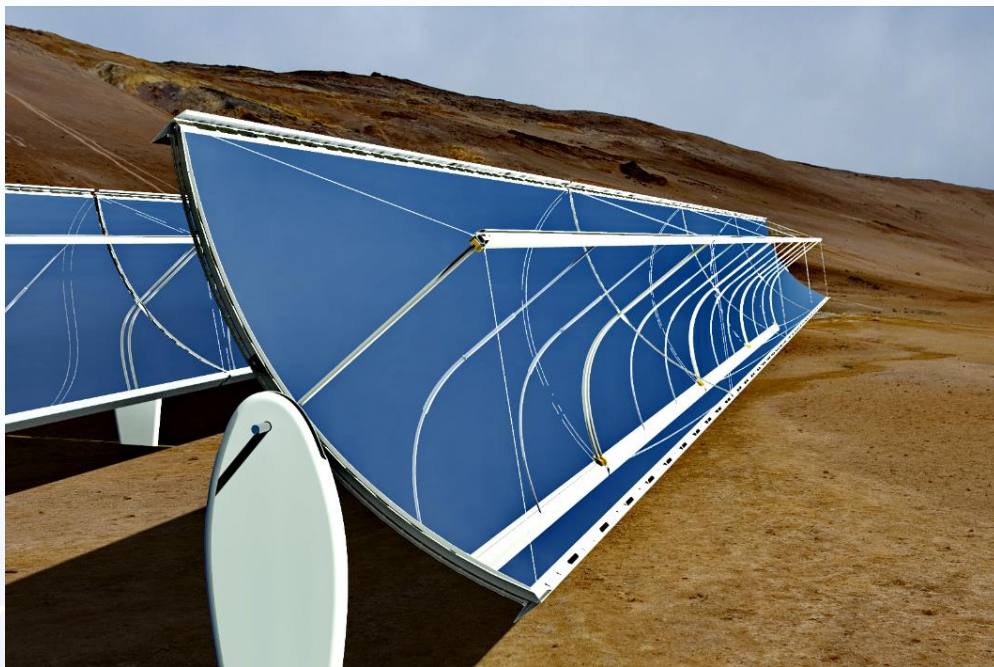


Low Cost Solar
Energy for:

Enhanced Oil
Recovery (EOR)
& Desalination

Focal Line Solar Inc.
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Focal Line Solar
Dedicated to Continuous Innovation

