



Wednesday Feb 23<sup>rd</sup>,  
2011



THE INSTITUTE OF ELECTRICAL AND ELECTRONICS ENGINEERS, INC.  
Oakland East Bay Chapter and ASME Present:

## Renewable Energies- PV Solar Cogeneration

### DATE & TIME:

Wednesday, Feb 23rd, 2011  
5:30pm  
Social/Snacks/Drinks/Desert  
6:10pm Presentation

### PLACE/HOST: EATON

Cutler-Hammer  
20923 Cabot Blvd.  
Hayward, CA 94545  
(510) 784-8981

### INFORMATION:

Reservations are required. No charge to attendees.

### RESERVATIONS:

Henry@edesignc.com

### QUESTIONS:

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### Abstract:

Despite recent advances, standard photovoltaic (PV) technology only captures roughly 15-20 percent of the sun's energy, allowing the remaining 80 percent to dissipate in the form of wasted heat. Tapping into this lost resource, Cogenra Solar's solar cogeneration technology captures up to 75 percent of the sun's incident energy by combining solar PV and solar hot water (SHW) technologies in a single array. Producing both electricity and hot water, solar cogeneration is the most efficient and environmentally beneficial solar energy solution available, with five times the energy output, three times the GHG reduction (both grid-related and boiler-related local emissions, e.g. NOx & VOC) and twice the financial savings compared to traditional solar panels. Furthermore, the process of capturing excess heat improves the lifespan, efficiency and performance of the solar cells.

### Speaker Bio:

Ratson Morad, Cogenra Solar, COO & VP of research and development  
Mr. Ratson Morad brings 20 years experience building start-up companies and global organizations in the high tech sector, predominantly for photovoltaic and semiconductor equipment. Prior to joining Cogenra, Mr. Morad was president and chief operating officer of DayStar Technologies (DSTI) where he was responsible for design, construction and staffing of a photovoltaic production facility. Previously, he was founding member and vice president of Engineering and Technology at Solyndra, where he was instrumental in developing an innovative PV system. Mr. Morad held earlier executive positions at Applied Materials, including vice president and general manager, where he led the development and commercialization of new 300mm wafer processing systems.

Mr. Morad earned his Master of Science degree in Mechanical Engineering from Ben Gurion University in Israel and completed his Business Management studies at the Technion, Israel Institute of Technology.



Photo 1: System Controller



Photo 2: Solar Mirrors and PV arrays