

Focused Concentrated Solar Power (FCSP)

ELEMENTAL DYNAMICS

Project Summary

Key Takeaway: Solar Power to Steam Power, **BOOM**...Mic drop!
The industrial revolution was driven by steam power. What can we do with free steam power? Water desalination, electrical energy generation, industrial process heating using oil instead of water.

Project Impact: Supplement industrial process heating, future impact on burgeoning countries by providing low-cost electrical power and water desalination within the same power cycle.

Proposed Project Goals: Build full scale MVP for testing and benchmarking. New lens technology will be an exciting outcome of this project.



Key Personnel/Organizations

David Allen , PI, Founder, Engineer	Austin Sluder , Sales
Patrick Wyse , Controls and Automation	
Scott Szewcyk , Manufacturing	
James Peoples , Design Engineering	

Budget for MVP Completion

Investment funds: \$100,000 Cost-share: 20% Total: \$120,000

Key Milestones & Deliverables

Year 1:	Build and test full scale MVP. Achieve pressure output of 100psi+, temperature output 300°F+ superheated steam
Year 2:	Design for manufacturing/market acceptance. Build multiple full production systems

Project Impact

The Elemental Dynamics Focused Concentrated Solar Power system can meet the needs of industry as well as communities, it is compact, cost effective, and multifunctional, generating electrical power, performing water desalination and atmospheric water extraction. Deployable on any flat roof or ground surface, uses a recirculating water system, and is most efficient during peak power consumption hours, making it highly desirable for the hotel industry, factories, hospital, universities, etc. any facility that wants to put the surface area of their roof to work for them. We will also provide a significant impact on our local community by hiring supervisors and assemblers, supporting local machine shops and contract manufacturing facilities, while striving to purchase all American components.