

Solar One is a New York City organization that promotes environmental responsibility and sustainable living through imaginative outreach methods. Calling themselves a “Green power, arts and education center,” with the purpose of “inspiring New Yorkers to become environmentally responsible city dwellers,” Solar One has a variety of programs, including environmentalist education, arts, and music activities. We visited Solar One, which is located at the Stuyvesant Cove Park on the East River near 1<sup>st</sup> Avenue and 23<sup>rd</sup> Street, during their CitySol event, an open-air solar-powered music show surrounded by booths providing info, food, arts and crafts. At the event, which was very lively and popular, we spoke with Solar One staff members Jamie Paquette and Chris Neidl inside the Solar One building (which is a solar-powered energy efficient building), about a variety of environmentalist topics.

Altenews: How did Solar One get started?

Jamie: Solar One started in 2000 when New York City was looking for someone to maintain a park, the Stuyvesant Cove park. The parks department didn't want to take the park, so they looked for a nonprofit to take it, and they wanted an environmental learning center. What happened was, our parent organization, the Community Environmental Center, based in Queens, won a contract with the city, and got a lease to run this project. The lease we have for the space costs us \$1 per year for 30 years, for maintaining the park and running the environmental learning center. The lease process was finalized in 2002, in 2003 we put up the building. The Community Environment Center spun off a new organization for this project, a new nonprofit, that was in 2003. The Solar One company was created in 2004, but we've had programs since 2003, in arts and education, since then we've been expanding, doing new and different things.

Altenews: What is your background in renewable energy?

Jamie: I started working on this five years ago. I had the interest, but I didn't have an environmental background per se, I was brought on to do writing and fundraising. Since then I've grow with the project, learned as we've gone. We started with nothing, and have grown from the ground up. We have a building, a stage, we run events throughout the year. This job is my background.

Chris: I studied geology at the University of British Columbia, I took a planning course, in energy systems infrastructure. I dabbled in renewable energy, attended symposiums. Professionally I started two years ago, I made a career move, went to California, took classes, worked at the Solar Living Institute. In March 2005 I moved to New York City, and was hired at Solar One. Since then the staff has grown, the scope of the programs has grown.

Altenews: What are some of the ways that Solar One tries to educate people about green building?

Jamie: We have an education program, that we started for school kids, K through 12. We have a curriculum, on energy and the environment, we bring classes over here. We developed this curriculum with the help of the National Energy Education Development (NEED), a national program that develops curriculums. All the programs are for free, any school that wants to come can come. We use what we have, buildings, renewable energy, green buildings, we started with that, expanded to an evening programs for adults. We do the Green Renter program for New York City renters, people who are not owners but are interested in the local environment. We do a lot like that, we have lectures once a week, 25 to 30 per year, we get a good turnout. We also run outreach, fund things to get people here, work with a lot of other organizations. We are a small organization, we maximize partnerships. There are a lot of great organizations in New York, and we take advantage of that. We have a CFL tipping point project, using high school students to sell compact fluorescent light bulbs, it's a way to get kids involved, learn job skills, it has a basic environmental message. Going in and changing a light bulb, that's a part of day to day life, it's a small step, and then you take it to the next level. We cover a wide variety of topics, the Green Renter series, composting, light bulbs, food production, green investing, transportation, congestion pricing.

Altenews: What are the three best green buildings in New York?

Chris: The Hearst building, Bryant Park, those are LEED rated. The Stillwell Avenue subway station, near Coney Island, is covered in solar panels. There is the Ice House in Bushwick, it's a retrofit of a 19<sup>th</sup> century factory, with six units, they have solar panels, radiant heating, green features. Battery Park City has a green mandate standard, they're conglomerating buildings to try to build a neighborhood.

Altenews: Could you describe the green features and solar panels of the Solar One building?

Jamie: The solar panels are a 3 kilowatt array, thin film, on the older side, it is 6 or 7 years old. This building was first used in 2000 for Earth Day, the building is reused, made of recycled aluminum, all low VOC (volatile organic compounds) paints, we have better indoor air quality from the paint, the indoor air quality is good. We have linoleum floors, natural fiber, no petroleum based products. There is a low flush toilet in bathroom, and a waterless urinal, which uses a less dense fluid to take urine down, it uses no water whatsoever, saves thousands of gallons of water per year. Those are becoming more popular, for office buildings, and other things. The stage is recycled, from fashion week, we reclaimed it. The overhang outside has passive heating and cooling, it blocks sun in the summer, and lets the sun in during the winter. We use compact fluorescent light bulbs, and energy star computers. The building is made out of SIPS, structurally insulated panels, they trap heat or cool very well, and reduce energy use.

