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NETWORKING[®] MAGAZINE 2020: GUIDE TO GOING GREEN

"There is no doubt that a few committed people can change the world. In fact, it is the only thing that ever has."

- Margaret Mead

*This month,
featuring 2020 advisory member:*



HON. STEVE BELLONE
Suffolk County Executive

Steve Bellone has appeared numerous times in *Networking[®]* magazine and was the cover story in the July, 2010 issue, when he was the Supervisor for the Town of Babylon, featuring the Town of Babylon Long Island Green Homes Program. *Photo by Scott Woodson*

"Recently we opened new compressed gas facilities located at two Suffolk County DPW yards, one at Gabreski Airport in Westhampton Beach and another in Commack. They will provide tangible reductions in greenhouse gas emissions by encouraging the use of clean natural gas over other petroleum-based fuels. I am proud of Suffolk County's role in helping to fund and construct these facilities through a \$2 million grant from the Greater Long Island Clean Cities Coalition."



Neal Lewis, executive director, The Sustainability Institute at Molloy College; Bob Catell, board member, National Grid Foundation; Mary Miller, faculty for the National Grid Foundation Teaching Green Institute; Joseph Saccone, Institute participant, Rockville Centre teacher; Robert Keller, president, National Grid Foundation and Dr. Drew Bogner, president, Molloy College

Molloy College/National Grid Foundation Partner on “Teaching Green Institute” Secondary School Teachers Trained in Environmental Issues

For the second year in a row many of Long Island’s secondary school teachers took to the classroom as students in an innovative program presented by Molloy College, the National Grid Foundation Teaching Green Institute. The program is designed to train secondary teachers in environmental issues and to provide suggestions on incorporating environmentally focused curricula into their classrooms.

Molloy, already well-known for its expertise in professional development for teachers, utilized its Sustainability Institute staff as guest lecturers to supplement professors for the Teaching Green Institute. The instructors focused on such topics as global warming and its local challenges, clean energy solutions on Long Island, and reducing toxins in our daily environment.

Following last year’s successful inaugural program – which trained 36 teachers – this year’s expanded program included 46 teachers, with a significant number from school districts in underserved communities. The participants will be able to teach

sustainability concepts and practices to approximately 20,000 students during the next five years.

Participants in the institute took part in the following experiences:

- Making solar cookers, cars, and water heaters
- Looking under the hood of a hybrid car
- Visiting a working organic farm
- Researching the sustainable features and initiatives of local businesses
- Creating a public service announcement about an environmental issue
- Making a non-toxic cleaner for our homes

The Teaching Green Institute took place July 9 - 12. The National Grid Foundation grant made scholarship support available for all registrants. ■

16th Annual Advancing the Choice Conference “Alternative Fuels - Securing Our Future”

Conference includes:

- Speakers from across the alternative fuel industry
- Large vehicle display
- Exhibit hall
- Networking opportunities

Registration is free

October 5, 2012
8:00 am - 1:00 pm
Bethpage State Park
Farmingdale, NY

Visit www.gliccc.org for details. [Register now!](#)

