

Walt Ratterman

Renewable Energy Consultant

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Walt Ratterman offers his services as a implementer/ consultant / trainer for projects involving Renewable Energy solutions for rural communities in remote locations around the world.

These services include projects working with local NGO's, health facilities and communities, as well as working with government policy makers and stakeholders, seeking to find better ways to support renewable energy solutions in their countries.

In offering these services, Walt draws on his extensive experience in electrical construction, project management, alternative energy design and construction, business ownership, and training – for both the non-profit world as well as the for-profit world.

Abbreviated Experience Summary:2006 to Present: SunEnergy Power International

Renewable Energy Consultant working with communities, NGO's and governments to support training, implementation, and policy work promoting renewable energy solutions to electricity needs in developing countries. This is done in affiliation with SunEnergy Power International – a 501-c-3 non-profit organization with this work as its mission. (www.SunEPI.org)

2002 to 2005:

Program Director for Green Empowerment, a non-profit organization based in Portland, Oregon dedicated to helping the world's poor improve their lives through the use of renewable energy systems. Responsibilities included designing and implementing projects and trainings in eight countries in Asia and Latin America.

1997 to Present:

Vice President of Knightsbridge International – a humanitarian aid organization. (www.kbi.org)

1985 to Present:

Founder and President of TRC-Electrical and Alternative Energy – performing commercial electrical construction and Alternative Energy projects in Pennsylvania and Maryland.

1971 to 1985:

Vice President - Howard P. Foley Company – at the time the country's second largest electrical contractor. Responsibilities included major construction projects in the western US and Alaska.

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Countries Worked:

Mr. Ratterman has worked with communities, health care facilities, and governments on Renewable Energy Projects in:

Asia:

Thailand, Burma, Malaysia, Philippines, India, Sri Lanka, Cambodia, Papua New Guinea

Central Asia:

Afghanistan, Pakistan, Kazakhstan, Tajikistan, Uzbekistan, Israel / Palestine

Africa:

Rwanda, Benin, Nigeria, Lesotho, Burundi, Sudan

Americas:

Nicaragua, Ecuador, Peru, Guatemala, Haiti, Guyana, Galapagos

As part of Knightsbridge International, Mr. Ratterman has worked in Afghanistan, Uzbekistan, Cambodia, Philippines, Thailand, Burma, Burundi and Nicaragua

Expanded Experience Review:

2008 to Current Activities:

Haiti: Working with the energy team of USAID and PA Consulting to improve the technical capacity throughout Haiti to provide more reliable energy systems to health care facilities in all of the districts. This work includes training, installations of inverter / battery systems, and re-design of larger hospital infrastructure systems.

Thai – Burma Border Area: Continued our work in this area through trainings and implementation of rugged solar systems for medical and human rights training facilities in the area.

Rwanda: Completed a training and implementation project for six more medical facilities throughout the country, with Solar Electric Light Fund.

Palestine: Conducted a training in the West Bank for a group of engineers, in photovoltaic system design.

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Kazakhstan: Worked with NGO in Almaty to complete a 10KW initial demonstration project in the rural area to promote the development of photovoltaics in off-grid communities.

Ethiopia: Worked with USAID to perform a country-wide survey of the electrical situation in this country to analyze approaches to improving the power supply for critical health sector equipment in various parts of the country.

Papua New Guinea: Commissioned a year-long project to implement small LED lighting systems in approximately 1,000 remote clinics, with Light up the World, Canada.

Ecuador: Continuation of an ongoing project addressing community electrification with solar power in the Shuar Indian areas in the southern part of the country.

2007 Activities as Independent Consultant:

Thai-Burma Border Area: Continued the ongoing work to provide solar electricity solutions to clinics, and IDP camp hospitals in the area. Currently in the process of planning a solar energy system for an expanded IDP camp / training facility to be implemented in late 2008.

Rwanda: Continued work with the Solar Electric Light Fund in the implementation of solar hybrid power systems for 20 hospitals throughout the country.

Burundi: Performed an initial site assessment and design for a solar / diesel hybrid solution for a remote hospital.

Lesotho: Completed a training and an implementation for solar / diesel hybrid systems at four remote hospital sites in the mountains.

Benin: Completed a training and implementation for solar water pumping systems for agricultural drip irrigation systems in two remote villages.

Afghanistan: Conducted a two week training in solar photovoltaics and solar water pumping.

Southern Sudan: Worked with a group delivering aid to a hospital in a remote desert village, to provide solar systems for the expedition and to assess solar solutions in the village.

