling the financing playing field and banning incineration and toxics in products and packaging, among other things. However, debate over what demand-side policies should be adopted to increase the use of recyclable materials in manufacturing will continue as long as stable markets remain elusive. States' experiences with RCLs can indicate whether more states should adopt RCLs and whether RCLs should be expanded to cover additional products.

## Mandatory Recycled Content Laws

During the period 1989 through 1991, 10 states and the District of Columbia passed 19 mandatory recycled content laws (hereinafter sometimes "RCLs").

Recycled content laws seek to increase demand for collected recyclables by requiring consumers of a particular product to buy the product made with recycled material, or requiring manufacturers to use higher levels of recycled material to make the product.

Research on recycled content laws focused on the following questions:

- How are states implementing RCLs, and at what cost to the state?
- Have there been legal or legislative challenges to RCLs, and how have they been resolved?
- Are affected parties complying with RCLs?
- Are RCLs being enforced?
- Are there measurable results from implementation of RCLs, and have RCLs contributed to increased use of postconsumer material in manufacturing?

- For what materials or products do RCLs make the most sense?
- What factors should be considered in crafting the most effective recycled content policy?

Our research produced the following conclusions:

Most states report that implementation of RCLs is not significantly time-consuming. The most resource-intensive work to date involves writing rules. States with laws designed to be more self-implementing spent less time writing rules. The cost to states to administer the laws ranges between \$15,000 and \$100,000 per year, per law.

There have been few legal or legislative challenges to RCLs. The most significant legal challenge

invoked the U.S. Commerce Clause. No court case has been brought to date; however, there are legal precedents that indicate carefully crafted RCLs should withstand a Commerce Clause challenge.

Affected businesses are, for the most part, complying with RCLs, or have indicated they will comply. Most states report high levels of cooperation and compliance under RCLs.

State officials believe that RCLs have contributed to improved markets for postconsumer materials. Most states could not provide figures, although a draft report by the California Integrated Waste Management Board indicates that California recycled content laws have increased demand for recyclable materials in the state and are attracting recycling investments in the state.<sup>4</sup>

RCLs make the most sense for products that (1) are produced in enough volume to stimulate more stable markets; (2) are produced in the state, or in regional or international markets; (3) can be made using significant amounts of postconsumer material; and (4) can be made from materials for which state markets are weak or nonexistent.

States interested in pursuing recycled content policies should: (1) concentrate on products with the characteristics listed above; (2) set standards that industry can achieve, that increase over time, that require postconsumer recycled material, and that are measured by annual, aggregate use of postconsumer material, rather than measured by the amount of postconsumer material contained in each product; (3) where feasible, target large institutional consumers of the product; where not feasible, target product manufacturers; (4) provide for public disclosure of the percentage of postconsumer material used by individual companies; (5) provide high penalties for violations; (6) provide that any exemptions in the law are narrowly drawn and do not apply unless affirmatively granted; and (7) make the law primarily self-implementing.

**Table 1: Mandatory Recycled Content Laws**

State	Materials Covered
Arizona	Newsprint (1990)
California	Newsprint (1990) Glass (1990) Plastic trash bags (1990) Fiberglass (1991)
Connecticut	Newsprint (1990) Telephone books (1990)
District of Columbia	Newsprint and other paper products (1990)
Illinois	Newsprint (1990)
Maryland	Newsprint (1990) Telephone books (1991)
Missouri	Newsprint (1989)
North Carolina	Newsprint (1991)

## **RECYCLED NEWSPRINT USE LAWS**

state agencies to adopt specific rules. In most states, companies have complied with reporting and use requirements. Non-compliance has usually involved small, independent publishers or printers.

Although most state laws provide exemptions, most states report limited claims of exemption. Of 172 companies reporting in California, 139 certified compliance, 3 were not in compliance, and 30 were not in compliance but claimed exemptions under the law (14 for unavailability; 23 for price; and 3 for quality; some companies claimed more than one exemption).<sup>5</sup> North Carolina was the exception;

according to the North Carolina Department of Revenue, 76 producers report quarterly, and of those, 72 have claimed exemptions. North Carolina law allows exemptions for price compared to virgin newsprint; quality compared to virgin newsprint; or unavailability within a reasonable time. The Department of Revenue did not provide information on companies' grounds for exemption claims.<sup>6</sup>

States have not found the need to take enforcement action, but are still monitoring the law and in some cases considering audits to determine compliance. Several state officials indicated there may be a need

**Table 2: Recycled Newsprint Use Laws**

State	How determined	Reporting responsibility	Newsprint goals	Recycled newsprint definition*
Arizona	Each consumer of newsprint	Printer, Publisher	25% by 1991 to 50% by 2000	RNP
California	Each consumer of newsprint	Printer	25% by 1991 to 50% by 2000	RNP
Connecticut	Statewide average	Users of 100 or more tons annually	11% by 1992 to 50% by 1999	TARF
District of Columbia	Each consumer of newsprint	30,000+ circulation or 500 tons per year	12% by 1992 to 20% by 1994	RNP
Illinois	Statewide average	Publisher	23% by 1991 to 28% by 1993	TARF
Maryland	Statewide average	Publisher	12% by 1992 to 40% by 1998	TARF
Missouri	Each consumer of newsprint	15,000+ circulation	10% by 1993 to 50% by 2000	TARF
North Carolina	Each consumer of newsprint	Publisher	12% by 1991 to 40% by 1998	TARF
Oregon	Each consumer of newsprint	Printer, Publisher	25% industry-wide or individually 7.5% by 1995	TARF
Rhode Island	Each consumer of newsprint	Publisher	11% by 1993 to 40% by 2001	TARF
Wisconsin	Each consumer of newsprint	Publisher	10% by 1992 to 45% by 2001	TARF

\*TARF=Total aggregate recycled fiber. RNP=defining recycled newsprint to contain a minimum percentage of recycled fiber. Source: Illinois Office of Recycling and Waste Reduction, 1992, printed in *Resource Recycling*, November 1992; NELC Research.

for more verification and enforcement activity in the future, as the levels of recycled newsprint use required by the laws increase.

While most states could not provide figures, officials believe that recycled newsprint use laws have increased demand and markets for old newspapers. As recently reported by staff of the California Integrated Waste Management Board, "both the economic development implications and the market development impacts are impressive. . . . [T]he newsprint minimum content law has been cited as a leading factor in the decision by at least three manufacturers to seriously consider siting new facilities in California. . . . The Board has received certifications indicating that consumption of recycled content newsprint increased from approxi-

mately 628,000 tons in 1991 to 1.85 million tons in 1992."

### Model Recycled Newsprint Use Law

- Target the largest industrial consumers of newsprint (but don't ignore smaller consumers).
- Measure each consumer's annual aggregate use of recycled fiber rather than a per-sheet standard or "percent of purchases" standard.
- Content standards should be set at levels greater than projected recovery levels.
- Postconsumer fiber use should be specified.
- Public right to know: the percentage of

postconsumer material used by individual consumers of newsprint should be publicly disclosed each year.

- Exemptions should be narrowly drawn, and should not apply unless affirmatively granted.
- Set high penalties for failure to report and failure to meet the standards.
- The law should be primarily self-implementing.

**Table 3: State Cost to Administer Recycled Newsprint Use Laws**

State	Staff	Est. Annual Cost•
Arizona••	<1	n/a
California	1 full time; 2 at 1500 hrs/yr.	\$83,000*
Connecticut	<1	n/a
Illinois	1	\$30,000 - 40,000**
Maryland	1	\$30,000
Missouri	<1	n/a
Oregon	.25	<\$15,000
North Carolina	<1	\$500
Rhode Island	1-1.25	n/a
Wisconsin	n/a	n/a

• For administration; does not include enforcement/legal  
 •• Arizona reports insufficient staff to write rules and implement the law.  
 \* Does not include overhead  
 \*\* Includes copying and mailing costs.  
 n/a: information not provided by agency  
 Source: NELC survey, 1993.

### OTHER RECYCLED CONTENT LAWS

California has implemented four recycled content laws, the most in any state. As recently reported by the California Integrated Waste Management Board, "[t]he increase in demand for glass cullet resulting from California glass container and fiberglass insulation manufacturers complying with minimum content legislation is projected to provide a sufficient market for all cullet collected in California. . . . Although the trash bag minimum content program is still in its early stages, the law seems to be creating an increase in demand for



secondary plastic resins, and has caused at least one firm to consider developing a facility dedicated to supplying secondary resins to manufacturers of trash bags for sale in California."<sup>8</sup>

In general, plastic trash bag manufacturers, fiberglass manufacturers, and telephone directory distributors all have cooperated with the recycled content laws and have indicated they will comply. California and Oregon glass container manufacturers have indicated compliance with laws in their states, but out-of-state manufacturers have raised the U.S. Commerce Clause as a challenge to the laws' application outside the states. Most of the laws cost significantly less than \$100,000 per year to administer.<sup>9</sup>

The major exception to the favorable outlook for RCLs is Wisconsin's rigid plastic container law. The state has as yet taken no steps to implement the law, which is effective in 1995. There are no indications that container manufacturers are moving toward compliance.<sup>10</sup>

## **RECYCLED CONTENT LAWS AND THE INTERSTATE COMMERCE CLAUSE**

The report discusses the Glass Packaging Institute's claim that under the U.S. Commerce Clause, RCLs cannot legally apply to out-of-state manufacturers. No appellate court has directly decided whether a recycled content law that applies to out-of-state manufacturers violates the Commerce Clause. The most recent United States Supreme Court decision on a similar issue was *Minnesota vs. Cloverleaf Creamery*, 499 U.S. 456 (1980). Cloverleaf Creamery challenged a Minnesota law that banned plastic milk jugs from use in the state (the state never enforced the ban). The Court upheld the ban, holding that the statute did not discriminate against in-state or out-of-state milk producers, and the burden was not clearly excessive in relation to the benefits of the law.

Generally, the more a state depends on out-of-state suppliers for products, the more immediate the state interest in imposing standards on out-of-state manufacturers. Many secondary commodities have strong interstate, regional and even international markets. For example, a Pennsylvania facility is reported to process 100,000 tons per year of postconsumer cullet gathered from Pennsylvania and as far north as Vermont and as far south as Virginia.<sup>11</sup> Other materials have even broader markets (e.g., old newspapers, Bottle Bill plastics).

States also can assert an interest in the environment beyond their borders, recognizing that environmen-

tal problems do not stop at the border. A federal appellate court recognized that a state can assert an interest in what is good for the environment worldwide, upholding a New York State law that barred sale of raptors unless they had been raised in captivity. The court stated that the state's citizens can decide not to be involved in destruction of the environment elsewhere.<sup>12</sup>

The state law may also be upheld under the "equal burden" principle on the grounds that a preclusion from applying the law to interstate activities would give out-of-state interests economic advantages over in-state interests. This rationale can be analogized to compensatory tax cases. Courts have referred favorably to situations where a state is attempting to impose a tax on a substantially equivalent event to assure uniform treatment of goods and materials to be consumed in the state.

Although it is not clear whether the current U.S. Supreme Court would uphold RCLs that place requirements on out-of-state manufacturers, there are precedents that support the laws' validity. States can take steps to draft laws that would be more likely to survive a legal challenge. In the final analysis, passage of federal recycled content laws, or recycled content laws in more states, would make a Commerce Clause challenge moot.

Perhaps of more concern is that trade issues similar to those arising under the U.S. Commerce Clause also arise under international trade agreements such as the General Agreement on Trade and Tariffs and the North American Free Trade Agreement.<sup>13</sup>

## **VARIATIONS ON A THEME**

Some groups advocate passage of other demand-side policies, including tradeable credits, "utilization rates", advance disposal fees, and voluntary recycled content agreements. Concerns have been raised that the proposals, if implemented, may not maximize the economic and environmental benefits of recycling, but rather may encourage lower-value, less environmentally beneficial uses. Concerns have also been raised that tradeable credits and utilization rates would require considerable state staff and resources to administer and enforce. These concerns must be addressed before inclusion of credit trading or utilization with RCLs, to ensure they do not diffuse market demand created by RCLs. Unlike "utilization rates," RCLs provide a demonstrated market development tool.

While RCLs have proven effective, it is not clear how voluntary recycled content agreements are working, though they may be options for states unable to pass mandatory RCLs.

Florida's advance disposal fee on packaging is in the early stages of implementation. The Oregon and California plastic packaging recycling rate/recycled content laws have not yet been implemented. All three laws are more costly to states due to their complex provisions and industry opposition.

## **RECOMMENDATIONS FOR DRAFTING RECYCLED CONTENT LAWS**

States' experiences show that carefully targeted RCLs can increase the amount of secondary material used in manufacturing, create jobs or markets in the state, result in capital investments, and be cost effective and compatible with other programs.<sup>14</sup> The following factors should be considered in drafting recycled content laws.

### **Determining which products to target**

- Target products that are produced in enough volume to stimulate more stable markets. For example, the volume of newsprint production is one reason states targeted large newsprint consumers for increased use of postconsumer paper.<sup>15</sup>
- Target products that are produced in the state, or that have strong regional or international markets. Newsprint mills located in one state often buy old newspapers from other states to use as feedstock in manufacturing. If demand at a mill increases due to a law passed in another state, the regional market should strengthen.
- Target products that can be made using significant amounts of postconsumer material. For example, glass containers can be made using up to 95 percent recycled cullet.<sup>16</sup> Oregon's glass plant has used close to 80 percent recycled content in some of its bottles.<sup>17</sup> California and Oregon laws start by requiring relatively low percentages of 25 percent and 35 percent, and increase the percentages to 65 percent and 50 percent, respectively.
- Target products that can be made using significant amounts of postconsumer material for which state markets are weak or nonexistent.

### **Setting recycled content standards**

- Standards should be achievable by industry. States can determine what industries can do by obtaining information from companies that have taken the lead in using high levels of recycled content, or by looking at what companies have

achieved in compliance with existing RCLs.<sup>18</sup>

- Standards should be set at levels greater than projected recovery rates in order to pull material through the system. If initial standards are low, standards must increase over time to ensure that markets continue to build.
- Standards should be set and measured by annual aggregate use of postconsumer material as provided in most of the newsprint laws, the plastic trash bag law, and the glass laws. This allows flexibility in manufacturing. Some runs may have higher levels of recycled content, and some lower levels, but the average use over a year should meet the required level.
- Standards should specify use of postconsumer recycled material in order to increase demand for postconsumer material collected in municipal recycling programs. We recommend the following definition of postconsumer: "Products that have met their intended end use as a consumer (business or household) product, and that have been separated from the solid waste stream. Postconsumer does not include manufacturing or converting scrap."

### **Target large consumers of the product where feasible**

Observers believe the recycled newsprint use laws have been a success because they require large consumers of newsprint to buy recycled newsprint. This purchase requirement provides a "guaranteed market" for newsprint manufacturers. More certain demand for the product gives manufacturers the incentive to make the product and to make investments in the equipment and technology needed to use more recycled material.<sup>19</sup>

Characteristics of the newspaper publishing industry may make the newsprint law hard to duplicate for other industries. Publishers are visible; they are the largest users of the product and thus able to affect suppliers' behavior through their purchasing demands; they distribute in the state, giving them ties to the state and enforceability; and they are not extremely numerous, so are easier to identify and monitor.

Where these characteristics can be duplicated, targeting buyers of the product is preferred. However, this approach may not be workable in all situations, and other approaches may work as well. For example, California's recycled content fiberglass insulation law and plastic trash bag law both target manufacturers, and appear to be successful in their early stages, although the content standards may be too low to pull material through the system.

Laws that make out-of-state manufacturers responsible may be more difficult to enforce. Though this has not yet become an issue for the California fiberglass or trash bag laws, it has been somewhat of a barrier to California and Oregon's glass container laws. States concerned with Commerce Clause issues can consider other approaches, including:

- Draft the law to apply to in-state *users* of the product, or the first company in the state to receive the product (distributors or importers).
- Draft the law to apply in state and out of state, with a fee on products that are not made with recycled content.
- Draft a law that requires recycled content in products made with materials for which there is an interstate market.
- Least preferable approach: draft the law to apply to in-state manufacturers only. If in-state companies believe this will put them at a competitive disadvantage, the state could consider providing incentives such as tax credits or other assistance tied to meeting the content standards.

### **Public right to know**

Each consumer or manufacturer covered by the law should provide annual reports that show the past year's aggregate, average percentage of content use. The state should publish such information to show what can be achieved, encourage leading companies, and put pressure on companies that are not complying or are using low levels of postconsumer material.

### **Set high penalties for failure to report or meet the standards**

One of the best enforcement tools is "negative publicity." Companies that fail to report or fail to meet the standards should be publicized. Companies that claim exemptions should be publicized if other comparable companies are meeting the standards and have not claimed exemptions.

