

Sulas
INDUSTRIES



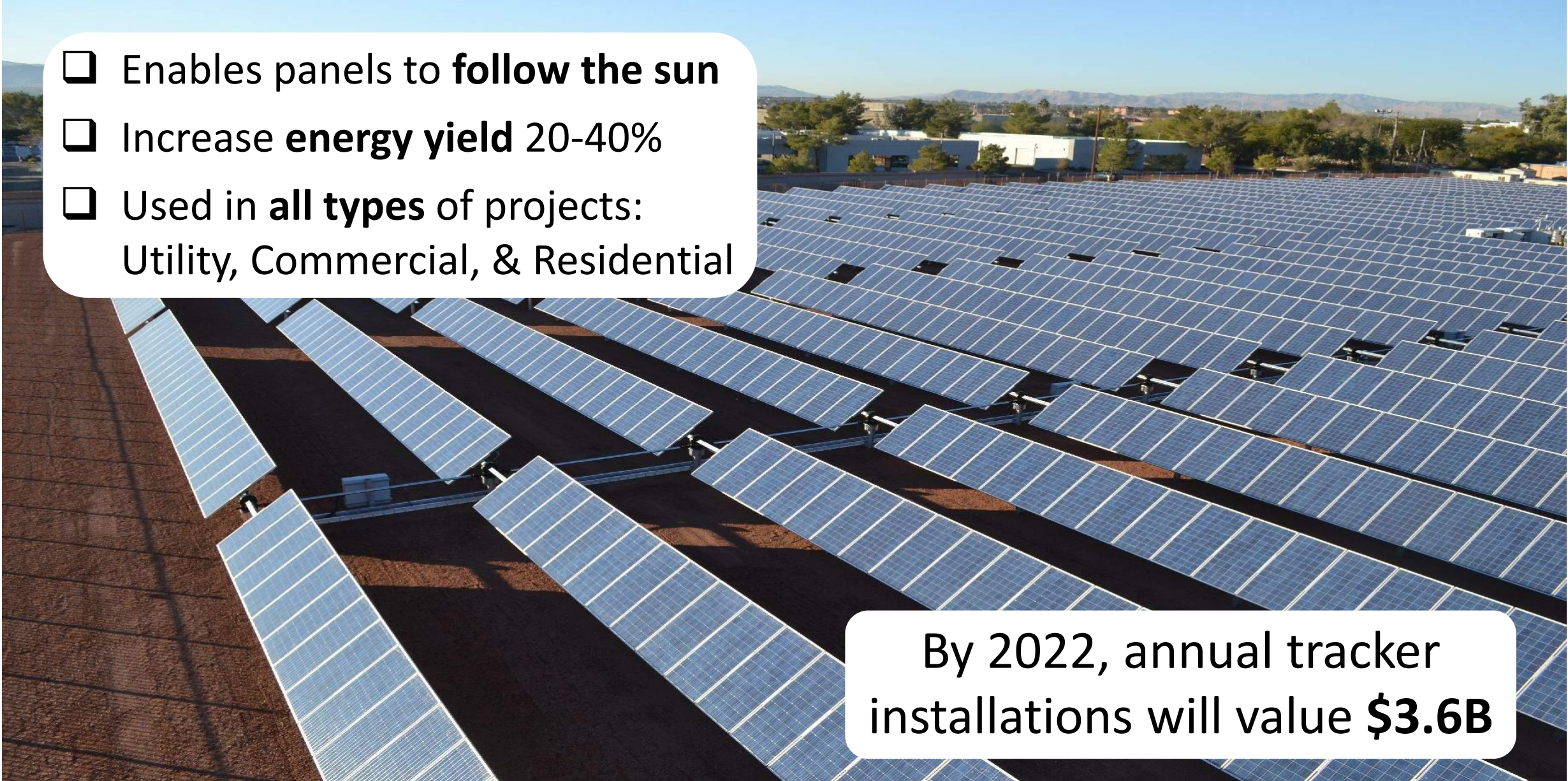
Fin Doyle

NREL IGF Forum 2018

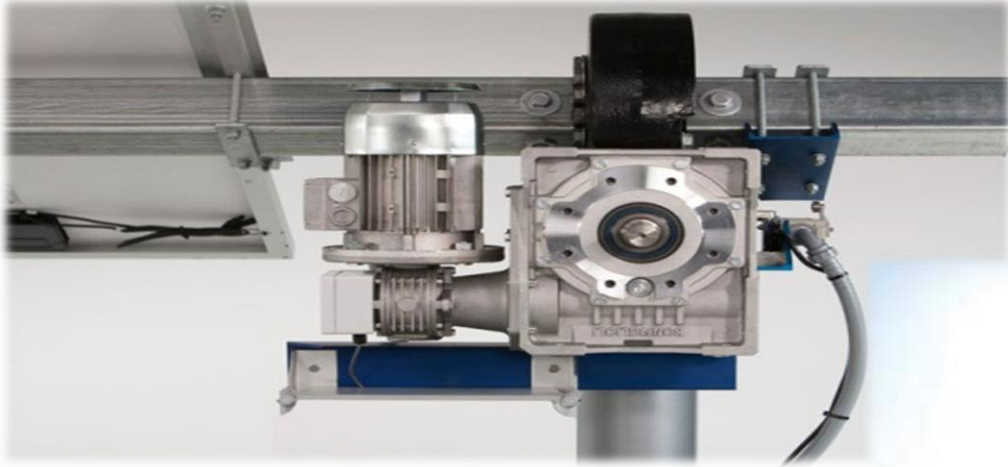
The Industry

- ❑ Enables panels to **follow the sun**
- ❑ Increase **energy yield** 20-40%
- ❑ Used in **all types** of projects:
Utility, Commercial, & Residential

By 2022, annual tracker installations will value **\$3.6B**



Issues with Current Electronic Trackers



High Purchase Cost

Expensive to Install

Complex and Costly
Ongoing Maintenance



Our Solution

What We Don't Have

- Electronics
- Sensors
- Software
- Wiring
