

L.A. County to Host 3 Conversion Tech Panels at VerdeXchange Conference 01/23/2014

2014 VerdeXchange Conference

VerdeXchange's 7th Annual Conference will take place **January 26-28** at the **LA Hotel Downtown (Hyatt Affiliate Hotel).** Once again, accomplished energy and greentech entrepreneurs, policymakers, financiers, manufactures, government policymakers and procurers, and environmental stewards will gather "under-one-roof" to discuss international collaboration, global business partnerships, and the emergence of new technologies to reduce energy consumption, increase efficiency, and provide new sources of energy.

Pat Proano, Assistant Deputy Director, Environmental Programs Division, Los Angeles County Department of Public Works, will be speaking about **Municipal Waste to Energy Initiatives** along with other public sector leaders in waste management.

Use code VXLACPUBLICWORKS for a 20% discount at registration.

To learn more about the event, please visit: http://www.verdexchange.org/conference

Feel free to pass this message along to anyone you think might be interested in attending this event.

We look forward to seeing you there!



Conversion Technology E-newsletter - February 2014 02/12/2014

ANNOUNCEMENTS

City of Lancaster Issue RFI to Evaluate Feasibility of MRF and Conversion Technology Project

The City of Lancaster, California, is evaluating the feasibility of developing a material recovery facility (MRF) and conversion technology (CT) project as an alternative to landfilling municipal solid waste (MSW). The City currently disposes approximately 118,000 tons per year (tpy) of MSW. If feasible and desirable for the City, a project will be developed to divert MSW from landfill disposal. Such a project would implement recycling efforts and convert the non-recycled material into beneficial products such as energy, fuels, or other marketable products. Interested companies are encouraged to repond to the RFI. Click here for additonal information. For questions contact: Ms. Heather Swan, Lancaster Power Authority: https://www.hswan@cityoflancasterca.org

EVENTS

Alternative Technology Advisory Subcommittee

February 20, 2014, 10 AM Alhambra, CA For more information regarding this meeting, please visit the website: http://dpw.lacounty.gov/epd/tf/meetings.cfm

SWANA Road To Zero Waste Conference

March 23 - 26, 2014 Monterey, CA For more information regarding this meeting, please visit the website: https://swana.org/Events/RoadtoZeroWaste.aspx

BioCycle 28th Annual West Coast Conference

April 7-10, 2014 San Diego, California For more information, please visit the website: http://www.biocyclerefor.com/

Air & Waste Management Association 107th Annual Conference June 24- 27, 2014

Long Beach, CA

For more information, please visit the website: <u>http://ace2014.awma.org/</u>

<u>NEWS</u>

Sierra Energy Heads For A World Beyond Garbage, Traditional Power, Fuel A commercially feasible technology for converting municipal waste into useful power and fuel comes closer, closer. This past season, the fifth-genration Nissan Pathfinder CUV has been starring in a commercial titled "Follow Me," in which a vacationing family (in their all-new Pathfinder) reaches a closed winter road, only to be led (via truck, snowmobile, hang glider and sled dogs) on an epic detour through snow and mountain country, to the awesome vistas of "Glacier Peak" they had been seeking. To read more, click <u>here</u>.

Department of Energy To Fund \$12 Million to Produce Renewable Carbon Fiber From Biomass

The US Department of Energy (DOE) will fund up to \$12m for technologies to produce cost-competive renewable carbon fiber from agricultural residues and woody biomass. Carbon fiber produced from biomass is cost effective and offer greater environmental benefits compared to traditional carbon fiber produced from natural gas or petroleum. To read more, click <u>here</u>.

Iowa State Engineers Upgrade Fast Pyrolysis Pilot Plant Lysle Whitmer, giving a quick tour of the technical upgrade to an Iowa State University biofuels pilot plan, pointed to a long series of stainless steel pipes and cylinders. They're called cyclones, condensers and precipitators, he said, and there's an art to getting them to work together. To read more, click <u>here</u>.

Wicomico Leaders Hope Gasification Plant Will Be Covered Privately If Wicomico County officials have their way, a private company will assume the cost of building a \$75 million plant that would vaporize household garbage, turning it into energyproducing gas. Proceeds from collecting trash and selling energy would offset that hefty investment over time, Public Works Director Lee Beauchamp said. His goal at this early stage of examining the "gasification" technology, he added is to spare the county from spending its own money on the project. To read more, click here.



Conversion Technology E-newsletter - March 2014 03/13/2014

ANNOUNCEMENTS

New SoCal Tech Center to Promote Alternative Fuel & Advanced Vehicles

The California Energy Commission has awarded funds to a consortium of Southern California-based organizations led by the Los Angeles County Economic Development Corporation (LAEDC) to establish a Southern California center for Alternative Fuels and Advanced Vehicle Technology. The Center will consist of one virtual hub and two physical locations-- one in San Diego, which will be managed by the California Center for Sustainable Energy, and one in Los Angeles, which will be managed by the Los Angeles, Cleantech Incubator. The Center will serve the counties of Imperial, Los Angeles, Orange, Riverside, San Bernardino, San Diego, Santa Barbara and Ventura. To read more, click <u>here</u>.