The law should encourage a change in behavior rather than payment of a penalty in lieu of compliance. Therefore, penalties should be substantial. In some environmental proceedings, penalties are assessed based on the savings the company achieved by not complying. The "economic benefit" of non-compliance would be negated by having to pay a penalty equal to the benefit in not complying. Penalties should be used to support in-state recycling programs for the product.

### **Exemptions should be narrowly drawn, and should not apply unless affirmatively granted**

The law should require companies to apply for an exemption to a state agency or board, which must make findings to grant the exemption.

For large consumers that can realize savings through economies of scale, there should be no exemption for price except in cases where a manufacturer has a monopoly, or competition among vendors is very limited. Smaller consumers may qualify for exemptions based on price, at least until supply and economies of scale in production make such exemptions unnecessary. Any exemption based on quality should apply only in cases where the recycled product fails to meet functional specifications, and should not apply simply because recycled product quality is not the same as virgin product quality.

### **The law should be primarily self-implementing**

The law would ideally be drafted to avoid the need for extensive administrative rule making. Self-implementing laws avoid the delay and the cost of regulatory negotiations that can be used by industry to delay and weaken the laws' impact. Drafters should solicit help with technical information from representatives of businesses already using recycled materials. In many cases, such businesses would be more enthusiastic about recycled content laws and willing to help. If a self-implementing law cannot be passed, the law should be drafted to carefully define the intent of the law to guide rule making.

## **GENERAL RECYCLING MARKET DEVELOPMENT STRATEGIES**

In addition to surveying states' experiences with RCLs, we surveyed states with regard to other strategies for recycling market development. This chapter briefly summarizes state officials' responses. More detailed discussions of these policies can be found in other publications. We recommend that states consider including these policies together with RCLs as a part of a broad set of programs to improve recycling markets.

*Government procurement programs* were ranked consistently high on all surveys.

*Low interest loans* ranked the highest of all economic

incentive programs. Officials consistently cited a limited access to capital as a problem for recycling businesses, particularly small, start-up companies.

*Tax credits.* Most states have some type of tax credit program, and such states tended to rank them higher, while states without tax credit programs ranked them lower. Follow-up discussions revealed that tax credits were seen as most valuable when used in combination with other programs and laws.

**Table 4: Summary of State Survey Responses**

Policy	High Ranking	Middle Ranking	Low Ranking
Procurement Programs	••••• •••••	••••• •••••	
Recycled Content Law	••••• •••••	•••••	•
Tax Credits	••••• ••••• •	••••• •	•
Low Interest Loans	••••• •••••	••••• ••	••
Cooperative Marketing	•••••	••••• •••	•••
Grants	•••••	•••••	•••
Recycling Markets Program	••••• ••	•••••	••
Recycling Task Force	•••	••••• •••	•••••
Deposit Laws	••••• ••	••	••••• •
ADF	•••••	•••••	••••• •
Tax Exemptions	•••	•••	•••
Rebate Programs	•		•••••

*Grants* are a widely adopted program, with higher rankings from officials that administer state grant programs. Officials suggested that grants can be most effective when combined with other policies to promote market development, and may be ineffective as a stand-alone policy.

*Recycled content laws* were ranked consistently high, by states with RCLs and some states without RCLs.

*Recycling markets programs* in state economic development departments were generally ranked high, but since state programs vary widely, it was difficult to generalize about what elements of these programs are considered most effective.

*Tax exemptions* were generally rated low on the surveys and in follow-up discussions. The general feeling was that tax exemptions are an administrative burden and inefficient in changing behavior.

*Deposit laws.* All but one representative from Bottle Bill states ranked deposits in the top three, while most low rankings came from states without Bottle Bills. Deposits were frequently cited as a cost effective policy for recycling plastics.

*Advance disposal fees* received a wide range of responses. Officials cited implementation, administration and enforcement as major problems with ADFs. Some advantages cited by officials: they are more encom-

• - Represents proportional ranking of policies based on survey responses; does not represent exact number of responses received.  
Source: NELC Survey, 1993

passing (not just on one material); they attempt to use market forces; and companies have the option of complying or paying a fee.

*Cooperative marketing* programs also received a range of responses, generally more favorable. The highest rankings came from Northeast states where such programs are more developed. Lower rankings came from states in the West and Midwest.

*Rebate programs* were ranked consistently low; however, state officials also acknowledged limited experience with such programs. States with rebate programs cite their ability to target very specific components of the waste stream such as batteries.

*Recycling markets task forces* were regarded as fairly ineffective.

State officials and recycling advocates believe a variety of policies and approaches are needed to increase materials reuse and recycling.<sup>20</sup> *Appendix E* lists recycling market development programs and contacts.

## **CONCLUSIONS**

As a result of our research, we believe that RCLs:

- Are being implemented at comparatively low costs to the states, in most cases significantly

less than \$100,000 per year.

- In general, have not faced significant legal, legislative or administrative challenges.
- In most cases, have resulted in high levels of compliance and cooperation from most affected industries.
- Have increased demand through direct signals to the marketplace.
- Should be part of a comprehensive package of state policies including supply programs, financial assistance programs to small, in-state enterprises, and other policies to level the playing field for reuse and recycling (incinerator moratoria; banning toxics in products and packaging; etc.)

If a state is unable to enact recycled content laws, it may wish to consider working with manufacturers and consumers to develop voluntary recycled content agreements, or packages of agreements including increased recycled content use, guaranteed supply programs, and financial incentives.

In summary, states' experiences show that recycled content laws can stimulate market demand for high-value manufacturing uses, with accompanying job creation benefits. We recommend that states continue efforts to pass and implement recycled content laws and expand existing content laws.

# Introduction

**O**n February 5, 1993, an alliance of 51 environmental groups, foundations and economic development groups sent a letter to the new President of the United States. The Alliance for a Sustainable Materials Economy urged the President to "reorient Federal policies towards maximum industrial and resource efficiency." A central theme was the need for policies that will increase the use of recycled materials in manufacturing through:

- Investment and job tax credits for small and medium sized, community-based environmental enterprises, with emphasis on material reuse and recycling;
- Strengthened Federal procurement policy for recycled products; and
- Legislative initiatives that will encourage the private sector's development of dependable markets for recovered materials.

Development of recycling markets has become a key policy issue. In 1992, 5,404 curbside collection programs (a 38 percent increase over the number of programs in 1991) served at least 78 million people.<sup>21</sup> A major obstacle to these programs' success is the lack of markets for collected materials.

This threat to recycling was predicted as early as 1988, when recycling collection programs had just begun to expand. In his article *The Coming Era of Conservation and Industrial Utilization of Recovered Materials*, William Kovacs warned that the federal government and most states were not addressing "the central issue -- how to find markets for the additional materials separated from solid waste. . . . Unless new uses for these materials are developed, . . . recycling efforts will fail."<sup>22</sup>

In 1993 it is more evident than ever that the survival of recycling depends upon development of stable markets. The nation has not yet reached EPA's modest 25% recycling goal<sup>23</sup>, and already many communities and processors are struggling to find stable markets. California is recovering only 12 percent of materials generated, and the markets are not consuming all of those collected materials.<sup>24</sup> Economic as well as environmental benefits will go

unrealized if recycling fails to thrive. A recent report estimates that a community of one million could gather sufficient recyclable materials to supply 29 factories employing 1800 people, with sales of \$700 million. Preparing recyclables for end markets creates five times as many jobs as incineration and nine times as many jobs as landfill operations.<sup>25</sup> According to a 1991 study by the Massachusetts Department of Environmental Protection, paper recycling added \$518 million to the state's economy, creating nearly 9,000 new jobs.<sup>26</sup>

Recently, a backlash critical of the cost of recycling has arisen<sup>27</sup>, despite the fact that the United States continues to spend more money on disposal than on reuse and recycling. A survey of 18 states in the Northeast and Midwest found that planned state spending on incineration from 1989 to 1995 is eight to ten times higher than planned state spending for recycling.<sup>28</sup> Existing tax policies often discriminate

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**Recovery levels for the major materials in the municipal waste stream are 28.6 percent for paper, 23 percent for ferrous metals, 19.9 percent for glass containers, and 2.2 percent for plastic.<sup>30</sup> If recovery levels for these materials are to increase, markets must expand.**

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against secondary materials, giving tax breaks and credits to extraction and processing of virgin raw materials.<sup>29</sup>

In 1993, a variety of policies to improve markets for recyclable materials were debated at the state and federal levels. Policies ranging from financial incentives for the use of recovered materials to mandates for specific levels of recycled content in products continue to be discussed. Such policies will continue to attract interest so long as stable markets for recovered materials remain elusive. However, it is important to recognize that laws intended to improve markets for recyclable materials already exist at the state level.

The following report is the result of research on recycling market development policies conducted by the National Environmental Law Center (NELC), Institute for Local Self-Reliance (ILSR), and Californians Against Waste Foundation (CAWF). The report primarily examines states' experiences with existing laws that mandate use of recycled materials

in specific products.

Obviously, states should not ignore programs to increase supply of materials and provide financial assistance where needed and where feasible. Programs complementary to recycled content laws include loan guarantees for capital investment, government procurement, and deposit laws. States should also clear the way for recovery and reuse by leveling the financing playing field, banning incineration and toxics in products and packaging, and other policies. However, our research focused on understanding how state recycled content laws ("RCLs") are being implemented. We focused on RCLs because, while they have been identified as effective market development policies, there has been little information about how they are working. In addition, debate continues to center around what policies should be adopted to increase the use of recyclable materials in manufacturing. States' experiences with recycled content laws can indicate whether more states should adopt RCLs and whether RCLs should be expanded to cover additional products.

## RESEARCH METHODOLOGY

The research consisted of four general stages: (1) a review of existing state legislation and literature; (2) questionnaires sent to state officials; (3) follow up interviews with state officials; and (4) solicitation of comments on the draft report. The research culminated in the Demand-Side Policy Options Roundtable held at the 1993 National Recycling Congress. (See *Appendix A.*)

Copies of the questionnaires are attached as *Appendix B.* In total, 150 forms were sent to representatives in 50 states and Washington D.C. Sixty-three forms were returned from 39 states. More than 25 telephone interviews were conducted to follow up the questionnaires and gain greater understanding of states' programs.

The questionnaires were not scientifically designed and were not intended to result in quantitative ranking of programs. In any event, inconsistencies in questionnaire responses precluded such ranking. The responses served to allow a more qualitative review of the various state programs, and a basis for follow-up interviews. Survey responses are summarized in Chapter 6.

## MANDATORY RECYCLED CONTENT LAWS

During the period 1989 through 1991, 10 states and the District of Columbia passed 19 mandatory recycled content laws (see Table 1).

Recycled content laws seek to increase demand for collected recyclables by requiring consumers of a particular product to buy the product made with recycled material, or requiring manufacturers to use higher levels of recycled material to make the product.

Recycled content laws scored high as a policy of choice among state officials who responded to the project surveys. However, since 1991, industry opposition to recycled content laws has strengthened, and no new RCLs have passed. (In 1993, the Florida Legislature amended Florida's 1988 advance disposal fee on packaging to include recycled content standards for glass, plastic and paper containers. See *Appendix D.*) In addition, advocates and policy makers are considering other approaches such as

**Table 1: Mandatory Recycled Content Laws**

State	Materials Covered
Arizona	Newsprint (1990)
California	Newsprint (1990) Glass (1990) Plastic trash bags (1990) Fiberglass (1991)
Connecticut	Newsprint (1990) Telephone books (1990)
District of Columbia	Newsprint and other paper products (1990)
Illinois	Newsprint (1990)
Maryland	Newsprint (1990) Telephone books (1991)
Missouri	Newsprint (1989)
North Carolina	Newsprint (1991)
Oregon	Newsprint (1991) Glass (1991) Telephone Books (1991)
Rhode Island	Newsprint (1991)
Wisconsin	Newsprint (1989) Rigid plastic containers (1989)

Source: NELC Research

manufacturer utilization standards, the German packaging law, advance disposal fees and tradeable credits. See *Appendix C* for a list of policies being considered. Most of these newer policy proposals have not been enacted. Advance disposal fees are just beginning to be implemented. In contrast, RCLs have already been implemented.

Research on recycled content laws focused on the following questions:

- How are states implementing RCLs, and at what cost to the states?
- Have there been legal or legislative challenges to RCLs, and how have they been resolved?
- Are affected businesses complying with RCLs?
- Are RCLs being enforced?
- Are there measurable results from implementation of RCLs, and have RCLs contributed to increased use of postconsumer material in manufacturing?
- For what materials or products do RCLs make the most sense?
- What factors should be considered in crafting the most effective recycled content policy?

Based on our research we came to the following conclusions about existing RCLs:

Most states report that implementation of RCLs is not significantly time-consuming. The most resource-

intensive work to date involves writing rules. States with laws designed to be more self-implementing spent less time writing rules. The cost to administer a recycled content law ranges between \$15,000 and \$100,000 per year, per law.

- There have been few legal or legislative challenges to RCLs. The most significant legal challenge invoked the U.S. Commerce Clause. No court case has been brought to date, but there are legal precedents that indicate carefully crafted RCLs should withstand a Commerce Clause challenge.
- Affected businesses are, for the most part, complying with RCLs, or have indicated they will comply. Most states report high levels of cooperation and compliance under RCLs.
- State officials believe that RCLs have contributed to improved markets for postconsumer materials. Most states could not provide figures, although a draft report by the California Integrated Waste Management Board indicates that California recycled content laws have increased demand for recyclable materials in the state and are attracting recycling investments in the state.
- RCLs make the most sense for products that (1) are produced in enough volume to stimulate more stable markets; (2) are produced in the state, or in regional or international markets; (3) can be made using significant amounts of postconsumer material; and (4) can be made from materials for which state markets are weak or nonexistent.



# Chapter 1: Recycled Newsprint Use Laws

**M**andatory recycled newsprint use laws have been passed in 10 states and the District of Columbia, and there are at least 17 voluntary agreements for newspaper publisher use of recycled newsprint.<sup>31</sup>

## IMPLEMENTATION

Seven laws — Arizona, California, Connecticut, Illinois, Maryland, North Carolina, and Washington D.C. — have been in effect for at least one year. The

**Table 2: Recycled Newsprint Use Laws**

State	How determined	Reporting responsibility	Newsprint goals	Recycled newsprint definition*
Arizona	Each consumer of newsprint	Printer, Publisher	25% by 1991 to 50% by 2000	RNP
California	Each consumer of newsprint	Printer	25% by 1991 to 50% by 2000	RNP
Connecticut	Statewide average	Users of 100 or more tons annually	11% by 1992 to 50% by 1999	TARF
District of Columbia	Each consumer of newsprint	30,000+ circulation or 500 tons per year	12% by 1992 to 20% by 1994	RNP
Illinois	Statewide average	Publisher	23% by 1991 to 28% by 1993	TARF
Maryland	Statewide average	Publisher	12% by 1992 to 40% by 1998	TARF
Missouri	Each consumer of newsprint	15,000+ circulation	10% by 1993 to 50% by 2000	TARF
North Carolina	Each consumer of newsprint	Publisher	12% by 1991 to 40% by 1998	TARF
Oregon	Each consumer of newsprint	Printer, Publisher	25% industry-wide or individually 7.5% by 1995	TARF
Rhode Island	Each consumer of newsprint	Publisher	11% by 1993 to 40% by 2001	TARF
Wisconsin	Each consumer of newsprint	Publisher	10% by 1992 to 45% by 2001	TARF

\* TARF = Total aggregate recycled fiber. RNP = defining recycled newsprint to contain a minimum percentage of recycled fiber. Source: Illinois Office of Recycling and Waste Reduction, 1992, printed in *Resource Recycling*, November 1992; NELC Research.

basic pattern of implementation is similar. State agencies send letters notifying companies of requirements under the law, and provide forms for reporting. Each year, the agency receives certifications. Some states (e.g., Oregon and Illinois) prepare annual reports.

Connecticut and Illinois implemented their laws without adopting regulations. California, Oregon, Rhode Island and Wisconsin adopted or are in the process of adopting regulations. California, Wisconsin and Rhode Island report spending the most time on regulations. In Wisconsin, the newsprint industry raised administrative challenges to definitions and standards, causing state officials to rank the law as "difficult" to implement.<sup>32</sup> Agency staff stated that industry input has for the most part been construc-

tive and has addressed substantive concerns. Staff indicated that detailed rule-writing to implement the law allows "fine-tuning" of standards to reflect what industry is capable of doing.

