

# Genesis Alternative Solar Energy Technologies

www.geneseconomicdevelopment.org

## Stand- Alone Solar Thermal Power Station

*one to one point two-megawatt continuous baseload power*

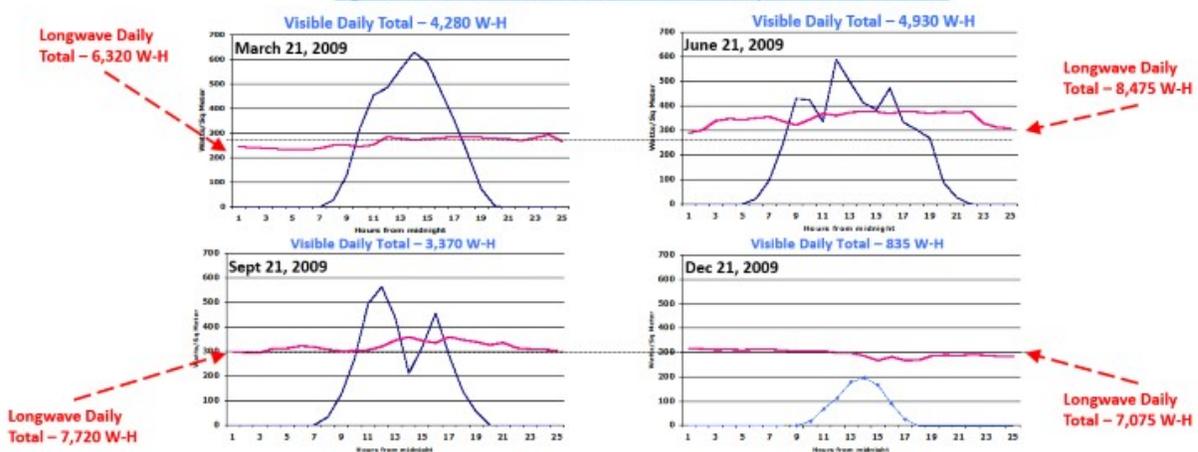
With the present environment of growing power needs, the growing instability of traditional fuel supplies and cost; a new approach is needed to provide a rapidly deployable baseload source of electrical power is essential.

- The unit is composed of aluminum honeycomb composite that is machine formed and based on technologies that the aircraft industries is using to make modern aircraft like the Boeing 777 Dreamliner. Designed to be assembled within days at site and transportable using containerized components, and AI programed construction methods.
- The Units are based of our patent full spectrum energy collection which is based on collection 99% of the infrared spectrum with as well as the visible and UV radiation, but unlike the UV and visible spectrum Infrared is almost constant as testing shows on the chart below:

### Full Spectrum Solar Beta Test – Northern England

*Our full results at the British Atmospheric Data Center Click Here:*

<https://docs.google.com/spreadsheets/d/140OwG74W2rreKaLvGQLhuFmTRGXPBDD/edit?usp=sharing&oid=108828804604638173799&rtpof=true&sd=true>



**There is always more Longwave than visible on a 24 hour basis**



BADC (51 deg N), 2009, for 12 mos. w/ Kipp&Zonen  
Representative data from 8,600+ data points/day  
Red Lines are Infrared...Blue Visible light...Dotted horizontal line shows 300 Watts/sq meter

- Collecting the infrared spectrum we collect three times more energy per meter of collection.
- Units have intergraded deep storage up to 30-hours that covers variations in both daily and seasonally energy availability.
- The collectors are able to be installed on any type of soil, brown fields, sand, marshy soil as we have abandoned the traditional single supporting mast and dish design. Our large collector will have five supports and will spread the weight and forces over concentric circular track. We will also abandon the massive counter-weights and the large amounts of parasitic electrical load needed to articulate the dishes, we will instead use electro-magnetic drive and maglev

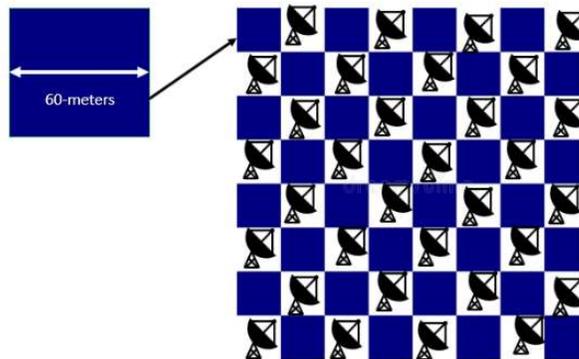
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technology to track the sun with an accuracy cogs, gears and big motors can't match using a fraction of the electrical power.

- Because of three-time increase over other solar collection, our units have the highest solar collection protentional available today. We can deliver as much as 208 megawatts per hours continuously 24/7/365 on a one-kilometer square plot anywhere in the British Isles as shown here:

Ours is the highest power generation concentration of any solar technology with one square kilometer producing between 208 MW and 420 MW per hour 24/7/365 location dependent



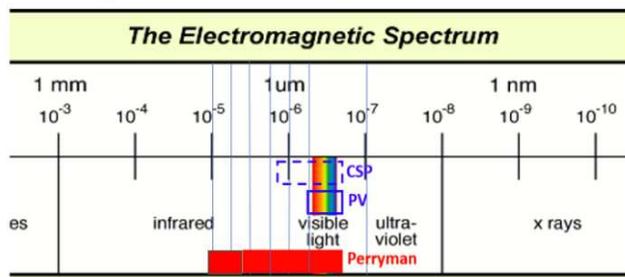
Our latest collector and storage iteration operates at temperatures hot enough to provide the energy for the highest efficiency small gas turbine , the Aurelia Turbine;

<https://aureliaturbines.com/> we will combine with a storage feed recuperative multistage close loop steam turbine system in a combined-cycle configuration which will approach 70% thermal to electric efficiency. This is AC power easily synchronized with existing grids and industrial applications. The system will also delivery usable hot water if needed for heating and absorption chiller air conditioning.

- Our cost per kW of produced electrical power is based on the operational life of 50-years for the unit is \$0.015 with a FOB factory price of \$6,320,000 factoring the cost of maintenance. Price subject to change.
- The Infrared collection is a game changer:

**Our solar Thermal Delivers 3-times More Energy**  
**We are the only CSP technology that collect all of the infrared spectrum**

## Full-Spectrum Solar Thermal <sup>tm</sup>



- Able to be assemble in days, not months at site, operate in winds of 80 mph, survive in locked down position winds of 190 mph and earthquakes and at the same time deliver electrical power at under 1.5 US Cents. Truly a solution to meet growing demand for power quickly anywhere globally.

