

Achieving California's Recycling Efficiency in New Jersey

A Comparative Policy and Implementation Analysis

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Overview

New Jersey has one of the longest-running mandatory recycling programs in the country, yet significant gaps remain between legislative intent and on-the-ground outcomes. Meanwhile, California has developed a recycling system regarded as a national benchmark, combining financial incentives, strong producer accountability, technological investment, and well-coordinated public engagement.

This white paper compares the two states' approaches across four dimensions (policy and regulation, economic incentives, infrastructure, and public engagement) and identifies the most actionable opportunities for New Jersey to close the gap.

The Policy Gap: Mandates Without Teeth

Both states have mandatory recycling laws, but the mechanics differ significantly. California's legislative framework pairs ambitious targets with enforceable mechanisms and clear accountability. New Jersey's system, though pioneering at its inception, has struggled to keep pace.

Legislative Frameworks

California's AB 341 and SB 1383 mandate commercial recycling and organic waste diversion respectively, while its Beverage Container Recycling Act (AB2020) established a deposit-refund system – the California Redemption Value, or CRV – that creates direct financial motivation for consumers (Berck et al. 2021). These laws also require the formation of Producer Responsibility Organizations: third-party entities funded by covered companies that actually perform recycling work on those companies' behalf.

New Jersey's Statewide Mandatory Source Separation and Recycling Act (1987) set a strong foundation, including a 50% municipal solid waste recycling target. However, enforcement has been inconsistent, program administration is fragmented across municipalities, and the state has not adopted a comparable deposit-refund system. Recent EPR legislation in New Jersey has focused on recycled content mandates for packaging, rather than the operational accountability structures California has built (Howell 2023).

Extended Producer Responsibility

California's EPR laws shift meaningful responsibility and cost to producers for the end-of-life management of their products. New Jersey has moved in this direction, but its approach

remains less comprehensive and, critically, less enforceable. Without binding producer mandates and a clear compliance infrastructure, the burden of recycling falls disproportionately on local governments, which vary widely in capacity and resources (Otegbeye et al. 2009).

The Economics of Recycling Behavior

Financial incentives are among the most reliable drivers of recycling behavior, and the contrast between the two states is stark.

California's CRV system offers consumers a direct cash return on eligible beverage containers. The result is consistently high recovery rates for aluminum, glass, and PET plastics. Survey research on the CRV program found that only 8% of Californians reported discarding eligible containers in the trash, with the remainder using curbside recycling or returning containers to redemption centers, and that CRV redemption is disproportionately used by lower-income households, suggesting the program also delivers meaningful equity benefits (Berck et al. 2021). The program is largely self-sustaining: deposits collected at retail flow back to consumers who return containers, funding a network of redemption centers and processors.

The same research also offers a useful caution for policymakers: the study found that simply raising the deposit amount would not dramatically increase recycling rates, since the majority of containers are already diverted. The more consequential design variables are convenience (e.g., proximity of redemption centers, hours of operation, and wait times) rather than the deposit level itself. This is a relevant design consideration for any New Jersey bottle bill proposal.

New Jersey has no statewide deposit-refund program. Resistance from the food and beverage retail industry, primarily around concerns about the cost and logistics of collection, has blocked similar legislation for decades (Howell 2023). The state instead relies on curbside collection and regulatory mandates, which generate lower participation rates and higher contamination. The absence of economic motivation for individuals is a structural disadvantage that education campaigns and enforcement alone cannot fully compensate for (Otegbeye et al. 2009).

Infrastructure: Technology and Facilities

Materials Recovery Facilities

California has made sustained investments in automated Materials Recovery Facilities (MRFs) that employ optical sorters, robotics, and AI-driven separation systems. These technologies reduce contamination, increase throughput, and enable recovery of a broader range of materials with higher purity. The result is a more efficient pipeline from collection to end-user (Chester, Martin, and Sathaye 2008).

