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# The Trailblazer

**The Niagara Group of The Sierra Club • http://newyork.sierraclub.org/niagara/ • Vol. 47 No. 3 July2012**

## So, like, where's the jobs?

### How this state's electricity pricing system is hamstringing investment and renewables, and stifling job growth

***By David Bradley, Wind Action Group Member***

This will probably surprise everyone, but it turns out that for the last three years, the prices paid to producers of electricity in New York and Western New York in particular are among the lowest in the nation. For Western New York, prices averaging 3.5 cents per kilowatt-hour (c/k Wh) have collapsed to historically low levels, averaging around 2.5 c/k Wh. This is why there is talk of the large coal plant, AES Somerset going belly up, and the suggestion to mothball NRG Dunkirk power plant. Some have suggested that the price paid to electricity producers is so low because of historically low natural gas prices, but there is more to it than that. And don't worry, it won't last! The generators of electricity are not charity organizations. The price they get eventually has to equal the cost to generate it plus minimal profit. Otherwise these facilities will shut down.

Most people have no idea what generated electricity prices actually go for these days; it's only one part of the electric bill - the other parts are (generally) the transmission and connection fee. Here is a quick lesson for those of you who are interested. Prices for electricity across New York are set on an hourly basis in 11 different geographic zones via auctions held by the New York Independent System Operator (NYISO) on a "day ahead" basis (DAM); those prices are corrected later once the numbers are actually in, but these tend to be only minor corrections.

To find these 'spot prices,' you need access to the web <http://www.nyiso.com/public/markets_operations/index.jsp> [ then click down to "Pricing Data" and then "Day Ahead Market LBMP – Zonal]. For a recent day (such as April 30, 2012), select the html file format option and then, presto, you have a list of several sub-markets and 24 hours worth of prices. For April 30, 2012, the West Zone averaged $25.76/MW-hr (2.576 c/kWh).

What does this mean? A typical Western New York household that uses 550 kWh/month would have racked up a generated electricity bill of $14.80/month in April for the equivalent of about one horsepower continuously used, 24/7, for 30 days. However, for someone who only used 166 kw-hr/month, that would have been $4.47 for a month's worth of electricity, at least for the actual energy generation part. In this case, being efficient - LEDs and compact fluorescent bulbs, iPads and a new fridge - is worth $10/month. And remember, the price for electricity doesn't cover the cost of connection and transmission.

But let's look at a different consequence of low electricity rates. We have heard the mantra that cheap electricity prices will bring us lots of different jobs, and perhaps decent economic growth. Well, prices are now so low that existing generators are going down the tubes, and yet, still no jobs. It turns out that the only jobs created or maintained via the super-cheap electricity prices are those where there are lots of electrical energy use per job, such as at Globe Specialty Metals silicon plant in Niagara Falls, which uses a pair of 25 MW (50 MW total) furnaces to make elemental silicon from sand and a carbon source with about 100 workers. In this case, electricity is a raw material, and obviously an important production cost parameter. But most businesses use considerably less electricity per worker, and nowadays the cost of transmission is likely to exceed the cost of the produced electricity. The combined electricity usage may often be less than one percent of the total cost of production, and management expenses are likely to be larger than the generation part of the electricity bill.

And, of course, it is really hard to encourage conservation and efficiency when electricity is dirt cheap; for example, 233 kWh (for April 30, 2012) is price equivalent to a six-pack of fine brews costing $6, or the energy equivalent of seven gallons of gasoline costing $28. For many people, ultra-low electricity prices do not provide any motivation for getting efficient, which is sad but nevertheless true.

So how might one calculate energy in relation to jobs? There are some good models out there. It turns out that replacing the pollution-based energy generation with renewable energy production is now a major growth industry in many parts of the world, and has led to significant job growth in some regions of the world (Europe, Ontario, China, India, etc.). But the unsubsidized cost to generate that non-polluting electricity is not 3 c/kWh or less - though in some cases, close to that. What is different in their growth economies is that energy is priced differently. By pricing electricity as the weighted average of the needed price to cover the production cost and some minimal profit [instead of via the NYISO current auction system's "Uniform Clearing Price"], the need for any subsidies are eliminated. In Ontario, this difference is now the equivalent of one Tim Horton's donut per month cost increase to consumers, but it has also produced (since October 2009) 20,000 jobs and garnered $27 billion in new investment in clean energy systems in the province. So, slightly higher prices for the generated portion of the electricity bill also can lead to actual job growth, and lots of investment.