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Anaerobic Digestion & Biogas Conference 2014

May 28- 29, 2014 San Francisco, CA For more information, please visit the website: http://www.renewable-waste.com/anaerobic-digestion-conference/

Air & Waste Management Association 107th Annual Conference

June 24- 27, 2014 Long Beach, CA For more information, please visit the website: http://ace2014.awma.org/

Gasification Technologies Conference 2014

October 26- 29, 2014 Washington, DC For more information, please visit the website: http://gasification.org/conferences.asp?a=4

<u>NEWS</u>

Time to Face Some Trash Facts

It's 2014, and my New Year's resolution is to be more open and honest. After 22 years in the City of Los Angeles, working in the solid waste field, I have found that over the years, the path of least resistance may be an easy way to operate, but you stagnate, then move backwards, if you do not continue to push forward. But that desire to reduce landfill disposal to zero--actual zero--must be balanced with the reality of what people put in the bins. To read more, click <u>here</u>.

Partnership Building Anaerobic Digestion Facility at Massachusetts Landfill A private-public partnership is building an anaerobic digestion facility at a landfill in Dartmouth, Mass. CommonWealth Resource Management Corp. (CRMC), a Bostonbased environment firm, is developing the Dartmouth Bioenergy Facility at the Carpo Hill Landfill, working with the landfill's owner, the Greater New Bedford Regional Refuse Management District. To read more, click <u>here</u>.

Company Pulls Plug on Gasification Plant in NLV

The company behind a proposed gasification plant that would turn waste into electricity in North Las Vegas has withdrawn its application from the city due to concerns from residents who live near the proposed site. To read more, click <u>here</u>.

Proposed Waste-to-Energy Facility in Frederick County

The Maryland Department of the Environment has made final determinations to issue permits for a proposed waste-to-energy facility in Frederick County. The Department is issuing permits and approvals that require the proposed facility to meet all applicable environmental laws and regulations for air emissions, water discharge and refuse disposal. The permits and approvals are effective February 21, 2014. To read more, click <u>here</u>.



Conversion Technology E-newsletter - April 2014 04/16/2014

ANNOUNCEMENTS

CalRecycle to Host a Workshop on Thermal Resource Recovery: A Pathway to the Highest and Best Use of Residuals

April 29, 2014, 10:00am-3:00pm Cal/EPA Building, 1001 I Street, 2nd Floor Byron Sher Auditorium, Sacramento, CA This is the first workshop in a series in response to longstanding concerns regarding the multiple barriers to siting waste to energy facilities. As part of reaching 75% recycling goal, 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. We encourage everyone interested in this topic to participate in the workshop, either in person or online. Additional information about the workshop is available at CalRecycle's website: <u>http://www.calrecycle.ca.gov/Calendar/EventDetail.aspx?ID=3084&DS=ACES</u> An article related to this topic from MSW Management can be viewed at the following link: <u>http://www.mswmanagement.com/MSW/blogs/A_Note_to_CalRecycle_1941.aspx</u>

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Alternative Technology Advisory Subcommittee

April 17, 2014, 10 AM Alhambra, CA For more information regarding this meeting, please visit the website: <u>http://dpw.lacounty.gov/epd/tf/meetings.cfm</u>

CalRecycle Workshop-Thermal Resource Recovery: A Pathway to the Highest and Best Use of Residuals

April 29, 2014 Sacramento, California For more information, please visit the website: http://www.calrecycle.ca.gov/Calendar/EventDetail.aspx?ID=3084&DS=ACES

Anaerobic Digestion & Biogas Conference 2014

May 28- 29, 2014 San Francisco, CA For more information, please visit the website: <u>http://www.renewable-waste.com/anaerobic-digestion-conference/</u>

The California Bioresources Alliance (CBA) Symposium

June 3- 4, 2014 Davis, CA For more information, please visit the website: http://extension.ucdavis.edu/unit/land_use_and_natural_resources/cbas.asp

Air & Waste Management Association 107th Annual Conference

June 24- 27, 2014 Long Beach, CA For more information, please visit the website: <u>http://ace2014.awma.org/</u>

Gasification Technologies Conference 2014 October 26- 29, 2014

Washington, DC For more information, please visit the website: <u>http://gasification.org/conferences.asp?a=4</u>

NEWS

CR&R Building California Anaerobic Digestion Plant Waste and recycling firm CR&R Environmental Services is building an anaerobic digestion facility in Perris, Calif., to process organic waste. The facility, now in the design and engineering phase, will be permitted to process more than 80,000 tons of organic waste in phase one, and can be expanded to more than 300,000 tons per year in three additional phases. To read more, click <u>here</u>.

