

SolarReserve Applauds Partner Sandia National Laboratories' 40 Years of Solar Thermal Power Research

Long-term public-private collaboration has fueled innovations in advanced heliostat solutions that deliver industry leading performance at a competitive price point

From testing space shuttle tiles to making electricity from sunlight, for [forty years](#) Sandia National Laboratories has contributed to energy research, space exploration, defense testing and solar energy commercialization at its world-leading National Solar Thermal Test Facility in Albuquerque, New Mexico.

The facility's primary goal is to provide experimental engineering data for the design, construction and operation of components and systems for industrial-scale concentrating solar thermal electrical plants for large-scale power generation. Operated by Sandia National Laboratories for the U.S. Department of Energy, the National Solar Thermal Test Facility is the only test facility of this type in the United States.



40TH Anniversary Celebration

On the occasion of the National Solar Thermal Test Facility's 40th anniversary this month, past and present Sandia researchers and leaders, government representatives, and industry leaders joined together for a day of talks and tours focused on the facility's history, and its role in solar energy and other fields and the present research perspective.



Fostering New Industries and Creating Jobs

Kevin Smith, SolarReserve's Chief Executive Officer spoke at the event: "Celebrating the 40th anniversary of the National Solar Thermal Test Facility reminds us all of the important work that the Sandia team has done to advance American innovation in solar thermal technology. Through their efforts, and our partnership with them, breakthrough solutions for cost-effective sustainable energy now and in the generations to come are being developed. New industries are being fostered, and U.S. jobs created by the thousands. We look forward to many more years of collaboration with Sandia on solar thermal technology development."

Long-term private-public partnership

For over 10 years, SolarReserve has partnered with Sandia to test and validate advanced heliostat designs for its utility-scale solar thermal power stations. Heliostats are the large dual-axis tracking mirrors that concentrate and focus the sun's energy onto a receiver atop a central tower. Within the receiver, fluid flows through the piping that forms the external walls; this fluid absorbs the heat from the concentrated sunlight. In SolarReserve's technology, the fluid utilized is molten salt, which is used both as a heat transfer fluid as well as a thermal energy storage medium.

Paul Gauche, manager of Sandia's National Solar Thermal Test Facility remarked: "The CSP team at Sandia has worked side by side with SolarReserve since their founding and we look forward to assisting them as they embark on several large projects around the world. This special relationship has its foundations in the pioneering molten salt research led by Sandia labs in the 1970s and we anticipate history repeating itself in Gen3 and beyond."

Fueling innovations resulting in lower cost and higher performance

SolarReserve is experienced in advanced heliostat and collector field design, deployment and controls. The company's heliostat innovation areas include advancements in pointing accuracy, nimble structure design, high precision and efficient drive systems, ultra-light and high reflectivity mirror facets, and various heliostats and collector field control, power and communication systems. SolarReserve has developed, built and tested about 15 different heliostat variations at Sandia's test facility in New Mexico, each with reduced cost and higher performance. Through this collaboration with Sandia, SolarReserve has developed heliostat solutions that deliver industry leading performance at a competitive price point.

About SolarReserve

SolarReserve is a leading global developer, owner and operator of utility-scale solar power projects, with more than \$1.8 billion of projects in operation worldwide. The company has commercialized its proprietary ThermaVault advanced solar thermal technology with integrated molten salt energy storage that delivers renewable energy that is dispatchable 24/7. The U.S. developed technology is now one of the world's leading energy storage technologies, and allows solar energy to operate like traditional fossil-fired and nuclear electricity generation - except the fuel is the sun which means zero emissions, zero hazardous waste, and zero dependence on fuel price volatility.

Since the company's formation in early 2008, SolarReserve's experienced team has assembled a pipeline of over 13 gigawatts across the world's most attractive, high growth renewable energy markets. SolarReserve is headquartered in the U.S. and maintains a global presence with six international offices to support widespread project development activities across more than 20 countries.

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