Senergy

Solar Cooling

www.senergy-solar.net

senergy

http://senergycontact.wix.com/senergy-solar-energy

100% Solar Cooling Systems

This project runs on Sun heat only

Solar Air Conditioner - Solar Walk in Cooler

Solar Cooling

ABOUT SENERGY COOLING

The solar company was founded in 1997 in the U.S. as **GJ-SOLAR**, by Joseph Gamliel, who is engaged in 15 years, who is an experienced entrepreneur in the energy and infrastructure.
Senergy established in the Israel by 2007. The company focuses on solar projects as well as solar based products development, using photovoltaic and Solar Thermal technology.

The company has extensive experience in entrepreneurship, engineering design, installation, maintenance and operation of solar systems in the world .

Out of this experience , We have developed the Solar Air Conditioner in 4 generation.

Development Progress

Due to long experience in the field of solar energy I concluded that the cause of high power consumption caused by the A/C. So I decided to develop an air conditioner to run on solar energy.
This development started from a simple initial model that included simple elements existing on the rack. Slowly, after 3 prototypes, and long development I got the air conditioner Model 4.
Of course each model prototype has been applied for patent. model 4, is in a stages of the first submission.

Listed below are the models and the unfolding of development:

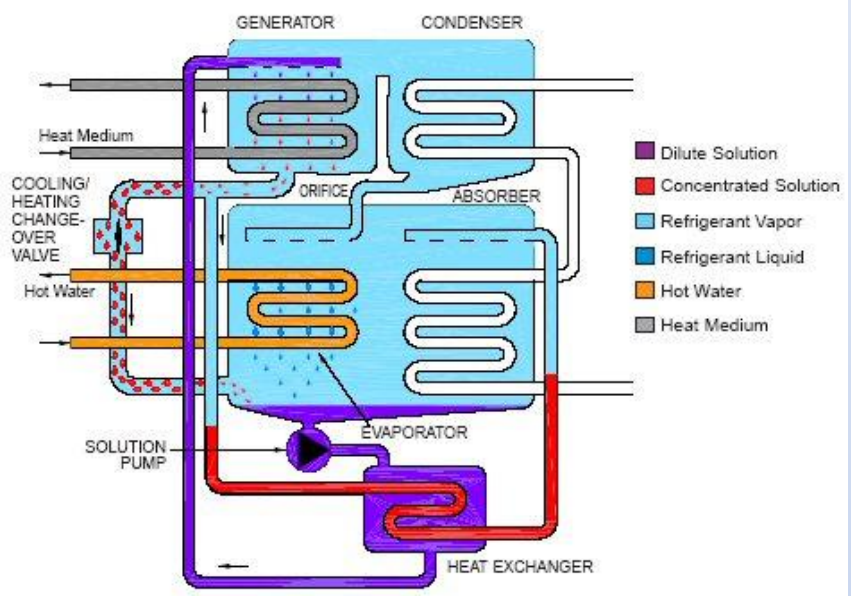
Model - 1 (Patented)
DC Air Conditioner - based on water coolers and wet mattress -
This conditioner was developed based on the flow of cooling water over a damp mattress fan is located at the back, pushing the cold air into the space.
Water cooling system operated on the basis of DC compressor found on the market and is sold by several companies, the power system supplied through solar panels and batteries loaded Turn the whole system including the fan more than 24 hours a day without sunshine.

Model - 2 (Patented)
DC Air Conditioner -based on water coolers and evaporator pressure.
After several attempts and sales of this model, I concluded that moisture mixed with refrigerated air cause accumulation of mould which is dangerous to health, especially in moist areas. Model No. 2 the cold water moved in a closed system such as a radiator is cold on the verge of stagnation. This product was more effective than before and there was no loss of water by evaporation. This model also electrically operated like model number 1, but again after some time was the accumulation of mildew due to condensation, so I went to model No. 3

Model - 3 (Patented)
Solar air-conditioning, DC-based compressor such as Inverter.
This air conditioner required heavy investment in developing. It became the most popular in world and in high demand. The technology was simple but sophisticated. It work like a regular air conditioner (without water) and relatively low power consumption then standard air conditioner which reached up to 50% saving of power consumption.
The electrical system operated by: PV, Wind or Grid (hybrid) and know to choose the best of the power source. In addition, the control system of command was DC combined, which means that I have created DC motor which is single phase, operated like three-phase by creating the three fields of single phase to navigate and manoeuvre according to consumption, in addition, the compressor was Twin Rotary , by this, I got better results in power consumption of incident. But still it took 1000 watts of the solar panels system of about 24000 BTU. This model is sold in several countries worldwide and serves its owner, but since the power was still high, I decided to develop the model 4 which is completely solar.