Portland Scales Back Commercial Organics Program

A year from now businesses in the Portland, Oregan region will no longer be able to include compostable foodservice items alongside food scraps in commercial organics collection. To read more, click <u>here</u>.

Massachusetts Food Waste Disposal Ban Set for October

Massachusetts Gov. Deval Patrick's administration has announced final statewide commercial food waste disposal ban regulations to take effect on Oct. 1, 2014. The ban has been designed to divert food waste to energy-generating and composing facilities and reduce the commonwealth's waste stream. To read more, click <u>here</u>.

9.4 MW Biogas Generators for Huge Waste to Energy & Recycling Faciilty in Ohio

St. Augustine, Florida based biogas generating technology supplier, 2G CENERGY, is to supply equipment for a 9.4 MW biogas conbined heat and power plant developed at Ohio's Center for Resource Recovery and Recycling in Grove City. To read more, click <u>here</u>.

Louisville Starts Wet-Dry Recycling Pilot Program

Louisville is lauching a "wet-dry" recycling pilot program for its central business district, which it says could recycle as much as 90 percent of the area's waste. Louisville Metro is beginning the program this month for business and residents in the district to separate foods, liquids, used tissues and dirty paper towels as wet waste. To read more, click <u>here</u>.



Conversion Technology E-newsletter - May 2014 05/20/2014

ANNOUNCEMENTS

Los Angeles County Releases Request For Proposal (RFP) For Advanced Solid Waste Conversion Technology Services

The Los Angeles County Department of Public Works is inviting proposals from qualified environmental consultant services to assist Public Works in developing resources and coordinating activities to further the development of conversion technology facilities in Los Angeles County. The RFP was released on May 15, 2014 and the County will be accepting proposals until June 19, 2014. To view the RFP, please click <u>here</u>.

EVENTS

Anaerobic Digestion & Biogas Conference 2014

May 28- 29, 2014 San Francisco, CA For more information, please visit the website: http://www.renewable-waste.com/anaerobic-digestion-conference/

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Alternative Technology Advisory Subcommittee

June 19, 2014, 10 AM Alhambra, CA For more information regarding this meeting, please visit the website: http://dpw.lacounty.gov/epd/tf/meetings.cfm

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<u>NEWS</u>

Biodisgester Turns Campus Waste into Campus Energy at UC Davis More than a decade ago, Ruihong Zhang, a professor of biological and agricultural engineering at the University of California, Davis, started working on a problem: How to turn as much organic waste as possible into as much renewable energy as possible. To read more, click <u>here</u>.

Advanced Material Recovery Facility Opens in Alabama Infinitus Energy, based in Plantation, Fla., has annouced the launch of residential recycling in the city of Montgomery, Ala., and the opening of the company's "advanced" mixed material recovery facility (MRF). The IREP (Infinitus Renewable Energy Park) at Montgomery is expected to create 110 local jobs and divert up to 80 percent of waste from landfill. To read more, click <u>here</u>.

Northrop Grumman to Help Develop Gasification Unit Cirque Energy, Inc., Detroit, has entered into a joint development agreement with the defense contractor Northrop Grumman Corp. to develop what the two companies are calling "a deployable gasification unit". Cirque is a sustainable energy development company focused on distributed generation projects and waste stream optimization. To read more, click <u>here</u>.

UK Missing Out on Biofuel Opportunities Due to Lack of Clear Policy The UK is losing out on investment and jobs due to the government's lack of a clear policy framework for sustainable biofuels, according to the Renewable Energy Association (REA). The organization explained that it is frustrated by the lack of concrete measures to improve the policy framework for sustainable biofuels in government the decisions published this week. To read more, click <u>here</u>.



Conversion Technology E-newsletter - June 2014 06/12/2014

ANNOUNCEMENTS

Los Angeles County Extends Due Date for Request For Proposal (RFP) For Advanced Solid Waste Conversion Technology Services The Los Angeles County Department of Public Works is inviting proposals from qualified environmental consultant services to assist Public Works in developing resources and coordinating activities to further the development of conversion technology facilities in Los Angeles County. The RFP was released on May 15, 2014 and the County will now be accepting proposals until June 30, 2014. To view the RFP, please click here.

Senate Bill 498 to be Heard in Two Separate Hearings Next Week <u>SB 498</u> was assigned to the Assembly Natural Resources Committee as well as the Assembly Environmental Safety and Toxic Materials Committee and is scheduled to be heard early next week. Your support remains critical to the success of the bill. Please send a letter of support to Wesley Chesbro, Chair of Assembly Natural Resources Committee and Luis Alejo, Chair of the Environmental Safety and Toxic Materials Committee, and let them know that California needs a permitting pathway for technologies that will reduce the amount of materials being disposed in landfills, create jobs, generate green fuels and electricity, and reduce air emissions. For your convenience, letters to each committee are available for your use at the following links: <u>Assembly NR</u> and <u>Assembly ESTM</u>.

