



EV's Year-End Reception Celebrates Waste-to-Fuel Pioneers

The 2013 *Energy Vision Leadership Awards* were presented at our year-end reception and benefit, which also featured a "green" silent auction, organic hors d'oeuvres and the "melting glacier" climate change cocktail.

The event, once again hosted at the beautiful West Village townhouse of EV friend and supporter Tom Fontana, raised funds and awareness for EV's ambitious cause — to move beyond the petroleum era by rethinking waste and fuels in America.



EV Award winners from the Sacramento, CA project: Richard A. Peluso, P.E. (BioCNG, LLC), Brian Perone (Clean Energy Fuels) and Keith Leech (City of Sacramento); bookended by EV's Joanna Underwood and Matt Tomich

Receiving EV's first award was **The City of Sacramento**, honored for the first municipal initiative in the U.S. creating a closed-loop, waste-to-fuel system. Keith Leech, Sacramento Fleet Manager, said, "by turning our waste into a renewable form of natural gas, we're achieving a 90% or more reduction in greenhouse gases, at no extra cost to the city or taxpayers."

Sharing the honors for the Sacramento project were the private sector entrepreneurs whose collaboration led to success:

Turning Waste into "Gold": EV Publishes Guide for Communities

Close to 250 million tons of garbage flow out of U.S. cities and communities each year, and almost one-third of this is "organics," primarily food and yard waste. Millions of additional tons of organics are generated by other institutions such as universities and hospitals, food processors and agricultural operations. All of these wastes, as they decompose, produce a potent stream of climate-changing biogases.

The 72-page EV publication, *Turning Waste into Vehicle Fuel: A Step-by-Step Guide for Communities* is a first-of-a-kind roadmap created to help communities, farms, companies and others turn their organic wastes into a valuable commodity — fuel for their bus and truck fleets. The Guide provides detailed how-to information for assessing potential waste-to-fuel

initiatives and building the needed organizational, economic, technological and government policy infrastructure to carry them out.

A Leading Role for Municipalities

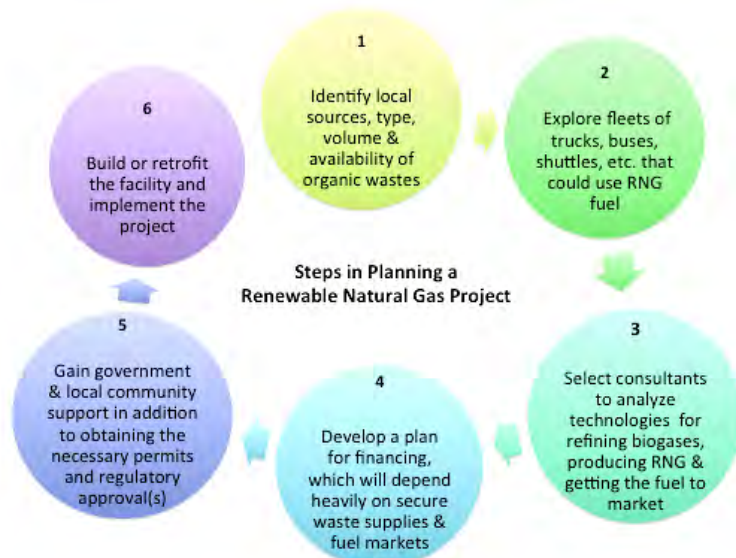


The Guide lays out six steps that cities, communities, companies and other owners and generators of organic waste can take to assess the potential for producing renewable natural

gas (RNG) in their regions. By processing local organic wastes — from dairy manure to residential food scraps, using proven technologies — cities, towns and other waste generators, large and small, can reduce waste disposal costs, create green jobs and produce this ultra-low-carbon fuel. In doing so, a costly waste burden becomes a clean fuel solution and an opportunity for economic growth.

RNG: The Sustainable Fuel Option

The new fuel is just like fossil natural gas but better: It requires no drilling; the feedstocks



LETTER FROM THE PRESIDENT

Joanna D. Underwood

The evening of November 21st Energy Vision celebrated its 7th Anniversary at its Awards Reception in NYC. It was a particularly joyful occasion with almost 100 friends, colleagues and public officials on hand (See article page 1). We provided a lifetime achievement award to one of Energy Vision's founding board members, actor Blythe Danner, and two Awards to projects that have made this year a banner year for the emergence of the country's first totally sustainable vehicle fuel — a renewable form of natural gas made from waste ("RNG").