Model – 4 (Patent Pending)
Completely totally solar air conditioner
Air conditioner that utilizes the sun in all its aspects, light, heat and radiation. Air conditioner is not running by compressor and it is classified as a cogeneration operated unit. System that uses the light for PV cells, the heat to stress pressure, and UV light to increase pressure for condensation.

Description of existing technology



How does absorption cooling work

Absorption cooling functions according to two main physical principles:
Vaporizing water that takes away thermal energy (= generates cooling)
Lithium bromide (Li-Br) as a highly hydrophilic solution absorbs water easily
Diluted Li-Br solution is pumped from the Absorber (Abs) to the Generator (Gen) where it is heated to boiling point by the heating medium circulating through the Gen heat exchanger. Refrigerant (water) vapour is liberated from a diluted solution and flows to the Condenser (Con) heat exchanger where it is condensed to a liquid state by rejection of heat to the cooling water circuit.

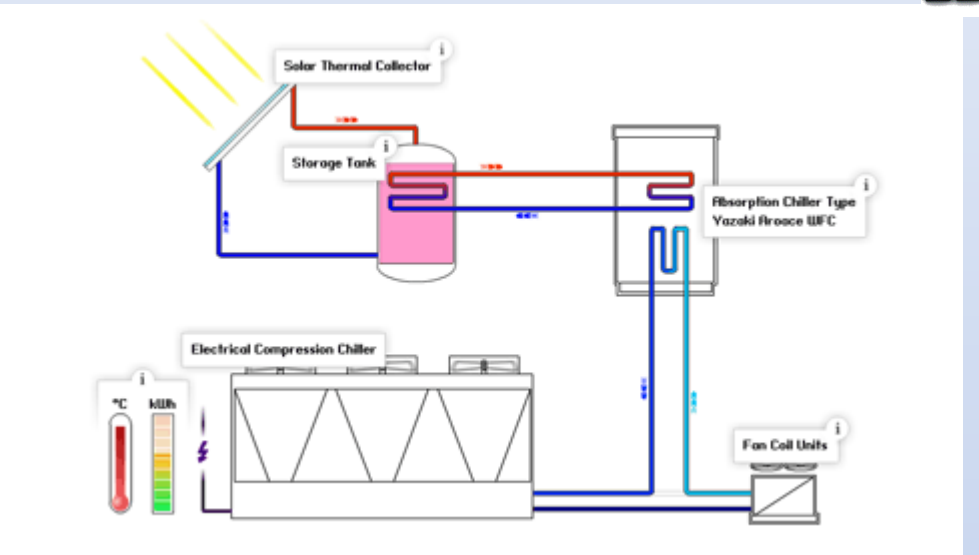
Due to the partial separation of Li-Br-solution and water during boiling in the Gen, the portion of LiBr in the remaining solution increases. This concentrated solution flows from the Gen to the Abs where it will flow over the surface of the Abs exchanger coil.

Since cooling water from the cooling circuit is circulating through the Abs coil, fairly low vapour pressure is created in the common room of the Evaporator (Eva) and Abs due to the high concentration of Li-Br solution, and this is the environment that the refrigerant liquid coming from the Con encounters as it flows over the coil into the Eva.

Concentrated solution absorbs refrigerant vapour from the Eva as the liquid refrigerant changes its state to vapour, taking energy from the vaporization of the chilled water circulating through the Eva exchanger. This heat extraction results in the production of chilled water.

The concentrated solution returns to a diluted state as refrigerant vapour is absorbed. In its relatively cool condition, it is collected in the Abs sump and thereafter forced by the solution pump to return to the Gen for boiling again, thus perpetually repeating the cooling cycle.