The need for extensive regulations depends in part on whether the statute is detailed enough to be "self-implementing." Illinois is an example of a "self-implementing" law, with definitions and requirements detailed enough that the law can be implemented almost immediately. Lack of resources is another reason a state law is "self-implementing." Arizona officials report insufficient resources to write rules and implement the law. They report that in general, the newsprint industry is achieving the goals set by the law, but the state will not know if compliance has been achieved until resources are made available for implementation.<sup>33</sup>

**Table 3: State Cost to Administer Recycled Newsprint Use Laws**

State	Staff	Est. Annual Cost*
Arizona**	<1	n/a
California	1 full time; 2 at 1500 hrs/yr.	\$83,000*
Connecticut	<1	n/a
Illinois	1	\$30,000 - 40,000**
Maryland	.1	\$30,000
Missouri	<1	n/a
Oregon	.25	<\$15,000
North Carolina	<1	\$500
Rhode Island	1-1.25	n/a
Wisconsin	n/a	n/a

\*For administration; does not include enforcement/legal

\*\*Arizona reports insufficient staff to write rules and implement the law.

\*Does not include overhead

\*\*Includes copying and mailing costs.

n/a: information not provided by agency

Source: NELC Survey, 1993.

Recycled newsprint use laws are relatively cost effective to administer. In seven states, one full time or less than full time staff is needed to administer the laws. For example, the state of Illinois spends approximately \$30,000 to \$40,000 annually, representing about four-fifths of one staff person's time.<sup>34</sup> Much of this time is spent compiling annual reports on compliance with the law.

In general, "self-implementing" laws result in lower costs to the state. Where states must go through detailed rule making, costs are higher.

The relatively low cost of administering recycled newsprint use laws can also be attributed to the lack of major legal, legislative or administrative challenges in most states. (A legal challenge is brought to court or a lawsuit is threatened. A legislative challenge is brought to the legislature to weaken or repeal the law. An administrative challenge is an attempt to weaken the law during administrative rule making.) For the most part, publishers, printers and trade groups did not threaten or file lawsuits, introduce bills

to change the laws, or lobby state agencies to adopt specific rules.<sup>35</sup> One major exception was the Washington Post, which claimed the standards would be too expensive, and fought to have the standards scaled back. The Washington Post's challenge succeeded when the District of Columbia scaled back requirements from the original 40 percent by 1998, to 20 percent by 1994.<sup>36</sup>

## **COMPLIANCE STATUS AND ENFORCEMENT**

Eight states report high cooperation and compliance with the laws, particularly on the part of publishers and their trade groups.<sup>37</sup> Four states report that non-compliance or complaints about the laws usually involve small, independent publishers or printers.<sup>38</sup> For example, in Illinois, the majority of companies that failed to report recycled newsprint use were small weekly newspapers representing less than one percent of the newsprint consumed in Illinois.<sup>39</sup>

Some state officials noted that their laws have easy exemptions, or that the standards are easily met. For example, publishers and commercial printers in Oregon already exceed the requirements of Oregon's voluntary agreement to reach 25 percent content on an industry association basis. 1992 reports indicated that publishers' aggregate use is 28.2 percent, and printers' aggregate use is 32.2 percent.<sup>40</sup> Several state officials voiced some concern that as recycled newsprint use requirements increase over time, there may be less compliance, more claims for exemption, and more challenges.<sup>41</sup>

It is too soon to tell whether the laws provide for adequate enforcement. None of the states that responded to the survey have taken enforcement action. Maryland has sent letters to companies that have not met reporting requirements.<sup>42</sup> No audits or other compliance investigations have been conducted to date, although California is considering audits.<sup>43</sup> Rhode Island plans to wait a few reporting cycles to determine if enforcement is needed. If the state sees a trend of long-term non-compliance, it will consider aggressive enforcement.<sup>44</sup>

Future enforcement issues may include difficulty in determining who must report, especially in states where printers are responsible for reporting, and one printer prints many different newspapers.<sup>45</sup> It also may be difficult to verify reported recycled content use percentages, particularly if the law requires "postconsumer" content.<sup>46</sup> Several state officials indicated there may be a need for more verification and enforcement activity in the future, as the required levels of recycled newsprint use increase.<sup>47</sup>

In general, states cited progress being made by the paper manufacturing industry in expanding its capacity to use more old newspapers and old magazines as a strong indication that the laws would be met, and that improved markets are likely in the future.<sup>48</sup>

## **EXEMPTIONS**

Most states report limited use of exemptions provided in the laws. For example, of 172 companies reporting in California, 139 certified compliance, 3 were not in compliance, and 30 were not in compliance but claimed exemptions under the law (14 for unavailability; 23 for price; and 3 for quality; some claimed more than one exemption).<sup>49</sup>

North Carolina law allows publishers to claim exemption for unavailability of recycled newsprint at a price or quality comparable to virgin newsprint, or unavailability within a reasonable time. According to the North Carolina Department of Revenue, 76 producers report quarterly. Of those, four are paying a tax based on use of virgin newsprint, and 72 have claimed exemptions. (The 1993 content standard is 15%.) The state has not conducted any audits to verify the claims.<sup>50</sup>

In contrast, no exemptions have yet been claimed under Maryland's law, under which publishers must apply for an exemption.<sup>51</sup> The Newsprint Recycling Board can excuse compliance if convinced that the failure to comply was based on unavailability of recycled newsprint comparable in quality to virgin newsprint, from manufacturers serving the mid-Atlantic region.

## **ISSUES**

### **What consumers should be covered under the laws?**

Publishers have argued that if newspapers are required to use recycled newsprint, then their print competitors — magazines, phone books, direct mail advertisers, catalogs and higher-grade newspapers — should also be required to use recycled newsprint.<sup>52</sup>

### **Definition of newsprint**

The paper industry prefers "newsprint" to be narrowly defined, to avoid broad content mandates on other paper grades.<sup>53</sup> Connecticut defined newsprint as defined in the trade, as the type of paper generally used in the main body of a newspaper, with certain specific characteristics.<sup>54</sup>

## Definition of recycled

Should "recycled" mean "postconsumer"? If so, what qualifies as "postconsumer"? Wisconsin's law requires publishers to report postconsumer recycled content use. Publishers argue that strict interpretation of "postconsumer" will make reporting difficult and unnecessarily expensive, and they are trying to change the law in rule making.<sup>55</sup> In Rhode Island, publishers also are uncomfortable with the definition of postconsumer, because their suppliers have claimed it will be difficult to determine postconsumer levels.<sup>56</sup> The California law targets postconsumer, but defines postconsumer differently than in other California laws by allowing printers' scrap to count as postconsumer, a less stringent standard. This was done to get industry support for the law.<sup>57</sup>

## Reporting and certification

Companies and government agencies prefer as little paperwork and bureaucracy as possible, and tend to support reduced reporting requirements such as self-certification, annual reporting, or submission of compliance reports only upon request.<sup>58</sup>

*See Chapter 5 for recommendations related to the foregoing issues.*

## EFFECTS OF RECYCLED NEWSPRINT USE LAWS

While states could not provide figures, officials responsible for newsprint laws believe that content standards have increased demand and markets for old newspapers.<sup>59</sup> In general, state officials believe the "certainty factor" provided by the laws has served to rationalize decisions to increase manufacturing capacity to utilize old newspapers and old magazines.<sup>60</sup>

As Illinois' John Hendren states: "When a mill is deciding whether to invest \$400 million in an upgrade to use ONP, it is looking for clear signals that there is a demand for recycled newsprint."<sup>61</sup> Mr. Hendren points to the dramatic increase in mills producing a recycled sheet as evidence that this new certainty of demand has worked. It is important to note that this certainty of demand results from putting the requirement on newsprint mills' largest customers. Placing the requirement on small customers that have less ability to affect markets might not have the same effect.

According to staff of the California Integrated Waste Management Board, "both the economic development implications and the market development

impacts are impressive. . . [T]he newsprint minimum content law has been cited as a leading factor in the decision by at least three manufacturers to seriously consider siting new facilities in California. . . The Board has received certifications indicating that consumption of recycled content newsprint increased from approximately 628,000 tons in 1991 to 1.85 million tons in 1992."<sup>62</sup>

In addition to boosting demand, RCLs can have positive impacts on collection efforts. State officials in Illinois, Wisconsin, North Carolina and Missouri believe the laws have been an important factor in the decision to continue or expand ONP collection efforts.<sup>63</sup> While supporting RCLs, state officials also noted the importance of ensuring collection and supply of ONP, to give paper mills more assurance there will be adequate supplies of recycled fiber feedstock.<sup>64</sup>

The opinions and information gathered during this project bolster the conclusions in an earlier NELC report, which cited the opinions of analysts and observers who believe the laws have helped stabilize markets for old newspapers and old magazines, increase demand, and ultimately may increase market prices. While other factors are at work, including the increasing price and scarcity of virgin fiber, the laws requiring large consumers of newsprint to buy recycled newsprint if available at comparable prices and quality are a form of "guaranteed market" that producers can feel confident will exist.<sup>65</sup>

For example, in 1988 and 1989, newsprint manufacturers announced plans to increase production capacity by 2.8 million tons. Only 360,000 pounds were planned to be recycled fiber. In 1990, after Connecticut and California passed recycled newsprint use laws, at least 18 newsprint producers announced plans to adding deinking facilities or build new recycled newsprint mills. Today, almost all United States plants and several Canadian plants have built or are planning new recycled content manufacturing capacity.<sup>66</sup>

## CONCLUSION

During 1992, the recovery rate for old newspapers continued to rise, and the markets continued to improve as mill prices strengthened, particularly in the Northeast and Midwest.<sup>67</sup> In 1992, the leading end users of old newsprint (ONP) were newsprint mills, consuming nearly one-third of all recovered ONP. This is up from newsprint mills' consumption of 27 percent of ONP in 1989 (the year recycled newsprint use laws were first adopted). Newsprint production in the United States uses about 36 percent ONP and old magazines (OMG). Canadian news-

print mills average just 13 percent utilization of ONP and OMG. Canada produces half of the newsprint consumed in the United States<sup>68</sup>, and its use of ONP and other waste paper must increase to achieve long-term compliance with RCLs.

Some analysts project that demand will soon match or exceed supply of ONP. However, such projections rely in part on announced new deinking capacity that is neither built nor confirmed. The 1995 projects, which represent 23 percent of the announced new capacity, are preliminary.<sup>69</sup> Thus, if planned capacity is not built, supply will still outstrip demand from newsprint mills (and a 1991 study by the American Forest and Paper Association projects that other uses for ONP will show little growth through 1995).<sup>70</sup>

It is critical that the projected capacity become reality. This will occur by ensuring the "certainty factor" cited as the reason mills have invested in more recycling and deinking facilities: the more publishers and printers that are required to buy more recycled content newsprint, the safer manufacturers (and their financiers) feel in making multi-million-dollar recycling investments.

Eight states — Connecticut, Illinois, Maryland, Missouri, North Carolina, Oregon, Rhode Island and Wisconsin — measure recycled content use by total aggregate recycled fiber, or "TARF."<sup>71</sup> (Note: "TARF" does not in itself distinguish between post-consumer fiber and pre-consumer fiber. That distinction should be made, as discussed in point 4 below.) "TARF" measures the ratio of total recycled fiber purchased to the total amount of paper fiber purchased. This gives publishers a greater flexibility. For example, a publisher could achieve a 40 percent recycled fiber requirement by purchasing newsprint with varying

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## Model recycled newsprint use law

- **Target the largest consumers of newsprint (but don't ignore smaller consumers).**
  - **Measure annual aggregate use of recycled fiber rather than a per-sheet standard or "percent of purchases" standard.**
  - **Content standards should be set higher than projected recovery rates, or should increase to high levels over time.**
  - **Specify use of postconsumer recycled paper.**
  - **Public right to know: individual publishers and printers should annually report their percentage use, and the state should publicize a list showing users and their percentages.**
  - **Exemptions should be narrowly drawn, and should not apply unless affirmatively granted.**
  - **Set high penalties for failure to report and for not meeting the standards.**
  - **The law should be primarily self-implementing.**
- 

## MODEL RECYCLED NEWSPRINT USE LAW

### 1. Target the largest consumers of newsprint

In Illinois the 30 largest consumers of newsprint use more than 95% of all fibers consumed in the state. Targeting the largest users will ensure the greatest impact. Smaller consumers should also be covered, but may be phased in and be eligible for more exemptions in the beginning of the program. It is desirable to include as many significant consumers of newsprint as reasonably possible, so a definition of newsprint that increases the law's scope beyond newsprint publishers would be desirable.

### 2. The standard should measure annual aggregate use of recycled fiber

content percentages, as long as they add up to 40 percent total aggregate recycled fiber by year end.

California and Arizona define recycled newsprint as newsprint containing a minimum percentage of recycled fiber (40 percent sheet in California). John Hendren explains why the 40-percent-sheet standard is less desirable than "TARF."

"The California law, which requires 50 percent of its newsprint to... [contain] 40 percent recycled fiber, means that the state's demand for recycled-fiber use will be 20 percent of all newsprint consumed in the year 2000 (50 percent x 40 percent = 20 percent). On the other hand, Illinois' law requires 28 percent of the fiber used in newsprint to be recycled fiber. Although Illinois' 28 percent recycled-content goal is lower than California's 50 percent goal, the difference in how the goals are measured means that Illinois will actually require greater consumption of recycled

fiber for the same quantity of newsprint use, 28 percent versus 20 percent."<sup>72</sup>

Another problem with defining recycled content as a minimum amount per sheet is that mills producing 10 percent, 20 percent or 30 percent receive no credit, while a 100 percent sheet receives the same credit as a 40 percent sheet.<sup>73</sup> Another less desirable standard would be to require only that publishers' total annual purchase must include a minimum percentage of "recycled" newsprint. Depending on the definition, "recycled" newsprint could contain anywhere from 1% recycled fiber to 100% recycled fiber, and may be made with no postconsumer fiber at all.

Laws passed by several states, including Illinois and Connecticut, require *publishers as a group* to meet an annual average recycled content standard. If this average rate is not met by the publishing industry as a whole, then all publishers in the state must meet the standard individually. The "hammer" provision serves to insure that publishers adhere to the intent of the law, but allows some publishers to fall below the standard and some to exceed the standard, as long as the average is met. This approach provides for flexibility and a market response, while ensuring that the intent of the law is met. However, under this approach it would be very important to require public reporting of publishers' individual content use to identify leaders and laggards.

### **3. Standards should be set higher than projected recovery rates**

The goal of the laws should be to pull material through the system. Setting standards higher than projected recovery rates will ensure a higher demand and will not only increase newsprint recycling but help increase demand for other grades of paper, including old magazines and mixed waste paper.<sup>74</sup>

If a state is unable to set standards higher than projected recovery rates, it should at least provide for increasing content standards in the law. Higher levels of paper recycling will mean increased energy savings and pollution prevention, reduced environmental degradation caused by timber harvests, diversion of more materials from landfills, and creation of more jobs in a recycling economy.<sup>75</sup> In some cases the benefits — cleaner air, water and land — will be indirect — those "externalities" that are currently not calculated as part of the bottom line, but that are paid for by society none the less.

### **4. Specify use of postconsumer paper**

The law should specify use of postconsumer recycled

paper. While California, Connecticut, Illinois, North Carolina, Oregon, Rhode Island and Wisconsin laws all require use of postconsumer paper, their definitions of postconsumer differ. We recommend the following definition of postconsumer: "Paper that has served its intended end use as a consumer (business or household) product, and that has been separated from the solid waste stream. Postconsumer does not include manufacturing or converting scrap such as mill broke; sawdust; pulp substitutes; or overruns."

The reason to specify postconsumer use is to ensure that mills use postconsumer paper in manufacturing. If mills can satisfy the laws by using in-house scrap or other commonly used pre-consumer waste paper, markets for postconsumer paper will not increase.<sup>76</sup> While suppliers have claimed difficulty in determining the exact percentage of postconsumer paper used, it is important to send the signal that it should be used. In addition, the fact that programs exist to certify minimum levels of postconsumer content shows that there are ways to identify and verify postconsumer use.<sup>77</sup>

Rhode Island law requires use of postconsumer fiber, and the term does not include overruns or in-house manufacturing scrap. A Rhode Island official is concerned that the inability to count use of such material toward the goal may be an unanticipated hardship for some newsprint consumers. She felt this may particularly become a concern when the law's standard rises to 40 percent.<sup>78</sup> Rhode Island may consider whether it would be appropriate to give credit to use of such material, although it would not qualify as "postconsumer."

Conservatree, a major distributor of recycled paper, has addressed this issue by proposing standards that require both an overall content use *and* minimum postconsumer use.<sup>79</sup> In addition, companies that have been reusing in-house scrap and overruns for years do so because they benefit by avoiding disposal costs; the inability to get "credit" for doing what benefits them is probably not a serious hardship.

### **5. Public right to know**

Public reporting is a key way to increase visibility on recycled content use, or lack thereof. Illinois' public reporting system is credited with creating pressure on publishers to meet the standards.<sup>80</sup> The law should require each covered company to submit annual reports to the state agency. The reports should document the total tons of newsprint purchased and the total tons of recycled postconsumer (and, if applicable, preconsumer) fiber purchased. The state should annually publish a report disclosing to the

public the percentage of recycled fiber ("TARF") used by each company. If the state cannot get such a provision in the law, it should consider the alternative of publishing a report that identifies companies not in compliance (a "minus" grade); companies in compliance (a "check" grade); and companies exceeding the standard (a "check-plus" grade).