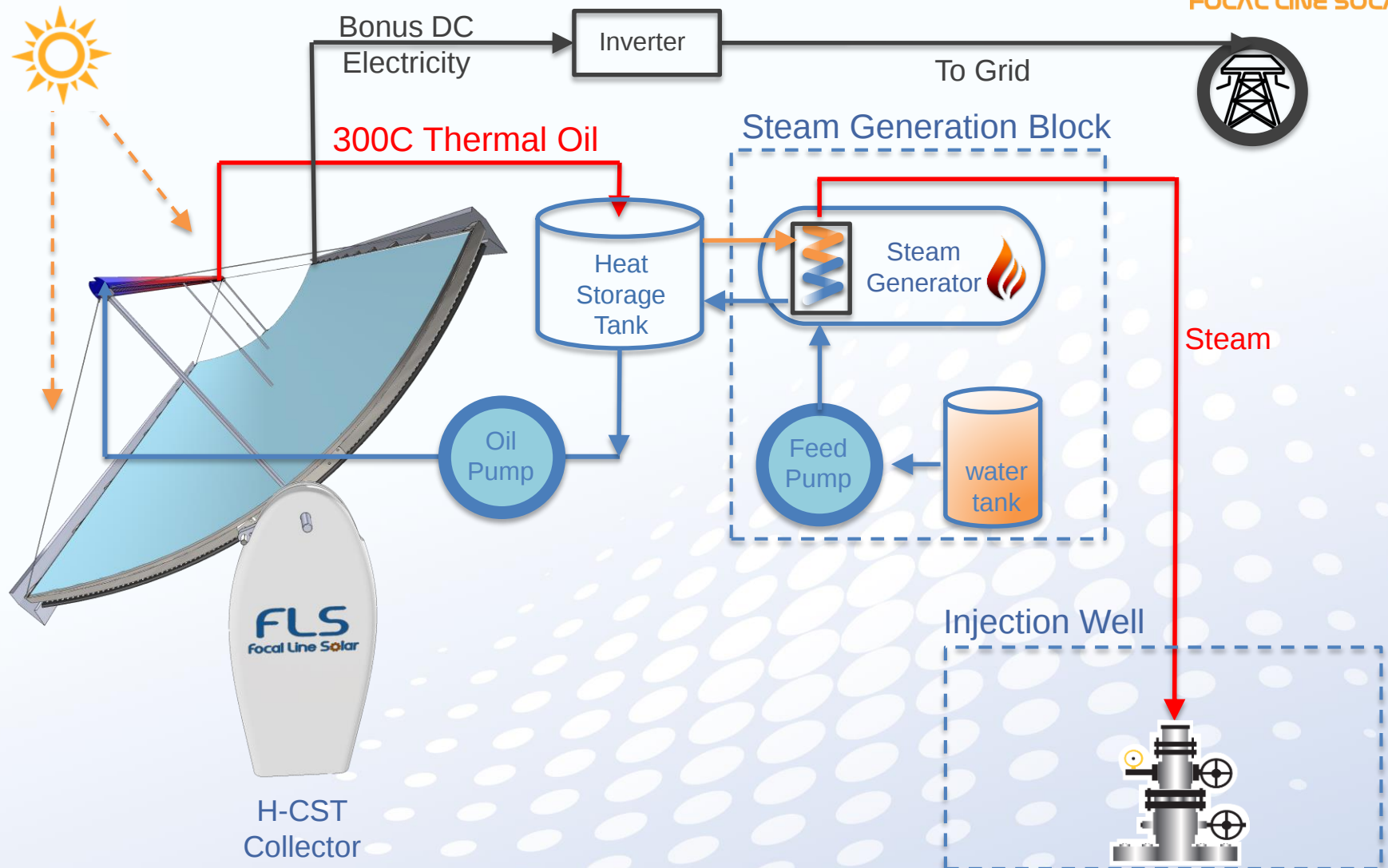
Solar EOR is a Net Win for Oil Producers



- Solar thermal energy **cost less than the gas**, which they would normally burn to do EOR
- **Increases oil production** (recoverable reserve)
- Generates significant amounts of electricity
- Generates **green credits/carbon credits**
- **Improves image** of oil company
- Solar asset has **life after EOR** completed
- Solar installation can easily be shifted to electric production

Payback in 2 to 4 years

H-CST for Solar Enhanced Oil Recovery (EOR)



24 hour/day solar electric power

EOR System Configuration Notes

- Max operating temperature solar (300°C);
 - Excess heat can be used or stored for **24hour operation**
 - Concentrated Solar Thermal (CST) can add as much energy as needed
 - *Cost of FLS solar thermal energy is equivalent to:
 - **\$0.005 to \$0.015/ kWh (\$50 to \$160 per 1000m³ Methane)**
 - Bonus electric cost **0.03 to \$0.06/kWh electric**
 - Can be used in conjunction with other heat sources
 - 100% removable
- * Costs are dependent on the level of local solar resource

Can be distributed within the oilfield

Motivations:

- To increase profit from oil production
- Use solar to save the oil/gas resource for export
- Typically 25% of gas production is burned to make steam
- Many old fields will not produce without EOR
- Environmental concerns, especially in California
- Green credits, Carbon credits
- Corporate image

Fast growing world market

EOR Project in Oman (Competitor: GlassPoint)

GlassPoint, project supplier

- #1 Competitor (picture insert)
- Cost \$600 Million
- Greenhouse cover
- 55% efficient
- 41% Yield
- 3 km²

