Solar Energy for Oil Production
Kern Energy Summit
November 2015
Focused exclusively on serving oil industry
  • Largest energy user in Kern County

Born in Kern County
  • First Project opened in McKittrick in 2011

Building the largest solar plant in the world
  • South Oman heavy oil field

Now coming back to California
  • Cutting costs for producers in Kern County
Steam Injection

What's wrong with this picture?

- Steam is less dense than oil
- Gravity override
- Conical shaped steam chambers
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First Oil..... Then Gas..... Then Sunshine!
Berry Petroleum, McKittrick, CA

Four years of operation
Simple Integration

Solar Steam Generators
connect to same facilities
accept same feedwater
deliver same steam pressure/quality
PDO Pilot Amal, Oman

3 years of operation
Miraah, Amal, Oman

Now In Construction
Meet Miraah
Solar Technology Developed Here

Brought To Giant Scale Overseas

Now Ready To Deploy Here

• Cutting Oil Production Costs
• Extending Field Life
• Preserving Field Value and Operations
GlassPoint offers steam at lower cost than gas-fired steam, cutting the cost of producing oil.
Lowest Cost Steam

STEAM FOR LESS THAN NATURAL GAS

OTSG Steam

Solar Steam

FUEL

GUARANTEED DISCOUNT

CALCULATED MONTHLY

FIXED FEE PER MMBtu DELIVERED

EMISSIONS

OPERATIONS

MAINTENANCE

COST OF STEAM
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Thank You!