#### **6. Exemptions should be narrowly drawn and should not apply unless affirmatively granted**

The law should follow the Maryland statute, under which exemptions do not apply unless granted by a board created under the law (the law could also specify a state agency as the appropriate body).

For large consumers that can realize savings through economies of scale, there should be no exemption for price except in cases where a newsprint manufacturer has a monopoly, or competition among newsprint vendors is very limited. Smaller consumers may qualify for less stringent exemptions based on price, at least until supply and economies of scale in production make such exemptions unnecessary. Exemption for quality should be narrowly drawn to apply only in cases where recycled newsprint fails to meet functional specifications, and should not apply simply because recycled newsprint quality is not the same as virgin newsprint quality.

#### **7. Set high penalties for failure to report or meet the standards**

While we have no evidence to suggest that non-compliance is a problem, in the interest of giving companies incentives to comply, as a general policy we recommend three approaches:

- Public reporting of noncompliance;
- Penalties high enough to provide an incentive to meet the law rather than pay a fee; and
- Legislation should empower citizens to take advantage of citizen suit provisions.

#### **8. The law should be self-implementing**

The law should be drafted in enough detail to make it self-implementing. This will help avoid potentially lengthy and costly rule making, which can weaken the effects of a law. Drafters of the law can seek assistance and information from companies that are already producing and using recycled content newsprint. Such companies are more likely to be enthusiastic about such laws, and willing to provide information and assistance.

At least one state official questioned whether this recommendation is realistic given how legislatures work. Laws are often confusing or unclear, and rule making can offer needed clarity and allow for fine tuning. An alternative approach is to draft the law to provide for rule making if needed, and to lay out criteria as a foundation to assist the agency in interpreting the intent of the law.

# Chapter 2: Other Recycled Content Laws

## GLASS CONTAINERS

California and Oregon require glass food and beverage containers to be made with minimum amounts of recycled content. California's law has already become effective; compliance under the Oregon law must begin in 1995.

California Law	Oregon Law
January 1, 1992: 15%	
January 1, 1993: 25%	January 1, 1995: 35%
January 1, 1996: 35%	
January 1, 1999: 45%	January 1, 2000: 50%
January 1, 2002: 55%	
January 1, 2005: 65%	

In California, manufacturers must report monthly the total tons of beverage containers made or sold in California and the total tons of recycled glass used to manufacture new containers.<sup>81</sup> A manufacturer may seek a reduction of the requirements or a waiver, and the Department of Conservation may grant a waiver if it determines it is "technologically infeasible" to achieve the percentage requirements. The state has not adopted any regulations under the statute.

Oregon's law does not provide for waivers or exemptions. It requires annual reporting beginning with calendar year 1991. Oregon has not adopted specific regulations for implementing the law.

### Implementation

The California Department of Conservation is implementing the law in California. The state provides companies forms for reporting compliance status. Compliance is determined on an annual aggregate basis — total tons of glass produced by a company, and total tons of recycled glass used in production — rather than a container-by-container basis.<sup>82</sup>

The Oregon Department of Environmental Quality (ODEQ) is implementing the Oregon law. To date, ODEQ has surveyed content use by in-state and out-of-state manufacturers by mailing survey forms and sending follow-up letters if responses are not received.<sup>83</sup>

In California, one staff person is responsible for administering the glass container content law. Four to five other people deal with the law from time to time. In Oregon, one ODEQ staff spends less than full time administering the law, at a cost of about \$16,000 per year.<sup>84</sup> Due to legal issues raised by the Glass Packaging Institute, other state staff, including Department of Justice staff, spend some time on the law.

Attorneys representing the Glass Packaging Institute ("GPI") have asked California and Oregon to interpret the laws as *not applicable to out-of-state glass manufacturers*. GPI claims that the laws violate the U.S. Commerce Clause.<sup>85</sup> Both states have responded that the laws do not violate the Commerce Clause.

To date, GPI has not taken further action in Oregon or California with respect to its Commerce Clause arguments.

In Oregon, GPI has proposed to provide one report on behalf of all manufacturers in the country, reporting annual aggregate tons packed, annual aggregate post-consumer cullet utilized; and annual equivalent of post-consumer cullet from refillable glass containers. The ODEQ's position is that this would require a change in the statute, and the ODEQ will continue to request information by manufacturer. GPI has indicated it will consider asking the state to amend the law in 1995.<sup>86</sup>

### Compliance Status and Enforcement

Based on reports submitted by manufacturers, California reports that all container plants *in the state* are in compliance. Every California glass plant has been visited by Department of Conservation staff to corroborate recycled content reports through observation of actual practices and review of records. In each case manufacturers appeared to be using the claimed amount of recycled content.<sup>87</sup>

Because California's beverage container deposit law is administered by the state, the state can further corroborate content claims by comparing recycled glass use reports with the redemption reports used by processors to claim reimbursement for refunds paid to



consumers under the law. In 1992, processors reported a total received weight for all container glass of 609,454 tons. The claimed use in new containers by manufacturers during the same period was 586,191 tons. Based on the reported figures, the Department of Conservation estimates that 96 percent of all glass collected and reported under the redemption reports ( deposit and non-deposit containers) was used to make new containers.<sup>88</sup>

Of the 15 domestic container manufacturers identified for the Oregon survey, 12 responded, and 7 provided figures on annual aggregate use of recycled glass during 1992. One company did not provide percentage use, but stated it was in compliance with California's law. Three out-of-state domestic manufacturers did not respond to the Oregon survey. Some foreign manufacturers reported recycled content percentages. For the companies that provided 1992 cullet usage information, percentages ranged from a low of 15 percent to a high of more than 50 percent. Oregon's one glass container manufacturer is reportedly already in compliance with the 1995 standard.<sup>89</sup>

Some out-of-state manufacturers are refusing to report under the California and Oregon laws, claiming the laws violate the Commerce Clause.<sup>90</sup> Neither state has, as yet, taken action with respect to out-of-state companies that have refused to provide information or that have simply not responded.

## Exemptions

Gallo, California's largest wine producer, has lobbied the legislature and the Department of Conservation to waive standards on glass made in California and exported out of state.<sup>91</sup> To date, both have withstood the challenge on the basis that the purpose of the law is to increase use of cullet in manufacturing, to improve markets. If Gallo could avoid using cullet for its products sent out of state, it would significantly reduce the volume of cullet used by Gallo, undercutting the purpose of the law.

## Issues

### What Containers Are Covered by the Law?

Some companies claim the law only requires a manufacturer to report on glass containers *manufactured in Oregon or sales of unfilled glass in Oregon*.<sup>92</sup> According to the Oregon DEQ, the intent of the Oregon law was to cover all glass food and beverage containers *used* in the state. The DEQ may bring forward legislation in 1995 to clarify the statutory language.

## Are Content Percentages Confidential?

Some companies have claimed that cullet content is "confidential and proprietary." If true, this should not preclude reporting to state agencies, which can keep confidential information that is truly proprietary. The California Department of Conservation does not disclose the percentage of recycled content used by individual manufacturers, but discloses only whether they are in compliance. This lack of information on the level of content used by individual manufacturers is based on California statutes and rules intended to protect trade secrets.<sup>93</sup> One solution for states faced with such restrictions may be to pursue regulations which allow the state to disclose a company's recycled content as a percentage, without stating total production numbers.

## "We Can't Trace Our Bottles"

Some out-of-state manufacturers have claimed that they do not have information on subsequent sales by bottlers, and thus do not know whether their bottles are sold in Oregon or California. Because companies are allowed to report annual aggregate recycled cullet use instead of state-specific shipments, this should not be an issue.

## Effects of the Laws

California generates more than enough cullet supply, and some recycling advocates are concerned that the glass container and fiberglass laws are not providing sufficient demand to pull material through the system.<sup>94</sup> California officials believe that in-state glass manufacturers (such as Gallo, which previously used no postconsumer recycled glass to make its wine bottles) are using more California cullet than before the law. California Integrated Waste Management Board staff project that as the standards under the glass container and fiberglass content laws increase, they will cause demand to increase to provide a sufficient market for all cullet collected in California.<sup>95</sup> Currently, due to significant increases in collection of cullet, the price of cullet in California has dropped.<sup>96</sup>

The reported cullet usage by the Owens-Brockway plant in Portland, Oregon, already exceeds the 1995 standards, if calculated on an annual aggregate basis, so the law has not had an immediate, direct impact on Oregon glass markets, particularly for cullet collected in southern and eastern parts of the state.<sup>97</sup> On occasion, the facility has sent cullet batches exceeding its capacity to other plants in other states, so there is potential for out-of-state plants to utilize Oregon cullet.

## **FIBERGLASS INSULATION**

### **Implementation**

Fiberglass manufacturers helped draft the detailed law which has, to date, required no regulations for implementation. Manufacturer reports are submitted annually, resulting in a light staff load of about three person-hours per month. State officials report no legal or legislative challenges to the law to date.<sup>98</sup>

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**California law requires fiberglass insulation and building materials to be manufactured with minimum levels of recycled glass:**

- 10 percent by January 1, 1992
  - 20 percent by January 1, 1994
  - 30 percent by January 1, 1995
- 

### **Compliance Status and Enforcement**

All manufacturers selling fiberglass insulation in California are currently in compliance with the 10 percent requirement. The average reported by all *in-state* manufacturers in 1992 was 20 percent. The compliance by *out-of-state* manufacturers is based on the Department of Conservation's willingness to credit 100 percent of the recycled cullet used to the California sales of the particular company, in effect an annual aggregate standard applied to manufacturers.<sup>99</sup>

### **Exemptions**

The state does not report any claims for exemption.

### **Issues**

No issues were identified by the state during the course of the survey.

### **Effects of the Law**

State officials have stated their belief that glass container and fiberglass RCLs will eventually provide a sufficient market for all cullet collected in California; however, some recycling advocates are concerned that the laws currently do not create enough demand to pull material through the system.<sup>100</sup> According to state officials, in 1992, 6,000 tons of California cullet were used to make new fiberglass insulation.<sup>101</sup> Fiberglass manufacturers can also use plate glass to meet the content standards.

Before the law passed, manufacturers usually used less than 10 percent cullet, citing technical difficulties as the primary barrier for not using more. Since passage of the law, the industry has successfully met the 10 percent level.<sup>102</sup> Owens-Corning Fiberglass Corporation has successfully tested levels as high as 30 percent, and Manville Corporation's product has been certified as containing 30 percent scrap content.<sup>103</sup> Other manufacturers are also increasing their use of cullet.<sup>104</sup>

## **PLASTIC TRASH BAGS**

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**Plastic trash bags in California must contain postconsumer content:**

- 10% by January 1, 1993, for trash bags 1.0 mil or greater
  - 30% by January 1, 1995, for trash bags .75 mil or greater
- 

### **Implementation**

On April 28, 1993, the Board adopted regulations to implement the law. The regulations will probably be filed and enforceable in early November 1993.<sup>105</sup>

Not every bag must be made with the minimum amount of postconsumer material, but every seller must use an annual aggregate amount equal to the required percentages. For example, for 10 million pounds of trash bags, 1 million pounds of postconsumer resin must be used in making those bags.

"Sellers" includes sellers to retailers, distributors, commercial and industrial users and governmental entities. "Sellers" does not mean retailers, but does include manufacturers, wholesalers and brokers. Separate reporting processes are provided for trash bag manufacturers and all other non-retail sellers. (Note: Senate Bill 951 would change the reporting process. Manufacturers would report their recycled content use directly to the California Integrated Waste Management Board. SB 951 would also delete requirements for reporting by postconsumer resin manufacturers, which would report the information to the Board.)

The regulations contain quality standards for recycled postconsumer plastic material, to provide a baseline for which trash bag manufacturers will compare the postconsumer resin available. If the

resin available does not meet the standards, the manufacturer could claim an exemption.

The cost to implement and administer the law is currently estimated at about \$40,000 a year for half of one staff person's time. Jerry Hart of the California Integrated Waste Management Board indicated it will take more time to process annual certifications, so the cost may rise. During workshops and rule making, two staff spent about half their time, at a cost of approximately \$70,000 per year. The higher level of staff, and the time spent drafting regulations, were due in part to resistance by some affected companies. Although no lawsuits were filed or seriously threatened, some issues raised during adoption of the regulations required attorney review.<sup>106</sup>

For example, industry wanted "kitchen bags" exempted from the law, which would have reduced the intended scope of the law and was not granted. However, the regulations make clear that food storage bags and bags for hazardous and hospital waste are not covered by the law.

Trash bag manufacturers do not want to certify for each shipment of trash bags. The regulations require annual certification by each manufacturer. Every shipment must have accompanying documentation.

Trash bag manufacturers do not want to certify information on postconsumer content to other sellers (e.g., brokers and dealers), and claimed they would not know whether bags they manufacture are sent to California for sale, or elsewhere. The regulations provide for certification to the state. Trash bag manufacturers must certify compliance with postconsumer content standards, and all other non-retail sellers must certify every physical address from which regulated trash bags were shipped and a list of each "seller" from whom they purchased regulated bags and each "seller" to whom they sold regulated bags.

## Issues

According to Jerry Hart of the Board, there is a potential problem in identifying all of the companies that must comply with the law and whether their bags are regulated.

Since 0.5 mil bags are being made with 30 percent postconsumer content, it appears that it was unnecessary to exclude bags under .75 mil. According to Jerry Hart, it is the quality of the resin, not the thickness, which makes the difference in quality.

## Compliance Status and Enforcement

Some companies were less cooperative until finalization of the regulations made clear that the state did

intend to implement and enforce the law. The state now reports high levels of cooperation from industry.

Regulated trash bags must meet the annual aggregate 10 percent standard for calendar year 1993, and the first compliance reports to the state are due in March 1994, so compliance status has not yet been calculated. However, the state expects most companies to comply.<sup>107</sup> The law allows the state to audit companies to verify compliance.

By July 31, 1994 and annually thereafter, the Board must publish a list of companies that have failed to comply with the law.

## Exemptions

Beginning January 1, 1995, if a regulated company is unable to obtain sufficient amounts of recycled postconsumer material because (1) it was not available within a reasonable period of time or (2) it did not meet quality standards promulgated by the Board, the company shall so certify to the Board. Mr. Hart believes the annual aggregate use standard makes compliance easier and gives companies flexibility, reducing the need to claim exemptions. The annual aggregate standard allows high levels of postconsumer resin use in some bags while allowing other bags to be made with lesser amounts of postconsumer resin.

## Effects of the Law

There are an estimated 100 plastic trash bag manufacturers. Five companies produce approximately 90 percent of the regulated trash bags. These companies are either in compliance already, or have indicated they intend to comply by using postconsumer resin, or by down-gauging bag thickness to avoid regulation. Mobil, one of the largest producers of plastic bags, has reportedly increased its use of post consumer resin and indicated it will comply with the 10 percent postconsumer requirement. First Brands, which accounts for approximately 70 percent of the sales of trash bags in California, also has reported plans to increase its use of postconsumer resin and indicated it will comply with the law. The state believes initial compliance with the law will be high.

For example, there are already 0.5 mil bags on the shelf containing 50 percent postconsumer resin. The 30 percent standard effective in 1995 is expected to be more of a challenge, especially for those companies that hoped the law would not be enforced.<sup>108</sup>

According to Board staff, "[a]lthough the trash bag minimum content law is still in its early stages, the law seems to be creating an increase in demand for

secondary plastic resins, and has caused at least one firm to consider developing a facility dedicated to supplying secondary resins to manufacturers of trash bags for sale in California."<sup>109</sup>

## TELEPHONE DIRECTORIES

Connecticut, Maryland and Oregon require telephone directories to be made with minimum levels of recycled content. Oregon and Maryland responded to the questionnaire regarding telephone book RCLs. Connecticut and Maryland did not provide details on implementation of their laws, which are effective in 1994.

The Oregon law was easy to pass because the affected companies, US West and GTE, agreed to use 25 percent recycled content and supported the law.<sup>110</sup> The percentage is for annual aggregate recycled fiber use. The law does not provide exemptions. Oregon adopted no specific regulations to implement the law, and reports no legal, administrative or legislative challenges.

### Recycled content percentages required for phone books

Maryland Law	Oregon Law	Connecticut Law
12% for 1994		10% for 1994
15% for 1995	25% by 1995	
20% for 1996	(at least 15%	15% for 1996
25% for 1997	postconsumer)	20% for 1997
30% for 1998		25% for 1998
and 1999		30% for 1999
40% for 2000		35% for 2000
		40% thereafter

About 0.1 staff person (cost: about \$5000 per year) is required to review annual recycled content use and annual telephone directory recovery rates in Oregon. Two companies have responded to informal surveys by the Oregon Department of Environmental Quality. One publisher's 1992 percentage was 17.5 percent, with 12.5 percent post-consumer. This same publisher reported using no recycled fiber in 1991. The other publisher indicated using 15 percent postconsumer content for its 1992 Oregon-distributed directories. It also reported using no recycled content in 1991.<sup>111</sup>

## RIGID PLASTIC CONTAINERS

Wisconsin is the only state that requires certain rigid plastic containers to be made with recycled content (California and Oregon laws allow several options, as discussed in Chapter 4).