Greater Long Island Clean Cities Coalition

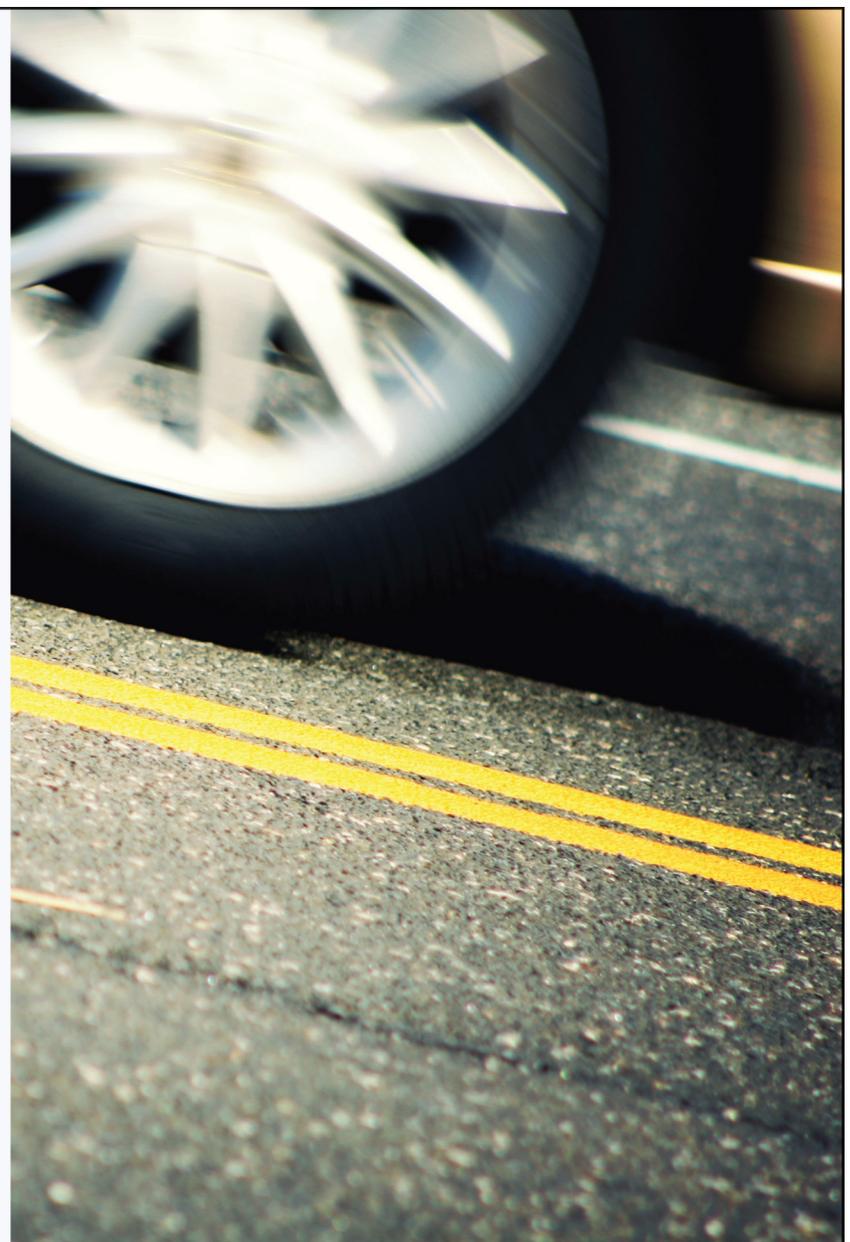
The Greater Long Island Clean Cities Coalition (GLICCC) is a designated Clean Cities Coalition, and a member of the U.S. Department of Energy’s Clean Cities Program.

Our mission is to promote and assist in expanding the use of alternatives to gasoline and diesel fuel, thereby improving air quality, facilitating energy independence and encouraging economic growth.

We are a Fuel Neutral organization and can provide information and developmental assistance with all alternative fuels including LPG, CNG, electric, methanol, ethanol, HEV and bio-diesel.



GLICCC | Advanced Energy Center | Suite 209
1000 Innovation Road, Stony Brook, NY 11794 | 631.504.5771



GLICCC: Greater Long Island Clean Cities Coalition Works For a Clean Future

STORY BY CHRISTINE D. GIORDANO • PHOTOS BY MIRANDA GATEWOOD

Last month, as gas tanks and compressed natural gas canisters gleamed white in the August sun, politicians and environmentalists gathered and smiled triumphantly as a fresh red ribbon was snipped at a new, Compressed Natural Gas Station (CNG) in Westhampton Beach. Another ribbon had been cut earlier in July at a station in Syosset. The stations are meant to encourage more clean fuel vehicles, and, subsequently, create cleaner air.

The stations were wrought from the work of The Greater Long Island Clean Cities Coalition (GLICCC), which has been doing groundbreaking work in New York for 15 years to increase the public's awareness and use of Alternative Fuels and Alternative Fuel Vehicles (AFVs) while decreasing regional and national dependency on foreign oil. On Long Island, about 5,000 vehicles already use compressed natural gas, and there are 15 compressed natural gas stations that are open to the public, in addition to even more owned by private industry and New York State.

