Abengoa counts on its own solar thermal technology and is a world leader in the construction of this type of plant, with 1.7 GW of installed capacity representing 34% of the worldwide production of solar thermal energy. Its scope of activity in this field includes technological advice, engineering services, EPC (Engineering, Procurement and Construction), consultancy, development of components (solar park) or O&M services.

Thanks to the know-how accumulated throughout all its years of experience, Abengoa has designed and promoted a new generation of renewable energy power plants where the low cost of photovoltaic energy (PV), the dispatchability of solar thermal energy (CSP) with thermal storage (TES) and the fast response of batteries (BESS) converge into a single installation. These are solar hybrid technology or Smart Solar Plants which Abengoa has developed and optimized achieving a significant reduction in the cost of power thanks to the commitment of the company with the continuous progress in R+D+i.

Smart Solar Plants allow to integrate emerging energy storage technologies, electric batteries and molten salts into different configurations that are specifically designed for each project.

Abengoa’s hybrid technology allows to reduce both the cost of the generated power and CO2 emissions in new power plants and when applied for the decarbonization of conventional thermal power stations. The Cerro Dominador solar power plant, property of EIG Global Energy Partners, that Abengoa is currently constructing in the Atacama Desert and which will produce 110 MW 24 hours per day using hybrid technology (CSP / PV / TES / BESS), is a clear example of this project that is being developed in collaboration with Toshiba for the decarbonization of the Australian market using hybrid solutions (CSP / PV / TES / heater / BESS).

In addition, hybrid power plants allow new applications of solar thermal energy in the field of process heat production through the design of solutions adapted to the needs of strategic sectors such as mining and chemical and petrochemical industries.

Abengoa counts with a worldwide reference testing platform that allows to validate and consolidate its technological developments prior to their commercial implementation, which provides differentiation and reliability in all its solutions.

Abengoa is an international company that applies innovative technology solutions for sustainability in the infrastructures, energy and water sectors. It has over 75 years of experience in engineering and construction, being specialists in the execution of complex “turnkey” projects or engineering, supply and construction projects (Engineering, Procurement and Construction) for third parties in four fundamental areas: energy, water, services and transmission and infrastructure.

Abengoa has extensive experience in the power generation sector thanks to the development of open and combined cycle and cogeneration technologies, wind farms, and solar thermal, photovoltaic, waste to energy and biomass power plants.

This experience provides the company with a high capacity of design and hybridization among power generation technologies, that allows it to offer the optimal solution to its clients.
Energy solutions currently provided by **CSP technology**

- Solar heat generation
- Electricity generation
- Smart solar concept

**ABENGOA Energy**

**Solar Thermal Energy Hybridization Solutions**

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