### Wisconsin Plastic Container Law

**No person may sell or offer for sale at retail any product in a plastic container unless the plastic container consists of at least 10 percent recycled or remanufactured material, by weight, beginning on January 1, 1995.**

"Plastic container" means an individual, separate, rigid plastic bottle, can, jar or carton, except for a blister pack, that is originally used to contain a product for retail sale. The requirement does not apply to food, beverage or drug plastic containers unless the federal Food and Drug Administration has

approved the use of recycled content in that container. This broad exemption means that *less than half* of all rigid plastic containers on Wisconsin shelves are covered by the law.<sup>112</sup>

According to Wisconsin state officials, the state has taken no action to follow up the statute.<sup>113</sup> Regulations have not been proposed. There are questions whether the plastics industry, container manufacturers and retailers will attempt to comply with the

law. The president of one Wisconsin-based plastics recycling company, Marty Forman of Poly-Anna Plastic Products, said he has seen no steps taken that indicate manufacturers are moving toward compliance.<sup>114</sup>

# Chapter 3: Recycled Content Laws and the Interstate Commerce Clause

To date, the Commerce Clause has been formally raised as a challenge only to the recycled content container glass laws in California and Oregon (see discussion in previous chapter). Under the Commerce Clause, courts have invalidated state laws that *directly regulate or discriminate* against interstate commerce.

The Glass Packaging Institute (GPI) claims that recycled content laws cannot validly apply to out-of-state manufacturers because (1) the laws "discriminate against out-of-state glass manufacturers who are located in states (or countries) that do not have California's solid waste and land use concerns and where California-style recycling infrastructure may not have been developed,"<sup>115</sup> and (2) requiring out-of-state glass manufacturers to use recycled glass ("cullet") would not eliminate solid waste or achieve energy conservation in California, but would burden interstate commerce by placing economic burdens on out-of-state glass manufacturers that are not currently using recycled glass.

No appellate court has directly decided whether a recycled content law intended to apply out of state violates the Commerce Clause. The most recent United States Supreme Court decision on a similar issue was *Minnesota vs. Cloverleaf Creamery*, 499 U.S. 456 (1980). Cloverleaf Creamery challenged a Minnesota law that banned the use of plastic milk jugs (the state never enforced the ban). The Court upheld the law, holding that the law did not discriminate against in-state or out-of-state milk producers, and the burden imposed was not clearly excessive in relation to the local benefits achieved. Because court rulings do not make clear whether courts would find RCLs valid, we address GPI's arguments and make the case why RCLs should withstand a Commerce Clause challenge.

GPI claims that applying the law to out-of-state manufacturers does not benefit California. This assumes that no out-of-state manufacturers use, or could use, California glass to make new containers, and that applying the law to those companies will not benefit California. It also assumes that California has no interest in environmental impacts elsewhere in the world. Finally, it ignores the inequity of imposing laws only on in-state companies.

Generally, the greater the interstate market in a commodity, the more immediate the state interest in imposing standards on out-of-state manufacturers. Many secondary commodities have strong interstate, regional and even international markets. For example, a Pennsylvania facility is reported to process 100,000 tons per year of postconsumer cullet gathered from Pennsylvania and as far north as Vermont and as far south as Virginia. Most of the processed glass is sold to Owens-Brockway.<sup>116</sup> Other materials have even broader markets (e.g., old newspapers, Bottle Bill plastics).

States also can recognize that environmental problems do not stop at the border. A federal appellate court ruling recognized that a state can assert an interest in what is good for the environment worldwide, upholding a New York state law that barred sale of raptors unless they had been raised in captivity. The court stated that the state's citizens can decide not to be involved in destruction of the environment elsewhere. *Cresenzi Bird Importers, Inc. v. State of New York*, 831 F.2d 410. See also *Palladio v. Diamond*, (2d Cir.), 440 F.2d 1319, cert. denied, 404 U.S. 983 (1971) (upheld law prohibiting import of certain species); *People v. Sakai Co.*, 56 Cal. App. 3d 531 (1976) (upheld California ban on import and sale of whale meat).

State law may also be upheld under the "equal burden" principle on the grounds that barring application of the state laws to interstate activities would give out-of-state interests economic advantages over in-state interests. As the Supreme Court has noted, to disallow interstate application of some laws would be "to hold that [out-of-state products], because of their origin, are entitled to immunity from the exercise of state regulatory power," *Pacific States Co. v. White*, 296 U.S. 176 (1935) (upholding berry container regulations).

This rationale can be analogized to compensatory tax cases. Courts have referred favorably to situations where a state is attempting to impose a tax on a substantially equivalent event to assure uniform treatment of goods and materials to be consumed in the state. See also, e.g., *Tyler Pipe Industries v. Dept. of Revenue*, 483 U.S. 232 (1986).

Perhaps of more concern is that trade issues similar to those arising under the U.S. Commerce Clause also arise under international trade agreements such as the General Agreement on Trade and Tariffs (GATT). A GATT committee concluded that the U.S. ban on tuna imports from Mexico, banned

Although Mexico has so far refrained from trying to enforce this determination, the same concept is part of the North American Free Trade Agreement (NAFTA) now being considered by the U.S. Congress. NAFTA would apparently prohibit the imposition of trade restrictions among members

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**Although it is not clear whether the current U.S. Supreme Court would uphold RCLs that place requirements on out-of-state manufacturers, there are precedents that support the laws' validity. In the final analysis, passage of federal recycled content laws, or recycled content laws in more states, would make Commerce Clause challenges moot.**

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based on manufacturing processes used in the country of origin. This provision would directly implicate the enforcement of state RCLs on products imported from either Mexico or Canada.<sup>117</sup> For a discussion of the "free trade" agreements and their effect on state recycled

because of excessive dolphin kills caused by Mexican fishing practices, violates GATT. The basis of this determination is that one country's concern with environmental issues "outside its territory" are not an adequate reason to impose a trade restriction.

content laws, see pages 49 through 51 of *Emerging Market Development Options Summary Report*, a draft report of the California Integrated Waste Management Board.<sup>118</sup>

# Chapter 4: Variations on a Theme

As noted in *Appendix C*, a number of policies are being evaluated for their potential to increase demand for recyclable materials. This chapter briefly addresses some of the options that are being proposed in lieu of recycled content laws, or to modify recycled content laws.

## TRADEABLE CREDITS

Some industry and other commentators criticize RCLs as lacking flexibility, and advocate tradeable credits as a way to provide flexibility. Proponents of tradeable credits point to several advantages: they allow companies that can use content to do so, but do not mandate content for all companies, and they reward higher content use by allowing companies that use more recycled material to sell credits and reap financial rewards.

The concept of tradeable credits was created as part of the 1990 federal Clean Air Act, and applied in a context where the laws are intended to prevent an adverse environmental impact, air pollution. The Clean Air Act sets a ceiling on the acceptable level of pollution, and then relies in part on market mechanisms to allocate pollution "rights".

In the case of the Clean Air Act, there are relatively few entities competing for a fixed commodity on a national basis. Because the level of pollution is fixed under the Clean Air Act, one can anticipate a market dynamic will be in effect. In contrast to the goal of *limiting* air pollution, RCLs attempt to *encourage* increased use of recycled content. There is no limiting level of recycling; ideally, close to 100 percent could be reused in some materials, so any standard less than 90-100 percent would be arbitrary. In addition, secondary materials can be obtained from outside the country, so the commodity supply is not fixed. Such complications diminish the likelihood that a market dynamic would result. Manufacturers that might be impacted by a materials credit system have, in fact, suggested that such uncertainty in the system would lead them to "bank" any credits they have earned.<sup>119</sup>

Questions have also been raised about the cost and administrative burden of a credit program, and how such a program would be structured. For example, would a credit system be workable if enacted only

within one state? Who would monitor the trading, and would there be sufficient resources for enforcement? Experience with EPA's lead trading program shows cause for concern. As reported in California Futures' report, *Cost Benefit Analysis of Six Market Development Policy Options*, the trading of lead credits provided an opportunity for illicit profits, giving rise to "a great incentive to cheat the system, most often by over-reporting volumes to increase the number of credits available for sale. Initially, without audits or other enforcement activity, there was a significant amount of cheating going on."<sup>120</sup>

Clean air advocates have raised similar issues about tradeable credits, including what types of accounting systems will be necessary, what is the trading unit, and how will its price be established?<sup>121</sup>

California Futures raises several other issues in its report, including recommending that out-of-state manufacturers be barred from receiving credit for recycled content levels; the potential for the credit system to cause only a low increase in demand; and the potential for monopolies to develop to exclude other firms from the markets.<sup>122</sup>

In summary, many questions remain to be answered about whether tradeable credits are workable, whether they would have benefits, and whether the benefits would make their cost and administration worthwhile. These questions must be answered prior to inclusion of a credit trading system with RCLs to ensure it does not have the unintended effect of diffusing market demand created by RCLs.

## UTILIZATION RATES

Some policy analysts support "utilization rates" rather than recycled content mandates. Under "utilization rates," there may not be direct mandates to use recycled material in any particular product. Instead, companies would be responsible for ensuring that a certain percentage of material is recovered and "utilized" by themselves or others.

A recent report by California Futures for the California Integrated Waste Management Board concludes that minimum recycled content laws can be some of the most cost effective policies.<sup>123</sup> The report also concludes that the greatest impact on diversion and markets may be achieved through a combination of

utilization rates for packaging, and high recycled content rates for some products. Based on our research, we agree that recycled content laws are cost-effective and stimulate markets. However, the effect of utilization rates depends on what is meant by "utilization." To date, the term is so broad that it can, and does, mean different things to different groups.

California Futures' report assumes a 50 percent utilization rate for all packaging. Manufacturers would be responsible for "utilizing" or showing that someone else "utilized" an amount of material equal to 50 percent or more of primary and secondary packaging sold in California. Compliance could be through recycled content use, refilling, alternative uses, or trading credits.<sup>124</sup> The report views this approach as appealing for its flexibility, lack of a fee on packaging, incentive for source reduction, and potential to divert 10 percent of California's waste from disposal. Identified drawbacks include high administrative costs, difficulty in tracking material transactions undertaken by a number of companies, calculating or verifying claimed collection and utilization rates, and avoiding double or triple counting.<sup>125</sup>

The goal of developing stable markets is a means to another end: reducing reliance on virgin materials in manufacturing products and packaging. Therefore, the question is how utilization rates would affect markets and whether they would reduce reliance on virgin materials. Additional questions include how adoption of utilization rates would affect existing RCLs that already appear cost-effective and successful in stimulating demand.

The following concerns have been raised regarding utilization rate proposals.

*Recycled content laws are already stimulating demand and investment.*

As mentioned earlier in this report, states credit RCLs with stimulating demand for postconsumer materials. We have previously cited California's belief that the newsprint law has resulted in increased demand and serious considerations by manufacturers to site facilities in the state. While currently insufficient, the RCL for glass containers has increased demand for mixed color cullet, and the trash bag law has caused at least one firm to consider developing a facility to supply secondary resins for manufacturing.<sup>126</sup>

*Utilization rates may encourage non-sustainable, low-value uses.* Recycling can increase only if markets continue to develop and can sustain themselves over time. Sustainable markets must include high-value uses of material, with attendant higher prices for collected materials. Recycled content laws have thus far targeted value-added products produced in large volumes, ensuring higher value uses and higher volume demand. Utilization rates could lead to "lowest common denominator" uses that are not sustainable, or that fail to develop the potential high value uses in the marketplace.

*Utilization rates may conflict with RCLs.* Adoption of utilization rates could lead to repeal of existing recycled content laws that have both proven cost-effective for states to implement, and have sent direct signals to the market that have increased demand.<sup>127</sup>

Like credit trading systems, there are many questions that must be answered prior to inclusion of "utilization" rate options with RCLs. Unlike "utilization rates", RCLs provide a demonstrated market development tool.

## **OREGON AND CALIFORNIA RIGID PLASTIC CONTAINER LAWS**

Oregon and California plastic container laws are not RCLs, but allow compliance through a number of options. In this, the plastic laws are closer to "utilization rate" proposals.

The California Integrated Waste Management Board retained a consultant at a cost of \$244,000 to recommend how the law should be implemented.<sup>128</sup> After meetings among industry representatives, state officials, environmental groups and others, the consultant presented a draft report to the Board. The

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### **Oregon and California Plastic Laws**

**By January 1, 1995, rigid plastic containers (8 oz. to 5 gal.) must meet one of the following criteria:**

- (1) contain 25% recycled content;**
- (2) be reusable/refilled 5 times;**
- (3) be made of plastic that is being recycled at 25% (55% for PET in California); or**
- (4) be source-reduced by 10% in weight (in Oregon this is a 5-year exemption only)**

ORS 459A.650-655; PRC 42300-42340

• Oregon and California laws are very similar but differ in many details. Interested readers should review the text of the statutes for variations.

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report presented analyses and recommendations of alternative methods to implement the law, including



clarifying the definition of what constitutes a rigid plastic container; definition of entities responsible for compliance and certification; waiver and exemption criteria; methodologies for measuring source reduction, reuse, refilling, recycling and postconsumer content; alternative compliance options for food-contact containers; and procedures to certify and enforce compliance.

## Challenges to the Laws

Both Oregon and California laws have been challenged by numerous industry groups. The primary challenge was an attempt to exempt all food, drug, beverage and cosmetic packaging from the laws. Neither state granted permanent exemptions, but both laws were modified.

The 1993 Oregon Legislature provided separate compliance responsibilities for container manufacturers and product manufacturers. The state also added exemptions for infant formula, medical food and medical devices regulated by the FDA (these were already exempt under California's law). Finally, the Legislature delayed enforcement of the law for one year. The Oregon DEQ is precluded from enforcement until January 1, 1996, or calculation of the aggregate statewide recycling rate for rigid plastic containers, whichever is later. The compliance date of January 1, 1995, is still in effect.<sup>129</sup>

Oregon's law was further challenged by the American Plastics Council, which proposed to meet the 25 percent recycling rate through pyrolysis. Pyrolysis has to date been used to thermally degrade tires into oil, gas and carbon black, most of which has been burned as fuel. The Oregon DEQ's initial position was that pyrolysis is not recycling but energy recovery. This issue will be the subject of a state advisory committee, future rule making, an opinion by the state Attorney General, and perhaps a lawsuit by the plastics industry.<sup>130</sup>

The 1993 California legislature enacted numerous changes. The recycling rate will be calculated by averaging the rate of all rigid containers (the original law excluded PET recycling from the aggregate rate); source reduction measures must occur only once and then be maintained; a one-year waiver is provided for new products when introduced into the state; food and cosmetics containers are given a two-year waiver; a one-year exemption was granted for containers for hazardous materials regulated by the Department of Transportation; all product manufacturers that use rigid plastic containers must report to the Board by December, 1995, showing they have taken all feasible actions to achieve reuse,

recycling, reduction and market development; and container manufacturers must seek non-objection letters from the Food and Drug Administration by February 2, 1996.<sup>131</sup>

As a result of the continuing industry challenges to the laws, the complexity of the different standards in the laws, the 1993 amendments, and the requirements for additional state agency studies and reports, the cost of the laws will probably continue to be higher than for most recycled content laws.

The cost is also dependent on the number of entities subject to the law, and how compliance is monitored and enforced. If retail establishments that package their products at the point of sale are considered product manufacturers, and no small business exemption is provided, then it is estimated that up to 100,000 product manufacturers may be subject to the law in California.<sup>132</sup>

## Effects of the Laws

California officials believe that if the law remains in place in its current form, collection of rigid plastic containers will increase significantly.<sup>133</sup> Some California and Oregon officials believe the law has increased the use of recycled content in manufacturing non-FDA-regulated plastic containers, and has increased investment by larger companies in certain technologies, such as "tertiary recycling" of PET, where the resin is broken down into its monomers and then rebuilt back into plastic.<sup>134</sup> However, the laws continue to face strong opposition. Some of the issues California officials expect to face are the following.

- What recycling rate methodology is acceptable to the state, the regulated community and others?
- Should small business be exempt? What criteria should be used for exemptions?
- What companies are responsible for compliance (e.g., franchisee or its franchisor)?
- Does the law cover the multiple individual-pack items in rigid plastic, such as pudding cups that individually are less than 8 ounces but together more than 8 ounces? Will the law push 8 ounce packages into 7.5 ounce packages?
- Should the law be changed to allow a company to spread compliance over product lines and achieve the content standard through averaging?
- A container is not considered source reduced if the reduction was achieved by a material change

that makes the container “less able to be recycled.” How will this criteria be evaluated?