EVENTS

Alternative Technology Advisory Subcommittee (ATAS)

June 19, 2014, 10 AM Alhambra, CA For more information regarding this meeting, please visit the website: http://dpw.lacounty.gov/epd/tf/meetings.cfm

Air & Waste Management Association 107th Annual Conference

(Please note that ATAS members Mr. Coby Skye and Mr. Mark McDannel will be moderating two panel sessions, focusing on thermal conversion technologies and anaerobic digestion at this event) June 24- 27, 2014 Long Beach, CA For more information, please visit the website: http://ace2014.awma.org/

Gasification Technologies Conference 2014

October 26- 29, 2014 Washington, DC For more information, please visit the website: http://gasification.org/conferences.asp?a=4

<u>NEWS</u>

Enerkem Launches World's First, Game-Changing Full-Scale Waste-to-Biofuels and Chemicals Facility

Enerkem Inc. officially inaugurated today its first full-scale municipal waste-to-biofuels and chemicals facility in Edmonton, Alberta. This announcement was shared by Enerkem's CEO, Vincent Chornet, Mayor Don Iveson from the City of Edmonton, and the Honourable Robin Campbell, Minister of Environment and Sustainable Resource Development, and Government House Leader, representing the Government of Alberta. To read more, click <u>here</u>.

MSU Anaerobic Digestion Facility Earns National Recognition Michigan State University (MSU) was presented the Institutional Biogas Project of the Year Award for the MSU South Campus Anaerobic Digester. MSU received the award from the American Biogas Council for excelling in innovation, technology, collaboration and managing complex systems. The anaerobic digestion facility generates approximately 3,000 megawatt-hours per year of renewable energy by processing organic waste from campus dining halls, food processing facilities and the MSU Dairy Farm. To read more, click <u>here</u>.

Massachusetts Grants \$3.5 Million to Renewable Thermal Industry Massachusetts has dedicated \$3.5 million to nine renewable thermal projects in the state through a new grant program, the Massachusetts Renewable Thermal Business Investment Financing Program. Funds for the program are being drawn from the state's Alternative Compliance Payment funds, which are payments made by electricity suppliers when they do not meet state renewable energy portfolio standard obligations. To read more, click <u>here</u>.

USDA Announces Funding Availability for Turning Biomass Material into Energy Agriculture Secretary Tom Vilsack today announced that the U.S. Department of Agriculture (USDA) will begin accepting applications June 16 from energy facilities interested in receiving forest or agricultural residues to generate clean energy. The support comes through the Biomass Crop Assistance Program (BCAP), which was authorized by the 2014 Farm Bill. To read more, click <u>here</u>.



Conversion Technology E-newsletter - July 2014 07/10/2014

ANNOUNCEMENTS

Senate Bill 498 To Be Heard In Assembly Appropriations Committee Senate Bill 498 (SB 498) will be heard in early August in the Assembly Appropriations Committee and needs your support to move forward. Current law limits "biomass conversion" to the controlled combustion of organic materials--such as wood, lawn and garden clippings, agricultural waste, leaves, tree pruning as well as non-recyclable paper--when separated from other solid wate and used for producing electricity or heat. This bill would add thermal conversion technologies to the biomass definition, allowing for cleaner and more efficient non-combustion technologies to be used to make low carbon fuels as well as renewable energy from biomass waste.

The language of the bill is available at the following link: <u>SB 498</u>.

Your support is vital to the success of the bill. Please send a letter of support to the Honorable Mike Gatto, Chair of the Assembly Appropriations Committee. California needs a permitting pathway for technolgies that will reduce the amount of materials being disposed in landfills, create jobs, generate green fuels and electricity, and reduce air emissions.

Click <u>here</u> for an easy-to-use sample letter. Letters can be faxed directly to the Assembly Appropriations Committee's Office at (916) 319-2181, Attention: Jennifer Galehouse (Principal Consultant) or emailed to <u>Jennifer.galehouse@asm.ca.gov</u>. Send your letter as soon as possible and please email a copy to <u>staff@socalconversion.og</u>

L.A. County Countywide Siting Element (CSE) Initial Study and Notice of Preparation Available For Comment

This is a courtesy reminder that the Los Angeles County CSE Initial Study (IS) and Notice of Preparation (NOP) are availabel to view online and at 19 public libraries located throughout the County. The document will assist jurisdictions with planning for their future solid waste disposal needs. The goal of this planning document is to protect the health and safety of residents; and facilitate an environmentally sustainable solid waste disposal system. The commenting period for the IS and NOP started on June 16 and ends on July 28. Comments can be provided online or at one of the six scheduled public scoping meetings. For more information, please visit the Siting Element website at http://www.dpw.lacounty.gov/sitingelement.

