

CalRecycle 75 Percent Recycling Initiative Workshop  
Response to the Planning Document  
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The Bioenergy Producers Association is a coalition of private and public entities dedicated to the development and commercialization of environmentally preferable industries that produce renewable sources of power, advanced biofuels and chemicals from agricultural, forestry and urban biomass, and plastic wastes. Our membership includes biobased technology providers, electric utilities, and waste management companies.

We have reviewed the CalRecycle draft report, *California's New Goal: 75% Recycling*, dated May 9, 2012, and offer comments in two principal areas. First, we have concerns about the fundamental premise of the Report, namely how "recycling" is being defined and measured. Second, we are concerned that the Report fails to address significant "new and emerging trends in resource management" for materials diverted from disposal, as required by AB 341.

#### What Does 75% Recycling Mean?

The Report begins with the question of how to define the 75% goal. It's proposed that recommendations to the Legislature be based on an "intellectually honest definition of recycling." The Report cautions that it is important to distinguish between "recycling" and "diversion." We couldn't agree more.

The statutory definition (PRC 40180) states, in part, that "recycling" means:

*"the process of collecting, sorting, cleansing, treating, and reconstituting materials that would otherwise become solid waste, and returning them to the economic mainstream in the form of raw material for new, reused, or reconstituted products which meet the quality standards necessary to be used in the marketplace."*

The Report acknowledges, however, that since the passage of AB 939 the concept of recycling has been more liberally interpreted through regulation to mean "landfill diversion" or, more recently, "disposal reduction." In other words, compliance measurements that determine a jurisdiction's progress toward the 25% and 50% goals have placed primary emphasis on quantifying the amount of materials that have been *redirected* from disposal, as opposed to quantifying the actual rates of *reuse* or *reconstitution* of these materials into new products.

Notably, the Report, having made the critical distinction between the statutory and regulatory definitions of recycling, then goes on to treat them as one and the same--i.e., for purposes of measuring progress toward the AB 341 75% goal, reliance will be placed solely on the tracking of *disposal-related* activities.

The Report also proposes to "raise the bar" relative to what qualifies as recycling by disqualifying a number of activities currently classified as diversion, such as ADC use at landfills. These regulatory changes, along with additional proposed changes in BASE per-capita generation rates, result in a recalculation of the 2010 California "recycling" rate from 65% down to 49%. The net effect, the Report notes, is to increase the AB 341 disposal reduction target from 9 million tons to an additional 22 million tons by 2020.

There are elements critical to an "intellectually honest" definition of recycling that seem to be missing here, and about which the Legislature needs to be informed. First and foremost is that CalRecycle has no way to document what percentage of materials "redirected" from California landfills are actually being managed in a manner that conforms to the statutory definition of "recycling" or that complies with the existing waste management hierarchy.

The agency's own life cycle studies have estimated that 75% of recovered paper and plastics and 25% of metals are exported to Asia, and an additional 50% of metals to Mexico. Once there, there is no tracking system for verifying that these materials are indeed utilized for product remanufacture, or that the prevailing environmental standards for foreign industry provide the life-cycle benefits on which the concept of "highest and best use" and the hierarchy itself are based.

In lieu of this information, it is impossible for CalRecycle to provide a true evaluation of current programs and their effectiveness, as required in Section 41780.02 (b)(3), unless such effectiveness is judged solely by the criterion that a large portion of recovered materials are being redirected from disposal to parts and fates unknown. Similarly, the Report's proposed strategies for accomplishment of the 75% goal largely represent an expansion of existing programs, which, if successful, would result in an additional 22 million "redirected" tons of recovered materials. The central question is: redirected to where, and to what end?