Description of the **new** invention



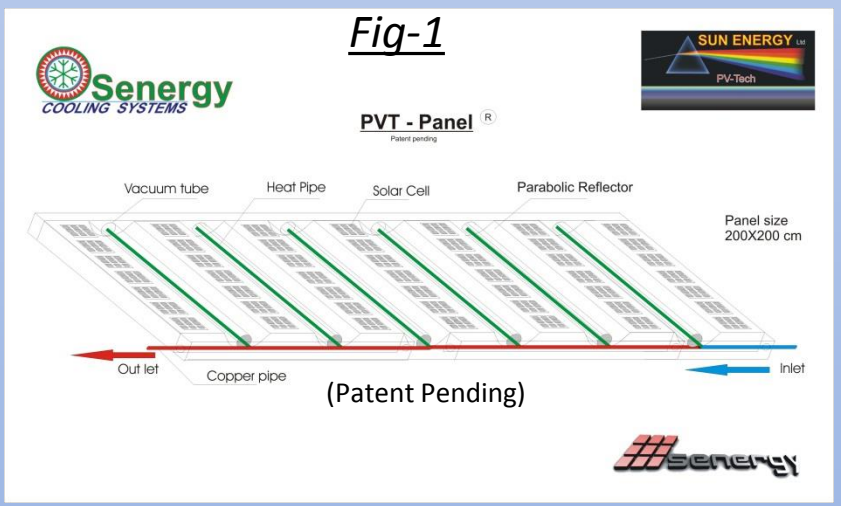
The new invention use all Sun energy aspects, the light and the heat

The light – use for generate energy and store it for off time when there is no Sun. With this energy we use the Thermo electric heater the keep the system running At all time after Sun Set.

The Heat - will generate the amount of temperature we need to run the system assist by the solar thermo panel along with solar PV panel (PVT- fig1)

The Panel – is also new development there is no panel like this in the market. It combine of 2 technology of PV and Vacuum Tube as Thermal.

Fig-1



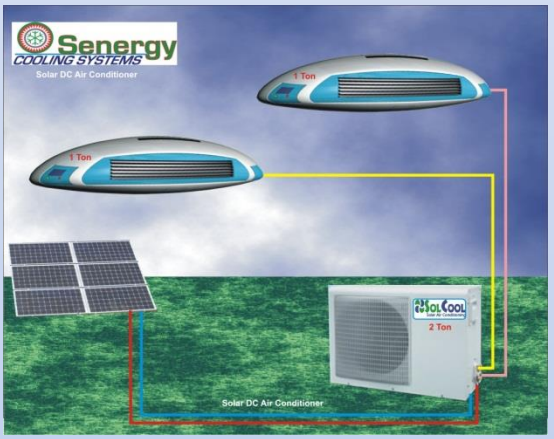
(Patent Pending)