<u>EVENTS</u>

Alternative Technology Advisory Subcommittee (ATAS)

July 17, 2014, 10 AM Alhambra, CA For more information regarding this meeting, please visit the website: http://dpw.lacounty.gov/epd/tf/meetings.cfm

Infrastructure Funding Fair

July 30, 2014, 9 AM - 1PM Alhambra, CA For more information regarding this meeting, please visit: <u>http://www.waterboards.ca.gov/water_issues/programs/grants_loans/docs/funding_fairs/ fundingfair2014_la.pdf</u>

Gasification Technologies Conference 2014

October 26- 29, 2014 Washington, DC For more information, please visit the website: http://gasification.org/conferences.asp?a=4

<u>NEWS</u>

CR&R Anaerobic Digestion Facility In Perris Underway Southern California Based CR&R Environmental Services has entered the construction phase of its anaerobic digestion facility in Perris, California. The project's first phase will convert over 80,000 tons per year of municipal organic wastes into Renewable Natural Gas (RNG). The project is fully permitted for 3 additional phases that will convert over 320,000 tons of organic wastes into RNG and generate the energy equivalent of 4 million diesel gallons, making it the largest project of its kind in the U.S. at full build-out. To read more, click here.

Waste-To-Fuel: How To Make A Challenge An Opportunity An entrepreneurial company is planning to take a new approach to the old adage 'making money from old rope'. Instead of splitting hemp to re-sell, Enerkem - the company in question - is taking solid municipal waste and turning it into fuels and chemicals through a proprietary process that involves further sorting of waste feed material and then chemistry conversion of the remaining feedstock through a gasifier as well as a fluidised bed. To read more, click <u>here</u>.

Reducing Waste: Turning Waste Food Scraps Into Energy California is known for being on the cutting edge of technology, and the Bay Area is usually leading the pack. So it's no surprise that the efforts of two municipal agencies to turn food "waste" into energy are happening right here in Central Contra Costa. The Central Contra Costra Solid Waste Authority has partnered with the East Bay Municipal Utilities District to develop and implement a first-of-its-kind Commercial Food Recycling Project in the East Bay. To read more, click <u>here</u>.



SB 498 - On the Desk of Governor Brown 08/27/2014

TAKE ACTION

SEND A LETTER TO SUPPORT SB 498!

Senate Bill 498 (SB 498) has been approved by the California State Legislature and is now awaiting Governor Brown's signature!

Current law defines "biomass conversion" as the controlled combustion of organic materials--such as wood, lawn and garden clippings, agricultural waste, leaves, tree pruning as well as non-recyclable paper--when separated from other solid waste and used for producing electricity or heat. This bill would simply add thermal conversion technologies to the biomass definition, allowing for cleaner and more efficient non-combustion technologies to be used to divert biomass from disposal, and to produce low carbon fuels as well as electricity.

The final language of the bill is in print and available at the following link: <u>SB 498</u> Your support is vital to the success of the bill, as it is awaiting the Governors signature. Please send a letter of support to Governor Brown and let him know that CA needs a permitting pathway for non-combustion technologies that will reduce the amount of materials being disposed in landfills, create jobs, generate green fuels and electricity, and reduce air emissions.

Click <u>here</u> for an easy-to-use sample letter. Letters can be mailed to the address provided on the sample letter or faxed directly to the Governor's Office at (916) 558-3160, Attention: Legislative Secretary Gareth Elliot and/or Deputy Legislative Secretary Martha Guzman-Aceves. Send your letter to Governor Brown as soon as possible and email a copy to <u>staff@socalconversion.org</u>.



Conversion Technology E-Newsletter - September 2014 09/18/2014

ANNOUNCEMENTS

Senate Bill 498 Awaits Governor Brown's Signature

Current law defines "biomass conversion" as the controlled combustion of organic materials-- such as wood, lawn and garden clippings, agricultural waste, leaves, tree pruning as well as non-recyclable paper--when separated from other solid waste and used for producing electricity or heat. SB 498 would simply add thermal conversion technologies to the biomass definition, allowing for cleaner and more efficient non-combustion tehnologies to be used to divert biomass from disposal, and to produce low carbon fuels as well as electricity.

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Click <u>here</u> for an easy-to-use sample letter. Letters can be mailed to the address provided on the sample letter or faxed directly to the Governor's Office at (916) 558-3160, Attention: Legislative Secretary Gareth Elliot and/or Deputy Legislative Secretary Martha Guzman-Aceves. Send your letter to Governor Brown as soon as possible and email a copy to <u>staff@socalconversion.org</u>.

