



Global Warming Solutions, Inc.

www.globalwarmingsolutions.com

Solar Energy Technologies Presentation 2008

Company Overview

Global Warming Solutions, Inc. (GWSO) develops and commercializes technologies that help mitigate Global Warming and its effect on our planet. The Company targets three areas that help reduce the extent of Global Warming and fight issues that have risen in consequence: Clean Energy, Carbon Control, and Water Purification.

This presentation will outline and introduce our Solar Energy technologies which fall under the category of Clean Energy. We are strongly committed to Solar Energy and believe that our LETG technology is the most promising asset in our portfolio. Aside from the LETG we have also developed an organic coating for conventional Solar Panels that increases their efficiency substantially. The research and development of our Solar Energy technologies is being led by Dr. Alexander Kornaraki and his team in Ukraine who have done an outstanding job and have dedicated much of their lives to this field.

We hope that this presentation will allow our existing and potential partners and investors to better understand what it is that we are trying to achieve and how we plan to execute further.

Solar Energy – A Green Initiative

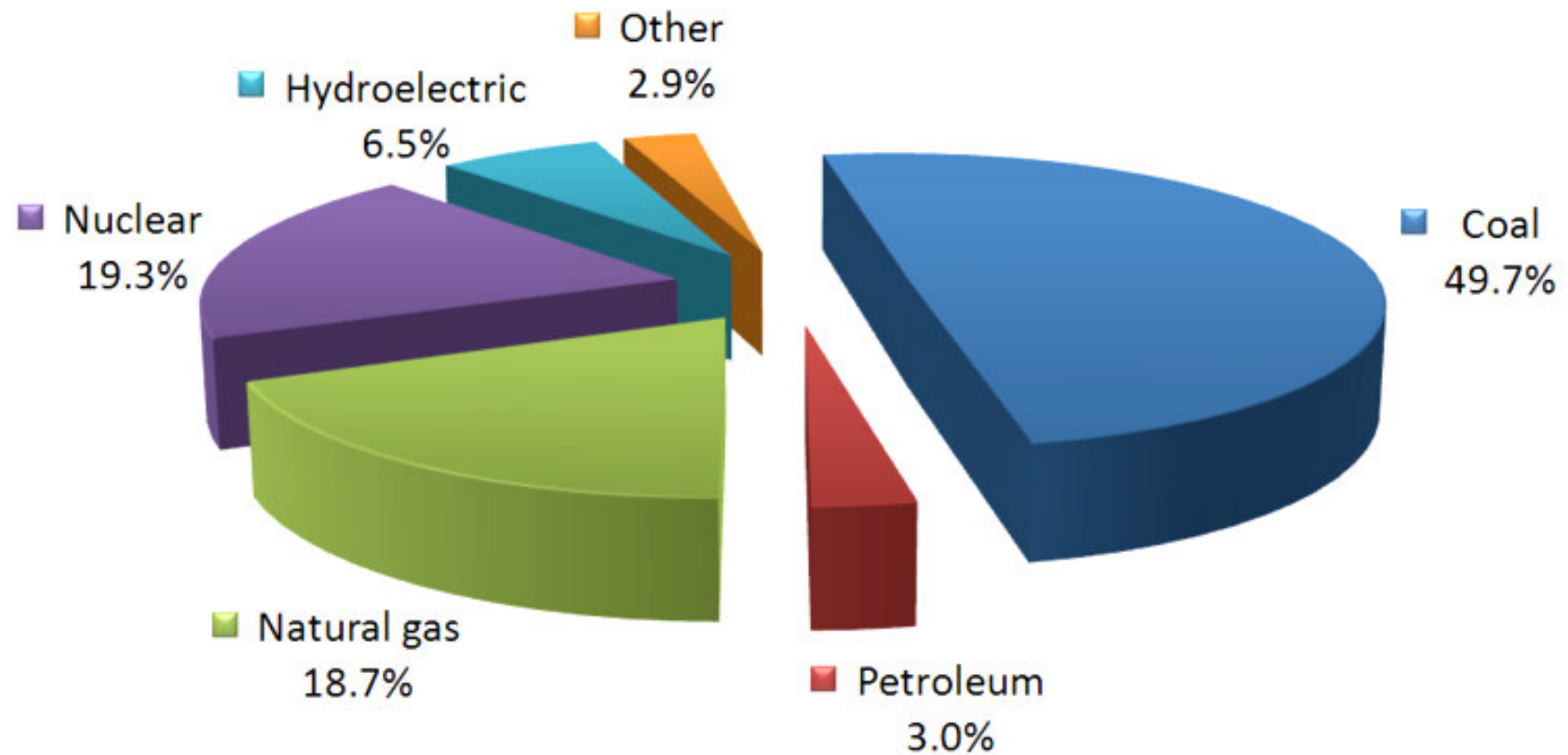
Solar America Initiative

The U.S. Department of Energy (DOE) is working to accomplish this goal through public-private partnerships with industry, universities, national laboratories, state municipalities, and/or nongovernmental organizations.

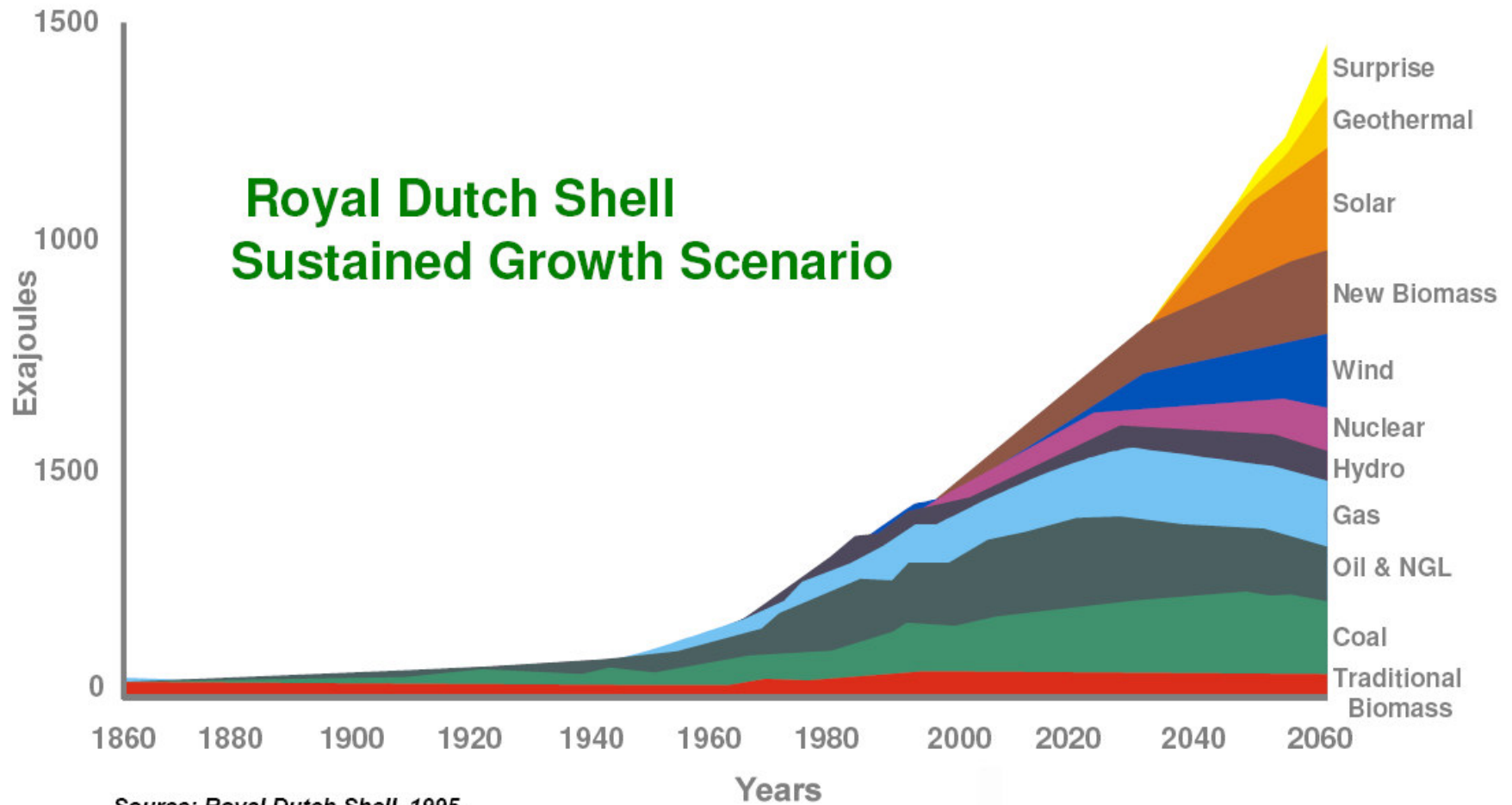
When the Solar America Initiative reaches its full potential in 2015, photovoltaic (PV) technologies could:

- * Provide at least 5 gigawatts of electric capacity (equivalent to the amount of electricity needed to power 1.25 million homes)
- * Avoid 7 million metric tons per year of CO2 emissions
- * Employ 10,000 new workers

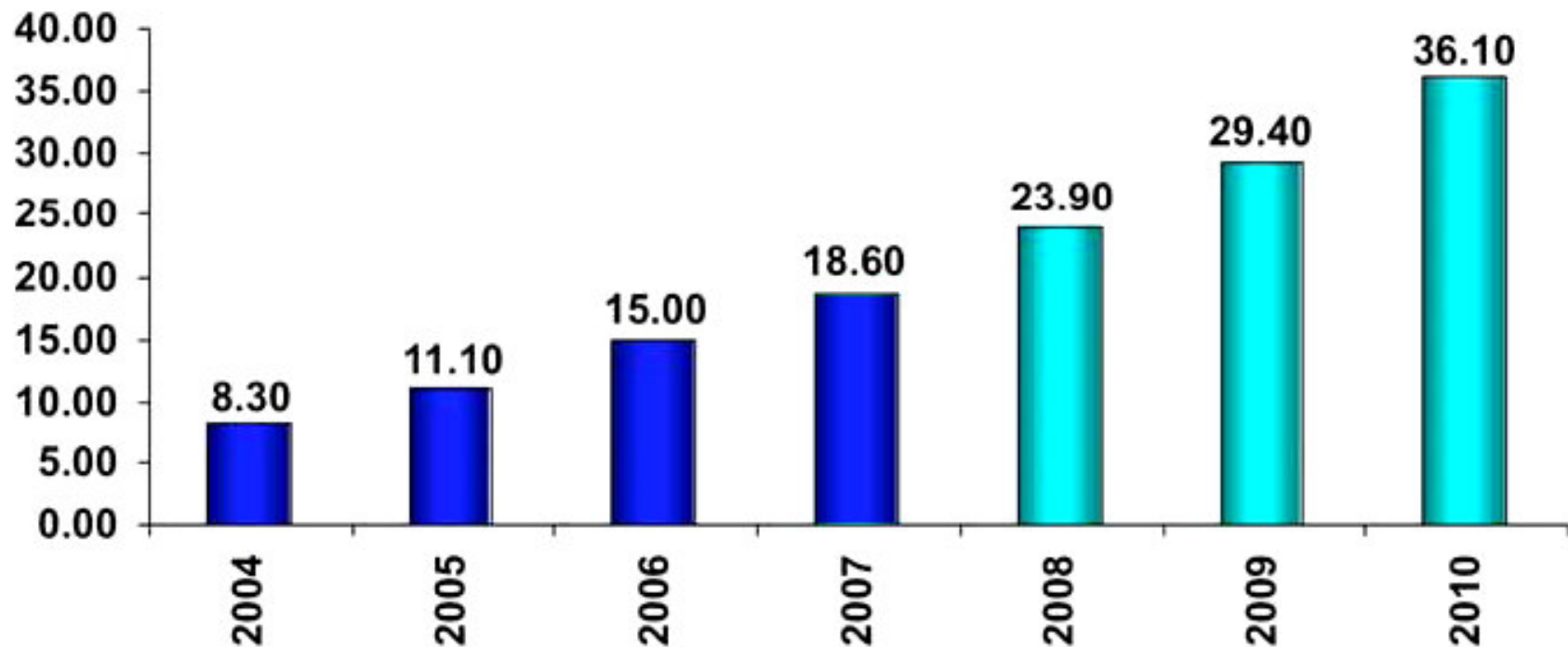
Solar Energy – Now



Solar Energy – The Future



Solar Energy Market: Revenue in BLN. USD



Source: CLSA Solar Power Sector Outlook

Solar Energy – Methods of Producing Electricity

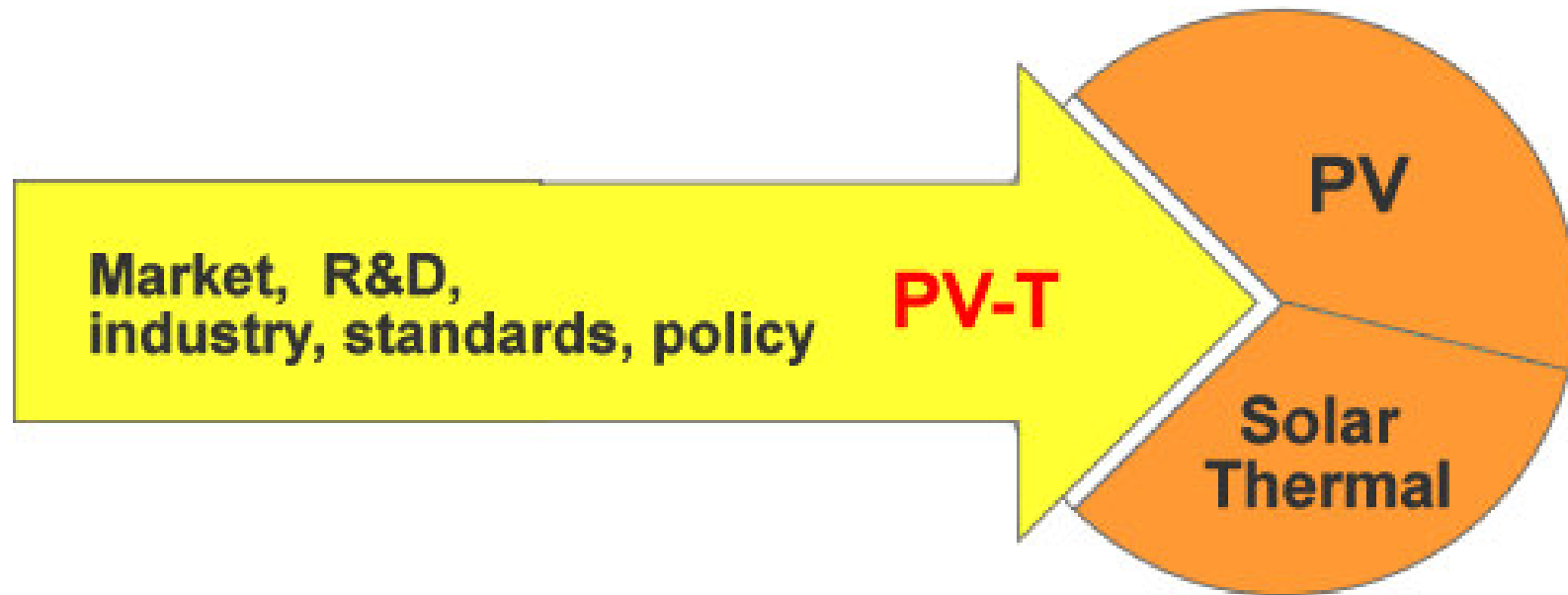
There are three ways we can produce electricity from the sun:

Photovoltaic Electricity – uses photovoltaic cells that absorb the direct sunlight just like the solar cells you see on some calculators.

Solar Thermal Electricity – uses a solar collector - it has a mirrored surface that reflects the sunlight onto a receiver that heats up a liquid. This heated liquid is used to make steam that produces electricity.

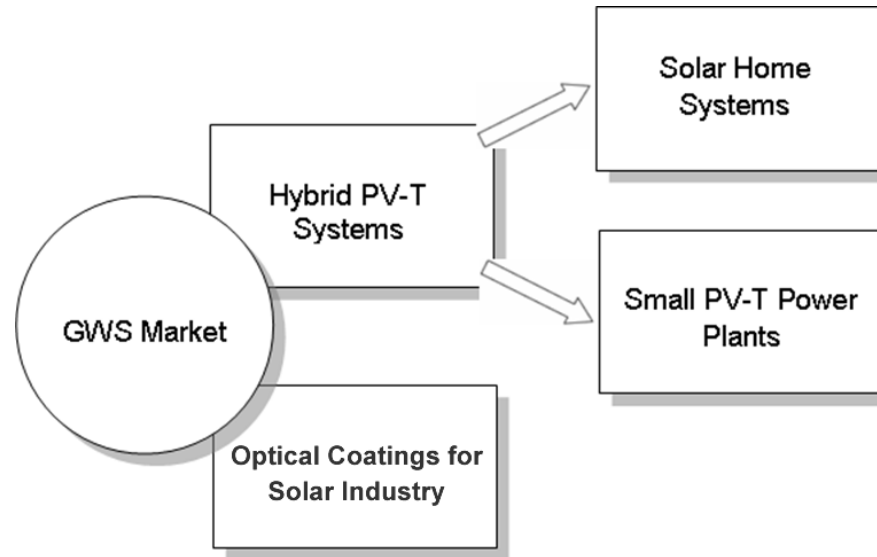