Solar Cooling

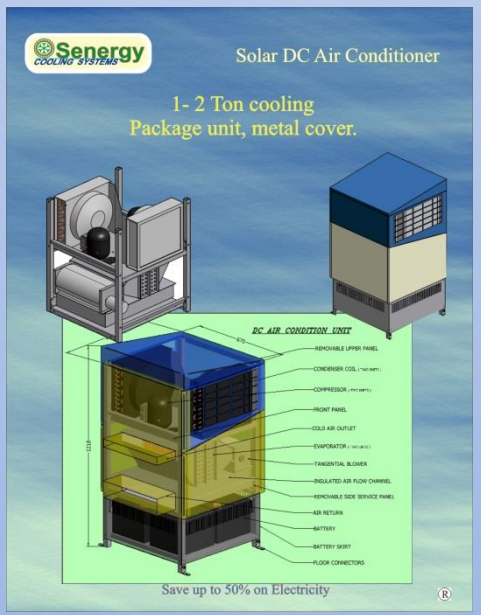
Models Technology

Model-1

Model-3



Model-2



Model-4

Solar Cooling

Options of Use

System can be combined with existing utility

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Options of Use

Trucks Busses motor home and more

System can be combined with existing unit

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Senergy Saving Advantage

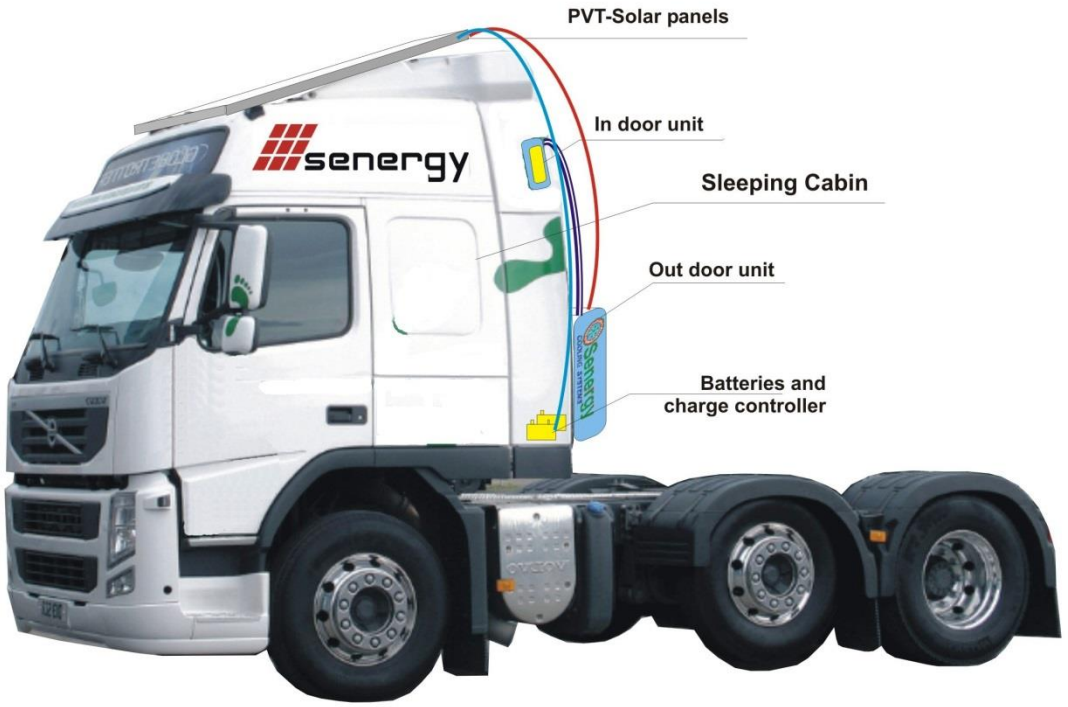
How much Green can we save you!
Example of Savings
If you drive 10,000 miles a month @ est. 5 miles per gallon = You get 2000 gallons of diesel used
Estimated Calculations
If you drive 10,000 miles a month @ est. 6 miles per gallon = You get 1667 gallons of diesel used
Estimated Savings
Running our unit with solar will potenially give you that extra mile, which will save you (2000 - 1667=) 333 gallons of diesel used per truck, saved per month at a rate of $3.00 a gallon for diesel ($3.00 x 333)would potentially save you $999.00 per month and 11,988.00 per year. **(Since diesel prices fluctuates from $3.00 to $5.00 This amount of savings could DOUBLE)** Just think if you never had to use an APU Again! That would save you and extra 2 gallons of diesel alone per night. You do the math see how much it would save you! **Estimated Examples Per Truck:** 2 gallons for 4 nights at $3.00 a gallon = $24.00 a week $96.00 month $1152.00 a year 2 gallons for 7 nights at $3.00 a gallon = $42.00 a week $168.00 month $2016.00 a year **Potentially you could save @ 4 nights $1095.00 a month $13,140.00 a year!** **This example is based on a 4 night average a week with a 4 week average per month...and used with our Freedom System and Paddock Solar!** **Now imagine if you had a fleet of 100 trucks!!! $13,140.00 x 100= $1,314,000.00 A Year** **Think of how much of an impact you can make with our Senergy Technology.** **Reduce your Carbon Footprint For Life Starting Today**

Solar Cooling

Senergy Advantage Sample

Senergy
COOLING SYSTEMS

DC Solar Air Condition
For Trucks, Buses and motor homes



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Senergy Advantage

120,000 BTU Solar A/C

The Batteries Bank Storage

Power Inverter

Evaporation System

2,500 Liter water tank

Hot Water Storage Tank

Other usage of the solar cooling system

On next page

Solar Cooling

National disaster with terror attack **Exercise**
With the National Guard, Fire Department, Police department

Solar Cooling

THE DOME SHELTER

The first one in the world powered by the SUN


At the Pentagon


14 footer

Temporary or permanent structure, build in 2 hours.

The structure has been tested successfully in few Army base around the world for emergency shelter.


Emergency shelter camp


Migrate worker camp


Military use

Use as

Clinic
Office
Studio
Storage
Camping
Guest House
Temporary Use
Emergency Use
Additional Room

2 Size:

20' Diameter, - 300 Sqf
6 m' diameter - 28 Sqm

14' Diameter - 150 Sqf
4 m' diameter - 14 Sqm

Included:
solar A/C heating and cooling
solar refrigerator
solar lighting
solar water maker (optional)

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SOLAR LTD.
WWW.SENERGY.CO.IL

More Usage of Solar A/C

Telecom Cellular Tower

Plug N Play Unit

Solar Cooling

Senergy Advantage

Experience	Senergy has world wide experience
Cooperation	with leaders companies around the world
Technology	High Tech with Highly Trained Engineers
TEAM	Most Experience Crew around the Globe