Guyana: Performed a survey of the electrical distribution system in the country, in order to be able to recommend to the PEPFAR program how best to provide reliable energy systems in the various parts of the country. This supported their ongoing efforts to increase access to upgraded health care in the country.

Haiti: Performed a survey of the electrical distribution system in the country, in order to be able to recommend to the PEPFAR program how best to provide reliable energy systems in the various parts of the country. This supported their ongoing efforts to increase access to upgraded health care in the country.

2006 Activities as Independent Consultant:

Rwanda: Participated in the design, training, and installation work of large solar / diesel hybrid systems designed to provide reliable power to laboratories being established to diagnose and treat HIV and Multi-Drug-Resistant Tuberculosis. (MDRT) These systems range from partially grid-connected (with unreliable grid) to completely stand-alone. The work consists of determining critical versus non-critical loads, and designing and installing systems that will assure a constant power supply to the critical loads. (This is an on-going project which provides power supplies to approximately two dozen of these clinics.)

Nigeria: Worked with the National Academy of Sciences to conduct a workshop to help the Nigerian government investigate solutions to promoting the widespread use of solar electricity to serve the needs of their rural poor.

Thai / Burma border area: Performed trainings for Karen medics and provided systems and installations for clinics serving the IDP's inside Burma, as part of a continuing multi-year program. Taught renewable energy classes in solar PV, solar pumping, micro hydro resource assessment and ram pumps in the refugee camps on the border.

Ecuador: In the Shuar Indigenous areas, trained a group of Shuar technicians and supervised their installation of solar home systems in two communities. Taught a class in micro hydro basics and resource assessment, and did pre-feasibility studies on four rivers in two communities.

Pakistan: NWFP (FATA): Training and providing support for installations in solar home systems, solar community centers, and solar pumping systems. The solar pumping systems are being implemented in 6 remote villages in the FATA areas.

Central Asia: Providing training and workshop for four of the FSU countries in a joint setting. Part of the training focuses on policy recommendations for the government officials of these countries. The other part of the program provides training for trainers from the four countries in solar, micro hydro, solar pumping, and hybrid systems.

Arunachal Pradesh, India: Training and Solar Power Systems in a remote Buddhist Community.

Renewable Energy Trainer in the United States: Providing training services in conjunction with Solar Energy International in the courses in Carbondale Colorado. Courses include Renewable Energy in the Developing world, Solar PV, Solar Pumping, and Micro Hydro.

Green Empowerment: 2002 to 2005:

As Program Director, Walt led GE's field operations in eight countries. Projects implemented included micro hydro projects for communities, and solar projects for communities. The work involved training of technicians and NGOs responsible for the sustainability of the work. Walt also led several training-only

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workshops in Solar Pumping, Solar PV design and implementation, and concentration on the specific needs of projects in rural, poor communities. Walt continues to serve Green Empowerment as a consultant.

Knightsbridge International: 1997 to Present:

- Participated in transporting and delivering medicine, medical supplies, food, and clothing to refugees fleeing the Taliban immediately after 9-11. This included four trips to Afghanistan starting in October, 2001.
- Medical support and clinic photovoltaic work in Nicaragua.
- Delivery of medical supplies, food and equipment to Burma, Thailand, Cambodia, and South Philippines

TRC-Electrical and Alternative Energy: 1985 to Present

- Commercial and Institutional Electrical Projects, employing over 100 personnel.
- Initiation of one of the first approved solar installation companies in the Maryland / Pennsylvania Area.

Howard P. Foley Company: 1971 to 1985:

- Started the company's operations on the North Slope of Alaska
- Vice President of Construction for seven western States
- Projects included the management of all sorts of power generation plants, steel mills, paper plants, refineries, and similar large industrial facilities.

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Education:

- Johns Hopkins University – Electrical Engineering (1970)
- Arizona State University – Electrical Construction (1971 through 1974)
- Murdoch University – Master of Science in Renewable Energy, specializing in Developing World Applications (2000-2002)

Other Credentials:

- Master Electrician License in several states.
 - Certified by NABCEP (North American Board of Certified Energy Practitioners) and on the board to review and prepare testing and training certifications.
 - Numerous courses in advanced Micro Hydro and Photovoltaics technology.
 - Participant with Solar Energy International (SEI) in Colorado, both in taking their courses and assisting in teaching.
 - Institute for Sustainable Power (ISP): On Accreditation Award Committee for ISP representing the interests for Southeast Asia. Includes reviews of potential candidates for master trainers and training organizations.
 - Tzu Chi Organization: Commissioner for this Taiwan Based Buddhist relief Organization.
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