Hybrid Photovoltaic/Thermal Electricity (PV-T) – uses a solar collector combined with photovoltaic cells to heat up a liquid and generate electricity. Our LETG Solar system is a PV-T technology that captures the heat from the PV modules and puts it to work efficiently.

PV-T – The Most Efficient Solar Energy Technology



Global Warming Solutions is laying the foundation for a large scale introduction of PV-T into the market through our LETG technology. We believe that the LETG technology is a more efficient solution over existing PV and Solar Thermal technologies.

Global Warming Solutions Solar Energy Technologies



Our Solar Energy Technologies Include:

LETG – A Hybrid PV-T Solar Energy Generation technology that can be applied as a standalone system for homes or can be used to develop a new generation of power plants.

Optical Coatings – We have developed two coatings which substantially increase the efficiency of conventional solar panels.

Our Optical Coatings – Increasing Efficiency

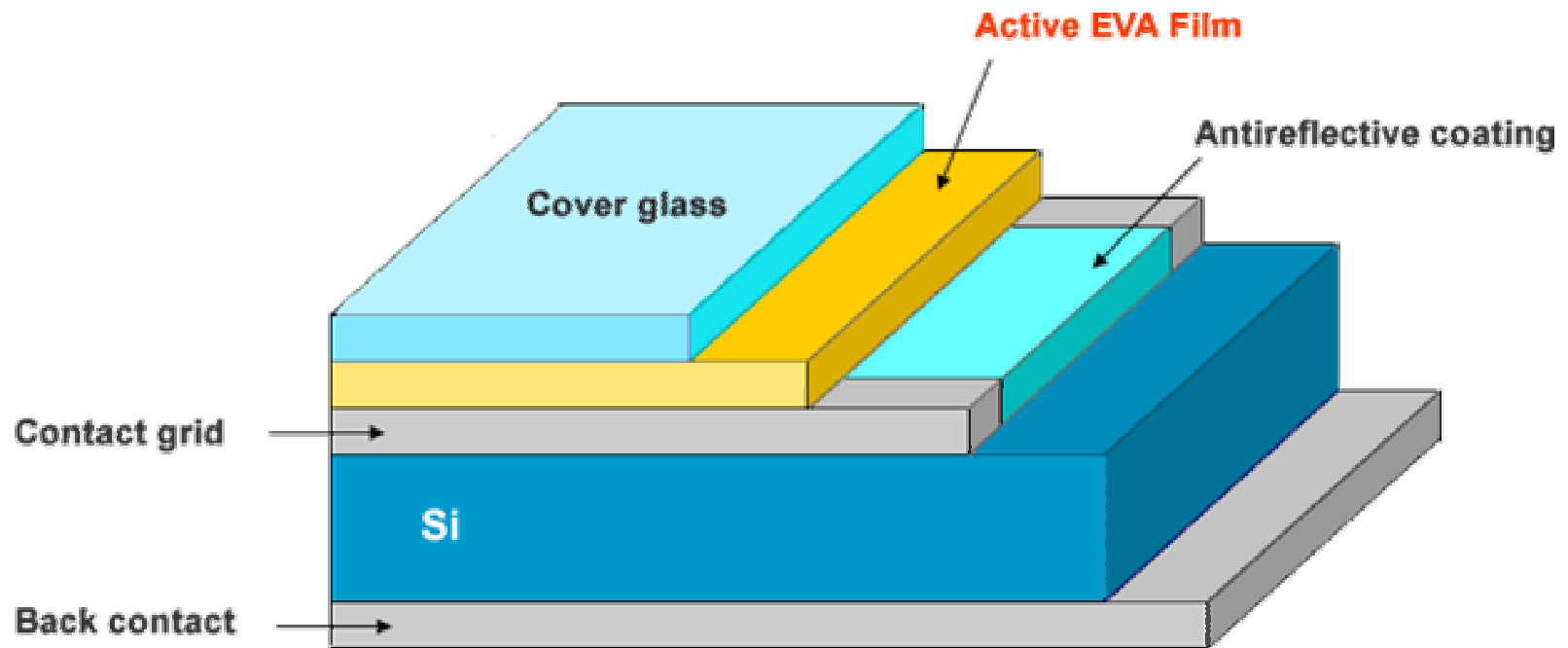
Optical Coatings: More electricity from existing solar panels.