<u>EVENTS</u>

Alternative Technology Advisory Subcommittee (ATAS)

September 18, 2014, 10 AM Alhambra, CA For more information regarding this meeting, please visit the website: <u>http://dpw.lacounty.gov/epd/tf/meetings.cfm</u>

The Zero Food Waste Forum

October 16 - 18, 2014 Berkeley, CA For more information regarding this event, please visit the website: http://www.ncrarecycles.org/ZeroFoodWasteForum

Gasification Technologies Conference 2014

October 26- 29, 2014 Washington, DC For more information, please visit the website: http://gasification.org/conferences.asp?a=4

ABLCNext Advanced Biofuels and Renewable Chemicals

November 10- 12, 2014 San Francisco, CA For more information on this event, please visit the website: http://advancedbiofuelssummit.com/blog//

Renewable Energy From Waste Conference

November 17- 20, 2014 San Jose, CA For more information on this event, please visit the website: http://www.rewconference.com/

NEWS

Life In The Slow Lane: Conversion Technologies At A Standstill In California The momentum leading to the introduction of new technologies for alternative energy production has become increasignly evident during 2014. The year has brought a steady stream of announcements from teh industry regarding equity infusions, strategic alliances and commercial demonstration projects. However, as far as the use of conversion technologies for the management of post-recycled municipal solid wastge is concerned, the State of California seems disinterested in this immense potential for economic development and improved environment. To read more, click <u>here</u>.

Meet The Radical Berkeley Artist Whose Company Is Turning Trash Into Electricity Beyond what appears to be a scrap yard filled with old shipping containers and rusty hunks of metal, welding torches spark and flare; walnut fragments litter the ground. And all around are iterations of All Power Lab's main product, the Power Pallet, a contraption consisting of a large silver barrel on top of various other metal parts, all connected with pipes and hoses. The Power Pallet is a small refinery, which converts biomass to hydrogen-rich gas, attached to a four-cylinder engine, which burns the gas to generate electricity. To read more, click <u>here</u>.

Pepped To Fuel Prep

Anything from car batteries to tires to toys shows up in residential waste that arrives at the city of Edmonton's waste transfer station. The 25 full-time employees who work on site go to great lengths tomake sure all compostable, recyclable and hazardous materials are removed from the waste stream before it reaches its final destination--Enerkem's cellulosic ethanol production facility, which is located right on site. To read more, click <u>here</u>.

USDA Awards Loan Guarantee To Fulcrum Sierra Biofuels The USDA has awarded a \$105 million loan guarantee to Fulcrum Sierra Biofuels LLC to support the development of an 11 MMgy facility to convert municipal solid waste into jet fuel. The \$226 million project is planned for development near Reno, Nevada. The loan guarantee is being made under the USDA's Biorefinery Assistance Program through the Bank of America N.A. According to the USDA, the award represents the first loan guarantee it has made to a biobased jet fuel project. To read more, click here.

Largest Biomass Plant In North America Opens The largest 100 per cent biomass power plant in North America has opended in the Canadian province of Ontario. The originally coal-fired Atikokan Generating Station, operated by Ontario Power Generation, underwent a \$170m reconstruction after the Canadian government introduced tougher emission measures. The station has ben reconnected to the grid at the end of last week after a two-year closure. To read more, click <u>here</u>.



Conversion Technology E-newsletter - October 2014 10/09/2014

ANNOUNCEMENTS

Sierra Energy Seeking Support For Grant Award

Sierra Energy, a California-based conversion technology provider, is in the running for the Chase Bank grant program. This nation-wide grant for small businesses provides 20 awards of up to \$150,000 each. The grant would support Sierra Energy'sefforts to further develop their FastOx gasification system. You can find more information, and vote to support the grant, by visiting the following link: https://www.missionmainstreetgrants.com/business/detail/21801

Governor Brown Signs Senate Bill 498

Governor Jerry Brown signed into law Senate Bill 498 on September 28. This is a major victory for proponents of conversion technologies. SB 498 adds non-combustion conversion technologies to the biomass conversion definition, allowing for cleaner and more effecient non-combustion technologies to be used to make low carbon fuels as well as renewable energy from biomass waste. Biomass is organic materials--such as wood, lawn and garden clippings, agricultural waste, leaves, tree pruning as well as non-recyclable paper--when separated from other solid waste. The language for the bill is available at the following link.

The County of Los Angeles and the California Association of Counties appreciate your continued support!

Click here to see Supervisor Knabe's press release on this momentous occasion.

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Gasification Technologies Conference 2014

October 26- 29, 2014 Washington, DC For more information, please visit the website: http://gasification.org/conferences.asp?a=4

Advanced Bioeconomy Leadership Conference 2014

November 10- 12, 2014 San Francisco, CA For more information on this event, please visit the website: http://advancedbiofuelssummit.com/blog/

Southern California Waste Management Forum Annual Conference & Exhibit

November 12, 2014 Pomona, CA For more information on this event, please visit the website: http://www.scwmf.org/web/home/

Renewable Energy From Waste Conference

November 17- 20, 2014 San Jose, CA For more information on this event, please visit the website: http://www.rewconference.com/

Waste Conversion Congress West Coast 2014

December 3 - 4, 2014 San Diego, CA For more information on this event, please visit the website: http://www.renewable-waste.com/waste-conversion-west/

<u>NEWS</u>

Anaergia Busy In Biogas With Recent Start-up and Other Ventures Anaergia Inc. has demonstrated its active presence in the biogas space with three recent announcements. The company announced a successful start-up of their new Omnivore biogas production system at Victor Valley Wastewater Reclamation Authority in California. The second notice derived from their selection by the Metropolitan Water Reclamation District of Greater Chicago to enter into negotiations for the design of an organic waste receiving and processing facility, modification of two anaerobic digestors (AD) and a long-term supply of organic waste material to the Calumet Water Reclamation Plant. To read more, click <u>here</u>.