New Jersey's MRF infrastructure is more fragmented and, in many facilities, older. Siting and permitting new or expanded waste management facilities in the state is notoriously difficult, limiting the ability to upgrade capacity even when funding exists (Howell 2023). The practical

consequence is higher contamination rates and greater material loss, undermining recycling outcomes despite strong stated goals (Otegbeye et al. 2009).

Composting and Organics

Organic waste (food scraps and yard material) represents a large share of the municipal waste stream and a major source of landfill methane. California's AB 1826 and SB 1383 have driven significant investment in composting facilities and anaerobic digesters, creating a mature organics diversion infrastructure (Goldstein 2014).

New Jersey has set organics recycling goals but lacks the facility network to meet them. Efforts to pass organic waste legislation in New Jersey have faced business opposition, and without adequate composting capacity, much of the state's compostable material continues to go to landfill (Youngster 2021).

Public Engagement: Communication and Consistency

Recycling behavior is not just a regulatory compliance issue, it is also a behavioral one. California's outreach infrastructure treats public communication as a core program element, not an afterthought. Its Mandatory Commercial Recycling program includes technical assistance and education alongside enforcement (Rovida 2023). Municipal zero-waste initiatives connect state goals to community-level action (Chester, Martin, and Sathaye 2008).

New Jersey's decentralized system creates uneven communication. Rules vary by municipality, which leads to confusion among residents, and particularly those who move between towns. Public skepticism about whether recyclables are actually processed (rather than landfilled) is a documented barrier to participation, and the fragmented messaging environment does little to build the trust needed to overcome it (Otegbeye et al. 2009).

This dynamic is consistent with broader research on recycling governance: studies of EU member states have found that the quality of institutions and public trust in those institutions are significant predictors of recycling performance, and that when residents distrust the system managing their recyclables, participation rates suffer accordingly (Pronti and Zoboli 2024). Consistent, statewide communication (e.g., explaining what happens to materials once collected and demonstrating visible environmental impact) is essential to closing this gap.

Key Findings

The performance gap between California and New Jersey is not primarily a function of resident motivation or environmental awareness. It is a product of structural differences in how recycling systems are designed, funded, and enforced. Specifically:

- Financial incentives reliably outperform mandates alone. California's deposit-refund system creates market-driven motivation that regulatory requirements cannot replicate...though program design details, particularly redemption center convenience, matter as much as the deposit amount itself (Berck et al. 2021).

- Producer accountability needs operational infrastructure, not just content mandates. EPR laws work when they shift costs and responsibilities to producers in ways that create ongoing compliance incentives (Howell 2023).
- Technology investment is a prerequisite for efficiency. Advanced MRFs and composting infrastructure are not optional enhancements, but rather they determine whether collected material is actually recovered (Chester, Martin, and Sathaye 2008).
- Consistency and institutional trust matter as much as ambition. Fragmented municipal programs undermine even well-designed statewide policies by creating confusion, reducing public trust in the system, and impeding enforcement (Otegbeye et al. 2009; Pronti and Zoboli 2024).

Recommendations for New Jersey

- Adopt a statewide deposit-refund system for beverage containers, modeled on the CRV, with deliberate attention to redemption center accessibility: location, operating hours, and wait times are the factors that most influence participation (Berck et al. 2021).
- Strengthen EPR legislation to include operational accountability mechanisms, like Producer Responsibility Organizations or their equivalents, rather than focusing only on recycled content targets (Howell 2023).
- Prioritize investment in MRF modernization and organics infrastructure, and address permitting barriers that currently impede facility development (Chester, Martin, and Sathaye 2008).
- Standardize recycling program rules and communication across municipalities, and fund a coordinated statewide public education effort that builds trust in the system and demonstrates visible program outcomes (Otegbeye et al. 2009).
- Expand economic support for municipalities, particularly those with limited capacity, to implement and maintain consistent recycling programs.

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