Active EVA Films – Our Active EVA Films increase electric power in common Si solar modules by 10%.

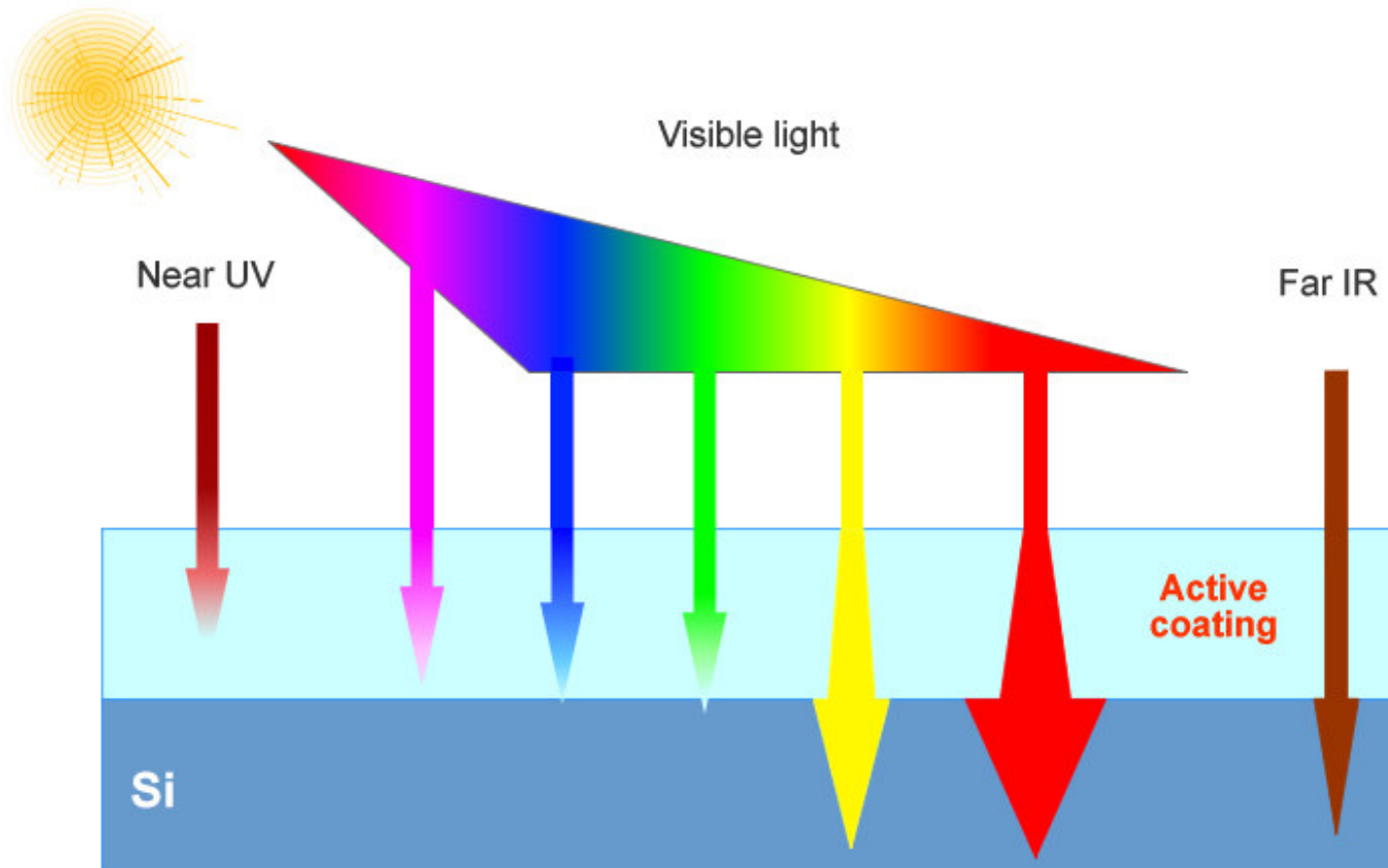
Luminescent Polymer Coating – Our Luminescent Polymer Coating replaces the EVA film and covering glass and increases PV electric power by 12%.

Our Optical Coatings - Active EVA Film

The Active EVA Film replaces ordinary EVA or Tedlar film in a PV module. A 100 watt module produces 110 watts.



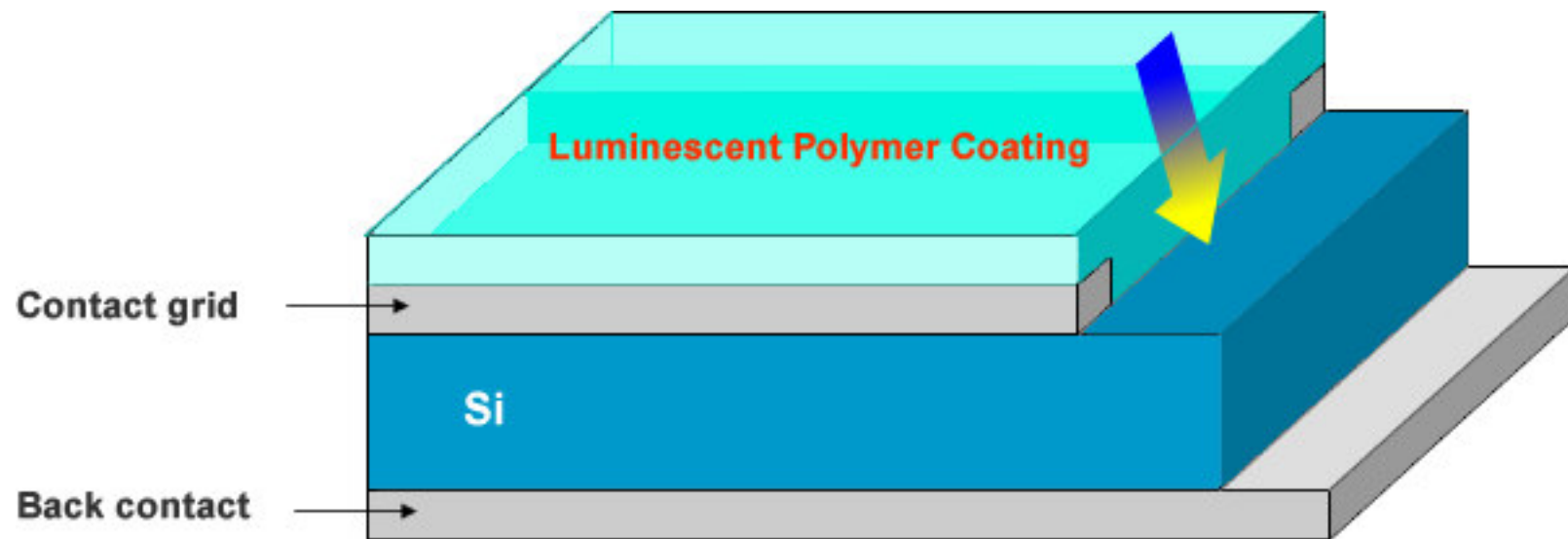
Active EVA Film: How it works



- Needful solar spectral lines are gained by luminescence
- Harmful beams are absorbed and quenched

Our Optical Coatings - Luminescent Polymer Coating

The Luminescent Polymer Coating replaces EVA film and covering glass in an ordinary PV module. A 100 watt module produces 112 watts.