Earth Wise: Recycling Food Waste Into Biogas Gains Popularity Turning food waste into fuel is not a new idea, but it is one that is finally starting to catch on in a big way. A growing number of wastewater treatment plants across the country are participating in the effort to recycle food waste and produce biogas. To read more, click <u>here</u>.

New Technology Turns Food Waste and Poo Into Power Anything from car batteries to tires to toys shows up in residential waste that arrives at the city of Edmonton's waste transfer station. The 25 full-time employees who work on site go to great lengths to make sure all compostable, recyclable and hazardous materials are removed from the waste stream before it reaches its final destination--Enerkem's cellulosic ethanol production facility, which is located right on site. To read more, click <u>here</u>.

South San Francisco Recycling Agency Converting Compost Into Fuel New technology is enabling South San Francisco trash trucks to run on the very refuse they pick up. South San Francisco Scavenger Company, which provides recycling and solid waste services at the San Francisco International Airport and in South San Francisco, Brisbane, and Millbrae, is partnering with the facility that processes its trash to convert food scraps into fuel. To read more, click <u>here</u>.

USDA Awards Loan Guarantee To Cool Planet The USDA has awarded a \$91 million loan guarantee to Cool Planet Energy Systems to help finance the company's advanced biofuel facility, which is under development in Rapides Parish, Louisiana. The award was made under the Biorefinery Assistance Program, a program established by the 2008 Farm Bill. "This partnership is the latest example of the Obama Administration's continuing support for innovative, home-grown energy sources," said Agriculture Secretary Tom Vilsack. To read more, click <u>here</u>.



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Los Angeles County Board of Supervisors Approve Roadmap to a Sustainable Waste Management Future

On October 21, 2014, the Los Angeles County Board of Supervisors adopted the Roadmap to a Sustainable Waste Management Future for Los Angeles County (Roadmap). The Roadmap will initiate a long-term planning process in the County Unincorporated Communities (CUC) to achieve increased disposal reduction targets and key strategies to help the County reach the targets. The County will focus on gearing up efforts to promote waste diversion strategies such as extended producer responsibility, organics management, and conversion technologies. The CT initiatives to achieve the disposal reduction targets include continuing to build a coalition to support and sponsor CT legislation, establish a streamlined permitting process, develop educational CT pilot projects, and ultimately develop a large-scale facility in the CUC. The Roadmap including the development of CTs will lead to improved quality of life, create jobs, more business opportunities, and environmental benefits to County residents. To view the Roadmap to a Sustainable Waste Management Future Briefing Report, click here.

EVENTS

Renewable Energy from Waste Conference

November 17- 20, 2014 San Jose, CA For more information on this event, please visit the website: http://www.rewconference.com/

Alternative Technology Advisory Subcommittee (ATAS)

November 20, 2014, 10 AM Alhambra, CA For more information regarding this meeting, please visit the website: http://dpw.lacounty.gov/epd/tf/meetings.cfm

Waste Conversion Congress West Coast 2014

December 3 - 4, 2014 San Diego, CA For more information on this event, please visit the website: http://www.renewable-waste.com/waste-conversion-west/

<u>NEWS</u>

Puente Hills Landfill Gets Ready to Become a Park via Private Sector

The 10 million residents of Los Angeles County werent at all spooked about where their trash would go after the monster-sized landfill in the heart of the county closed on Halloween night in 2013. More than a year later, the Puente Hills Landfill near Hacienda Heights is as quiet as the cemetery next door, signaling a significant if unnoticed twist in the management of household trash. To read more, click <u>here</u>.

The Afterlife of Plastic

For the past few weeks, Moinuddin Sarker has been driving up and down the Connecticut coast looking for a large warehouse facility. He needs it to commercialize a chemical process he has pioneered. He has been negotiating with local sanitation companies to buy their plastic waste and plans to use it to produce 20 million to 30 million barrels of fuel a year, enough to heat all Connecticut households in the winter months. To read more, click <u>here</u>.

Alternative Energy Sources to Oil

Olazar Martin, a chemical engineer at the UPV / EHU (Spain), has designed a fundamental process for the production of sustainable alternatives to oil refineries. According to Olazar, one of the unavoidable conditions of the process is to not harm the environment. This researcher has developed a reactor based on the conical spouted beds, which, by pyrolysis flash quickly produces fuels and raw materials from various types of waste. To read more, click here.