## **ADVANCE DISPOSAL FEES**

At least 28 states<sup>135</sup> have adopted or proposed advance disposal fees on “problem” materials including batteries and tires. Florida has passed a law placing a one-cent fee on certain containers that fail to meet recycling or recycled content/recovery rate standards. The Florida law is discussed in *Appendix D*.

While some analysts support variable fees on packaging to reward those that have achieved higher rates of recycling or recycled content use, it has been pointed out that variable fees are also complex to administer.<sup>136</sup>

Florida officials are optimistic that the flat-rate-per-unit Florida packaging ADF will result in improved markets and more recycling. They believe one benefit of the law is that it addresses more than one packaging material. Others point to the drawbacks including cost of administration and the question whether the one- or two-cent fee is enough of an incentive for industries to invest in reaching the desired results.<sup>137</sup> According to Russ Martin of the Florida Department of Environmental Protection, some industries claim the law is an incentive, particularly when the fee rises to two cents, reportedly more than the cost to make a container with the required level of recycled content.<sup>138</sup>

Aluminum and steel containers were exempted from the Florida fee after the state reviewed industry reports that showed the containers had achieved 50 percent recycling rates in the state.<sup>139</sup> Based on this precedent, industries may be more likely to attempt to prove they have met the recycling or recovery rate than to take steps to make significant changes.

## **VOLUNTARY AGREEMENTS**

Mandated recycled content laws may contribute to use of voluntary agreements by industry. We did not examine voluntary agreements for this project, and to date, there has been no in-depth review of how the recycled newsprint agreements are working; whether companies are complying; and whether the standards are high enough to ensure increased use of postconsumer paper in mills. Future research on how voluntary agreements are working would be valuable.

States that are unable to enact RCLs should consider whether they can work with consumers or manufacturers to adopt voluntary recycled content agreements, or agree on packages that include recycled content use by industry and financial incentives and supply assistance through the state, collectors or local governments. One way to ensure compliance with voluntary agreements is to provide for mandatory RCL “hammers” that kick in if companies fail to meet voluntary recycled content goals.

# Chapter 5: Recommendations for Drafting Recycled Content Laws

**A**ccording to research by the California Integrated Waste Management Board and our review of state RCLs, carefully targeted RCLs can increase the amount of secondary material used in manufacturing, create jobs or markets in the state, result in capital investments, be cost effective and be compatible with other programs.<sup>140</sup> The following are recommendations for use in drafting recycled content laws.

## WHAT PRODUCTS SHOULD BE TARGETED FOR RECYCLED CONTENT USE?

In determining what products should be targeted for increased use of recycled content, we recommend consideration of the following factors.

- Target products that are produced in enough volume to develop more stable markets. For example, the volume of newsprint production is one reason states targeted large consumers of newsprint for increased use of postconsumer waste paper.<sup>141</sup>
- Target products that are produced in the state, or in regional or international markets. For example, California has several facilities that manufacture large numbers of glass containers; thus, the law to increase those plants' use of cullet in manufacturing benefits California cullet markets. Where a manufacturing facility can draw from a regional market — such as newsprint mills that take old newspaper from several states — a recycled newsprint law can stabilize markets in a state that does not have its own newsprint mill; the state can be a source of feedstock for the regional market.
- Target products that can be made using significant amounts of postconsumer material. The laws should set standards that can be met in the near term, and should push to increase those standards over time based on state-of-the-art use of material. For example, glass containers can be made using up to 95 percent recycled cullet.<sup>142</sup> Owens-Brockway in Oregon has used close to 80 percent recycled content in some of its bottles and close to 50 percent as a

plant average.<sup>143</sup> California and Oregon laws begin by requiring relatively low percentages (25 percent and 35 percent), and increase the percentages to 65 percent and 50 percent, respectively.

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**The state of California has identified criteria for evaluation of recycling market development policies, including:**

- Will the action increase the amount of secondary material used in manufacturing?
- Will the action create jobs or markets in the state?
- Will the action stimulate capital investments?
- Is the action cost effective?
- Is the action compatible with other programs?

Source: California Market Development Plan, CIWMB, March 1993

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- Target products that can be made using significant amounts of postconsumer material for which markets are weak or nonexistent.

## SETTING RECYCLED CONTENT STANDARDS

- Standards should be achievable by industry. States can determine what industries can do by obtaining information from companies that have taken the lead in using high levels of recycled content, or by looking at what companies are doing to comply with existing RCLs.<sup>144</sup>
- Standards should be set at levels greater than projected recovery levels in order to pull material through the system. If a law sets low standards to begin with, the standards must increase over time to ensure that markets continue to build.
- Standards should be set and measured by annual aggregate use of postconsumer material, as provided in most of the newsprint laws, the plastic trash bag law, and the glass laws. This allows flexibility in manufacturing. Some runs may have higher levels of recycled content, and some lower levels, but the

average use over a year should meet the required level.

- Standards should specify use of postconsumer recycled materials in order to increase demand for *postconsumer* material collected in municipal recycling programs. We recommend the following definition of postconsumer: "Products that have met their intended end use as a consumer (business or household) product, and that have been separated from the solid waste stream. Postconsumer does not include manufacturing or converting scrap."

If it is desired to give credit to pre-consumer material use, then the law could set a dual standard of total recycled content use, and a minimum postconsumer content use. Care should be taken to ensure the postconsumer standard is not set too low.

## **TARGET INSTITUTIONAL CONSUMERS WHERE FEASIBLE**

Observers believe the recycled newsprint use laws have been a success in large part because they require large consumers of newsprint to buy recycled newsprint, providing a "guaranteed market" for newsprint manufacturers. More certain demand for the product provides manufacturers with the incentive to make the product and the basis on which to make investments in the equipment and technology needed to use more recycled material.<sup>145</sup>

Characteristics of the newspaper publishing industry may make the newsprint law hard to duplicate for other industries. Publishers are visible; they are the largest users of the product and thus able to affect the suppliers' behavior through their purchasing demands; they distribute in the state, giving them ties to the state and enforceability; and they are not very numerous, so are easy to identify and monitor. The characteristics of newsprint also may be difficult to duplicate. The product is easily identifiable and made similarly.

Where these characteristics can be duplicated, targeting buyers of the product is preferred -- e.g., phone book publishers and magazine publishers. However, this approach may not be workable in all situations. Some state officials prefer to target manufacturers because this means fewer entities are regulated. California's recycled content fiberglass insulation and plastic trash bag laws target manufacturers, and appear to be successful in their early stages. It may also be less desirable to target institutional consumers of more widely used products. For example, requiring grocery stores to buy recycled content glass containers would put requirements on

a much larger number of companies, making it more costly and difficult to monitor and enforce. Reporting by a limited number of glass container manufacturers is easier to verify than reporting by a large number of retailers.

In addition, a "material-specific" law applied to retailers may have unintended effects. If all retailers in a state are required to buy recycled content glass containers, they may decide to choose alternatives such as plastic or paper. This potential "switching" effect appears to be a particular concern for packaging.

Putting responsibility on out-of-state manufacturers may make enforcement more difficult, and Commerce Clause issues may be raised. Based on the analysis in Chapter 3, the authors also support state laws that cover in-state and out-of-state manufacturers. One reason for states to continue passing such laws is to make the Commerce Clause argument ultimately moot, either because so many states have similar laws, or because numerous state laws lead to a federal law.

States concerned with Commerce Clause issues should consider some alternatives:

- Draft the recycled content law to apply to in-state users of the product, or the first company in the state to receive the product (distributor or importer).
- Draft the law to apply in state and out of state, avoiding Commerce Clause challenges by charging fees on products that are not made with recycled content, or by requiring recycled content for products made with materials for which there are interstate markets. For example, if a paper mill in Georgia imports paper from surrounding states, the surrounding states will have a better case that their recycled content laws for paper should apply out of state.
- Least preferable approach: draft the recycled content law to apply to in-state manufacturers only. If in-state companies believe this will put them at a competitive disadvantage, the state could consider providing some incentives tied to meeting the content standards (tax credits or other incentives tied to meeting the law).

California Integrated Waste Management Board staff recommend additional drafting steps to avoid concerns under GATT and NAFTA, including framing the laws to allow foreign producers to comply without undue hardship; to avoid laws that are protective of domestic production to the detriment of foreign production; and to relate the laws to "conservation of exhaustible natural resources...in conjunction with restrictions on domestic production

or consumption.”<sup>146</sup>

## **PUBLIC RIGHT TO KNOW**

Each consumer or manufacturer covered by the law should provide annual reports that show the past year's aggregate percentage of content use. The state should publish such information to show what can be achieved; to encourage leading companies; and to put pressure on companies that are not complying or that are using small levels of postconsumer material.

Industries may claim that their percentage of recycled materials use should be kept confidential, because disclosing the percentage may put them at a competitive disadvantage. If a state cannot draft or amend its law to require public reporting of percentages of recycled content use, it should at least adopt a “check-minus/check-plus system” that identifies companies in compliance, companies not in compliance, and companies exceeding compliance.

Some industries have argued for an “industry-wide” percentage content standard. For example, the Glass Packaging Institute has proposed reporting annually one number, the average percentage of recycled cullet used by all plants in the U.S.<sup>147</sup> This fails to provide the public with information about state-of-the-art recycled content use, which companies are leading, and which companies could improve their content use. It also allows some companies to do nothing and benefit from the leading companies. This “averaging” approach has been used in some states’ newsprint use laws and may be acceptable if the overall level of content required is high enough to improve demand. However, if adopted on a national basis, it may result in improving some states’ cullet markets and having no effect on markets in other states. In any event, even if an industry average were the standard, the law should still provide for reporting of individual companies’ percentage use, or the “check/minus” system suggested above.

## **ENFORCEMENT**

While we have no evidence to suggest that non-compliance is a problem for existing RCLs, state officials have concerns about future non-compliance. In addition, as a general policy we recommend:

- Public reporting of non-compliance;
- Penalties high enough to be an incentive to meet

the law rather than pay a fee; and

- Legislation that empowers citizens to take advantage of citizen suit provisions.

In some environmental proceedings, penalties are assessed based on the savings the company achieved by not complying. The “economic benefit” would be negated by having to pay a penalty equal to the benefit in not complying. Penalties should be used to support in-state recycling programs for the product.

## **EXEMPTIONS SHOULD BE NARROWLY DRAWN, AND SHOULD NOT APPLY UNLESS AFFIRMATIVELY GRANTED.**

The law should require companies to apply for an exemption to a state agency or board, which must make findings to grant the exemption.

For large consumers that can realize savings through economies of scale, there should be no exemption for price except in cases where a manufacturer has a monopoly, or competition among vendors is very limited. Smaller consumers may qualify for exemptions based on price, at least until supply and economies of scale in production make such exemptions unnecessary. Any exemption based on quality should apply only in cases where the recycled product fails to meet functional specifications, and should not apply simply because recycled product quality is not the same as virgin product quality.

## **THE LAW SHOULD BE SELF-IMPLEMENTING**

The law would ideally be drafted to avoid the need for extensive administrative rule making. Self-implementing statutes avoid the delay and cost of regulatory negotiations that can be used by industry to delay and weaken the statutes' impact. Drafters should solicit help with technical information from representatives of businesses already using recycled materials. In many cases, such businesses are more enthusiastic about recycled content laws and willing to help.

Rule making does allow fine-tuning of laws as more information is gained. If a self-implementing law cannot be passed, or if some leeway in rule making is desired, the law should be drafted to carefully define the intent of the law to guide rule making.

## **PACKAGING LAWS: ACROSS THE BOARD OR MATERIAL BY MATERIAL ?**

Because many different materials compete in the packaging market, questions have been raised whether states should adopt a recycled content law that affects only one type of packaging and not others. There are concerns that such a law could affect market share; for example, although the goal of recycled content laws for glass containers is not to cause companies to switch to plastic packaging, concerns have been raised that this could result.

In an effort to treat all packaging the same, "across the board" packaging laws have been proposed to cover paper, glass, metal and plastic packaging.<sup>148</sup> On its face, Florida's advance disposal fee covers all packaging, although aluminum and steel containers were recently exempted after the state accepted industry calculations to show the containers were being recycled at or above 50 percent levels.<sup>149</sup>

Most types of packaging can, technologically, be made using recycled content.<sup>150</sup> Therefore, RCLs should be established across the board for all types of packaging: paper, glass, plastic and metals. Such a law should set percentage content use at levels higher than projected recovery rates. If initial content standards are set low, they should increase over time.

States have been confronted with companies requesting exemptions from recycled content use based on the federal Food and Drug Administration requirement that containers be safe for food and drug contact. Even though recycled-content packages are already on the market and more are being

developed, product and container manufacturers claim that the need to comply with FDA requirements should exempt them from recycled content use in paper and plastic containers in direct contact with food or cosmetics.<sup>151</sup> Thus, the Wisconsin plastic content law does not cover food, drug or cosmetic plastic packaging, and the California and Oregon plastic laws provide additional compliance options of reuse, recycling rate, and source reduction.

Unfortunately, the broad exemption in the Wisconsin law exempts about half of all plastic containers from coverage.<sup>152</sup> The California and Oregon laws may be too broad in their approach to have the intended effect on markets. Further, allowing plastic and paper food and cosmetic packaging to be the only packages not covered by an across-the-board law would be inequitable.

One alternative is to assess a fee on non-complying packaging, with fees going to support infrastructure and market development for the non-complying packaging. This approach would ensure that all packages are "players" under the law, and fees can help offset the high cost of collecting some materials, such as plastics, which have high collection costs and low resale value.

Alternatively, states should consider bans on packaging that poses particular problems, such as the Maine aseptic packaging ban and bans on polyvinyl chloride plastic packaging proposed in Wisconsin and East Lansing, Michigan.<sup>153</sup>

Even though we recommend across the board laws for packaging, we encourage states that face market problems for a particular material to proceed with RCLs on targeted packages that address the specific market problem if they cannot adopt an across-the-board law on all packaging.

# Chapter 6: General Recycling Market Development Strategies

In addition to researching RCLs, we surveyed states in regard to other strategies for recycling market development. This chapter briefly summarizes state responses. More detailed discussions of these policies can be found in other publications.<sup>154</sup> We recommend that states consider these policies together with RCLs as part of a broad set of programs to improve recycling markets.

## OVERVIEW OF SURVEY RESPONSES

*Government procurement programs* were ranked consistently high on all surveys.

*Low interest loans* ranked the highest of all economic incentive programs. Officials cited limited access to capital as a problem for recycling businesses, particularly small, start-up companies.

*Tax credits.* Most states have some type of tax credit program, and such states tended to rank them higher. States without tax credit programs ranked them lower. Follow-up discussions revealed that tax credits were seen as most valuable when used in combination with other programs.

*Grants* are a widely adopted program, with higher rankings from officials that administer grant programs. Officials suggested that grants can be most effective when combined with other policies to promote market development and may be ineffective as a stand-alone policy.

Table 4: Summary of State Survey Responses

Policy	High Ranking	Middle Ranking	Low Ranking
Procurement Programs	••••• •••••	••••• •••••	
Recycled Content Law	••••• •••••	•••••	•
Tax Credits	••••• ••••• •	••••• •	•
Low Interest Loans	••••• •••••	••••• ••	••
Cooperative Marketing	•••••	••••• •••	•••
Grants	•••••	•••••	•••
Recycling Markets Program	••••• ••	•••••	••
Recycling Task Force	•••	••••• •••	•••••
Deposit Laws	••••• ••	••	••••• •
ADF	•••••	•••••	••••• •
Tax Exemptions	•••	•••	•••
Rebate Programs	•		•••••

• - Represents proportional ranking of policies based on survey responses; does not represent exact number of responses received.

Source: NELC Survey, 1993

*Recycled content laws* were ranked consistently high, both by states with RCLs and some states without RCLs.

*Recycling markets programs* in state economic development departments were generally ranked high, but since state programs vary widely, it was difficult to generalize about what elements of these programs are considered most effective.

*Tax exemptions* were generally rated low on the surveys and in follow-up discussions. The general feeling was that tax exemptions are an administrative burden and inefficient in changing behavior.

*Deposit laws.* All but one representative from Bottle Bill states ranked deposits in the top three, while most low rankings came from states without Bottle Bills. Deposits were frequently cited as a cost effective policy for recycling plastics.

*Advance Disposal Fees* received a wide range of responses. Officials cited implementation, administration and enforcement as major problems with ADFs. Some advantages cited by officials: they can be more encompassing; they attempt to use market forces; and companies have the option of complying or paying a fee.

*Cooperative marketing programs* also received a range of responses, generally more favorable. The highest rankings came from Northeast states where such programs are more developed. Lower rankings came from states in the West and Midwest.

*Rebate programs* were ranked consistently low; however, state officials also acknowledged limited experience with such programs. States with rebate programs cite their ability to target very specific components of the waste stream such as batteries.