All in all, eleven major projects have been launched nation-wide that have shown the potential of converting a wide range of organic wastes into a commercially viable fuel. Seven have involved the wastes in large and small landfills; two food and yard waste; one the bio-solids in wastewater treatment plants, and one the manure in agricultural operations combined with crop residues. Some involve refueling stations at the site of fuel production and some sending the fuel through pipelines for use elsewhere.

The biogases that are formed as these wastes decompose are collected and refined into a fuel that is almost indistinguishable chemically from fossil natural gas. RNG can be distributed in the same pipelines, and take advantage of the same fueling infrastructure and be burned in the same natural gas engines. Hence the progress made over the last 20 years in refining systems for using fossil gas as a vehicle fuel

are now accelerating the pace of using this even better fuel — one just as clean, lower in greenhouse gases, and requiring no drilling.

In 2014 Energy Vision is focusing on educating cities and communities across the country about the great opportunities they have to convert



EV President Joanna Underwood welcoming guests on November 21st

their organic wastes into fuel, cutting the costs of waste management, reducing local air pollution, protecting the health of their communities

and of their bus and truck fleet operators,

creating jobs, and coming close to eliminating the greenhouse gases created by production, transport and use of this virtually carbon neutral fuel. A key resource will be the Guide that we published in 2013, *Turning Waste into Vehicle Fuel: Renewable Natural Gas*, funded in part by the U.S. Department of Energy. It will be used in the context of workshops — collaborative undertakings by EV and local Clean Cities affiliates of the DOE — with whom we conducted two very exciting and successful 2013 events in Seattle, WA and in Rochester, NY.

We will be able to introduce this strategy at the grassroots level where the momentum and new project development must take place. Our first workshop will be on April 23rd in Burlington, VT. Others are being explored in Washington, D.C. and elsewhere.

We encourage you, our supporters, to stay tuned and join us for these events if you can. We could not be doing this work without you.

With very best wishes from our board and staff for this new year.

ENERGY VISION: On The Road

Oct 21 EV's Joanna Underwood discussed *The Evolving U.S. Renewable Natural Gas Industry* at the 13th Annual "BioCycle" Conference in Columbus, OH.

Oct 29 EV's Matt Tomich presented on the *CNG-RNG Pathway to Sustainable Transportation* at the NGV Bridge Market Development & Infrastructure Summit in Boston, an event attended by a diverse group of more than 90.

Nov 7 EV and Genesee Region Clean Communities co-hosted "The Power of Waste: Renewable Natural Gas as a Transportation Fuel for New York State," a full day workshop at the Rochester Institute of Technology attended by more than 80.



Nov 21 EV hosted its Seventh Anniversary Celebration and Environmental Leadership Awards ceremony in a fabulous townhouse in NYC's West Village. The event was attended by close to 100 friends, supporters and leaders from government and industry.



Dec 10 EV's Matt Tomich participated in The Coalition for Renewable Natural Gas' annual meeting "Fuel, Heat, Power and Policy" in San Diego, CA with other high level public/private sector leaders engaged in this emerging industry.

Jan 15 EV's Joanna Underwood shared developments on the renewable natural gas front at the 2014 Natural Gas Vehicle Technology Forum in Brookhaven, NY, a national event sponsored by the U.S. Department of Energy, the National Renewable Energy Lab, and the California Energy Commission.

Coming Up

Apr 23 EV and Vermont Clean Cities will host a workshop in Burlington at the University of Vermont Transportation Research Center focused on the opportunities for renewable natural gas production and use in the Green Mountain State.

- **CleanWorld**, a Sacramento-based company, which built the specialized tank — the largest anaerobic digestion system of its kind in North America — into which organics from households, businesses, food processors, restaurants and commercial establishments go to decompose and generate biogas.
- **Atlas Disposal** (Atlas ReFuel), also based in Sacramento, which transports, collects and disposes of these wastes at the digester using trucks that are powered by this waste-based fuel.
- **BioCNG, LLC**, a Wisconsin-based company, which designed and installed the system for refining the biogases into RNG fuel, removing CO₂, water and other impurities from the biogas.
- **Clean Energy Fuels** which built the natural gas refueling station through which this fuel is delivered to the trucks.

The evening's second award went to **Fair Oaks Dairy** for its innovative

manure-to-fuel initiative in Fair Oaks, IN. Mark Maloney, co-founder of Chicago-based **AmpCNG** (formerly AMP Americas), which partnered with Fair Oaks Dairy to implement this project, received the award on behalf of



EV's Matt Tomich alongside award recipient Mark Maloney (Fair Oaks) and EV Board Member and event co-chair Brendan Sexton



Blythe Danner at an EV press conference in NYC's Union Square

Fair Oaks, AmpCNG and the other partners, which included:

- **Greenlane Biogas**, a New Zealand-based company which built and supplied the biogas upgrading equipment.
- **Cummins Westport**, whose natural gas engines power the 42 long-haul tanker trucks transporting the dairy's 300,000 gallons of milk (daily) to nearby processing facilities.

