

SOLAR GENERATED ELECTRICITY NOW AFFORDABLE

by Steve Knowlton, Chair of the Jersey Shore Group

On March 1, 2001, the New Jersey Board of Public Utilities announced a rebate program to help make clean energy more affordable. The program applies to solar energy (photovoltaic) systems as well as fuel cells, small wind, and sustainable biomass technologies. The utilities will reimburse the customer \$5 per watt of system-rated output for systems up to 10 kilowatts (KW), or 60% of the installed cost, whichever is less. For higher rated systems, the rebate per watt is lower.

Photovoltaic (PV) cells are made of silicon and produce direct current when the sun's rays hit them. The system normally includes panels of interconnected cells and an inverter to produce alternating current so the customer's installed lighting and appliances are compatible. If the homeowner wants to be connected to the grid (i.e. to the wires from the utilities), he can then draw power from the utilities when the PV panels are generating less power than his house consumes, and can supply excess power to the utilities when the sun is shining. When the homeowner supplies power to the utilities the electric meter actually runs backwards. Depending on the size of the PV system, it is possible to have a yearly electric bill of zero, or even for a homeowner to be paid by the utility for the excess power (but at the wholesale rate).

Here are the savings that I anticipate for a 2.4 KW system just installed in my house for \$22,000. The rebate is based on the ACTUAL power output, which, due to inefficiency in the inverter, is only 2.256 KW. At \$5 per watt (2256 x \$5), my rebate will be \$11,280, more than half the installation cost.

The savings on my electricity bill are calculated as follows: the manufacturer, Astropower Inc., predicts average monthly generation of 260 kilowatt hours along the Jersey coast, assuming optimal orientation toward the south. At the current cost of electricity, 11¢ per kilowatt hour, I'll save \$28.60 per month or \$343 per year.

The savings should recoup the system cost in 20 years, assuming a 5% annual increase in the cost of electricity.

This is but a sketch of the program. More information on the rebate program is at <http://njcleanenergy.com/>. Information on net metering is available at <http://www.state.nj.us/bpu/> in the "Energy" section.

I have installed a 2.4 KW system at my house in Fair Haven. I look forward to the benefits - a pollution-free means of generating electricity, no global warming gases, no use of non-renewable fuels - and a reduction in my utility bill.

FERRY SERVICE BETWEEN BERGEN COUNTY AND MANHATTAN

by Betsy Kohn, Chair of the North Jersey Group

The North Jersey Group opposes using Ross Dock, at the north end of Fort Lee, for commuter ferries. The Dock is located within 101-year-old Palisades Interstate Park, a national treasure. According to the Palisades Interstate Park Commission, the Park's mission is "to preserve natural, historic and cultural resources, and provide for their use by the public for recreational and educational purposes." Busing commuters through the park would be incompatible with this mission.

The addition of shuttle buses and more cars on the Park road to Ross Dock would greatly disrupt normal park activities in this section of the Park, adding more traffic, asphalt, noise and pollution, and turning the road into a major thoroughfare. The Park road is currently narrow and rough; it would undoubtedly have to be widened and restructured to the detriment of the remaining cliffs and adjacent park land. And the use in winter of road salt would harm plant and animal life.

Indeed, the plan makes no sense at all because this road usually closed in winter due to the hazards of falling rock and ice. In fact, in the immediate aftermath of the WTC disaster, the Park road and Ross Dock were closed to all traffic.

Introducing commuter buses and ferries in the Park would disable a precious resource of open space and natural beauty — a loss that we can ill afford in this overdeveloped region. Traffic congestion at the nearby George Washington Bridge and on adjacent roadways would not be eased by commuter ferry service at Ross Dock. Commuters would continue to use their cars to reach Fort Lee, the Bridge and New York City.

We favor the restoration of ferries on the Hudson River — but oppose COMMUTER ferries in this Park. We advocate siting commuter ferry landings outside the park in places where direct links to public transportation could be easily expanded or developed. One logical location is Edgewater, which the Port Authority study actually proposes for the marina on River Road near the foot of Route 5. Residents of Fort Lee and nearby towns could be easily shuttled to the ferry landing in Edgewater either by Route 5 (which was originally built to bring folks to this ferry landing years ago) or by River Road. It should be noted that the travel time on these routes to an Edgewater ferry site would equal (or be less than) that along the long Park road to Ross Dock.

CHAPTER CO-HOSTS INTERNATIONAL POPULATION SPEAKER

By Bonnie Tillery, Chapter Population Issues Coordinator

Is there a link between population growth and the tragedy of September 11? Does a growing population's need for resources mean further environmental degradation? What does the future hold with 3 billion young people about to enter their childbearing years? These questions were recently addressed by Werner Fornos, President of the Washington DC-based Population Institute, in a talk at The College of New Jersey which was cosponsored by the Sierra Club's New Jersey Chapter.

Mr. Fornos linked global environmental concerns to global terrorism. For example, an excess population of frustrated, malnourished, disillusioned people will do anything, follow anyone, for just one meal a day, and can be turned

into an army of assassins.

What Mr. Fornos called the new Four Horsemen of the Apocalypse—deforestation, global climate change, topsoil erosion (expansion of deserts) and water scarcity—loom ever larger as the world's population increases. And today, over half of the world's people are in their child bearing years. He noted that ecological shortsightedness in far off lands produces ecological disasters in neighboring countries.

The United States has less than 5% of the world's population but consumes over 25% of the world's resources. This makes it mandatory that we do something about these global concerns.