*Recycling markets task forces* were regarded as fairly ineffective.

State officials and recycling advocates believe a variety of policies and approaches are needed to increase materials reuse and recycling.<sup>155</sup> Appendix E lists recycling market development programs and contacts. Some of the more highly rated strategies are addressed briefly here.

## **PROCUREMENT**

Local, state and federal governments make purchases that comprise about 18 percent of the gross national product and total almost one trillion dollars each year.<sup>156</sup>

The federal government, all 50 states, and more than 120 municipalities have legislation, executive orders

or policies favoring products made with recycled content.<sup>157</sup> These laws and policies include such things as five to ten percent price preferences, purchasing goals or set-asides, joint purchasing strategies, and minimum content standards for purchases as a floor.

State survey respondents rated state procurement laws very highly. But the existence of a procurement law is not enough; aggressive implementation is needed. In a recent report, the U.S. General Accounting Office concluded that the federal procurement program has been less effective than it could have been. The GAO specifically found that the Environmental Protection Agency placed a low priority on procurement from 1976-1989.<sup>158</sup>

The GAO made several recommendations, including Congress' clarification of price preference; establishment of measurable program goals; and incorporating the program into government-wide procurement policies. The GAO research points out the need for states to ensure that procurement laws are followed up by aggressive implementation and outreach.

There are signs that federal involvement in procurement may be improving. On October 20, 1993, the Clinton Administration issued an executive order requiring federal agencies and the military to buy paper made from at least 20 percent postconsumer recycled fiber by the end of 1994, and 30 percent postconsumer fiber by the end of 1998. The order also covered other procurement policies. In addition to this favorable development, the Environmental Protection Agency in Region 3 has formed a working group to augment state and local procurement programs.<sup>159</sup>

## **ASSISTANCE PROGRAMS**

States have implemented a wide variety of programs to assist at all levels, including tax credits, tax exemptions, grants, loans, and other economic assistance. It is generally the case that assistance programs are more costly to the state, particularly if tax revenues are foregone and state funds are used for grants and loans. Further, questions have been raised whether tax incentives are cost effective. For example, in evaluating existing market development programs for glass containers, staff of the California Integrated Waste Management Board concluded that tax credits were "not effective in having an impact on encouraging new recycling industries. Most new businesses do not have taxable income in their first few years of operation. Therefore, the program is not effective in encouraging new start



ups. . . .The tax credit program may be effective in encouraging [existing companies] to increase their recycling; however, other variables such as minimum content legislation and the market development payments have had a greater impact on the amounts of recycling occurring in California."<sup>160</sup>

**Consider market needs and opportunities**

Officials emphasize that market needs must be considered.<sup>161</sup> These needs will vary on a state or regional basis, and should not be viewed as a panacea that will result in new manufacturing facilities or a surge of new business. However, careful consideration of the needs of state or regional recycling markets can result in the development of recycling enterprises.

For example, Michigan funded a \$5 million grant to James River to help finance capital investment in an existing paper mill. The plant now processes 78,000 tons of old newspapers and old corrugated cardboard per year. This plant was one project among many projects (not all of them manufacturing facilities) funded through a \$150 mil-

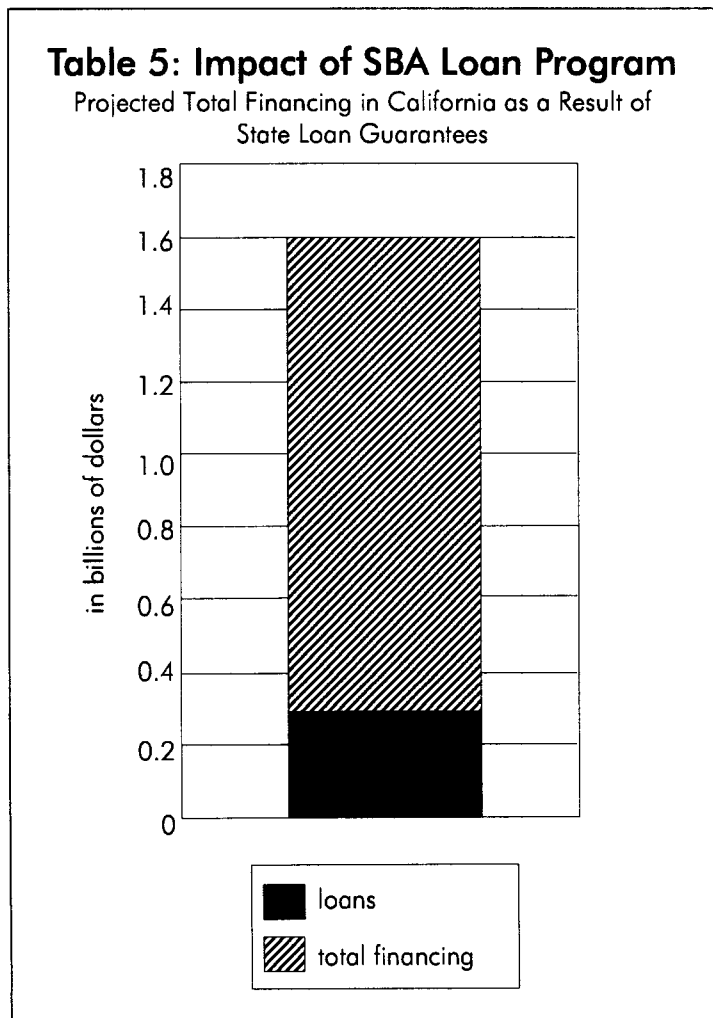
lion bond act. Two important factors appear to be the amount of money available in relation to the cost of retrofitting the paper mill, and the presence of an existing facility.<sup>162</sup>

**Consider needs of small business**

Tax credit programs are often used by large companies that will not turn down the credits, but do not really benefit by them, and would have proceeded without them. For example, tax credits are subsumed in the multi-million-dollar projects of large paper companies in California or Oregon.<sup>163</sup> At the same time, small companies need access to capital more than they need tax credits. Small businesses utilizing new technologies often have trouble accessing capital, and are often in the worst situation because they lack capital and have smaller markets over which to amortize investments.

Many states have responded to this need with loans and other incentive programs. In lieu of a direct

grant or loan, states should consider loan guarantee programs. As shown in Table 5, guaranteeing loans can have beneficial effects at less cost to the state. Staff of the California Integrated Waste Management Board concluded that for every \$100,000 in state-guaranteed loans, \$2 million in financing would occur.<sup>164</sup>



Source: CIWMB Staff Analysis, 1993.

# Chapter 7: Conclusions

**A**s a result of our research, we believe that recycled content laws:

- Are being implemented at comparatively low cost to the states, in most cases significantly less than \$100,000 per year;
- In general have not faced significant legal, legislative or administrative challenges;
- Have resulted in high levels of compliance and cooperation from most affected industries;
- Have increased demand through direct signals to the marketplace; and
- Should be part of a comprehensive package of state policies including supply programs, finan-

cial assistance programs to small, in-state enterprises, and other policies to level the playing field for reuse and recycling (incinerator moratoria; banning toxics in products and packaging; etc.).

If a state is unable to enact recycled content laws, it may wish to consider working with consumers or manufacturers to develop voluntary recycled content agreements or packages of agreements including recycled content use, guaranteed supply programs, and financial incentives.

In summary, states' experiences show that recycled content laws can stimulate market demand for high-value manufacturing uses, with accompanying job-creation benefits. We recommend that states continue efforts to pass and implement recycled content laws, and expand existing content laws.

**APPENDIX A: DEMAND SIDE POLICY  
OPTIONS ROUNDTABLE AT THE  
NATIONAL RECYCLING CONGRESS  
October 11, 1993**

**Workshop Leaders:** Lauri Aunan, NELC; Brenda Platt, ILSR; Geoffrey Lomax, NELC

**Attendees**

Lance King, Californians Against Waste, 916-443-5422

Don Moss, North Carolina Department of Conservation, 919-733-4953

Bill Reger, U.S. General Services Administration, 816-926-5334

David E. Smith, State of Illinois, 217-524-5454

Scott Cofoid, State of Illinois/I-Cycle, 217-524-5742

Sandi Mauro, Southeastern Containers Inc., 704-667-0101

Lowell Shaw, Wake County Government, North Carolina, 919-856-6201

Gil Soellner, British Columbia Environment, 604-356-9975

C. Dietz, Eco-Cycle, 303-444-6634

Jan Glick, Washington Citizens for Recycling, 206-343-5171

Cathy Moeger, Minnesota Pollution Control, 612-296-9631

Michael Patton, City of Tulsa, Oklahoma, 918-596-9863

Ron Kemalyan, Pacific West Communications, 213-487-0830

Bill Shireman, California Futures, 916-482-4346

Michael Alexander, Northeast Recycling Council, 802-254-3636

Resa Dimino, Environmental Action Foundation, 301-891-1100

Beth Bering-Fritz, Wisconsin Dept. Natural Resources, 608-265-6279

Don Kneass, NRC Board and Waste Management, 206-762-3000

Joel Stern, Wisconsin Dept. of Natural Resources, 608-266-2711

Jeff Langbehn, Lake County, Indiana, 219-922-1266

Stephanie Steinberg, Governor's Office of Energy Conservation, 303-620-4292

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Lynda Williams, Washington Citizens for Recycling, 206-343-5171

Jim Krouskp, King County Solid Waste, Washington, 206-296-5845

Ellen Morace, American Plastics Council, 202-371-5207

Susan Hundt Bergen, Wisconsin Dept. of Natural Resources, 608-264-6032

Kenneth Markussen, New York State Dept. of Environmental Conservation, 518-457-8829

Jay Tilley, Johnston County, Smithfield, North Carolina, 919-934-4576

Patty Tobin, New York City Dept. of Sanitation, 212-837-8166

A.E. Erickson, Georgia Pacific, Atlanta Georgia

**Summary of Meeting**

**Introductions; agenda overview.** Roundtable leaders and attendees introduced themselves. Lauri Aunan and Brenda Platt then reviewed the agenda and discussed the goals of the meeting. The two primary goals were to receive feedback on the report's specific recommendations on drafting recycled content laws, and to get agreement from the group that recycled content laws in general are a valuable demand-side tool.

**Project summary.** Geoff Lomax summarized research methodology and the results of the project questionnaire on general recycling market development strategies.

**Discussion of recycled content laws.** Brenda Platt summarized the benefits of recycled content legislation:

- Helps manufacturers make decisions to increase capacity because of the certainty factor the laws provide;
- Increases demand for targeted materials;
- Encourages high value recycling;
- Helps close the loop locally; and

- Puts some of the responsibility on manufacturers who produce the products.

The following were some of the observations of attendees. Recycled content laws can create market demand and have served to sustain jobs in domestic mills which, in the absence of increased demand for recycled newsprint, would have been less competitive. Companies need to produce recycled newsprint to compete in the California newsprint market. However, a system-wide approach that includes RCLs, loans, supply guarantees, and cooperative marketing, is needed. There must be an understanding of the dynamics of the industry, particularly the packaging industry.

We heard no disagreement from any participants that recycled content laws can be a valuable demand-side tool. Some participants pointed out that the ability of states to enact them varies widely.

**Specific recommendations.** Lauri Aunan reviewed the report's recommendations for drafting recycled content laws, and asked for audience feedback.

- Ensure coverage of large institutional consumers of a product (e.g., newspaper publishers), but don't ignore smaller users. No disagreement from group.
- Measure compliance by annual aggregate recycled material use. No disagreement from group.
- Standards should increase over time to state-of-the-art. No disagreement from group; comments that this is often difficult to achieve, and if increasing standards cannot be achieved, it is still important to set at least one standard.
- Postconsumer use should be specified. No disagreement from group.
- Public right to know: percentages of postconsumer use should be annually reported and available to the public. No disagreement from group.
- Exemptions should be narrowly drawn and should not apply unless affirmatively granted. No disagreement from group.
- The statute should be self-implementing as much as possible. Attendees seemed most skeptical about this recommendation, noting that legislatures cannot respond quickly to technological changes that impact the law, and that rule making can allow fine tuning of laws.
- Penalties should be high enough to encourage the desired behavior. No disagreement from group.

**Roundtable discussion.** The group discussed several topics related to recycled content laws. No conclusion or consensus was reached. Topics discussed included the following:

- How recycled content policies might be expanded. Suggestions were made to look at printing and writing paper and other paper products. Content standards in existing government procurement laws could be adapted to the private sector.
- Several people recommended that if a state cannot adopt a recycled content law it should look at potential for voluntary recycled content agreements.
- The group briefly discussed how recycled content policies impact product packaging. Ideally there would be standards on all packaging, but this is difficult. It may be wiser to target specific packaging based on state's problem markets. Concerns were raised that laws on one type of package may result in packagers switching to another type of package, with unknown impacts on the environment. Furthermore, laws on one type of packaging, such as glass, may give other types of packaging, like plastic, an unfair competitive advantage.
- The need to show that technologies to use higher levels of recycled content exist, in order to counter claims that "it can't be done."
- The need to work with state economic development departments to increase technological potential.
- A state official from Minnesota discussed how the state's recycled content labeling law is being self-policed by industry. The state enforces the law on the basis of complaints. The state has received calls from businesses indicating non-compliance by other businesses.
- Other countries have policies to encourage refillables, and states should look at ways to do the same.
- Content laws offer opportunities to encourage the highest and best use, but this may not always occur. For example, the question was raised whether recycling plastic into plastic trash bags is the highest and best use.
- There would be benefits if states worked together to target certain products and adopt policies and laws. For example, the more states that pass content laws, the less the Commerce Clause becomes an issue.

# APPENDIX B: PROJECT QUESTIONNAIRE

## State Recycling Market Development Survey

1. Check any of the following programs implemented through your department or other government offices in your state.

2. Rank the following from most effective program to least effective program. 1 is most effective, 12 is least effective.

<input type="checkbox"/> State procurement of recycled products	<input type="checkbox"/> State procurement of recycled products
<input type="checkbox"/> Tax credits for companies that manufacture using recycled material	<input type="checkbox"/> Tax credits for companies that manufacture using recycled material
<input type="checkbox"/> Tax exemptions for purchase of recycling equipment or facilities	<input type="checkbox"/> Tax exemptions for purchase of recycling equipment or facilities
<input type="checkbox"/> Low-interest or state guaranteed loans for use of recycled material or R&D	<input type="checkbox"/> Low-interest or state guaranteed loans for use of recycled material or R&D
<input type="checkbox"/> Grants for use of recycled material, R&D or purchase of recycling equipment	<input type="checkbox"/> Grants for use of recycled material, R&D or purchase of recycling equipment
<input type="checkbox"/> Recycling markets program in the state's trade and economic development agency	<input type="checkbox"/> Recycling markets program in the state's trade and economic development agency
<input type="checkbox"/> Recycling markets council or task force	<input type="checkbox"/> Recycling markets council or task force
<input type="checkbox"/> Recycled content laws, other industry responsibility laws	<input type="checkbox"/> Recycled content laws, other industry responsibility laws
<input type="checkbox"/> Advance Disposal Fees	<input type="checkbox"/> Advance Disposal Fees
<input type="checkbox"/> Deposit laws	<input type="checkbox"/> Deposit laws
<input type="checkbox"/> Rebate programs to offset recycling business costs	<input type="checkbox"/> Rebate programs to offset recycling business costs
<input type="checkbox"/> Cooperative marketing program	<input type="checkbox"/> Cooperative marketing program
<input type="checkbox"/> Other (please describe below)	<input type="checkbox"/> Other (please describe below)

"Effective" means increased use of recycled materials in manufacturing products

Comments \_\_\_\_\_

3. Record or estimate the number of times the following has occurred within the last five years:

<input type="checkbox"/> New facility that uses recycled materials in manufacturing has been built in the state
<input type="checkbox"/> Company has committed to building a new recycled materials manufacturing plant or expanding its existing use of recycled materials
<input type="checkbox"/> Existing facility has added new equipment or ability to use recycled materials for the first time
<input type="checkbox"/> Out-of-state facility has made commitment to purchase recycled materials collected in your state

## General Information

Name: _____	Affiliation: _____
Address: _____	Phone: (     )     -----
Fax: (     )     -----	E-Mail: _____ (Eco-net only)

- Will you participate in our survey project? No \_\_\_\_\_ Yes \_\_\_\_\_  
If yes, please respond to the following questionnaire.
- Would you like to receive periodic updates on the status of this project? No \_\_\_\_\_ Yes \_\_\_\_\_ (preference) Mail \_\_\_\_\_ Fax \_\_\_\_\_
- Would you be willing to review drafts of this project? No \_\_\_\_\_ Yes \_\_\_\_\_

## Recycled Content Law Questions

Please answer questions with which your office has experience.