GLICCC is part of the U.S. Department of Energy's National Clean Cities initiative, which mobilizes local stakeholders in government and industry and creates markets for alternative fuels.

"The coalition has placed over 1,200 vehicles on the road and helped fund at least 20 compressed natural gas stations and charging stations," said Rita Ebert, GLICCC's coordinator, who is known for her ability to organize and unite hundreds of shareholders.

GLICCC wins grants that enable things to happen. When the Dept of Energy's American Recovery Reinvestment Act had a call for projects in 2009, GLICCC put together a proposal that won \$15 million and became one of only 25 awardees throughout the country. The only caveat was that the Coalition had to fulfill a long list of projects within two years with its staff of only one paid employee – Ebert (GLICCC keeps management costs to 3%), and hundreds of shareholders and volunteers. They did it. (The natural gas stations were part of that project.)

"We created 143 new jobs, five compressed natural gas stations and put 160 compressed natural gas vehicles on the road," said Ebert. "We tried to focus all on local companies to create jobs on Long Island." American Recovery Reinvestment Act funding also enabled a station at a garage in Commack, NY, a main hub for highway and heavy duty trucks.

The owners of the natural gas vehicles save thousands each year on gas. "If a gallon of diesel fuel is \$4.50, by using compressed natural gas they'll save almost \$2.00 equivalent a gallon so they're only paying two dollars and change for a gallon equivalent of diesel," said Ebert.

The gas is similar to the natural gas you'd get in a New York home, only it's compressed for automobile use. The station, open for public use 24/7, has pumps that look similar to the ones you might see at a Shell station, but for two hoses that lead to a thinner but heavier nozzle with a switch.

Said the Town of Oyster Bay Supervisor John Venditto, "Natural gas is the cleanest readily available fuel for large trucks, and the construction of a CNG fueling facility, coupled with converting diesel-powered trucks to CNG-powered vehicles, is providing real, quantifiable, significant reductions in greenhouse gas and criteria pollutant emissions while displacing the use of petroleum and helping further the Town's commitment to energy conservation and reducing greenhouse emissions... The Town is grateful to the Greater Long Island Clean Cities Coalition for helping us obtain the funds to move this project forward."

The Westhampton Beach location is also strategic for natural gas because it's

close to a garage full of Public Works natural gas vehicles. Westhampton Beach CNG vehicles will be maintained and managed by the energy company Trillium based in Chicago. A portion of the funding, retrofitted three more plow trucks to add to its existing fleet of 31 natural gas vehicles. The total project cost will be about \$5 million, with the Department of Energy contributing \$2 million and Suffolk County accounting for \$2.9 million in cost share.

Of the things empowered with grant moneys, last year alone, GLICCC's projects displaced 11.5 million gallons of petroleum. In fact, over the past 15 years the Coalition has awarded over \$10 million dollars in congestion mitigation and air quality funding. Politicians such as Congressmen Steve Israel, Tim Bishop and Peter King have rallied for its funding.

"GLICCC is a critical partner in my work to make Long Island's growing communities healthier and more sustainable," said Congressman Tim Bishop. "GLICCC is the kind of innovative public-private partnership we need to advance goals we all share: ending our dependence on foreign oil, improving air quality, and mitigating climate change."

Asthma and the hanky test

Why is this a cause for celebration? If you strap a clean, white handkerchief over the tailpipe of a school bus that's fueled by diesel gasoline, the pollutants in the diesel fuel

turn the handkerchief black with gunk. Children breathing those sticky fumes are a major cause for concern, especially with asthma rates rising.

(The number of people diagnosed with asthma grew by 4.3 million from 2001 to 2009, according to The Centers for Disease Control.)

"Most school buses are powered by diesel, and diesel exhaust is a major trigger of asthma," said Michael Seilback, vice president of public policy for the American Lung Association of the Northeast during an interview with *Networking*.

"When traditional school buses are running, they're releasing a decent amount of pollutants into the air. Certainly as the (vehicles) are switched over to natural gas, you're going to have less pollutants in our air, and it's going to be healthier for Long Islanders to breathe," said Seilback.