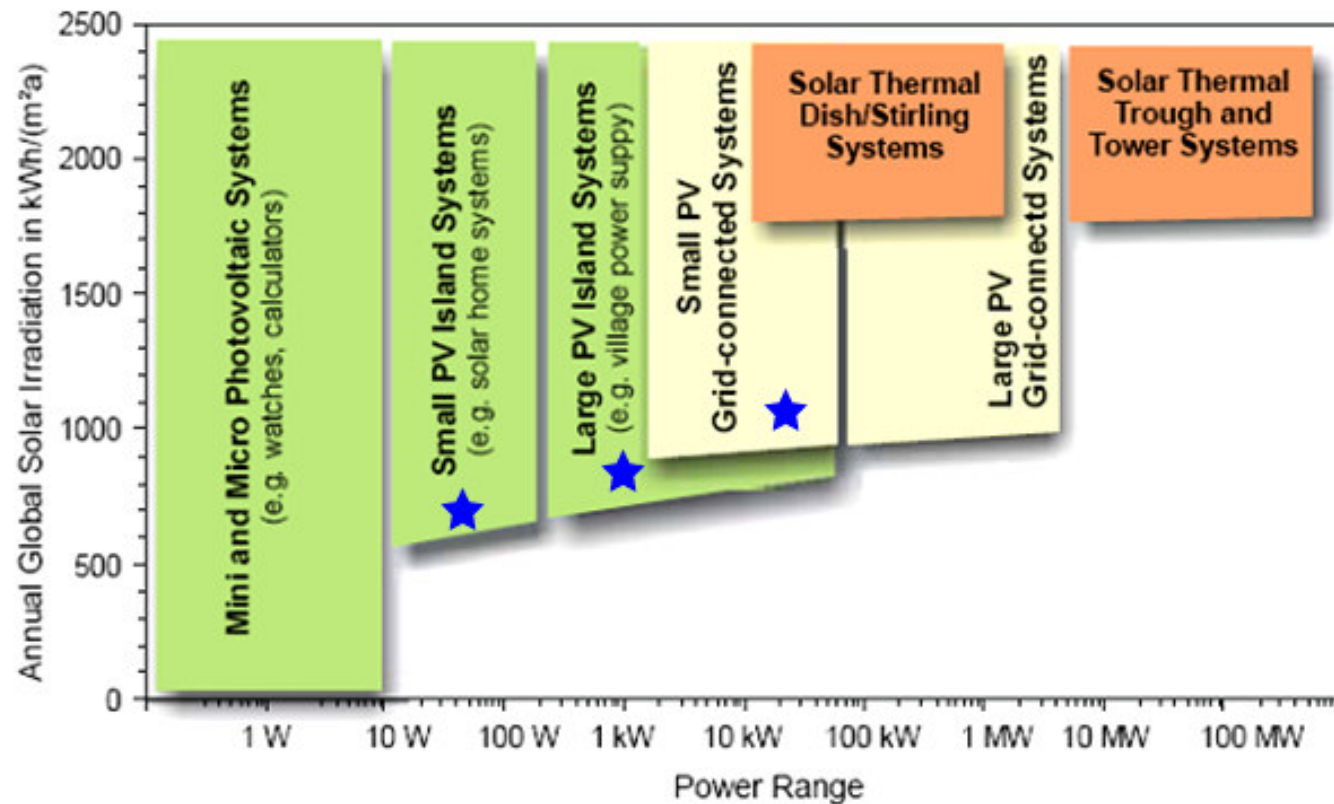


LETG Our Hybrid PV-T Technology - Applications

- **Solar Home Systems** – An LETG System on the roof of a house can produce electricity as well as heat and hot water.
- **LETG Power Plants** – A more efficient way of producing electricity 24 hours a day and year round.

