

Jim Lane | June 13, 2014

Conversion technology regulation in California – A decade of bureaucratic intransigence

By James L. Stewart, Chairman of the Board, BioEnergy Producers Association

It has now been ten years since the BioEnergy Producers Association was founded to pursue a constructive permitting and regulatory environment that would justify biobased technology providers in risking their time and financial resources to pursue projects in the State of California.

During the past decade, this Association has led four major legislative campaigns while advocating for regulatory change that would remove the statutory and regulatory roadblocks that inhibit the use of conversion technologies (“CTs”) to process MSW or residual solid waste. It has supported other legislative efforts, principally those of Los Angeles County, dedicated to the same goals.

And what our industry has encountered—from the state’s legislative bureaucracy and the current Brown administration, as well—could only be described as a decade of intransigence. Through this entire time, state government has not acted on a single stakeholder initiative that would encourage the development of conversion technologies.

Meanwhile, during the past ten years, California has placed in landfills approximately 340 million tons of post-recycled solid waste, one of the state’s most readily available and environmentally appropriate feedstocks for the production of biofuels, biobased chemicals and renewable power.

Due to the continuing statutory and regulatory uncertainty, companies seeking to convert municipal waste to renewable products or energy have essentially turned their backs on the state. Over the past decade California-based companies have either located elsewhere, or moved out of the state, approximately \$1 billion in commercial plant

construction. Rather than pursuing conversion technology projects, the waste industry has turned its attention to anaerobic digestion and landfill gas projects, which are favored by the state's bureaucracy.

In 2011, California's Legislature enacted AB 341, which established a policy goal calling for the state to source reduce, recycle or compost 75% of its solid waste by 2020. The legislation did not even mention CTs as one of the "new and emerging trends in resource management." Indeed, without assistance from conversion technologies, many industry professionals believe it will be impossible for California to achieve this goal. And even if it does, it is estimated that the state will still be placing approximately 25 million tons of post-recycled waste in landfills in 2020, only about five million tons less than it did in 2013. The dream of achieving zero waste to landfills under the state's current recycling practices appears to dwell in fantasy.

In March of this year, CalRecycle finally announced its "first workshop in a series in response to longstanding concerns regarding the multiple barriers to siting waste to energy facilities." It acknowledged that, "As part of reaching the 75% recycling goal through the recovery of more recyclables from the waste stream, and ensuring that 100% of material generated in California goes to its highest and best use, new policy approaches are needed to develop a pathway for the recovery of energy, fuels and chemicals from solid waste residuals that cannot be recycled."

However, one week before the scheduled April 29th meeting, CalRecycle cancelled the workshop, claiming that the background materials for the meeting had not yet been finalized. If, by now, the agency does not clearly understand what actions need to be taken, here are just a few of them:

- Amend or remove from statute the scientifically inaccurate definition of gasification, which establishes an emissions standard (i.e., zero emissions) that is impossible for any biorefinery, let alone any petroleum refinery or power plant, to meet.
- Further, this definition creates uncertainty as to whether municipal waste-to-power projects qualify for the state's RPS. (Based upon a favorable CalRecycle ruling on this issue, Plasco Energy, after competitive bidding, made a substantial effort to permit a waste gasification facility in the Salinas Valley, only to have CalRecycle summarily rescind its ruling, forcing Plasco to withdraw from the project, and from the state, at a loss estimated to be in the millions of dollars.)

- Establish a clear permitting pathway for conversion technologies based upon standards of performance, subject to environmental standards consistent with all other solid waste processing or refinery operations in the state, rather than attempting to define, categorize and regulate these technologies by type.
- Pursue a consistent regulatory policy that enables conversion technologies that dispose of solid waste to qualify for landfill reduction credit, as well as the state's RPS. (Without the ability to obtain landfill reduction credits, public jurisdictions have no incentive to make their waste streams available as feedstocks for CT projects. In fact, in certain circumstances they could face financial penalties.)
- Assure that the implementation of AB 341's goal of 75% recycling addresses the concept of "highest and best use" for recyclables, and that this definition includes the production of biofuels, drop-in fuels, biochemicals and electric power.
- Assert regulatory control over the export of recovered materials. Due to the lack of oversight, it is believed that much of this material is not actually being recycled, and that it could have a more favorable life cycle value as a feedstock for the manufacture of renewable fuels and products here at home. (The agency's own life-cycle studies estimate that 75% of recovered paper and plastics and 25% of the state's metals are exported to Asia, and an additional 50% of its metals go to Mexico. CalRecycle does not even maintain records as to what happens to these materials, and yet they count as recycling in California the moment they leave the docks.)
- Revise the state's integrated waste management hierarchy to include "Alternative Technologies Treatment" or "Energy Recovery" as being preferential to landfilling. Rather than blindly clinging to the concept that recycling is limited to reconstituting paper as paper or bottles as bottles, embrace the 21st century concept of recycling carbon, the platform for an unlimited range of products. Conversion technologies are going to change the face of the waste industry, and how we think about recycling, well before the end of this decade. Even inorganic wastes can now be diverted from landfills. New plasma gasification technologies are able to convert inorganic materials to a slag, from which higher value products like insulation can be produced.
- In short, create a reliable business environment that will support the introduction and secure operation of innovative new science-based waste recovery technologies in a free market economy.

After ten years of employing traditional recycling to reduce the volume of residuals going to landfill, the state still landfilled almost 30 million tons of post-recycled MSW in 2013. The organics in this material contain the energy equivalent of approximately 60 million barrels of crude oil.

If, today, California's bureaucracy were to allow corrective legislation to move forward, it would likely be January 2016 before this legislation could take effect. Allowing time for environmental studies, permitting and construction, we may have to wait until almost 2020 before new technologies addressing alternatives to landfilling will be operating in the state. During that time, another 100 million tons or more of post-recycled waste will have been placed in California's landfills.

However, as the April 29th CalRecycle workshop, if and when it is actually convened, is planned as the "first in a series," it is possible there will be a great deal more talk before there is action. Substantive progress cannot be achieved unless the entire industry weighs in on this process.