GLICCC efforts resulted in the Long Beach City School District becoming the first school district in New York State to operate an entire fleet of clean-fueled school buses. Seventy buses in Long Beach School and another 40 in Middle Country Central School District have been converted to clean fuel, due in part to their funding and shareholders.

A Clean Future Vision

In fact, someday, you may be able to fuel your own car from your driveway with hydrogen or compressed natural gas.

"My hope that you're going

to be able to have your house gas line power your car... you'll plug your car in the driveway and refill it there. You'll start to see this towards the later part 2018, 2019," said GLICCC's chair Dominick Longobardi, who also works for Hempstead, the town that birthed GLICCC, and launched the first hydrogen station on Long Island.

GLICCC started 15 years ago from the DOE, and a joint effort of the Town of Hempstead and KeySpan, (now National Grid). The first money came from New York State Energy Research and Development Authority (NYSERDA) grants. One of the first projects was converting public safety cars to alternative fuel. (The brainchild of Public Safety Commissioner Michael Montefusco, GLICCC's first chairman, and National Grid's Barry Allen.)

"Mike's the type of guy who reads a lot and looks toward the future," said Longobardi. The projects continued to grow – Hempstead has 256 solar panels on town hall, and solar systems powering many of its buildings and parks. A 100-kw wind turbine is used to power the town's electric-fuel cell cars and geothermal energy heats and cools some of its buildings.

On Long Island, about 5,000 vehicles already use compressed natural gas, and there are 15 compressed natural gas stations that are open to the public, in addition to even more owned by private industry and New York State.



Staff and members of the board of directors: Joseph Ambrosio, general manager, ElectroMotive Designs LLC; Dominick Longobardi, chairman, Greater Long Island Clean Cities Coalition; Jim Smith, assistant vice president, Economic Development, AERTC; Rita Ebert, program coordinator, Greater Long Island Clean Cities Coalition; Tom Leddy, executive consultant, Greater Long Island Clean Cities Coalition; James Schaefer Jr., vice president, area manager, Kleinfelder; Donna Dowd, Greater Long Island Clean Cities Coalition; Russell Barnett, environmental protection director, Town of Smithtown, Dept of Environment & Waterways; Walter Goodwin, intern and Mark Hrvatin, intern



(GLICCC) Greater Long Island Clean Cities Coalition's Dominick Longobardi and Rita Ebert in the lobby of the AERTC (Advanced Energy Research and Technology Center) building in Stony Brook, its headquarters

Hempstead's Town Supervisor Kate Murray believes the partnership with the coalition has been "mutually beneficial."

"As a founding member of GLICCC, we are proud of all that this organization has accomplished to move our area forward in reducing our dependence on fossil fuels and promoting clean energy initiatives. We have worked closely with them to encourage other municipalities and individuals to participate in projects that reduce our carbon footprint. They in turn have been extremely supportive of the town's many renewable energy projects," Murray said.

GLICCC has been able to help towns like Hempstead, by securing over 10 million dollars in grant funding from sources such as U.S. Congestion Mitigation and Air Quality (CMAQ) program and the New York State Energy Program (NYSERDA).

Now that GLICCC's infrastructure is set, major companies sit on the board, and CNG vehicles are becoming commonplace, (you can now order natural gas vehicles right from the fleet). Longobardi's vision is turning towards hydrogen and liquefied natural gas. He says "those fuels come to the forefront in probably 2014, 2015."

He also is encouraging car dealerships to carry more alternative fuel vehicles and

running programs to educate emergency responders on how to use Jaws of Life type machinery on alternative fuel vehicles.

Despite the fact that alternative fuel vehicles often pay themselves off with fuel savings, Longobardi's biggest challenges are that the concepts are still new to the average person, and the tax incentives that made "people very willing to take the chance" on the electric and alternative fuel cars, expired in 2011.