*Continued on back page*

## Environmental Education Awards Dinner

***By Vicky Southall***

The Sierra Club has long been a proponent of the benefits of Environmental Education. Most recently in 2007 the national organization along with 58 other environmental groups endorsed the aims of the No Child Left Inside Coalition, which has been working to pass the No Child Left Inside Act in Congress. This Act would provide funding to train K-12 teachers to effectively bring Environmental Education into the classroom to help students face the environmental challenges of the future.

Locally the diversity of Environmental Education opportunities in the classroom was highlighted at the Sierra Club/Niagara Group Annual Dinner on May 2, 2012. Three area educators attended the dinner to receive awards in the Sierra Club/Niagara Group's first annual Environmental Science competition and to give an update on the status of their winning project.

Doug Hollinger of Pavilion High School, Pavilion NY the first place winner, founded the Global Youth Services Team in 2006. Since that time he and his students have built solar –powered electrical systems and UV water purification systems for schools and clinics along the Thailand/Burma border and in Haiti. The students pay for their own travel and living expenses and work directly with local people training them in the care and maintenance of the installed systems. The benefit to the villages in terms of clean water and solar energy is clear. In return the students come away with a sense of efficacy in their abilities to make a difference in the lives of others and an experience that will reverberate for a lifetime.

Dr. Manju Prakash, and senior Trevor Gardner from Archbishop Walsh Academy, Olean NY presented their second place winning project. The objectives of the project were to promote energy conservation programs and create awareness of renewable and non - renewable sources of energy. Mr. Gardner demonstrated the working model of a solar home which the students built using a Power House Green Essentials Kit. He explained how their critical thinking and problems solving skills were challenged trouble shooting difficulties that arose in the working model. The knowledge gained during this process in the classroom is transferable to real life situations in the future.

One of the benefits of Environmental Science is the way in which student learning is connected to the real world. Mark Ricupito from Sweet Home High School, Amherst NY demonstrated how motivating this connection can be to all students. His third place winning project addressed the issues of sustainable living by creating and maintaining a sustainable garden in the courtyard of their school. All aspects of gardening from building a rain barrel and vermicomposting bins to studying soils and plant growth in a laboratory setting were included. This project so engaged Mr. Ricupito's students, including students from an Alternative Education class, that they requested to come to school on Saturdays in order to water and care for their garden.

It was inspiring to meet these educators and students and see the distinct ways that they are incorporating Environmental Education in the classroom. Their passion and commitment to ensuring a healthy environment through education gives us hope for the future.

## Thank you, Charles Lamb, retired Trailblazer editor!

Charles Lamb served as editor of the Sierra Club Niagara Group's newsletter, the Trailblazer, for 10 years and is still an active member of the Niagara Group. He has been concerned and involved in efforts to protect the environment since growing up in the shadow of the Great Smoky Mountains National Park. He was a member of the Ecumenical Task Force on the Love Canal. Currently, he continues his work as a member of Residents for Responsible Government, an environmental group in Niagara County working to stop the importation of hazardous waste into the Great Lakes watershed area. As an ordained minister, he feels strongly that protecting the environment is part of Christian stewardship for our natural world, and an implicit part of worship of and service to God. We thank him for his years of diligent work for our region, educating the public on critical environmental issues, and raising awareness for our community.

# FIT: An answer to a gathering storm

***By Larry Beahan***

The Western New York chapters of the Sierra Club and the United Steel Workers have joined to propose a demonstration project that offers WNY clean energy and good jobs. The world-wide name for it is a FIT or Feed –in –Tariff. NYPA (New York Power Authority) would offer twenty –year contracts to individuals, communities, and corporations to buy all the electricity they can produce from renewable sources like wind and sun at a reasonable fixed rate.

With that kind of contract in hand, banks are willing to loan money to pay for installation of wind turbines or solar panels. The loan is repaid as the borrowers generate clean energy. Installation expense has been a big hang-up in getting clean energy infrastructure put into place. The clincher on the deal is that installation of these clean energy systems promises jobs - hundreds of jobs.

A perfect storm has been brewing here. Our skies are filling with global-warming gases. Our demands for energy rise. We continue to burn fossil fuels. The polar ice caps are melting and our weather has gone wild. The "Fracking Monster's" solution promises energy, but threatens to chew up our countryside and defecate in our fresh water. In the meantime, industry fails to provide enough jobs to support our people.