Altenews: What are some of the advantages of having a green building?

Jamie: Number one, from a basic health standpoint, green buildings are healthier, there is no off gassing, no oil or gas burned on site, you save greenhouse gases. It is cheaper to run, reduces energy use, water use is minimized. It is more expensive to build but cheaper to live in. There are environmental benefits, the use of resources, the reuse of products, the amount of energy expended overall is lower. Green buildings procure materials locally rather than having them shipped in, that reduces oil use, reduces truck and plane pollution, I think that 500 miles is the LEED standard, you are supposed to get materials from 500 miles away or closer.

Altenews: How much does it cost to make a New York City apartment green?

Jamie: That is tricky, because NYSERDA has incentive programs to cover the cost of installing, and there are tax credits for on-site energy generation. It depends on the type of panels. What is more important than upfront costs is payback, how long will this take to pay for itself, and the payback period is upwards of 20 to 30 years. If you can get that down to a 10 or 5 year period, it becomes more attractive, saving money in a reasonable amount of time.

Altenews: Does Solar One lobby?

Jamie: We are not a lobbying organization, we are not big enough. There are some federal programs, we don't have all the info, if more money were put into R&D it would put the cost down. We don't do policy as an organization, we encourage but we do not lobby.

Altenews: How important is green building and solar power to stopping climate change?

Jamie: Most of the focus is on cars, trucks, automobiles, people don't always understand the high percentage of energy use buildings account for, 30 to 40 percent in this country. Plug-in appliances and heating and cooling can have a huge impact, the equivalent of automobiles, and it is something that people have more control over. It is not just solar, a mix of things is needed. Solar is easy to integrate into buildings, it has more of a history than geothermal or hydrogen fuel cells, solar plays a big part in that, the solar technology is there, it is being refined at a quicker pace, it is easier to integrate, more adaptive, like the Solar building, building solar into the side of the building, it is part of the structure of the building, that is unique thinking.

Altenews: How much energy could be saved and how much less oil would be used if the majority of Americans adopted green building and solar power usage?

Jamie: That is hard to say, the folks at NYSERDA might know that, they know about retrofits and new construction, they have good answers, and there are studies on their website, nysERDA.org. I don't know off the top of my head, everything has energy benefit or cost. We do not have an exact goal, the LEED rating is not tied to specific goals. The more you do, the more effect it has. The simplest choices, like windows and insulation, have huge repercussions.

Altenews: If you had to pick one thing to recommend to people, what would it be?

Jamie: Light bulbs and appliances, they are the simplest things. Put in compact fluorescent light bulbs, they pay for themselves, you don't have to change them for years. The cost has come down, you can get 6 for 10\$, and they use 20-30% of the energy of a standard bulb, and last 5 to 10 times as long. Energy star appliances, efficient air conditioners, they save money, reduce energy use, are not a burden on grid. The city is looking at having to build more power plants for New York City for the next 6 years.

Altenews: What do you hope to be the impact of the CitySol event?

Jamie: This is the second one of these this year, we had one last year, and what we hope the impact is, is for people to come and have fun. It is different from Earth Day, where you hand out literature, maybe people read it and maybe they don't. Here people come and see that sustainability isn't all negativity and global warming and gloom and doom, it can be music and food and clothing and products that are sustainable, it is not all bad news. A lot of people are doing interesting things, and make a positive difference, and that shows in positive way. This is a different type of event. We get people for a different reason, not for obligation, they are here to have fun, and everything else they get they learn better. This is an arts program, a dance festival and arts festival, we get people here for the performance, and if it is powered by solar, it becomes more real to people, they see the application rather than the abstract concept.

Altenews: Are there any green power choices for New Yorkers?

Jamie: There is ConEd Solutions, they are here today. They do green energy, they work with NewWind Energy of Pennsylvania that owns windmills. ConEd sells wind power to New York.