

PNNL-35390

DISH-STARS™ COMMERCIALIZATION (Abstract)

CRADA #380 (PNNL #69121, 69139)

May 2024

Charles J Freeman

**Southern California Gas Company
(SoCalGas)**

STARS Technology Corporation (STARS)

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PACIFIC NORTHWEST NATIONAL LABORATORY
operated by
BATTELLE
for the
UNITED STATES DEPARTMENT OF ENERGY
under Contract DE-AC05-76RL01830

Printed in the United States of America

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Pacific Northwest National Laboratory
Richland, Washington 99354

Abstract

The goal of this project is to aggressively support the near-term commercialization of a new technology platform – based on the integration of solar concentrators and micro- and meso-channel process technology (MMPT) – that was evaluated and identified as a strong candidate for near-term commercialization at EERE’s inaugural Lab-Corps program during early FY2016. Known as STARS, for Solar Thermochemical Advanced Reactor System, or Dish-STARS™ when paired with parabolic dish concentrators, STARS is a promising energy-related technology developed at the Pacific Northwest National Laboratory (PNNL) that efficiently converts solar energy into chemical energy.

Combined with economies through hardware mass production, the efficiency of Dish-STARS™ provides a near-term opportunity for the production of renewable electricity, fuels and chemicals.

This proposed CRADA project supports the commercialization of Dish-STARS™ in these important ways:

- The project will support the cooperative development of Dish-STARS™ by the DOE national laboratory and private partners, including the startup company, STARS Corporation, that is being established by the PNNL Lab-Corps team that evaluated STARS on behalf of EERE.
- The project will provide important transition funding at the time that the previous DOE SunShot project, which has supported Dish- STARS™ development from Technology Readiness Level 3 (TRL 3) to TRL 6, is scheduled to end.

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