EV Expands Global Bio-gas Visibility with “Study Tour” for South Africans

In South Africa, ETHekwini Metropolitan Municipality’s Durban Solid Waste (DSW) division has been a recognized energy leader since 2005, when the City pioneered the first biogas-to-electricity project on the continent at one of its large municipal landfills.

Due in part to the expertise developed through that experience, DSW is looking to develop another project at its second large landfill. Since the municipality owns and operates a large fleet of refuse trucks running on expensive imported diesel fuel, they are especially interested in producing ultra-low-carbon renewable natural gas (RNG) for vehicle use. That led them to Energy Vision.

Following an inquiry from the US Agency for International Development (USAID), EV developed an itinerary of site visits best suited for DSW’s goal of exploring a municipal biogas-to-vehicle fuel project. At the end of April, EV President Matt Tomich led a week-long study tour for three municipal officials and a USAID Low Emissions Development program representative.

The biogas study tour highlighted the technologies, logistics, policies and business case(s) associated with six biogas-to-vehicle fuel project sites, of varying sizes, in Louisiana (2) and California (4). Between site visits and follow-up dialogue, the next steps for how to best

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LETTER FROM THE FOUNDER & CHAIR

President Trump has certainly done his best to slash our country’s energy programs to pieces, to deny the value of science, and now turned his back on the Paris Climate Accord – possibly the best chance the global community has had to safeguard our children’s future. However, he has done more than that. He has infuriated and energized our country’s Mayors, Governors, environmentalists, clean energy advocates, and millions of Americans newly recruited to action, recognizing that the future of our fragile planet is up to them. Thank you, President Trump, for that.

And from our municipal and state decision makers have come some exciting initiatives. As our page one story indicates, one of the country’s largest bus transit fleets, the 2,200 buses serving the City of Los Angeles, is making a wholesale shift to the use of waste-based renewable natural gas and to the new near zero natural gas engines which cut lung-damaging emissions of nitrogen oxides to 90% below the EPA standards.

In addition, Republic Waste Management, the 8th largest waste management company in the country has contracted with California-based Clean Energy Fuels to use waste-based fuel for its trucks in 20 states.

Just these buses and refuse trucks, all now fueled by geologic compressed natural gas, will achieve greenhouse gas reductions of more than a million metric tons per year. A similar number of buses and trucks making this transition from diesel to RNG would have five times these gain.

Energy Vision’s forum for regulators, legislators and business leaders on waste-based fuel, planned for July in Albany, will keep this ball rolling in New York. Our 2017 workshops scheduled for Portland, OR, and Sacramento, CA in the fall will further highlight the benefits of this strategy. Each fleet conversion from high-carbon diesel to carbon-free renewable natural gas is an important step toward our climate and clean air goals.

South Africa’s request for help in converting organic waste into fuel for its refuse trucks, and the invitation by C40, a mega-cities sustainability initiative launched by former NYC Mayor Michael Bloomberg for EV to organize a webinar for its 91 member cities around the world will expand our role as a major force for change internationally.

And from the expertise of Energy Vision’s Consultant James Cannon, on the light-duty vehicle market, comes more good news – the expanding trend in use of electric plug in hybrid cars competitively priced with gasoline models. Do consider making a PHEV your next car.

Energy Vision is revving up to catalyze the revolution to a clean fuel future. We are living up to our vision of a sustainable energy future, and your support and collaboration have been at the heart of our success. We are pleased to have added a new Associate, Phil Vos, to our staff. But we have a long way to go. So if you have given before, please give again, and tell your friends and colleagues about the enormous impact this venture’s work is having.

EV: On The Road

April 6
EV’s ‘Drinks and Dialogue’ cocktail event brought together environmental and business leaders, and included remarks by former NYS Dept. of Environmental Conservation (DEC) Commissioner Joe Martens.

April 24-28
EV’s Tomich led a group of municipal officials from Durban, South Africa on a tour of biogas-to-vehicle fuel project sites in Louisiana and California. The South African delegation met with operators and got a first-hand look at six facilities (p. 1).

April 29
Energy Vision’s Joanna Underwood and Kyle Jeremiah traveled to Washington, D.C. to join 200,000 people in the People’s Climate March.

May 4-5
EV participated in the inaugural “Smart Cities NYC” summit by leading a tour of the Newtown Creek wastewater plant and hosting a panel discussion on urban organics and biogas. The panel featured National Grid, AirLiquide and the NYC Dept. of Environmental Protection.

May 18
EV’s Tomich moderated a panel on the “Future of Public Transit” at a Chicago forum put on by energy services giant Ameresco.