Novus Pacific To Build Full-scale Oregon Renewable Energy Plant

Novus Pacific LLC will soon break ground on an approximately \$20 million renewable energy plant at the Port of Morrow in Boardman, Oregon, upon finalizing its financial package. About one year after commencement, the plant is expected to produce biogas, organic fertilizer and clean water for sale as valuable commodities derived primarily from onion and potato waste. To read more, click <u>here</u>.

Metro To Portland: Let's Talk Trash

You might have noticed a lot of trash talk happening around you. Not just with sports. The Metro regional government launched a major effort this spring to get people thinking about where their trash goes and, in the larger picture, about the regions future of waste disposal. Metro wants residents to weigh in on its Solid Waste Roadmap the long-term waste management plan for the region. The Metro Council discussed 14 options at a work session in July, and that list has since been whittled down to five. To read more, click here.



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ANNOUNCEMENTS

Thank You For A Successful Year

As 2014 comes to a close, we would like to thank you once again for your support throughout this past year. 2014 will be remembered as, among other things, the year California passed its first conversion technology legislation in Senate Bill 498, as well as other key environmental legislation that will pave the way for diverting organic waste from landfills. This could not have been accomplished without the hard work and support of stakeholders like yourselves. We are excited for what the new year will bring for Conversion Technologies and hope to build off this momentum in the coming year. Have a wonderful holiday season, and a Happy New Year.

EVENTS

Alternative Technology Advisory Subcommittee (ATAS)

January 15, 2015 (please note there will not be a meeting in December) Alhambra, CA For more information regarding this meeting, please visit the website: http://dpw.lacounty.gov/epd/tf/meetings.cfm

VerdeXchange

January 25-27, 2015 Los Angeles, CA For more information regarding this meeting, please visit the website: www.verdexchange.org

Advanced Bioenergy Leadership Conference

March 11 - 13, 2015 Washington, DC For more information on this event, please visit the website: http://advancedbiofuelssummit.com/

BioCycle West Coast Conference 2015

April 13 - 16, 2015 Portland, Oregon For more information on this event, please visit the website: <u>http://www.biocycle.net/</u>

<u>NEWS</u>

California Report Emphasizes Need For Renewable Gas Standard

The nonprofit Bioenergy Association of California published a report in November detailing why California needs a renewable gas standard (RGS). The report concludes that the biogas sector needs an effective regulatory framework and greater long-term certainty to reach the level of market penetration that will drive down costs and enable biogas to compete with the historically low cost of natural gas. We need something that is longer-term and is more comprehensive, so that the industry itself doesnt go through these boom and bust cycles, because its not that large of an industry, it needs long-term certainty to really grow at the pace and reach the levels that it should, said Julia Levin, executive director of BAC. To read more, click <u>here</u>.

Renewable Natural Gas Helps Reduce Emissions, Policy Support Needed

Natural gas use is growing throughout the world as new drilling techniques open up vast shale and other tight resources. The result is low-cost gas flooding the market. The environmental advantages of natural gas over other fossil fuels have put it in a favored position as emissions regulations continue to tighten around the world. But conventional natural gas is still a fossil fuel with significant carbon emissions that need to be contained. To read more, click <u>here</u>.

Pyrolysis Touted As Billion Dollar US Industry

Wider deployment of pyrolysis, where non-recycled plastics are heated in the absence of oxygen to convert them into valuable fuels and feedstocks, would not only reduce the amount of waste sent to landfills but also generate billions of dollars, according to a new analysis by the American Chemistry Council (ACC). The trade group concluded that rapid development of pyrolysis technology, more commonly known as plastics-to-oil, could contribute \$9 billion (5.6 billion) to the US economy and spawn more than 40,000 domestic jobs. To read more, click <u>here</u>.

Integrating Anaerobic Digestion With Composting

Is anaerobic digestion better than composting for managing source separated organics? It depends. On project specific factors, anaerobic digestion (AD) is a good bet economically and technically in some situations, and composting (and sometimes other approaches) is right for other circumstances. A better answer, however, is: Its not an either or proposition. Increasingly, organics processing facilities in Europe and more recently in North America are finding that the two approaches work best when integrated into a single facility. To read more, click <u>here</u>.

New Conversion Process Turns Biomass 'Waste' Into Lucrative Chemical Products

A new catalytic process is able to convert what was once considered biomass waste into lucrative chemical products that can be used in fragrances, flavorings or to create high-octane fuel for racecars and jets. A team of researchers from Purdue University's Center for Direct Catalytic Conversion of Biomass to Biofuels, or C3Bio, has developed a process that uses a chemical catalyst and heat to spur reactions that convert lignin into valuable chemical commodities. To read more, click <u>here</u>.