FLS equivalent project

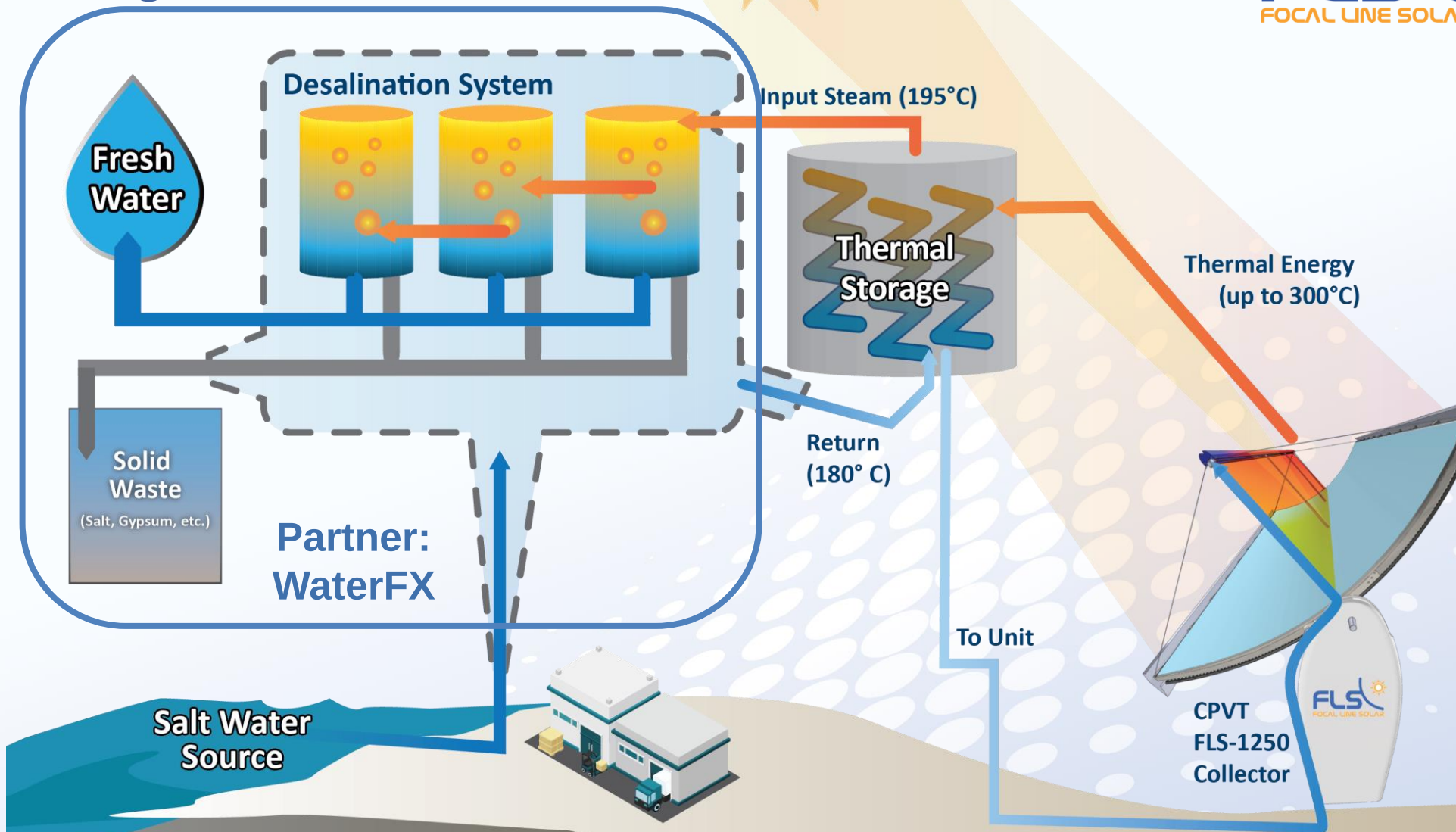
- 140,000 FLS collectors
- \$195 Million
- 70% efficient
- 63% Yield
- 4.8 km²



Salt Water Desalination

100% Waste Water Recycling
Optional for EOR

Integrated Solar Thermal Desalination



FLS CST & advanced MED cuts water cost of by >50%

WaterFX Commercial Desalination Demo

Pilot Demonstration:

- Solar thermal desalination at Firebaugh, CA.
- Proved design improvement **cuts energy use by 50%**

Commercial Project:

- 15 year water supply agreement
- Currently seeking funding
- 8M liters/day water to be produced
- **2000-4000 FLS Modules** for 1st phase
- 2 more phases to follow



WaterFX – Firebaugh Pilot

1st plant address <0.05% of California's water problem