Solar Cooling

Award Certification for cooperation with US Congress

Congressional Recognition

Awarded To

Senergy Cooling Systems

IN COMMEMORATION OF THE PRESENTATION OF THE NEW SOLCOOL RENEWABLE AIR CONDITIONING AND HEAT SYSTEM

PRESENTED ON THIS FIRST DAY OF MAY, 2008

JON C. PORTER

United States Congressman

Solar Cooling

We are, Certify Energy Efficient Specialist

Delivered by:
matrix Greentech College
John Bryce Cleantech Division

Matrix Greentech College

International Certification Department

This is to certify that

Joseph Gamlieli

ID Number: 53436804

Certification ID No:290130

*has **successfully** completed the CleanTech Course:*

Energy Efficiency Consultants

25 July 2011 - 21 November 2011
(64 Hours)

Dr. Ofer Alon
Director of Technology

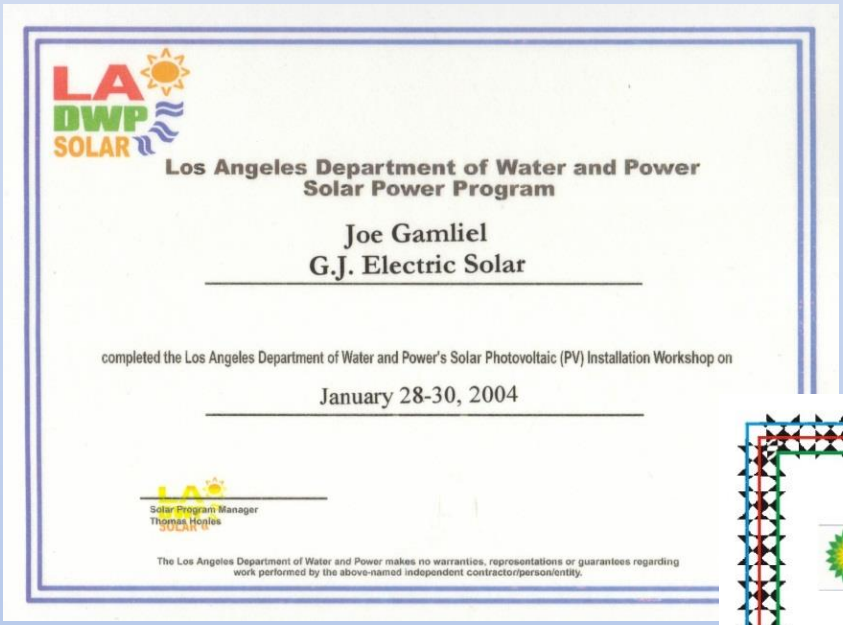
Yariv Inbar
Co-CEO

Karni Govreen-Segal
Academic Director

Solar Cooling

International Certificates

Certified Solar Expert by LADWP



Certified Solar Expert by BP Solar

Solar Cooling

Articles

ConnectPress

SUN-e

You'll Feel Like a Million Bucks

August 31, 2006 The Source for Solar, Wind, and Other Energy Resources

At the Car Wash: An Interview with GJ Solar President Joe Gamliel

By Marilyn Pitts

GJ Electric Solar's Joe Gamliel points at the solar system his company installed at Valley Car Wash.

When Joe Gamliel, president of Los Angeles-based GJ Solar, w
us that his company had just finished installing a 100 KW
photovoltaic system for a car wash, making it the first car wash i
the world to operate on solar power, we were intrigued. Where v
this car wash? What convinced them to go solar? What did the
project involve?

To find out the answers, we went to the source—Joe Gamliel. T
car wash in question, he informed us, was Valley Car Wash loca
on Van Nuys Boulevard in Van Nuys, Calif. A longtime solar
advocate, Joe is enthusiastic about solar energy—in fact, it is th
enthusiasm that got him involved in the car wash project.

ConnectPress: Why did the owner of the car wash decide on s
And how did they hear about your company? [[BANNER_MART

Joe: I was at one of the car washes for car wash service and wh
was waiting I met one of the partners [of Valley Car Wash], Scot
Scott saw the sign on my car (free electricity), and he asked, "D
this really work?"

I convinced him that this is the best investment. I told him, "When you buy a car, you lose money from day one, but wi
solar system you make money from day one." I told him that no one in the world gives you a warranty for 25 years. I a
told him that within 10 years when everybody will pay three times [their current] electric bill, you will pay nothing--and y
can compete and lower your price. Scott said, "Let's have a working meeting."