For each recycled content law implemented through your office, please answer the following:

1. What product(s) is/are covered under this law? \_\_\_\_\_

2. Can you attribute an increase in recycling materials as a result of this law? Yes \_\_\_\_\_ No \_\_\_\_\_ If yes, can you provide estimates of:

(a) Amount of material, _____ tons per year.	(b) Amount of material as a percent of total msw, weight _____ %
(c) Amount of materials as a percentage of total msw, volume _____ %	(d) Amount of materials as a percentage of materials collected in municipal recycling programs _____ %

Comments \_\_\_\_\_

3. What do you consider to be the most important benefits of this law? \_\_\_\_\_

4. Please provide any numeric estimates of the economic impacts of this law on the public sector:

(a) Administrative costs to the state to implement \$ _____ per year	(b) How many staff are required to implement law _____
(c) Employment impacts (jobs created/lost) _____	(d) Cost per/year avoided/incurred costs _____

5. Recognizing that cause/effect relationships are difficult to draw, can you make any general observations about the law's impact on: (a) markets for recycled materials? \_\_\_\_\_

(b) materials collection efforts? \_\_\_\_\_

Comments \_\_\_\_\_

6. In your judgment, what percentage of affected businesses have had the following responses to the recycled content laws?

_____ % Full cooperation with the law; responsive to state requests; companies have said they will comply
_____ % Grudging cooperation; slow to respond; complaints
_____ % Passive non-cooperation; non-responsive
_____ % Active non-cooperation and purposeful failure to respond to state requests
_____ % Threatened to take legal or legislative action against law
_____ % Took legal or legislative action against the law

Comments \_\_\_\_\_

7. If the law is now in effect, give percentage of affected businesses in **compliance** with the law: \_\_\_\_\_ % of affected businesses.

Estimate the number of businesses affected by the law \_\_\_\_\_ businesses.

8. List actions, if any, taken by the state in response to **noncompliance**: \_\_\_\_\_

9. Describe all **legal challenges** to the law, including the name and address of each challenger, and, in brief, the reasons for the challenge:

(In lieu of answer, attach documentation) \_\_\_\_\_

10. Describe all **administrative or legislative challenges** to the law, including the name and address of each challenger and, in brief, the reasons for the challenge: (In lieu of answer, attach documentation) \_\_\_\_\_

11. Check the ranking that best applies to passage, implementation, and enforcement of the law.

Ranking	Ease of Passage	Ease of Implementation	Ease of Enforcement
Easy			
Difficult			
Very Difficult			
Impossible			

Comments \_\_\_\_\_

12. Recognizing that cause/effect relations are difficult to draw, can you attribute any of the following to this law:

Increased use of recycled content in manufacturing the affected product	Yes ___ No ___ Don't Know ___
Industry promises to use increased recycled content in manufacturing the affected product	Yes ___ No ___ Don't Know ___
Increased industry investment in recycling equipment, plants, recycled material as feedstock, or other investment	Yes ___ No ___ Don't Know ___

Comments \_\_\_\_\_

13. Check any of the following changes or new laws that you would recommend:

<input type="checkbox"/> Change the content standards and/or definitions in the law. (e.g., percentage content required; compliance date; other)
<input type="checkbox"/> Change reporting or certification required by the law.
<input type="checkbox"/> Change enforcement provisions.
<input type="checkbox"/> Change the companies that the law would apply to.
<input type="checkbox"/> New laws covering other materials.
<input type="checkbox"/> Other types of industry responsibility laws.

Describe the changes you would favor \_\_\_\_\_

14. What exemptions from the law are available. \_\_\_\_\_

Have exemptions been used? \_\_\_\_\_

Comments \_\_\_\_\_

## **APPENDIX C: PRIVATE SECTOR DEMAND/SUPPLY POLICY PROPOSALS**

### **Material-specific utilization rates.**

Would require manufacturers and importers to ensure that a designated percentage of the material used in their packaging or product is reused or recycled. Manufacturers may recover the materials themselves, or demonstrate that the materials are being recovered by someone else.

### **Manufacturers responsibility.**

Based on the concept that the manufacturer and consumer of a specific product or package should pay for the item's disposal and/or recycling. Example: German packaging law, which requires an 80% packaging recycling rate by 1995; requires stores to take back packaging; and establishes deposits on packaging. To avoid the deposits and take-backs, industry has paid for a collection infrastructure and is reducing unnecessary packaging.

### **Shared responsibility/packaging stewardship.**

Manufacturers and consumer product companies are responsible for processing and marketing recyclable materials and underwriting additional collection costs. Waste generators are responsible for source separating designated recyclables from the waste stream and financing local government collection programs. Example: Province of Ontario, Canada, approach where responsibility for packaging is shared by producers and users of packaging. Producers must establish a funding organization to operate a network of recovery facilities and underwrite collection costs. Local governments must collect and deliver materials to the recovery facilities, which are funded by packaging fees.

### **Virgin materials tax.**

Impose a tax on manufacturers based upon the amount of virgin materials used to make their product or packaging, either on the virgin content of packaging and paper products or on the materials at the point of extraction and processing.

### **National secondary materials utilization trust fund.**

Proposal to establish a trust fund based on a "materials use charge" on virgin raw materials companies use to package their products. Domestic manufacturers using recovered materials would receive a rebate from the trust fund based on their level of utilization and unsupported costs of recycling the material, as calculated by trust fund administrators. A national utilization rate would be set for each material. Once the rate is achieved, the material would no longer regulated under the trust fund.

### **Advance disposal fees.**

See *Appendix D*.

### **Tradeable recycling credits.**

See *Chapter 4*.

### **Container deposit systems.**

Plastic recycling is largely a result of the beverage container deposit laws in 10 states.<sup>165</sup>

### **Refillable containers.**

Germany requires beverage containers to be refillable at 90% for beer, mineral water; 80% for carbonated beverages; 35% for fruit drinks; and 50% for wines.

### **Labeling laws.**

Labeling laws can identify "green" products and guard against misleading "greenscams." Countries with labeling systems: Germany, Japan and Canada. States with labeling laws include Minnesota, California, Rhode Island, Wisconsin, and Illinois.

Other policy options include packaging bans, landfill bans, and user fees.

Sources: Recycling Advisory Council Fact Sheet: Market Structure Policy Options; Frank Sudol, *German and Canadian Waste Reduction Legislation - Is It the Answer for the United States?*, October 19, 1993



## APPENDIX D: FLORIDA ADVANCE DISPOSAL FEE

In 1988 Florida required a one-cent, refundable deposit on all cans, bottles, jars and beverage containers, scheduled to take effect October 1, 1992. The law was passed in lieu of a Bottle Bill and was intended to increase recycling rates, but questions were raised whether the one-cent deposit would result in significant returns for the refund.<sup>166</sup> Since the state was to oversee the redemption system, administrative costs and auditing costs, estimated at \$10 to \$15 million per year, were equal to the estimates of the amount the program would raise. The realization that all of the fees assessed would go to administrative costs was "the death knell" for the redemption portion of the law. In addition, the lack of markets meant many recyclers would not accept many of the targeted materials. High redemption may have meant more collection without markets.

In 1991, an ADF Advisory Committee recommended changes to the law. Due to the contention surrounding much of the law, the Legislature delayed the fee until July 1, 1993, and then again until October 1, 1993. During 1993, the Legislature revised the law as follows.

- The redemption process was eliminated.
- The point of fee collection was moved to the wholesale level. The state believes the smaller number of wholesalers — 52,000 versus 306,000 retailers — will make collection and enforcement easier.
- Fee proceeds were reallocated. Of the estimated \$23 million to be collected in the first full year of implementation, funds remaining after implementation costs are allocated 30 percent to local government grants; 12 percent to recycling market development; and the remainder to surface water and sewage treatment programs.
- Glass containers can qualify for exemption if they (1) meet recycled content goals of 35 percent beginning July 1, 1994 and 50 percent beginning January 1, 1998, or (2) remove an equivalent amount of material from Florida's waste stream and recycle it into another product.
- Plastic containers can qualify for exemption if they (1) are made with 25 percent recycled content or (2) remove an equivalent amount of material from Florida's waste stream and recycle it into another product. Under the "take back option," if a company needs 2500 tons of recycled feedstock to meet the recycled content standard for its containers sold in Florida, it could meet the law by using 25 percent recycled content in the aggregate over a 12-month

period, or by demonstrating that 2500 tons of the material is used to manufacture another product.

- Paper containers or plastic-coated paper containers can apply for exemption by showing they will be made with 30 percent recycled content by July 1, 1994, and 40 percent recycled content by January 1, 1997. In the alternative, they can show that all paper and paper products meet the following recovery rates: 30 percent by July 1, 1994; 40 percent by July 1, 1995; and 50 percent by July 1, 2002.
- The exemptions are good for two years, unless withdrawn or canceled. The law is flexible on who can apply for exemption: the container manufacturer, the product manufacturer or the distributor. A number of companies have told the DEP they can meet the standards and will be applying for exemptions in 1994.

Collection of the one cent per container ADF began on October 1, 1993. On January 1, 1995, the ADF increases to 2 cents per container. In January 1993, the Department of Environmental Protection estimated that the total number of containers potentially subject to the fee and sold in Florida each year is 11,908,998,000. Of those, 4,644,895,000 are subject to the fee (aluminum and steel containers have qualified for exemption and are not included in that number).

The Department of Revenue is responsible for collecting the fees. It has been allocated 105 staff positions and 2.5 million dollars a year for administering the fee. The Department of Environmental Protection will determine annual recycling rates, determine whether containers should be exempt, review exemption certificates, and check compliance with four staff at an annual cost of approximately \$150,000.

According to Russ Martin with the Florida DEP, the biggest challenge was defining what containers are subject to the fee. Another issue was whether HDPE base cups on PET soft drink bottles could count toward recycled content goals. One company claimed that the base cup is 30 percent of the weight of the bottle, and base cups made with 100 percent recycled content should be counted to meet the 25 percent content standard. Florida did not allow this to count, because the base cup is not the "main body" of the container. In addition, it is better to eliminate the base cup, making the container easier to recycle as well as reducing the container's weight. Another issue that has been raised is the fact that flexible plastic tubes and bags are not subject to the ADF; and whether this is equitable.

## **APPENDIX E: RESOURCES FOR RECYCLING MARKET DEVELOPMENT POLICIES**

### **Recycled Content Laws**

Michael Alexander  
Council of State Governments  
139 Main Street #401  
Brattleboro, Vermont 05301

#### **California**

Rick Mueller, newsprint law  
Jerry Hart, plastic trash bag law  
California Integrated Waste Management Board  
8800 Cal Center Drive  
Sacramento, California 95826

Dale Will, glass and fiberglass laws  
California Department of Conservation  
1025 P St. Room 300  
Sacramento, California 95814

#### **Connecticut**

Judy Belaval  
Connecticut Department of Waste Management  
165 Capitol Ave.  
Hartford, Connecticut 06106

#### **Illinois**

John Hendren  
Illinois Department of Energy and Natural Resources  
325 West Adams, Rm. 300  
Springfield, Illinois 62702

#### **Maryland**

Glenn Dodson  
Division of Recycling  
2500 Broening Way  
Baltimore, Maryland 21244

#### **Missouri**

Laura Mather  
Department of Natural Resources  
P.O. Box 176  
Jefferson City, Missouri 65102

#### **North Carolina**

Scott Moaw  
North Carolina Office of Waste Reduction  
3825 Barrett Drive  
Raleigh, North Carolina 27609

#### **Oregon**

Bill Bree  
Oregon Department of Environmental Quality  
811 SW Sixth Ave.  
Portland, Oregon 97204

#### **Rhode Island**

Mardy Davey  
Department of Environmental Management  
83 Park St., 5th Floor  
Providence, Rhode Island 02903

#### **Wisconsin**

Richard Braddock  
Wisconsin Department of Natural Resources  
P.O. Box 7921, SW/3  
Madison, Wisconsin 53707-7921

#### **Florida ADF**

Russ Martin  
Department of Environmental Protection  
2600 Blair Stone Road  
Tallahassee, Florida 32399-2400

### **Labeling laws**

Cathy Moeger  
Minnesota Pollution Control Agency  
520 Lafayette Road  
St. Paul, Minnesota 55155

### **Government Procurement**

Conservatree Information Services  
10 Lombard St., Suite 250  
San Francisco, California 94111

Californians Against Waste Foundation  
926 J Street #606  
Sacramento, California 95814

Frank Sudol, Manager  
Newark Division of Engineering  
920 Broad Street, Room 410  
Newark, New Jersey 07102

### **State trade/economic development programs**

Randal Coburn  
New York Department of Economic Development  
Office of Recycling Market Development  
One Commerce Plaza, Room 950  
Albany, NY 12245

David Dougherty  
Clean Washington Center  
2001 6th Avenue, Suite 2700  
Seattle, Washington 98121

### **Cooperative Marketing**

Gary Olson, Southwest Public Recycling Association  
P.O. Box 27210  
Tucson, Arizona 85726

### **Buy Recycled Programs**

Richard Denison  
Environmental Defense Fund  
1875 Connecticut Ave. NW #1016  
Washington, D.C. 20009

Phil Bailey  
Buy Recycled Business Alliance  
National Recycling Coalition  
1101 30th St. NW, Suite 305  
Washington D.C. 20007

### **State Recycling Market Development Zones**

Martha Diaz and Nadine Ford  
California Integrated Waste Management Board  
8800 Cal Center Drive  
Sacramento, California 95826

### **State Financial Incentives**

Tom Martin, Institute for Local Self-Reliance  
2425 18th St. NW  
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Jeff Tryens  
Center for Policy Alternatives  
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Joe Shemek  
California Integrated Waste Management Board  
8800 Cal Center Drive  
Sacramento, California 95826

### **Chicago Board of Trade Pilot Project**

National Recycling Coalition (address above)

For additional state and regional contacts, consult the National Recycling Coalition's 1992 Market Development Directory.

# Endnotes

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144. The Institute for Local Self-Reliance is a resource for information on state-of-the-art use of recycled content.
145. See note 19.
146. *Draft Report #1, Emerging Market Development Options*, pp. 49-51, citing *Emerging Issues: Global Agreements*.
147. Personal communication with Linda Hayes, 1993.
148. Oregon statewide initiative Ballot Measure 6, 1990; Massachusetts statewide initiative Question 3, 1992; Florida advance disposal fee, 1988 and 1993.
149. See note 139.

150. See, e.g., the following articles discussing recycled content use in packaging: *Resource Recycling*, Plastics Recycling Supplement, May 1991, pp. 94-95; *Resource Recycling's Plastics Recycling Update*, June 1993, pp. 7-8; *Resource Recycling*, June 1991, pp. 27-29; *Resource Recycling*, January 1991, pp. 28-29. The Institute for Local Self-Reliance also has information on state-of-the-art use of recycled content.
151. Presentations by representatives of the Grocery Manufacturers of America, Northwest Food Processors Association, etc., to Oregon Legislature in 1993; personal communication with Bendan Blue, September 1993.
152. *Rigid Plastic Container Exemption Report*, Oregon DEQ, December 1992.
153. *Waste Age*, "Recycling in the States: 1992 Update," March 1993.
154. See, e.g., *State Recycling Market Development Programs and Laws*, a matrix compiled by the CIWMB, April 30, 1993; Richard Schrader, *Creating Markets: The Next Step for State Recycling Programs*, Center for Policy Alternatives, January 1991.
155. NELC Research, 1993.
156. Lewis and Weltman, *Forty Ways to Make Government Purchasing Green* (Center for Study of Responsive Law, Washington D.C., 1992), p. 1.
157. *Ibid.* p. 14. See also "Assert Your Purchasing Power: Buy Recycled!", a paper by Frank Sudol, City of Newark, New Jersey, September 21, 1993.
158. U.S. General Accounting Office, *Federal Program to Buy Products with Recovered Materials Proceeds Slowly*, May 1993, pp. 3, 14 (GAO/RCED-95-58).
159. Institute for Local Self-Reliance, November 1993.
160. Lin Lindert, *Action Plan Glass Staff Report*, CIWMB, June 1, 1993, p. 13; *Developing Recycling Markets and Industries*, National Conference of State Legislatures, July 1990, p. 14, citing report by the Illinois Department of Natural Resources; Susan Kinsella, October 6, 1993.
161. NELC Research, 1993.
162. Personal communication with Sharon Edgar, Waste Management Division, Michigan Department of Natural Resources, March 25, 1993.
163. Personal communication, Susan Kinsella, October 6, 1993.
164. Staff Analysis, CIWMB, Market Development Committee, July 14, 1993; Materials for the Future Foundation, *Financing Small Recovered Material Enterprises in California*, March 1993.
165. U.S. General Accounting Office, *Solid Waste, Trade-offs Involved in Beverage Container Deposit Legislation*, November 1990, p. 35 (GAO/RCED-91-25).
166. Appendix D information from personal communication with Russ Martin, Florida Department of Environmental Protection, July 16, September 20, 1993.