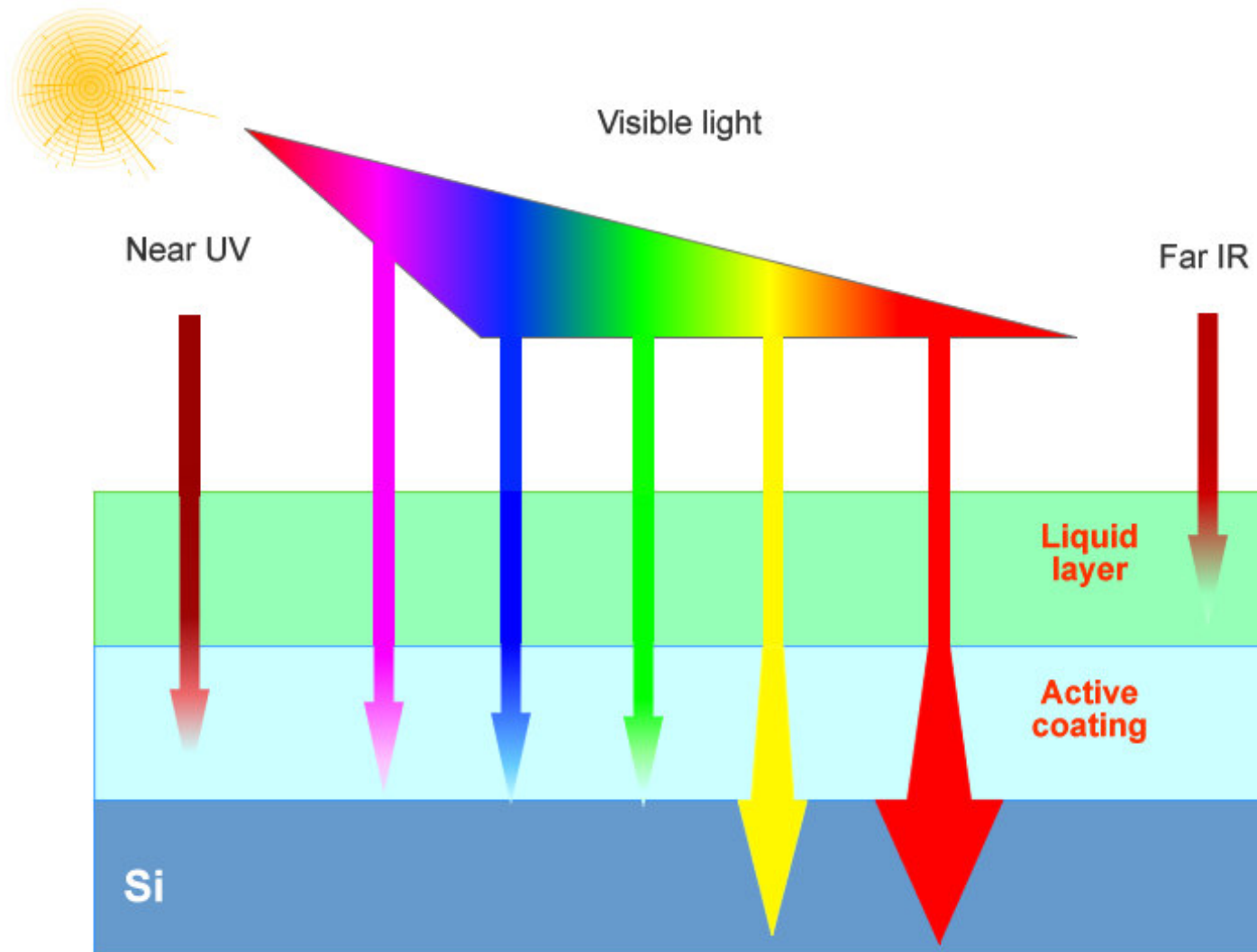


LETG – The Potential Markets

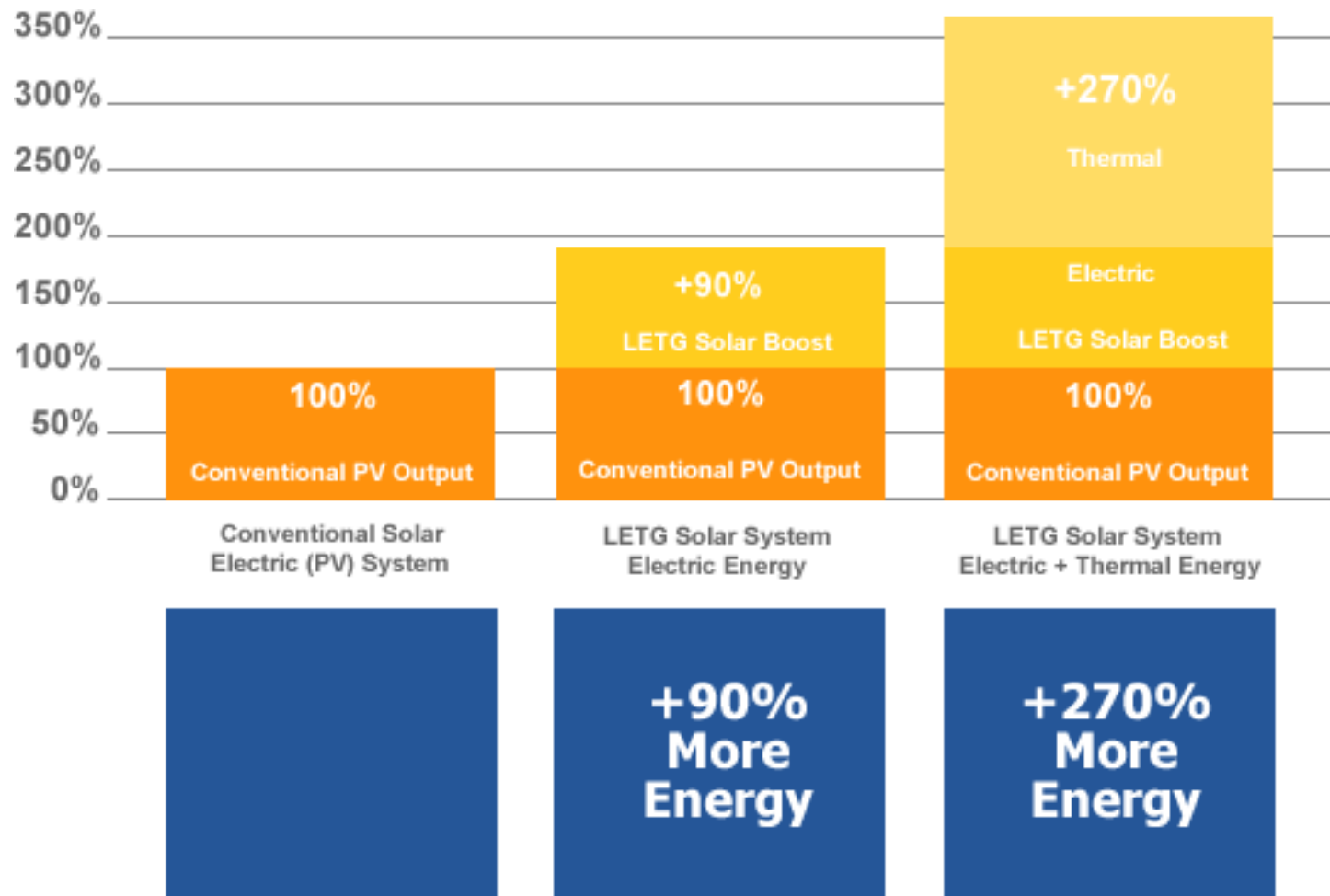


Operational areas for solar thermal power plants and photovoltaic systems depending on the installed capacity and the annual global solar irradiation

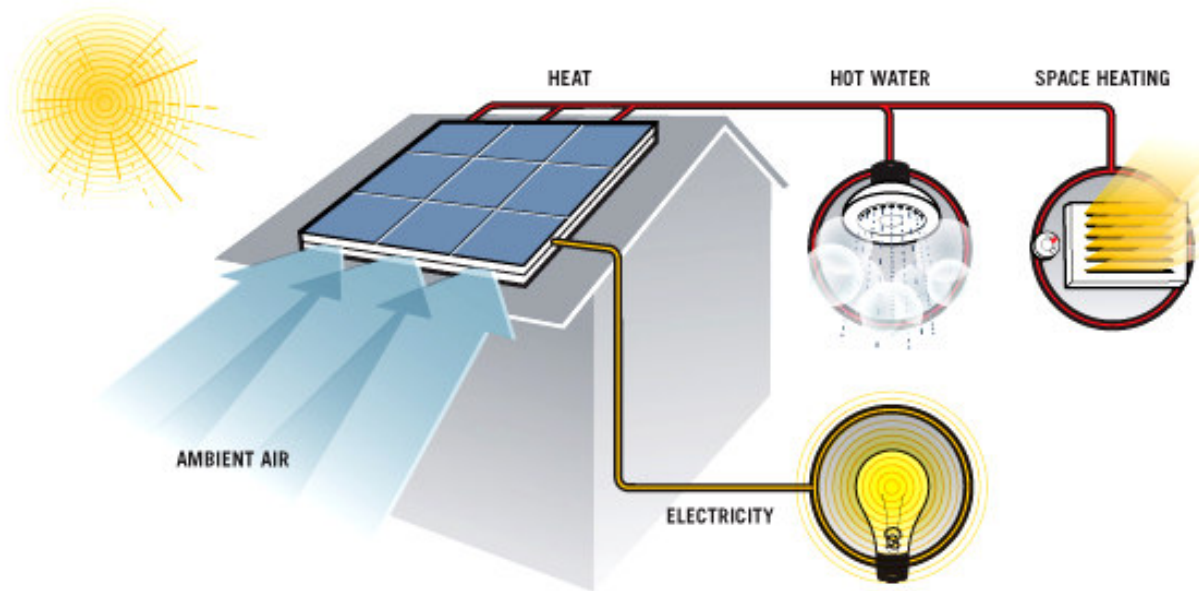
LETG - Solar Light Transformation



LETG Systems Advantage



LETG - Solar Home System



LETG Solar Home System Advantages:

- 90%+ PV electricity
- Water heating
- Space heating
- Average 60% savings on home electricity expenses

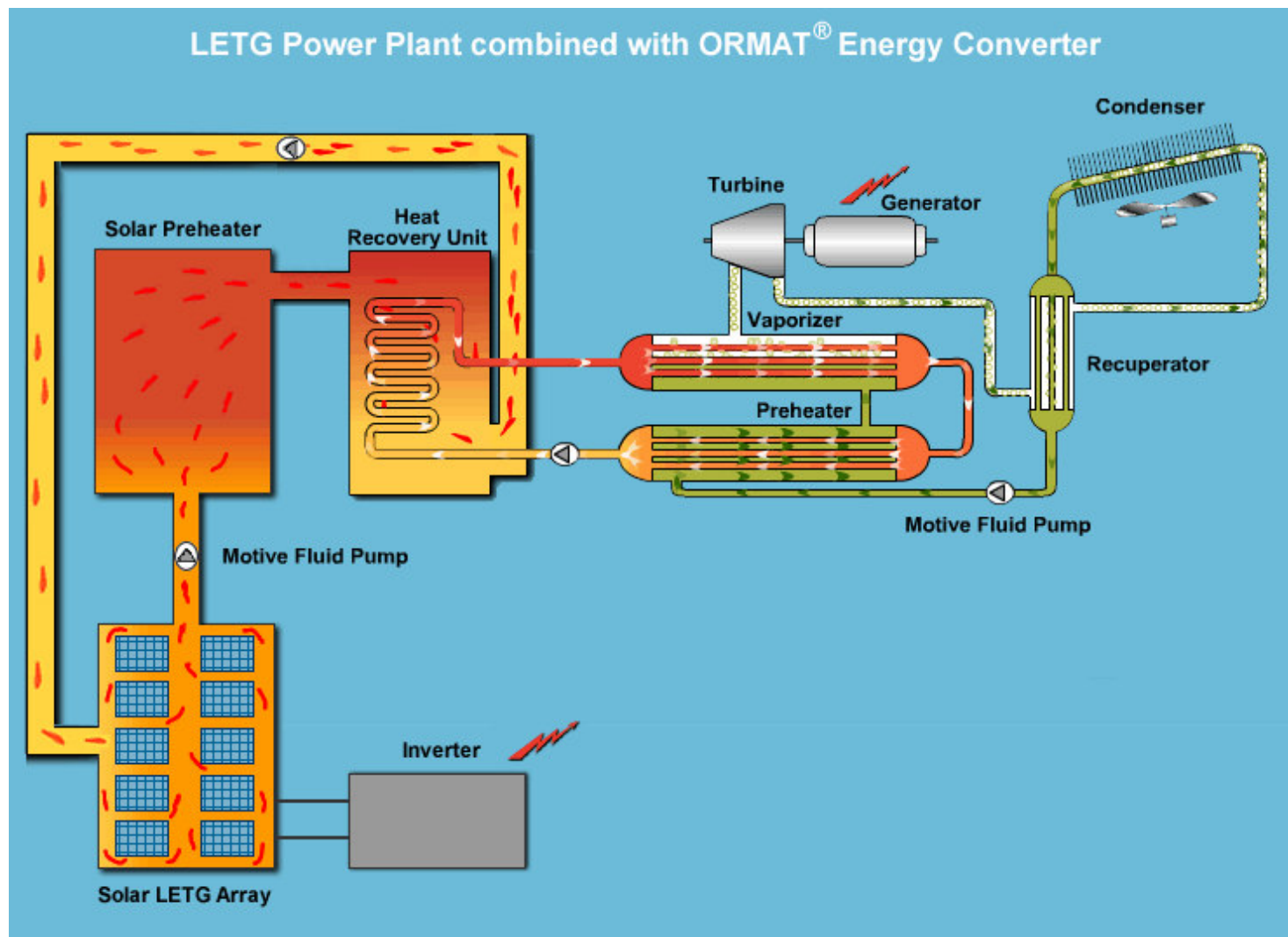
LETG Power Plants - The Advantages

The LETG Power Plant will combine photovoltaic and thermoelectric technologies to produce electrical energy more efficiently and at a reduced cost.

The Advantages of the LETG Power Plant are:

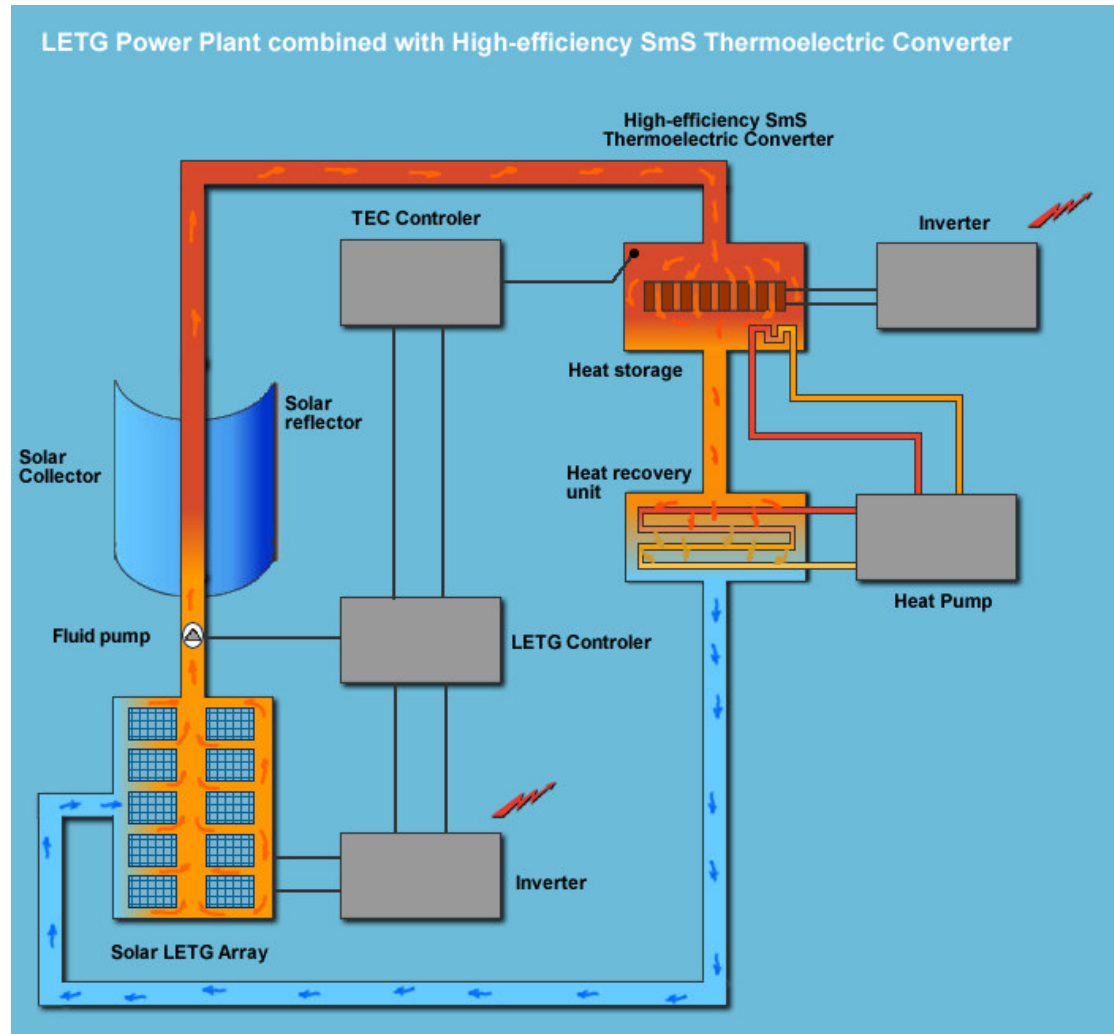
- Increased efficiency in real weather conditions.
- Off-line operation for remote locations.
- Less investment for the production of 1 kWh in a year as compared with solar thermal plants.
- The sunlight energy conversion efficiency of the LETG solar power plant is at least 20%.
- The LETG solar power plant should generate electricity 24 hours a day and all year round.
- The Life time of the LETG solar power plant will be at least 50 years
- The investment for the production of 1 kWh in a year should be around one US dollar

LETG Power Plant combined with OEC



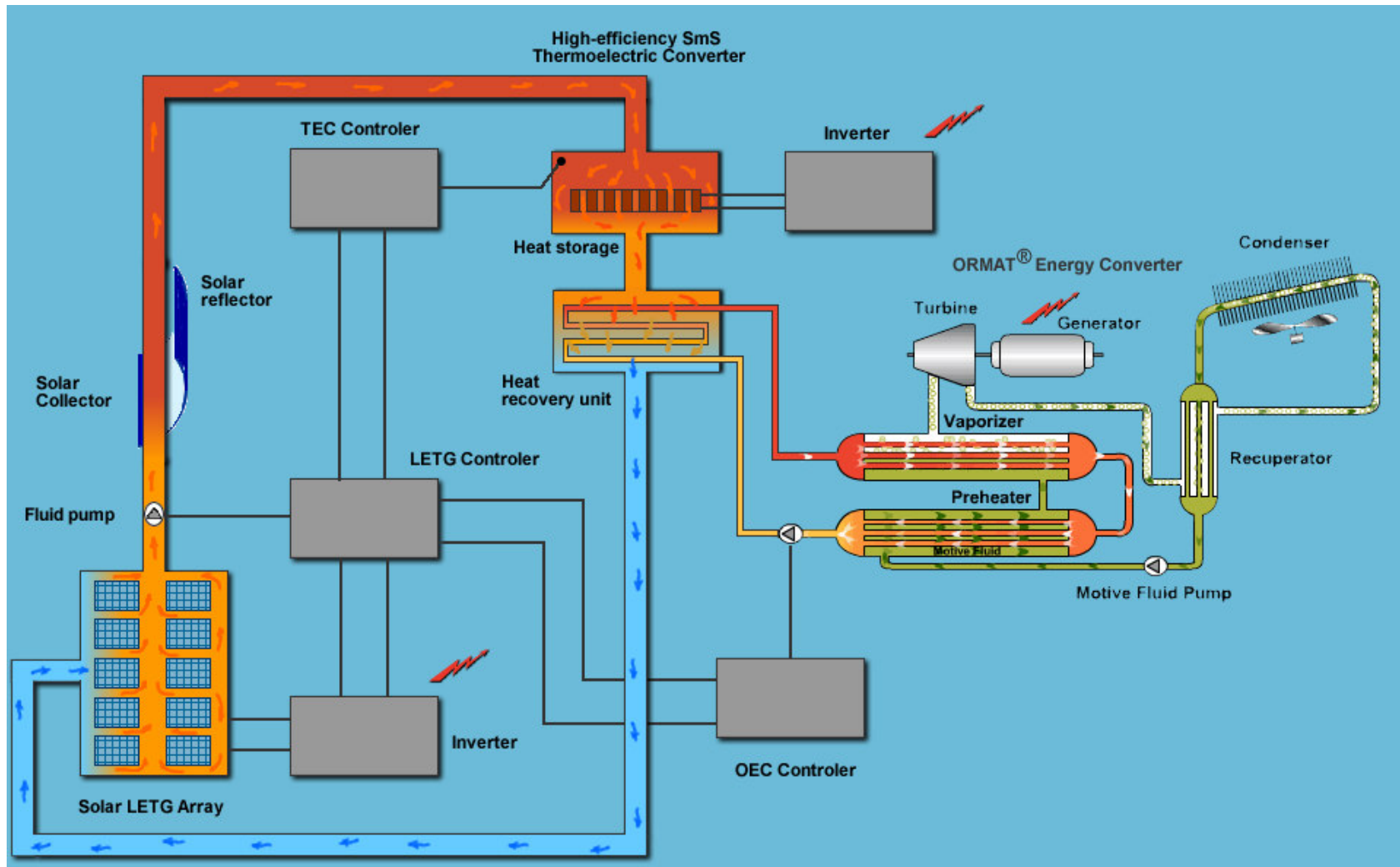
Rated levelized cost is 1.9 - 2.2 times less than for existing Solar Thermal Plants

LETG Power Plant combined with TEC



Rated levelized cost is 2-3 times less than for existing Solar Thermal Plants

High-efficiency Photovoltaic/Thermoelectric Power Plant



Rated levelized cost is 3 - 4 times less than for existing Solar Thermal Plants

Strategic Relationship

Ormat Technologies, Inc.

(NYSE: ORA)

Headquartered in Reno, Nevada, Ormat is a leading vertically integrated company dedicated to providing solutions for geothermal power, recovered energy generation (REG) and remote power.

The in-depth knowledge gained from these operations gives the Company the competitive edge by enabling efficient maintenance and timely response to operational issues.

<http://www.ormat.com/>



Solar Wind Ltd.

Solar Wind's dynamic development is impressive: the company has on its credit high rates of production growth (6.5 times within the last three years), intensive production and market development, and solar cells and modules' effectiveness increase by 15 % as production labor-output ratio, power intensity, and material capacity were reduced almost twice.

<http://solwind.ru/>



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