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California: On Its Own Again

The earth is entering a new geological epoch called the 'Anthropocene', in which we acknowledge man's significant geological impact on the earth transcending global warming with plastic pollution, overuse of fertilizers, and diesel exhaust. The United States is entering a new political age, electing a climate change denier to make America great again with Big Oil and big lies. California is extending its global warming solutions' leadership from 2020 to 2030 with a focus on methane reduction and renewable natural gas incentives. America is bi-polar with bi-coastal solutions without bi-partisanship. With uncertainty, weak commodity markets and regulatory fatigue, the recycling and composting industry has been blinking... and the sign posts ahead flashing warnings.

Mixed messages and messed-up markets for composting, bioenergy, and recycling prevailed in 2016. Climate change policies setting 2030 goals were a huge winner to deliver market certainty, but Cap-and-Trade was left behind. Food waste diversion policy was placed into law with shared responsibility and self-haul reporting, but enforcement and penalties will stall for years. The forest sector's state of emergency was parlayed into over one million tons per year of wood chips from dead trees to keep 125 MW of bioenergy contracts open while crowding out over one million tons per year of urban biomass. Export markets for recyclables dip another million tons for the fourth year in a row as landfills disposed of over one million tons more per year for the fourth year in a row. The Bottle Bill has kicked the can down the road again and needs major reform as over 400 Recycling Centers have ceased operations. As the bales stack up and the wood chips pile higher, the California recycling rate has dipped to just 47% in 2015; and the 75% by 2020 recycling goal drifts further out of reach.

California is still trying to do it on its own as a proud nation-state to make a dent in global warming while the global markets fail and regulations stymie the very development that is supposed to deliver the solutions to reduce greenhouse gases. This blue state is being red tagged on green technologies. Though it feels like there's a time-out on the compost field and a lull in the recycling market, man must move quicker than geological time to combat climate change.

2016 Top 10 Stories

10 Entering the Anthropocene

Humanity's impact on Earth is now so profound that a new geological epoch – the Anthropocene – needs to be declared, according to an official group of experts who presented the recommendation to the International Geological Congress. On August 29, 2016, the *Working Group on the Anthropocene* voted to formally designate the epoch Anthropocene. The new epoch should begin circa 1950 where the concept includes, but also transcends, the idea of anthropogenic climate change and would likely be defined by the radioactive elements dispersed across the planet by nuclear bomb tests. However, an array of other “signals,” including plastic pollution, black carbon from power stations and diesel exhaust, concrete, fertilizer use, and even the leftover bones resulting from the global proliferation of the domestic chicken, are now under consideration.

9 Donald Trump Denier-in-Chief

The Trump presidency sparks fear and skepticism across the nation among many of the waste and recycling professionals. The President-Elect is a known climate change denier and has appointed a Federal EPA Transition Team that could dismantle the Paris Agreement and the Clean Power Plan. California is a strong nation-state, and with Trump being a states' rights advocate, California should be buffered by much of his environmental antics. The Trump administration will likely continue to support the Renewable Fuel Standard for VP-Elect Pence's corn ethanol, but could give up on Investment Tax Credits for bioenergy facilities. The Trump administration may halt U.S. progress and leadership on international sustainability initiatives; but California can still prevail and show the world the way.

8 SB 32/LCFS

SB 32 is elegant, concise and simple in language and was tied to the passage of AB 197 (Garcia) which provides legislative oversight of CARB. SB 32 authorizes CARB to adopt rules and regulations to achieve the maximum technologically feasible and cost-effective greenhouse gas (GHG) emissions - which shall ensure that statewide GHG emissions are reduced to at least 40% below the statewide GHG emissions limit no later than 2030. The AB 32 Target Scoping Plan Update to 2030 will determine the programs to get there. Playing carbon chess across the board from Big Oil, the Governor was able to leverage Cap-and-Trade revenue allocation and preserve the low carbon fuel standard (LCFS) to get SB 32 back on his desk, while sacrificing Cap-and-Trade for now for possible industry sector caps or a carbon tax later.

7 Renewable Natural Gas

It has been a great year for renewable natural gas (RNG) legislation. It was a Grand Slam on all accords with SB 32, SB 1383, AB 2323 on pipeline incentives and SB 840 on interconnection and pipeline gas. The Industry rallied to complete this play after years of frustration with the PUC. The methane generated by the diversion of organics would be used to produce RNG. SB 1383 requires the CA Energy Commission, in consultation with CARB, shall develop recommendations for the development and use of renewable gas. CEC shall identify cost-effective strategies that are consistent with existing state policies and climate change goals by considering priority end uses of RNG, and adopt policies and incentives to significantly increase the sustainable production and use of renewable gas.