A proven solution is at hand. Through aid to poorer nations we can eradicate

female illiteracy, provide employment opportunities for women, reduce infant mortality, and provide universal access to family planning. This works! Programs that provide these services—that give women a choice in the size and spacing of their families—have helped reduce birthrates in developing countries where 97% of the world's population growth is now occurring. Yet, of all the developed nations, the United States is one of the smallest contributors to these programs - with only 0.03% of our Federal budget going for population assistance.

What can we do? Contact our representatives in Washington and tell them we want increased funds for international family planning assistance, and elimi-

nation of the Global Gag Rule which states that countries which provide or even talk about abortion services, even with their own resources, get no U.S. family planning assistance.

As Sierra Club members concerned about the environment, we recognize we must also be concerned about the issue of global population and reduction of excess consumption because, as John Muir said, "When we try to pick out anything by itself, we find it hitched to everything else in the universe."

There are also things we can do to stabilize population here in New Jersey. To learn how you can help or to get more information, contact me at 609-259-6438 or send e-mail to blt44blt@aol.com.

Report on the Sierra Club's Northeast Regional Conservation Meeting CHALLENGES OF SPRAWL, TRANSPORTATION AND ENERGY

by Wende Harper,
Secretary of the Club's Northeast Regional Conservation Committee

Sierra Club activists recently gathered at Fairview Lake, New Jersey, to examine the environmental challenges of sprawl, transportation and energy. Sponsored by the Sierra Club's Northeast Regional Conservation Committee (NERCC), the workshops took place at the YMCA Conference Center the weekend of October 12-14. NERCC delegates and participants from Chapters ranging from the Eastern Provinces of Canada to Pennsylvania met in subject sessions to listen to experts, and in smaller groups to discuss options and plan action. Interspersed in a packed schedule of intense meetings were opportunities to enjoy the beautiful fall color by hiking up onto the Appalachian Trail along Kittatinny Ridge or canoeing on the lake.

On Friday evening, Barbara Winterson and Kate Moffat of Maine presented "Women's Voices in the Environment" (WVE). Two summer encampments in Maine have provided training, inspiration and growth for this movement. A third encampment is planned for the summer of 2002; women of the Northeast Region are encouraged to attend. Barbara and Kate are available to give workshops on WVE to Club Chapters and Groups.

On Saturday, Debbie Boger, who arrived from the Club's Washington DC Office in her hybrid car, characterized

President Bush's Energy Plan, the related House bill which she said was even worse, and described the Sierra Club's reaction.

Debbie joined Nancy Parks and Judith Johnsrud, Sierra Club volunteers, in presenting a workshop entitled "Three Energy Oxymorons of our Time: Clean Coal, Reliable Nuclear and the Bush Energy Plan." Another panel on energy considered what is going on with the restructuring of utilities, as well as "Positive Energy": policy initiatives and opportunities aimed at enhancing energy efficiency. Specifics of a "Clean Energy Blueprint" were explained. For example, one new nuclear power plant could be replaced by four 100-megawatt wind farms. Al Noguee, from the Union of Concerned Scientists, Dale Bryk from the Natural Resources Defense Council (NRDC), and Debbie Boger were the presenters.

Deron Lovaas, a former Sierra Club staff member presently working for the NRDC, introduced the subject of sprawl. "Local land use, planning and investment for infrastructure can induce sprawl," he explained. "Tax policies affect development and often we don't take into account all the costs." Deron described the steep decline of central cities, where 15% of the land is vacant and abandoned malls are turning into unproductive "gray fields." He said that

in 1992 there were 3800 vacant malls in the U.S. which with proper incentives could be recycled. Deron also explained the close connection between sprawl and transportation. He advocated a strong, balanced transportation system in the U.S. with attention given to efficiency and use of alternative energy sources. Deron summarized "Smart Growth" for us in the accompanying box. For further understanding he recommends the book "Solving Sprawl," soon to be published by the NRDC.

In the afternoon Jeff Tittel and Bill Wolfe, New Jersey Chapter Staff, related "smart growth" to preservation of watersheds. Based on testing by the New Jersey's Department of Environmental Protection, suburban development has been identified as the key factor in the lower quality of some of the States' lakes and rivers. Jeff and Bill are available to Chapters and Groups for workshops on watershed management.

In his presentation on transportation, Larry Joyce, Pennsylvania Chapter Chair for Transportation, further explained why rail transportation is more environmentally friendly than highway or air. Larry suggested that inter-city bus and rail service need to be more integrated and baggage handling and ticket coordination improved so that intermodal transportation can become more efficient and widespread, as in Europe. He suggested that

those interested join the Northeast High Speed Rail Task Force. In another presentation on transportation, Brian Dumser of the University of Massachusetts talked about airports, their unrecognized adverse impact on surrounding land and air, and the dire problem of the unregulated pollution overall caused by air transportation. He pointed out that 40% of all air travel in the U.S. is under 150 miles. High-speed rail such as exists in other countries could replace some of our air travel.

The noontime visit of Senator Jon Corzine of New Jersey sparked the conference with his in-the-trenches perspective on the challenges of being a Senator.

What is "Smart Growth"? by Deron Lovaas, NRDC Smart Growth Program

Location: It's smart if it's near public transportation and adjacent to or in existing communities.

Transportation: It's smart if it creates neighborhoods with viable and attractive choices besides driving.

Land Uses: It's smart if it creates, or contributes to, a healthy balance of jobs, shops, and housing (including affordable housing choices).

Open Space: It's smart if it protects open space, farmland, wildlife habitat and watersheds.