- Electrical Power Used

What We Do Have

- Autonomous power (from Sun)
- One moving part
- Quick installation and deployment
- Disaster resistant (floods, lightning, wind, etc.)

The HelioDrive



- ❑ **Receiver** = Contains engineered paraffin wax acting as thermal actuator
- ❑ **Concentrator** = Tracking logic using parabolic concentration optics
- ❑ **Mechanical Assembly** = Turns linear motion into rotation torque & part of tracking logic

Paraffin Technology



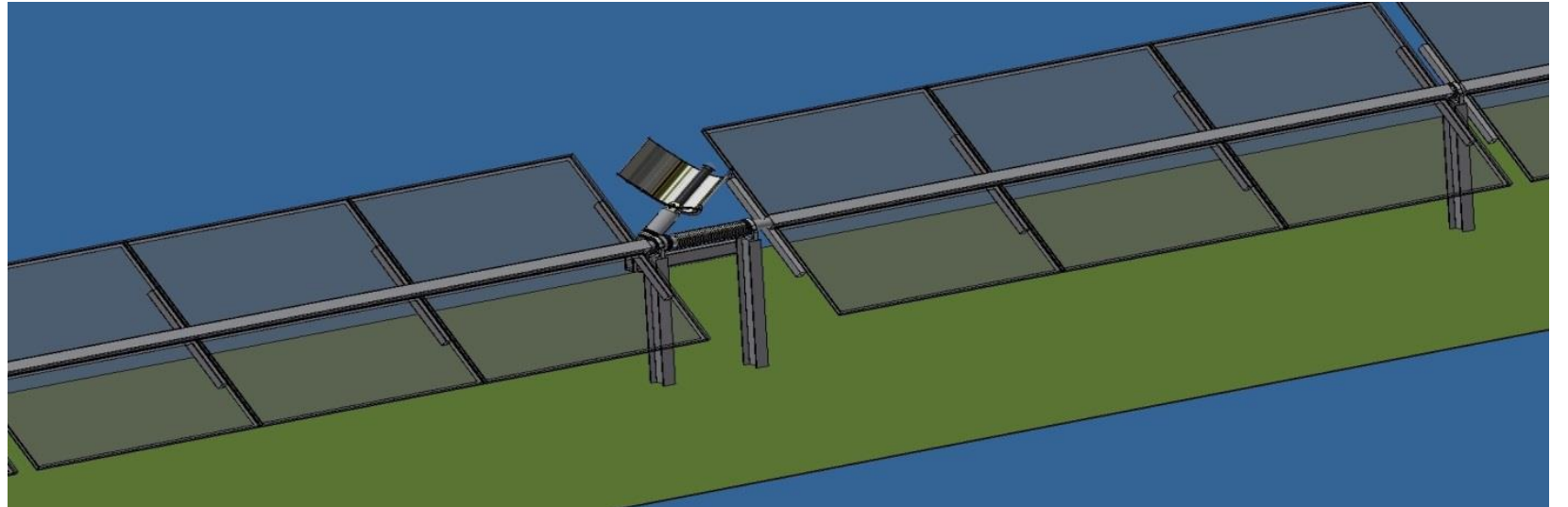
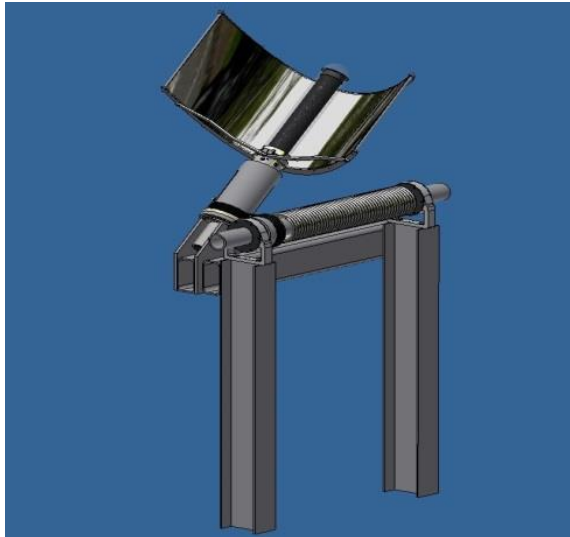
Installations