6 Cummins Westport Engine

This is a game changer as the diesel fleet can be replaced by CNG trucks with these new engines that have near zero criteria pollutant emissions, and can run on carbon negative RNG. Cummins Westport's new ISL G Near Zero NOx natural gas engine is the first MidRange engine in North America to receive emission certifications from both the U.S. EPA and California Air Resources Board that meet the 0.02 g/bhp-hr optional Near Zero NOx Emissions standards for refuse and recycling applications. Cummins Westport ISL G NZ exhaust emissions will be 90% lower than the current EPA NOx limit of 0.2 g/bhp-hr and also meet the 2017 EPA greenhouse gas emission requirements. CWI natural gas engines have met the 2010 EPA standard for particulate matter (0.01 g/bhp-hr) since 2001.

5 SB 1383/SLCP

SB 1383 requires CARB to approve and begin implementing the comprehensive strategy to reduce emissions of short-lived climate pollutants (SLCP) to achieve a reduction in methane by 40% by below 2013 levels by 2030. With the methane emission reduction goals, the following targets to reduce the landfill disposal of organics were adopted; (1) A 50% reduction in the level of the statewide disposal of organic waste from the 2014 level by 2020; (2) A 75% reduction in the level of the statewide disposal of organic waste from the 2014 level by 2025. SB 1383 requires CalRecycle, in consultation with CARB, to adopt regulations which achieve the specified targets for reducing organic waste in landfills. SB 1383 would authorize local jurisdictions to charge and collect fees to recover the local jurisdiction's costs incurred in complying with the regulations.

2016 Top 10 Stories

4

California Down-Cycles to 47%

The amount of disposal has increased by over one million tons per year each year since 2012 when AB 341 was passed to mandate commercial and set the statewide recycling goal of a 75% real recycling rate by 2020. The AB 341 recycling rate has tipped under 50% to 47% in 2015. Over 400 Recycling Centers were shuttered in California last year. The Bottle Bill is in need of some real reform. Wood chips are piling up. California will not achieve the 75% recycling goal. The CalRecycle "AB 341 Report to the Legislature" was submitted in August 2015 and was not updated in 2016. The AB 341 Report should have been updated to determine the amount of tip fee increase to actually get to the 75% goal by 2020, or to delay or lower the goal.

3

No Bale Out - Commodities

Falling oil prices, a global economic slowdown, and a strong dollar are hurting pricing. The ISRI Index of commodity pricing has dropped almost 50% since 2011. Without hope of a rebounding futures markets, the recycling industry is forced to seek ratepayer increases or a revamping of the rate methodology. There was no 'Bale Out' or a tip fee increase for funding in 2016 which leaves the industry with begging rights for possible local rate increases. AB 1063 (Williams) could have provided a 'Bale Out' with a \$4 per ton landfill tip fee resulting in \$30 million over 5 years to support developing the domestic recycling manufacturing capacity. The Governor's Office was briefed on a Berkeley Study calling for a \$10 per ton tip fee to off-set cheap landfilling to encourage recycling, and support in-state remanufacturing of recyclable materials into products.

2

Woodageddon

With forest fires raging throughout the state coinciding with the closure of many biomass plants over the last few years, Woodageddon hit California hard. The State of the Biomass is still in a state of emergency even with recent legislation for the forest sector. At a meeting with the Governor's office, the biofuels' suppliers were told to develop a legislative strategy to go along with the story that the landfills will be tipping over with wood waste as agricultural fields burn in the Central Valley.

The biomass market had been relatively stable for more than 10 years, averaging 600 MW of operating capacity generated by 33 biomass plants utilizing five million tons of wood chips from the urban, agricultural, and forest sectors. In 2014, five plants shut their doors, totaling 85 MW. With expiring power purchase agreements, another ten plants representing 276 MW and approximately three million tons in wood chips, including one million tons of urban sector wood chips, could close by 2020.

SB 859 will require the utilities to purchase 125 MW of bioenergy per year over the next 5 years, with 80% of the feedstock coming from high-hazardous forest areas, which means over a million tons secured of forest wood chips. As a result, biomass plants in Burney, Chinese Camp, Rocklin, and Malaga have all received contracts from the utilities that will keep them open for another 5 years. Meanwhile, the urban sector will be crowded out by over a million tons in capacity as more contracts expire and the remaining contracts procure forest chips. With AB 1826 and SB 1383 being phased in, 2.6 million tons of new wood chips will need to be diverted by 2020 and 3.9 million tons of new wood chips could be on the market in 2025. We are seeing the forest chips through the dead trees, but the urban wood waste will be left in the landfill as the limited bioenergy market contracts.

Regs Watch

2030 TARGET SB 32 SCOPING PLAN

The California Air Resources Board kicked off development of the 2030 Target Scoping Plan in October 2015 in coordination with other State agencies and has since been soliciting feedback and comments from a team of economic advisors, local air districts, community members, affected stakeholders, and the AB 32 Environmental Justice Advisory Committee at public meetings throughout the State. This 2030 Target Scoping Plan Discussion Draft was released on December 2, 2016 provides CARB staff's current thoughts on how to achieve the State's SB 32 climate goal of reducing greenhouse gases by at least 40 percent below 1990 levels by 2030. Comments are due by December 16, 2016 which will inform the development of a comprehensive Proposed 2030 Target Scoping Plan that CARB expects to release in January 2017 for public review. The January Proposed Scoping Plan will include the full environmental analysis, economic analysis, AB 197 analyses, and supporting technical appendices.