ConnectPress: What did the installation involve?

Joe: We designed the system set-up for Sharp 200 watt modules, but Sharp couldn't deliver, so we had to redesign th
set-up for Sharp 175 watt. We installed the system on two roofs at the car wash. Roof 1 is the main building where the
tunnel is and roof 2 is where the service shops are.

ConnectPress: Did the installation have any challenges? How did your company handle those challenges?

Joe: The main challenge was the tunnel roof. There was no roof to set the system on. We had to cut the columns and
frame the structure so there would be a base to lay the system on.

ConnectPress: How was the project coordinated with the car wash company?

Joe: The project was coordinated very well. The car wash never stopped working. We had to work around the car was
schedule. Trenching and digging were done at night so we wouldn't block the driveway.

ConnectPress: How long did the installation take?

Joe: It took three months including the new frame, installation and connection. Without the framing, it would have take
two months.

http://sun-enews.com/print_article.php?cpfeatureid=15494&PHPSESSID=e9a6f523a0d4... 31/08/2006

Daily News dailynews.com/business

BUSINESS

SUN SPLASHED

Evan Yee/Staff Photographer

Joe Gamliel installs solar panels on the roof of Valley Car Wash in Van Nuys, making it the first carwash in the Valley to operate with solar power. Owner Sean Shouhed, below, hopes to break even on his $677,000 investment in 10 years.

Van Nuys carwash's solar panels helping the planet, cash flow

BY JULIA M. SCOTT
Staff Writer

Saving the planet and making money don't often go hand in hand, but at Sean Shouhed's carwash in Van Nuys the two are perfect companions.

Shouhed spent $677,000 to install solar panels on the roof of his business this summer, making Valley Car Wash the first automotive cleaning outfit to run on energy captured from the sun's rays. With state and federal rebates worth $273,000, Shouhed, 50, will break even in 10 years, he said.

"I'm living in (the environment), my kids are living in it," Shouhed said. "Financially it is to my benefit as well."

Saving money through renewable energy is a concept that is quickly gaining ground.

"We're seeing a very strong increase in awareness and interest in solar," said Kim Hughes, a spokeswoman for the Los Angeles Department of Water and Power, which serves 1.4 million customers in Los Angeles.

That spike is due, in large part, to the rebates available.

A $150 million DWP rebate program for businesses as well as homes was so popular that officials stopped it in 2003 after receiving more than 600 applications. Since restarting it last month, the DWP has already received 99 requests.

The state put up $3 billion in incentives over 11 years in hopes of getting one million new solar systems installed on roofs across the state.

Federal tax credits are available, too. Businesses can get a tax credit worth 30 percent of the cost of the solar installation. Residents are eligible for the same credit, up to $2,000. The credit expires at the end of next year.

In California, energy providers such as the DWP are upping their reliance on

PLEASE SEE SOLAR / PAGE 4

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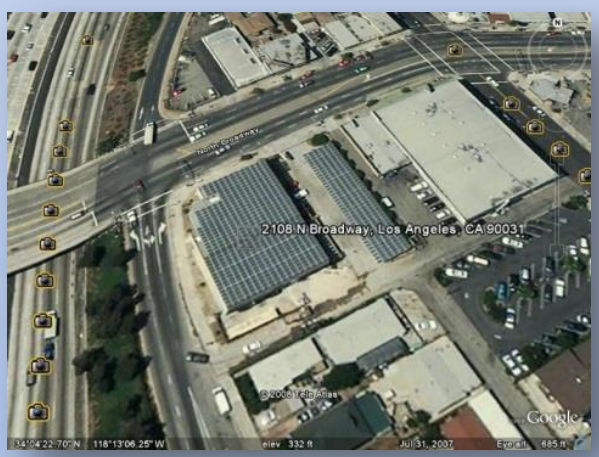
Bird Eye for Senergy projects

Apartment Building 40KW-Brentwood

Car Wash 100KW - LA



Commercial Building 170KW LA

Fresno California- 2.2 MW

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Senergy projects in Israel

Solar Cooling

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Farm project – Nahalal-Israel

Solar Cooling

Our Other developments

Solar Insect Killer

No more chemicals No more poison.

Each unit cover area up to 7,000 Square Meters

Drowning Insects Photos.

Solar Insect Killer - On the market

senergy SOLAR LTD. WWW.SENERGY.CO.IL

Solar Floats for Water Reservoirs

Solar portable desalination

Solar Cooling

The World, in our hands

Senergy – for better future

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Thank You

Solar Cooling