The recent appointment of Western New York-native and First Niagara Bank Chief Executive Officer, John Koelmel, as Chairman of the New York Power Authority couldn't have come at a better time. He can be the key to Western New York surviving this storm. He is a banker so he knows the nuts and bolts of financing and commerce. He is now also in charge of one of the largest energy-producing and distributing entities in the world, NYPA, which includes Western New York's own Niagara Falls and thousands of miles of energy-distributing power lines.

If Chairman Koelmel would bring together Buffalo's own Mark Grisanti, Chairman of the NY Senate Committee on the Environment, and Niagara Fall's own George Maziarz, Chairman of the NY Senate Energy Committee, that triumvirate of WNY power could certainly make the FIT concept work for us. It has worked all over the world and most notably for our neighbor Ontario where it has created 20,000 jobs and shut down most of the coal burning power plants. In Germany during 10 years, FIT has created over three hundred thousand jobs as they close down their nuclear industry.

Consider getting in touch with these gentlemen by letter, phone, email, or in person and talking to them about FIT, the Feed –in-Tariff. Take a look on the internet at "CLEAN-FIT programs: Clean Local Energy Accessible Now – Feed in Tariff" . Ask them to look at it too and bring clean energy and good jobs to WNY.

# The Bruce Kershner Award 2012

***By Art Klein***

The famous essay "The Hedgehog and the Fox" by the critic Isaiah Berlin illustrates the theme, illuminating the major tenet of the Bruce Kershner Award. Isaiah Berlin used an old saying, "the fox knows many things, but the hedgehog knows one big thing" to exemplify how another author, Tolstoi, used a giant voice in the narrative for "War and Peace", but actually was as wily as a fox to accomplish the book by use of many characters and subplots. The idea? Any grand vision must use many wiles of the fox for implementation.

This same theme exemplifies the instinct of the late Bruce Kershner (for whom this award is named) and to this area's own Walter and Nan Simpson – 2012 Bruce Kershner Awardees.

Bruce Kershner was a well-known naturalist, ecologist, and educator, as well as a highly recognized authority on old-growth forests, edible wild plants, and waterfalls. In 1987 and 1988, he was named "Environmentalist of the Year" from the Sierra Club (Niagara Group) and the Adirondack Mountain Club.

Bruce Kershner was a tireless explorer and writer about the natural areas of our region as well as many of the outstanding national territories. He thoroughly understood the importance of the identification and protection of our nation's natural gems. He was a great organizer and used every available wile to ensure that his favorite areas came to full public knowledge with paramount importance placed on permanently safeguarding the protection of them.

The wisdom of Walter and Nan Simpson, who have also understood the "Big Thing", are very similar to the Bruce Kershner mentality. They also hold a primary focus on identifying our statewide natural treasures with such consciousness of our environmental issues that permeates all parts of their lives.

After a stint as a Peace Maker and Director of the Western New York Peace Center, Walter Simpson was the Energy Officer at the University at Buffalo for 26 years. He left UB as a green campus with an incredible start on energy conservation in an era when such realizations were just beginning and often challenged as not cost effective. The University at Buffalo was made a national example of perhaps the region's greenest institution. He and his wife, Nan, are the prime movers and shakers in the local green and personal health communities, receiving tutorials under Al Gore's climate change training to promote the sustainability that our civilization must achieve. The Simpson's are the stalwarts of the WNY Sustainable Energy Association, WNY Climate Action Coalition and the Animal Right Advocates of WNY. Walter and Nan are virtually the main motivators of the Clean Energy for Jamestown Campaign, a coalition of 14 environmental groups opposed to the construction of a new coal-fired power plant in Jamestown. They both are active in political campaigns and aggressively work to clean up the environment, address climate change, and create green jobs. Walter and Nan not only fully understand the sustainable 'good' life that beckons to us - they live it in a very ecological house, utilizing the latest in renewable energy. They care…and make sure we all care. Like Bruce Kershner, Walter and Nan Simpson exemplify their grand vision for our environment, and never tire to use multiple wiles to achieve it. We are enormously grateful for their diligent work on so many levels in our region. Thank you Walter and Nan Simpson!