https://www.arb.ca.gov/cc/scoping-plan/2030target_sp_dd120216.pdf

SHORT-LIVED CLIMATE POLLUTANT SB 1383 PLAN

SB 605 (Lara, 2014) directed CARB to develop a comprehensive short-lived climate pollutant strategy, in coordination with other state agencies and local air quality management and air pollution control districts. The effort is to engage scientific experts, identify additional measures to reduce short-lived climate pollutants such as methane, which will require that 75% of all organics are reduced by 2025. Furthermore, Governor Brown has identified reductions of SLCP emissions as one "pillar" to meet an overarching goal to reduce California's GHG emissions by 40 percent below 1990 levels by 2030 which was placed into law with SB 1383 (Lara, 2016). CARB staff released the updated SLCP Strategy on November 28, 2016, with workshops in mid-December announced, and comments due 1/17/17.

<https://www.arb.ca.gov/cc/shortlived/meetings/11282016/reviseproposedslcp.pdf>

I Regulatory Fatigue

The California Compost Coalition

is a registered Lobbying Coalition with the Fair Political Practices Commission (FPPC), created in 2002 by a group of compost operators in response to demands for increased recycling of organic materials & production of clean compost, bioenergy, renewable natural gas, and biochar.

CCC Members

Agromin
Atlas Disposal
Burrtec Waste Industries
Caglia Environmental
California Wood Recycling
CleanFleets.net
Clover Flat Compost
Cold Canyon Compost
CT Bioenergy Consulting LLC
Harvest Tulare
Harvest Lathrop
Marin Sanitary Service
Mt. Diablo Recycling
Napa Recycling Compost
Northern Recycling Compost
Organic Waste Solutions
Phoenix Energy
Quackenbush Mt. Compost
Recology Blossom Valley Organics
Recology Feather River Organics
Recology Jepson Prairie Organics
ReFuel Energy Partners
Soiland Co, Inc.
Sonoma Compost
Tracy Delta Compost
Upper Valley Recycling
Vision Recycling
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Z-Best Compost Facility
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At a time when there is expected to be 100 new or expanded compost facilities by 2020 to meet the goals of AB 32 and AB 341 to get to 75% recycling, and another 100 new or expanded facilities by 2025 to meet the goals of SB 1383 to mitigate methane with a 75% reduction of all organics, facilities may instead choose to close their gates. Having already lost Sonoma Compost to regulatory purgatory, many other compost facilities are considering getting out of the business feeling drained by regulatory fatigue. The upcoming contamination limits are so low and will force even more post-processing. Expensive Water Board regulation of pads and ponds, and air permits add further to these costs. These air permits pin down point sources, but fail to recognize the better management practices being offered. The combined force of these pressures have driven composters to a crux where the new tons are not showing up at new prices to afford the luxury of compliance in this new era. At the end of the day, composters employ tremendous amounts of labor and innovative new technologies to transform millions of tons of bulk material into a living dirt product. Lately however, the composting industry itself is being treated like dirt.

To make matters dirtier, the biomass crisis is crippling markets and diminishing revenue for many composters. Woody biomass is being stranded at many composting facilities, as the dwindling number of biomass-to-energy facilities are compelled to take forestry waste. Composters handling this crowded-out material are being hit twice as air districts target their unsold biomass stockpiles for permits, while outlet

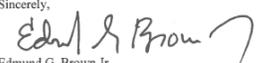
markets for the product remain elusive. The cumulative impacts of air, water, land use, and federal NOP regulatory compliance are trumping the very industry on which the mandates of AB 32, SB 32, AB 1826 and SB 1383 depend.

Many composters have raised the bar over the years and taken an emerging industry in the 1990s to a mature business model today. As the industry gets cleaner on contamination and run-off, it's being treated dirtier in the marketplace; the industry has not been able to raise pricing and has lost out on incentives over last few years that could have assisted in paying for the required improvements.

If ever there were a time for permit streamlining, it is now. Implementation of AB 1045 (Irwin, 2015) is necessary to have Cal-EPA coordinate on water, air, and waste issues among agencies. Coordination of this sort is essential as many agencies may think that compost is really 'black gold', and that there are no limits of expense that the compost industry can endure in search of complying with a myriad of threshold limits that are almost impossible to meet, or too expensive to fund with current pricing. AB 1045 may be meeting internally, but there needs to be an external process, or even a Compost Commission, to oversee the process to move 8 million organics tons by 2020 and 14 million organics tons by 2025.

In the Governor's signing message on SB 1383 on September 19, 2016, the SLCP Plan should reflect the true price of methane and the investments needed to transform the waste sector, such as the costs of landfill disposal and the infrastructure costs of recycling.

I am directing the Air Resources Board, the Department of Food & Agriculture and CalRecycle to explore all means, including appropriate pricing tools, to generate the development of the infrastructure and workforce needed to reach the super pollutant reduction goals.

Sincerely,

Edmund G. Brown Jr.