The BioEnergy Producers Association is not unsympathetic to the challenges CalRecycle faces in both promoting and documenting progress toward goals for the beneficial use of discarded materials. However, a report to the Legislature is an opportunity to highlight these challenges and potential remedies. To this end, we recommend that the Report include the following:

- A clear statement that with regard to the State's 50% mandate and 75% goal, what is being measured is disposal reduction and *not* recycling. This distinction goes beyond mere semantics. CalRecycle does not have the tools necessary to verify the extent to which recovered materials sold to export markets are utilized for the remanufacture of new products. Nor can CalRecycle verify that the environmental performance of foreign industries meets domestic standards and

yields the life-cycle benefits assumed for recycling by AB 939's waste management hierarchy. Such tools are needed.

- Pursuant to AB 341 Section 41780.02 (b)(5), recommend legislative changes that facilitate the tracking of exported recovered materials for purposes of verifying their end uses and, as applicable, the conditions of their product remanufacture.
- Pursuant to Sections 41780.02 (b) (5) and (6), recommend legislative and regulatory changes that provide specific incentives for the siting and development of in-State industrial facilities capable of processing recovered materials into marketable products in strict compliance with federal and state environmental standards.

### New and Emerging Trends

The BioEnergy Producers Association supports the expansion of source reduction, recycling and composting programs proposed by the Report. We strongly question, however, whether the projected challenge to successfully "redirect" an additional 22 million tons of landfill-bound solid waste by 2020 can be feasibly accomplished by these traditional strategies alone.

AB 341 Section 41780.02 (b)(1) requires the Report to review and update information on the development of markets for recovered materials "with an emphasis on new and emerging trends in resource management." We therefore find it curious that the Report omits any reference to new energy and chemical product markets for biomass and plastic waste feedstocks, nor does it cite the current efforts of other states to facilitate the siting of these advanced processing facilities. These alternatives, collectively referred to as "conversion technologies," have the potential to divert 80%-90% of disposal-bound materials into high-value products that are manufactured in California under California environmental standards.

CalRecycle, along with its predecessor, the CIWMB, is no stranger to conversion technologies. These alternatives have, in fact, been the subject of dialogue for over a decade. In 2002, AB 2770 authorized an appropriation of \$1.5 Million to complete studies on "new emerging conversion technologies." The findings and conclusions of these studies, issued in a March 2005 CIWMB draft report, were significant:

- Based on peer-reviewed life-cycle analyses, conversion technologies are superior to landfilling, transformation, composting, *and* recycling with regard to potential for energy production, NOx emissions, and carbon emissions.
- Conversion technologies will have a positive impact on recycling due to the additional recovery of recyclables such as glass, metals, and some plastics from facility feedstock pre-processing.
- Existing statutory definitions need to be corrected ("gasification") or amended ("transformation") and a new definition for "conversion technologies" added.
- Some level of "diversion credit" for conversion technologies is appropriate.

Unfortunately, the bulk of these findings and conclusions were omitted in the final AB 2770 report to the Legislature due to objections that the studies had gone beyond the

original scope of work in comparing these technologies to traditional recycling and composting.

Fortunately, exclusion of conversion technologies from consideration as a viable strategy for accomplishment of the 75% and higher goals is not an issue for the AB 341 Report to the Legislature. Section 41780.02 (b)(7) specifically authorizes CalRecycle to include in the Report "Any other information or recommendations the department deems pertinent." We believe these new technologies to be pertinent to the discussion of strategies to achieve AB 341 goals precisely because they substantially expand the potential to convert a major portion of the waste stream with low or no scrap value into environmentally beneficial products.

Conversion technology facilities are currently under construction in several other states. Our "green" neighbor to the north, the State of Oregon, has recently released a stakeholder consensus draft regulatory framework for conversion technology siting. A similar framework is long overdue for California. It should begin with an "intellectually honest" definition of recycling--one that recognizes the legitimacy of reuse and reconstitution of recovered materials at the *molecular* level to yield products that help California not only render landfills obsolete, but also advance the broader goals of renewable energy, greenhouse gas reduction, and low carbon fuels.