"We hope to be the ones to let people understand that it's okay to buy these vehicles," said Longobardi. People can contact GLICCC to learn about incentives that are currently available. (www.GLICCC.org or 631-504-5771)

Yet companies with Long Island offices such as Coca Cola, Verizon and UPS are looking toward alternative fuels, thanks to the alternative fueling stations that now dot the island and the 9,839 stations in the nation. (See locator map here: <http://www.afdc.energy.gov/locator/stations/>)

"If we weren't able to put the filling stations in and get them the ability to get the fuel, there's no way that they could have changed the vehicles ... that's been a great success for us," said Longobardi. ■

Offshore Wind Conference

PHOTOS BY
CHRISTINE CONNIFF SHEAHAN

Local, state and national environmental groups joined together to host Long Island's first conference on offshore wind power. It took place at the Long Island Association in Melville.

"Offshore Wind in 2012" discussed the need to increase renewable energy, particularly the need to make offshore wind power part of New York State's energy mix.

The conference offered insights into the European experience with offshore wind farms, addressed job creation and economic development, offshore planning initiatives and existing proposals for Long Island offshore wind development.

Congressman Tim Bishop was keynote speaker. ■



Carol Murphy, executive director, Alliance for Clean Energy New York; Peter Grannis, first deputy NYS comptroller, office of Tom DiNapoli; Adrienne Esposito, executive director, Citizens Campaign for the Environment; Gordian Raacke, executive director, Renewable Energy LI (ReLI), Kevin Law, president, Long Island Association; Frank Murray, NYSERDA (forefront) and Catherine Bowes, senior policy representative, Climate & Energy Program, National Wildlife Federation



Karsten Moeller, commercial sales manager, Offshore Wind Power Americas, Siemens Energy



Michael Harrison, Long Island region, Workforce Development Institute (WDI) and Congressman Tim Bishop



David Manning, senior vice president, Energy Practice, VHB Engineering and Amy Engel, executive director, Sustainable Long Island



Neal Lewis, executive director, The Sustainability Institute and Ernie Fazio, chairman, LIMBA



Peter Gollon, Ph.D., energy chair, Sierra Club



Todd Stebbins, Director of Environmental Affairs, LIPA and Michael Snyder, NYS Department of State



Beth Fiteni, program manager, RELI



Ron Leonard, Eco-NRG, LLC

When you reach an obstacle, turn it into an opportunity. You have the choice. You can overcome and be a winner, or you can allow it to overcome you and be a loser. The choice is yours and yours alone. Refuse to throw in the towel. Go that extra mile that failures refuse to travel. It is far better to be exhausted from success than to be rested from failure."
– Mary Kay Ash, founder, Mary Kay Cosmetics

New Study to Determine Impact of Acid Rain on Long Island's Forests, Ponds and Wildlife

By Dr. Marilyn Jordan

You may be familiar with the damage acid rain has caused to northern forests and lakes in the Adirondacks and Catskills – stunting the growth of trees and making them more susceptible to pests and pathogens – but acid rain may also be a threat here on Long Island.

“No one has yet studied the effects of acid rain here on Long Island,” explained Senior Scientist Marilyn Jordan. “Our Pine Barrens forests, which overlie our drinking water supplies, could potentially be affected, as well as the plants and animals that live in our coastal plain ponds and forests. We need to find out if acid rain is affecting Long Island’s habitats in order to develop appropriate strategies for addressing this potentially serious threat.”

Jordan and scientists from the US Geological Survey and the Biodiversity Research Institute have been measuring the concentrations and impacts of these pollutants in soil, water and songbirds in the Central Pine Barrens and at The Nature Conservancy’s Mashomack Preserve on Shelter Island this summer.

Atmospheric deposition: Defined

Combustion of fossil fuels in power plants, building furnaces and vehicles is a major source of gaseous sulfur and nitrogen oxides. These oxides dissolve in atmospheric moisture forming dilute sulfuric and nitric acids. Power plants and incinerators also spew mercury – a potent neurotoxin – into the atmosphere. Rain and snow scrub acids and mercury out of the air and deposit them as “atmospheric deposition,” commonly referred to as “acid rain.” The contaminated water drips through vegetation, moves downward through the soil into the groundwater and re-emerges in ponds and streams.

The Problem of Atmospheric deposition

Acid rain can make soil and water so acidic that toxic metals, such as aluminum and mercury, bound in the soil become soluble. Soluble aluminum replaces calcium, magnesium and potassium bound to soil particles and these essential nutrients are leached out of the soil. Acidic water with elevated aluminum concentrations can kill sensitive species of fish.