May 21-22
EV’s Tomich participated in annual Capitol Hill visits in DC to educate members of congress about the biogas-to-vehicle fuel strategy.
move forward in exploring a biogas-to-vehicle fuel project in South Africa continue to be explored and discussed.

DSW is now assessing biogas quality and quantity at the second landfill site, and the needs of its municipal sanitation fleet, including the number/type of vehicles and fuel use costs.

The biogas study tour made it clear that a successful project requires vision, leadership and a level of technical training/skills, among other things. As a result, DSW and USAID are considering a national two-day summit (in South Africa) later this year to be led by EV. The workshop will aim to jumpstart a new industry with immense potential to create significant environmental, public health, climate and economic development benefits for South Africa.

Plug-In Hybrid Electric Vehicle (PHEV) Sales Soar in 2016
by James S. Cannon, President, Energy Futures

Early this year, the oil giant BP released its annual Energy Outlook, which forecasts global energy trends through 2035. BP predicts renewable resources will be the fastest growing energy sector, quadrupling worldwide during the next two decades.

However, BP also predicts that fossil fuels will continue to supply at least 75 percent of the global energy mix. Despite decades of real progress, the gap between the reliance on incrementally cleaner transportation fuel use and sales of true zero emitting vehicles remains too wide to breach. There is no smooth transition between the two.

Alternative fuels, like natural gas and biofuels, have displaced high carbon oil, mainly in bus/truck fleets, and efficient hybrid electric vehicles (HEVs) have incrementally reduced per vehicle oil use and carbon emissions, primarily in light-duty vehicles. However, sales of zero emission fuel cell and battery electric vehicles powered by renewable energy are still infinitesimal.

The good news is that there is a new automotive technology with booming sales that marries advanced convention-al and futuristic technologies — Plug-in hybrid electric vehicles (PHEVs).

PHEVs retain a gasoline burning engine that provides power to the vehicle. An onboard battery pack also provides power through an electric motor. What separates a PHEV from a standard hybrid vehicle is the presence of a charging port that allows the batteries to be recharged with electricity generated on the grid, ideally from renewable wind and solar resources.

PHEVs entered the U.S. market in December 2010 with the Chevrolet Volt. Sales remained small during their first year, but quintupled in 2012. By the next year, sales of the six PHEV options slightly exceeded the total sales of the 10 battery electric vehicles in the U.S. market. PHEV sales in 2016 jumped an astounding 69.1 percent to 72,935 vehicles. There are now 17 PHEV models for sale in the U.S.

An average PHEV can be driven roughly 50 miles powered solely by electricity from its batteries before it must turn to the gasoline engine. Thus, PHEVs, if powered by renewable electricity can operate as true zero emission vehicles for most daily driving needs. At greater daily driving distances, PHEVs operate as the cleanest and most efficient vehicles on the road today by using hybrid drivetrains.

PHEV purchase costs are competitive with their conventional counterparts. Prices for the Volt, the best-selling PHEV, start at $33,220. This price is reduced for many, by up to $7,500 in federal tax credits and various state financial incentives.

Electricity costs just a fraction of gasoline, so PHEVs provide the best of both worlds without compromising the economic or performance expectations of modern drivers. Since transportation now accounts for the largest share of US GHG emissions, PHEVs can play an increasingly large role in reducing emissions from passenger vehicles.

Remembering Kenneth F. Mountcastle, Jr.
October 8, 1928 - February 26, 2017

Never did an environmental organization have a more enthusiastic, thoughtful and generous supporter than Ken Mountcastle. As Chairman for many years of INFORM, the predecessor to Energy Vision, he energized board participation, and his sense of humor rippled through the group. He also sent hand-written notes of thanks to every major donor and to staff members for specific accomplishments. No one was more grateful for his leadership and presence than I, knowing he always had my back. Thank you, Ken, for this and so much more. You are now forever part of this country’s story of environmental progress. -JDU
This May, Energy Vision expanded its staff with the addition of Phil Vos, a seasoned project manager with extensive research, writing and business development experience across the energy and waste industries.

In this new role, Phil will be directly involved in several new projects profiling the expansion of the organic waste-to-fuel industry in North America and exploring site-specific project feasibility.

Phil, a native of New York City, originally came to Energy Vision as a volunteer in 2016. First learning about the potential of anaerobic digestion technology in the early 2000s, he has been excited by the technology ever since, and was drawn to Energy Vision’s focus on extracting energy and nutrients from our vast supply of organic waste.

Before joining Energy Vision, Phil worked for nearly seven years in the energy efficiency industry. He has also worked on industrial materials re-use programs, and is a proud member of the Brooklyn Solid Waste Advisory Board (SWAB). Phil earned his BA in Political Science at Columbia University, and his MSc in Economic Development Studies from the London School of Economics. He lives with his wife and son in Brooklyn.