Energy Vision's final award went to actor **Blythe Danner**, for her "Lifetime Environmental Leadership."

Throughout her remarkable career, she has passionately advocated for environmental and health concerns: from promoting the first waste recycling programs in NYC and Santa Monica, to driving one of the first electric vehicles (GM's EV 1), to serving on many boards, including those of the Environmental Media Association (EMA) in California and Environmental Advocates of New York. She was also a founding board member of Energy Vision.

Blythe was unable to attend as it was opening night of *The Commons of Pensacola*, an off-Broadway play in which she stars.



Joanna Underwood with Clean Energy's Brian Perone and her three great-nieces



Keith Leech, City of Sacramento Fleet Manager, admiring his brass spyglass award alongside EV's Joanna Underwood and Matt Tomich



JoAnne and Rich Peluso, Chairman of BioCNG, LLC with NY State Senator Terry Gipson



EV web designer Laura Nuyen and member John Magovern



EVED Resource co-founder Shane Eten and Covanta Energy's Sustainability Director Michael Van Brunt



EV Board Member and co-chair of the 7th Anniversary Event, Joan Pearlman



Event host Tom Fontana admiring some of the "green" auction items



Deputy Commissioner of NYC Sanitation (DSNY) Rocco DiRico, Clean Energy' Regional Manager Brian Perone, EV's Joanna Underwood and DSNY Chief Mechanic Spiro Kattan

are domestic, abundant and endless; it generates virtually no soot particles when burned, and on a lifecycle basis (considering production, transport and use), while fossil natural gas reduces greenhouse gases by 20-30% compared to diesel, RNG is close to carbon neutral.

Conservative estimates suggest that — based on existing waste sources — RNG could displace up to 25% or more of all on-road diesel fuel in use today,

enough to power every urban refuse truck and bus fleet in the U.S.

Creating Sustainable Cities/Communities

More than 80 percent of the 312 million people living in the U.S. reside in urban areas (>50,000 residents.) Globally, nearly 70 percent of greenhouse gas emissions originate in urban areas, of which close to 75 percent can be attributed to municipal governments; from vehicle fleets to wastewater facilities. Moreover, health-threatening air pollution from

transportation is most concentrated in these urban centers. “As a result,” says Guide co-author Matt Tomich, “sustainability has become a top priority for cities and communities, where space and resources are limited and practical solutions can achieve immediate measurable results. Turning waste into vehicle fuel is one option that can and should be explored.”

To order a copy or read the full report, visit: <http://energy-vision.org/wordpress/wp-content/uploads/2013/10/EV-RNG-Community-Guide.pdf>

Wall Street Journal: “Covanta Energy and Turning Earth Announce Partnership to Provide Organics Recycling”

On October 28th, EV President Joanna Underwood was quoted in [The Wall Street Journal](#) article announcing the new partnership between Covanta Energy, a national leader in waste-to-energy and Turning Earth, LLC, a provider of integrated organics management systems: “This initiative,” Underwood said, “represents an important step forward in moving our country toward a sustainable future. Organic wastes, which we have long treated as ‘garbage,’ are in fact one of this country’s most valuable energy sources. With today’s technologies, they could displace up to 25% of all diesel fuel.”

Read the full piece here: energy-vision.org/wordpress/wp-content/uploads/2012/05/WSJ-Covanta-Turning-Earth-Release.pdf

BOARD OF DIRECTORS

Joanna D. Underwood
Chair and President

C. Howard Hardesty, Jr.
Attorney at Law

Cynthia Adler
Actor and Writer

Joan C. Pearlman
*Publications Director
Professional Women
Photographers*

Michael S. Gruen
Attorney at Law

Brendan Sexton
*Environmental Consultant
Former DSNY Commissioner*

Bailus Walker Jr., PhD, MPH
*Howard University College of
Medicine*

COUNSEL

J. Dinsmore Adams, Jr.
*Curtis, Mallet-Prevost, Colt &
Mosle LLP*

Energy Vision News, Quarterly © 2014 Energy Vision Inc.

EV is a national non-profit organization that analyzes and promotes ways to make a swift transition to pollution-free renewable energy sources and to the clean, petroleum-free transportation fuels of the future.

For annual memberships, publications, speakers, and reprint requests, please email: tomich@energy-vision.org
Write EV at 138 East 13th Street, New York, NY 10003, call (212) 228-0225 or visit: <http://www.energy-vision.org>

138 East 13th Street
New York, New York 10003