# Atlantic Chapter of the Sierra Club Meeting in WNY

The Niagara Group hosted the Executive Committee of the Atlantic Chapter in Buffalo on June 23, 2012. The meeting was followed by an Energy Symposium the evenings of June 23rd and 24th. The purpose was to begin a discussion on the overall agenda for energy in New York State. Many of the Niagara Group Ex Com and representatives of the national Beyond Coal and Beyond Gas campaigns discussed goals and strategy. We affirmed the overall goal of eliminating all fossil fuels and nuclear by 2050 and replacing them with conservation, efficiency, and renewable energy. The questions discussed focused on how to proceed and what should be priorities. We will keep you updated on future developments.

**Where's the Jobs?** *continued from front page*

Unfortunately, the last wind farms for a while are being installed in NYS not because we've lost any wind, but because of changing policies. Over an eight-year period, roughly $3.5 billion has been invested and only a few hundred permanent jobs have been developed in New York State (but 70,000 nationwide in the US), as well as the equivalent of about 1,000 construction jobs in some years - jobs that go away when construction of wind farms stops. But it could have been many more jobs. Somehow, we missed the memo that says that renewable energy installations are supposed to be connected to new job creation. Instead, we focused on subsidizing renewables to match the low and highly variable price of electricity as set via the NYISO spot market. We have not been doing the one thing that is known to work with respect to job creation — provide stable, long-term (20 years, at least) prices that cover the cost of making electricity (wind, solar, biomass etc.) and some nominal profit, the kind of policy (Feed-In Tariff) used in over 80 jurisdiction.

New York State's present policy seems to result in maximizing unemployment while minimizing opportunities for job creation due to this current auction type electricity pricing system that results in extraordinary profits for owners of old, pollution-based generation facilities. If we want a piece of the "clean-tech" market - which for New York State alone will eventually be much more than $100 billion of products in the next 10 to 40 years — then we need to change the way that renewable energy is priced. How much more costly electricity will become depends on which renewable approaches are used to make this electricity – both expense and how fast we can assemble their respective infrastructures are issues to consider.

From a clean, renewable energy perspective, pollution-based approaches (nuclear, natural gas, coal) can continue to use the auction arrangement until they become obsolete or just shut down due to the potential disasters. We prefer a system where renewables are fed into the energy grid without auction such as happens with a pricing strategy called a FIT or Feed-In Tariff.

What does not seem to be a cost-effective job creation strategy for New York State that result in getting zip for employment in manufacturing jobs and temporarily depress estimated rates which will then rebound whenever fossil fuel prices spike. Contrary to those adverse effects, operating a wind turbine to make electricity requires no natural gas or coal usage, and zero associated air and water pollution. So why should wind-turbine-sourced electricity prices be set by the prices of nuclear, coal, and/or natural gas when there is zero coal, natural gas, or nuclear cost input for wind turbine operations? As Mr. Spock would say, "That is highly illogical."

*Edited from article in Artvoice, May 10, 2012*

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# BLAKE REEVES AWARD

## Went to Cara Matteliano, Vice President of Programs at the Community Foundation for Greater Buffalo.

***By Lynda Schneekloth***

This award is given in honor of Blake Reeves, a founder of the Sierra Club Niagara Group and Executive Committee Chair during a group renaissance about 15 years ago. Blake Reeves knew that the effectiveness of environmental work depended on the effectiveness of organizations and the facility to work together.

It is appropriate that this award be given to Cara Matteliano because effective organizations have been her vision as well. At the Community Foundation (CFGB), Cara has lead and managed all program areas including grantmaking, scholarships, community leadership, research and evaluation. She has been instrumental in moving the Foundation into a new way of thinking, "catalytic philanthropy", a new vision of community support intended to build capacity beyond project funding. An example of this work is the Cara's construction of the Coalition for Lead Free Community made up of grassroots organizations, local and regional governments that prepared and received a large HUD Lead Outreach Grant to address this public health hazard.

For Sierra, it is her work on the Western New York Environmental Alliance that brings her this award. In 2008, the CFGB decided to fund environmental issues, supporting organizations working to protect and restore the Niagara Region's natural beauty and assets. In consultation with environmental groups, two goals were identified: better communication among groups, and access to funds.

This was the beginning of the Western New York Environmental Alliance that grew over three years through a series of four Congresses and countless Working Group session. By spring 2010, over 150 regional environmental groups had participated and agreed upon a Declaration of Action, and in November 2011, the members voted to form the Alliance as an independent 50(c)3.

This has been an effort worthy of Blake Reeves vision of effective organizations – effective in doing things, effective in communicating, and effective in protecting and restoring the environment. Thank you Cara.