HOLTEC
INTERNATIONAL

HOLTECASIA

FORGING INNOVATIVE, CLEAN ENERGY SOLUTIONS FOR THE FUTURE GENERATIONS

SOLAR

Concentrated Solar Plants (CSP) are Proven Technology

HI-THERM

The highest performing HSP generation, deployable in most areas throughout the world.

GREEN BOILER

the Green Boiler Thermal storage system, with a lifecycle 5x that of Lithium-Ion batteries and contains no hazardous materials.

SMR-300™

SMR-300 is a single loop pressurized water reactor that will produce at least 300 megawatts of electrical power under baseload conditions nearly anywhere in the world.

SOLAR

Solarex™

• Solarex™, a cavity solar receiver, which absorbs sunlight with minimal reflection, captures re-radiated energy, and is strategically insulated preventing convective losses. Competitors utilize wrap-around receivers which produce significant losses both radiant and convective thus returns heat back to the atmosphere.

• A patented multi Solarex™ receiver configuration which accommodates a densified heliostat field harvesting greater solar power per acre.

• Aux-Solarex™ which is an auxiliary steam receiver which is used for start-up using solar power without drawing on the grid for electrical power.

• Holtec's Tower height is 120m utilizes pre-fabricated, conventionally shippable, sections which reduces the installation time to weeks as compared to +200 m towers which require take years and extreme cranes. When large amounts of land are available the Hybrid CSP-PV plant is duplicated to fit.

• A Solar Tower construction time of under 3 months (12 weeks) with locally available construction skills. A deliberate strategy to eliminate project risk which is infused into all components.

• A combined layout maximizing output from the CSP Heliostat and PV modules in the coordinated in the same field area.

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GREEN BOILER
THERMAL STORAGE

with FEORITE™

The Green Boiler Thermal storage system, with a lifecycle 5x that of Lithium-Ion batteries and contains no hazardous materials and is not subject to cycling or calendar degradation.

•The thermal medium Feorite™ in the Green Boiler, which is an inert, non-hazardous supply chain friendly, abundantly available in India blend to sequester up to 700C heat near indefinitely.

•Material sourcing is completely within the borders of India, unlike Li-ion material that are outside of India, controlled by Chinese conglomerates, and Li-ion battery material is a class 9 hazardous material.

•The Green Boiler components are sized to be shop manufactured and shipped by land or sea.
Energy can be stored in the Green Boiler for long periods with little ambient loss.

•All, or a portion, of the steam from the Green Boiler can be diverted to serve as process steam for other industrial applications, including production of hydrogen fuel.

•The Green Boiler does not use any rare materials; all materials can be sourced domestically in any industrial country.

•The Green Boiler does not have a finite cycle life, unlike lithium-ion batteries

•The Green Boiler uses 100% nonflammable materials and is not vulnerable to fire, unlike lithium-ion batteries

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SMR-300™
NUCLEAR POWER

SMR-300™ is an unfailingly safe and secure reactor that provides a steady source of clean energy from fission. Like most other power cycles, heat is used to boil water and create steam, which powers a turbine. SMR-300 stands out with a design that incorporates passive safety features and physically protected systems. All safety systems are found within a containment area protecting them from natural or synthetic threats.

SMR-300™ is a pressurized water reactor that will produce at least 300 megawatts of electrical power under baseload conditions nearly anywhere in the world. This robust small modular reactor uses low enriched uranium fuel that is commercially available today and provides reliable, affordable, carbon-free energy. Its fail-proof gravity-driven emergency reactor coolant circulation system ensures "walk-away safe" operation.

It is the ideal solution for powering economic growth worldwide. Since SMR-300 can easily integrate to both established electrical grids or as an independent distributed power source, it can be used in both developing and developed countries. An SMR-300 site can easily be expanded with more units to meet current and future demand. The majority of the SMR-300 is modular, so most of its equipment and structures are factory-fabricated and can be delivered to each site in segments.

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HI-THERM

HYBRID SOLAR POWER

Hybrid Solar Plant (HSP), combines both a concentrated solar plant (CSP) with photovoltaic (PV) panels between heliostats for CSP

The highest performing HSP energy generation at 8 MWH per acre when DNI is 1700. (best utilization of land space). Together, the hybrid system produces more energy per land use than CSP or PV alone.

•Heliostats reflect solar radiation to receivers

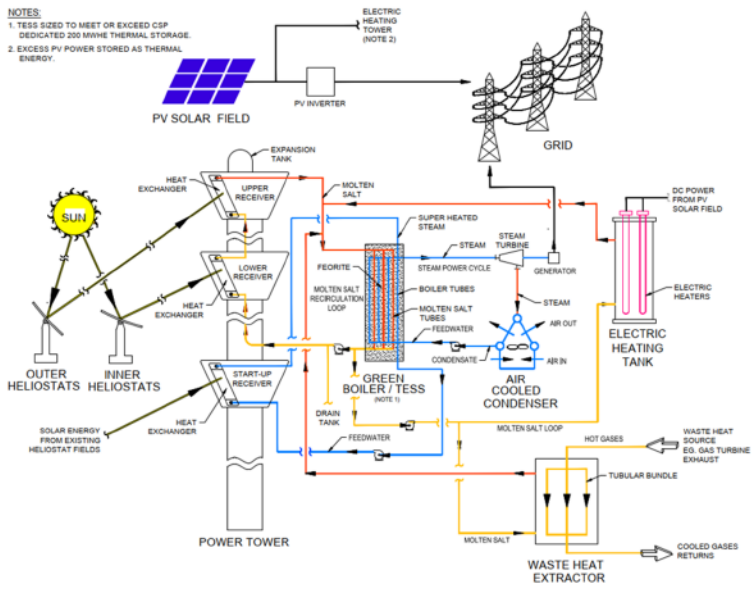
•Solar radiation is absorbed by heat exchanger in receiver and transferred as thermal energy to molten salt loop.

•The hot molten salt continues through loop and transfers thermal energy to the Green Boiler a thermal long duration energy storage (LDES).

•The molten salt exits the Green Boiler and continues through its loop by the power of pumps back to the receiver to be heated by the solar thermal energy.

• The Green Boiler is used as a steam generator with a standard steam cycle powering a turbine to produce electrical power

•As a LDES, the Green Boiler provides 24-hour heat input to the steam cycle even at night.



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CULTURE OF QUALITY

Holtec's Quality Assurance, Safety and Governance Programs ensure the highest standard of deliverables, superb safety metrics and a transparent corporate culture. Approved by both regulators and clients, these programs have positioned Holtec as America's leading supplier of engineered equipment and systems to the global energy industry. Holtec holds ISO certifications and several ASME Code Stamps, including N, N3, NPT, NS, NB, R and U.

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LEARN MORE ABOUT THE FUTURE OF CLEAN ENERGY AT **WWW.HOLTEC.COM**