Depletion of calcium combined with an excess of toxic aluminum impairs the ability of plants to take up nutrients, stunting the growth of trees and other plants. Forests become more susceptible to pests and pathogens.



Mercury, an output of acid rain, finds its way into pond and salt marsh sediments. Scientists from The Nature Conservancy are measuring mercury levels for the first time in Long Island’s waters. Photo courtesy The Nature Conservancy

Mercury, an output of acid rain, finds its way into pond and salt marsh sediments. Mercury is taken up and concentrated in spiders and aquatic insects. Birds that eat spiders and other contaminated insects may build up concentrations of mercury so high that they die of mercury poisoning. The combination of high mercury and low calcium availability due to acid rain may combine to create an especially damaging “1-2 punch”: fewer breeding birds, defective eggshells and fewer surviving chicks.

We already know that mercury concentrations in salt-marsh sparrows at some locations on Long Island are dangerously high. The new research will find out if the interaction of acid rain and mercury deposition may also be harming forest songbirds. ■

GREEN THOUGHTS



COMPILED BY
SALLY GILHOOLEY

In animals and plants, an alarming increase in fungal diseases has caused the most severe die-offs and extinctions ever witnessed in wild species and is jeopardizing food security. This may have wide implications for human and ecosystem health. Get the facts and find out what you can do at www.nature.com/nature/journal

Green Power Conferences based in London is an international renewable energy, climate change and sustainability event organizing company. Since 2003, 22,000 delegates from 152 countries have attended over 200 conferences through their organization. Learn about upcoming events at www.greenpowerconferences.com

The Electronic Product Environmental Assessment Tool (EPEAT) is a certification system where consumers can find information when shopping for greener electronics. Users include government agencies, colleges and private corporations. Learn more at www.msnbc.msn.com

Water, a critical resource for life, is under threat worldwide. Learn all about the state of fresh water around the globe in the newly released book, *The World's Water, Volume 7*, from Island Press. Topics cover fossil fuels, China, dams, US policy, climate change, drought, and international water quality. New data tables are invaluable for environmentalists, educators and engineers. www.worldwater.org/books

The Department of Energy announced recently \$11 million in energy innovation grants will go to nearly 70 small businesses. \$6 million of that total will fund those focused on advancing energy efficiency and renewable energy technologies enabling them to bring new products to market faster and create skilled jobs for American workers. See EERE News at eere.energy.gov/news

GREEN EVENTS

September

6 Through October 31

Clean Energy Entrepreneurship Development Program offers 7 weekly classroom sessions. Stony Brook University. Final 2 classes held at Advanced Energy Conference, Jacob Javits Center. www.cebip.org

10 - 13 Monday-Thursday

Solar Power International. Orlando, Florida. www.solarpowerinternational.com/2012.

12 Wednesday

Solar Power International (SPI) welcomes President

Bill Clinton as keynote speaker. 5 pm. www.solarpowerinternational.com/2012/public/content.aspx?ID

19 Wednesday

Climate Week NYC. The Times Center. 242 West 41st St., NYC. \$325 full day admission. http://newyorkgogreen.conference.net/event_details/

23 Sunday

Eastern Long Island Hospital Dream Green Extravaganza. Maritime Festival, Greenport. Tickets on sale. \$100. 631-477-5463.

October

5 Friday

Greater LI Clean Cities Coalition 16th Annual Advancing the Choice Conference. 8 am. Bethpage State Park. www.gliccc.org to register.

30 & 31 Tuesday & Wednesday

The Advanced Energy Conference has joined with energy conferences from across the state to create The New York State Partnership of Energy Conferences. www.aertc.org/conference2012 ■



RenewableEnergyLongIsland.org
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Renewable Energy Long Island (reLI) is a 501c3 not-for-profit organization promoting clean energy, a safe environment and a healthy planet.



LI GreenGuide

Long Island's most comprehensive green business resource available in print and online at LIGreenGuide.org.



SunshinelsFree.org

Online solar calculator and pre-screened contractor locator.