Value Proposition



- ❑ 25% Savings on Purchase and Installation
- ❑ 75% Savings on Operating and Maintenance



Intellectual Property



Primary patent **#8,763,601**
issued June 2014
2nd patent filed April 2015



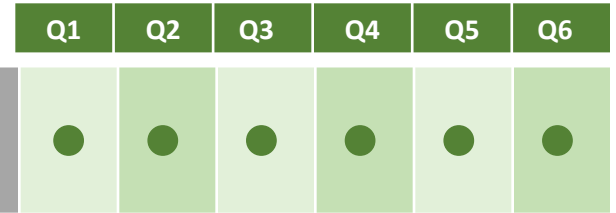
International patents
issued for China, Japan,
Australia, Canada, and EU.
** India pending*

What We Are Looking For

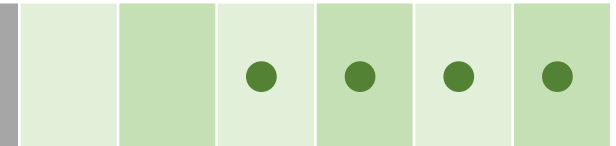
Fund these milestones over the next **18 months**:



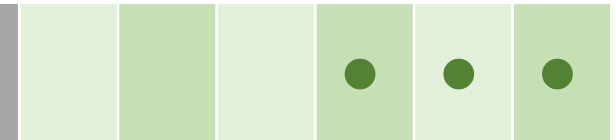
Build/Validate Decentralized Row Drive System – Three Locations



Third-Party Validation – Other Industry Certifications



Approach All Possible Partners in Industry – Current Racking and Solar Companies



Exit Plan

SUNPOWER



PowerLight Trackers
\$333M



RayTracker
\$45M

flex



NexTracker
\$330M



OSolar
(undisclosed)

Sulas Team



Fin Doyle: Chairman & Founder
Mechanical Engineer
Product Design, Manufacturing



Kareem Dabbagh: VP
Industry Expert in Design, Engineering,
Product, Supply Chain



Luke Acre: Manufacturing
Manufacturing, Production,
Fabrication, Energy Industry



Jeff Bloszies: Advisor
Solar, Finance, Start-ups,
Finance Director Panasonic



Al Spies: Advisor
Exec. Management
CFO USWest, Start-ups



Tom Duckett: Advisor
RES Americas Distributed
President

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Other Applications of the HelioDrive

- Solar Hot Water
- Day Lighting
- Concentrating Solar Power (low-mid concentration)
- Solar Water Distilleries
- Solar Cookers
- Anything that benefits from following the sun

Financial Comparison

Standard Tracker

Performance: 1,621 MWh

Turnkey: \$1.12/Wp

Financial Summary

System Cost	1,142,400	\$
Dollars per Watt	1.12	\$/W
NPV	2,700,621	\$
IRR	24.75	%
LCOE	0.037	\$/kWh
Payback Period	3.96	years

HelioDrive

Performance: 1,590 MWh

Turnkey: \$1.04/Wp

Financial Summary

System Cost	1,060,800	\$
Dollars per Watt	1.04	\$/W
NPV	2,688,575	\$
IRR	25.95	%
LCOE	0.035	\$/kWh
Payback Period	3.76	years

\$/Wp Reduction

\$0.05-0.08

LCOE Benefit

5-6%

IRR Benefit

4-5%

