

**Mojave Solar Project
Harper Lake, California**

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December 9, 2009

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Abengoa Solar

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Project Description

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Site Location and Characteristics

4

Community Benefits

Five business units, one of which is Abengoa Solar

Abengoa Solar	Abengoa Bioenergy	Befesa	Telvent	Abeinsa
				
Solar energy	Bioenergy	Environmental services	Information technologies	Engineering and construction
<p>International leader on solar power plants solar</p>	<p>Only bioethanol producer on the three key geographies</p>	<p>International leader on industrial waste treatment, as well as in the water management field</p>	<p>International leader in IT for the energy, traffic, transport and environmental sectors</p>	<p>Leader in Spain and South America in engineering and construction projects and EPC.</p>
<ul style="list-style-type: none"> • 12 MW in operation • 300 MW under construction • Hundreds of MW under development 	<ul style="list-style-type: none"> • First European producer • Fifth largest producer in USA • One of the largest producer in Brazil 			<ul style="list-style-type: none"> • Ranked as the third largest international power contractor (ENR)

ABENGOA SOLAR

Develops...

Builds...

Operates...



Parabolic Trough, Power Tower Plants and Installations

Some examples...



Solucar platform

300 MW
(Spain)



Solnova 1 and 3

100 MW
(Spain)



PS10 and PS20

31 MW
(Spain)



Solana

280 MW
(US)



ISCCs

150/480 MW
(Algeria/Morocco)



Steam and water heating installations

MWt (US)

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Project Description

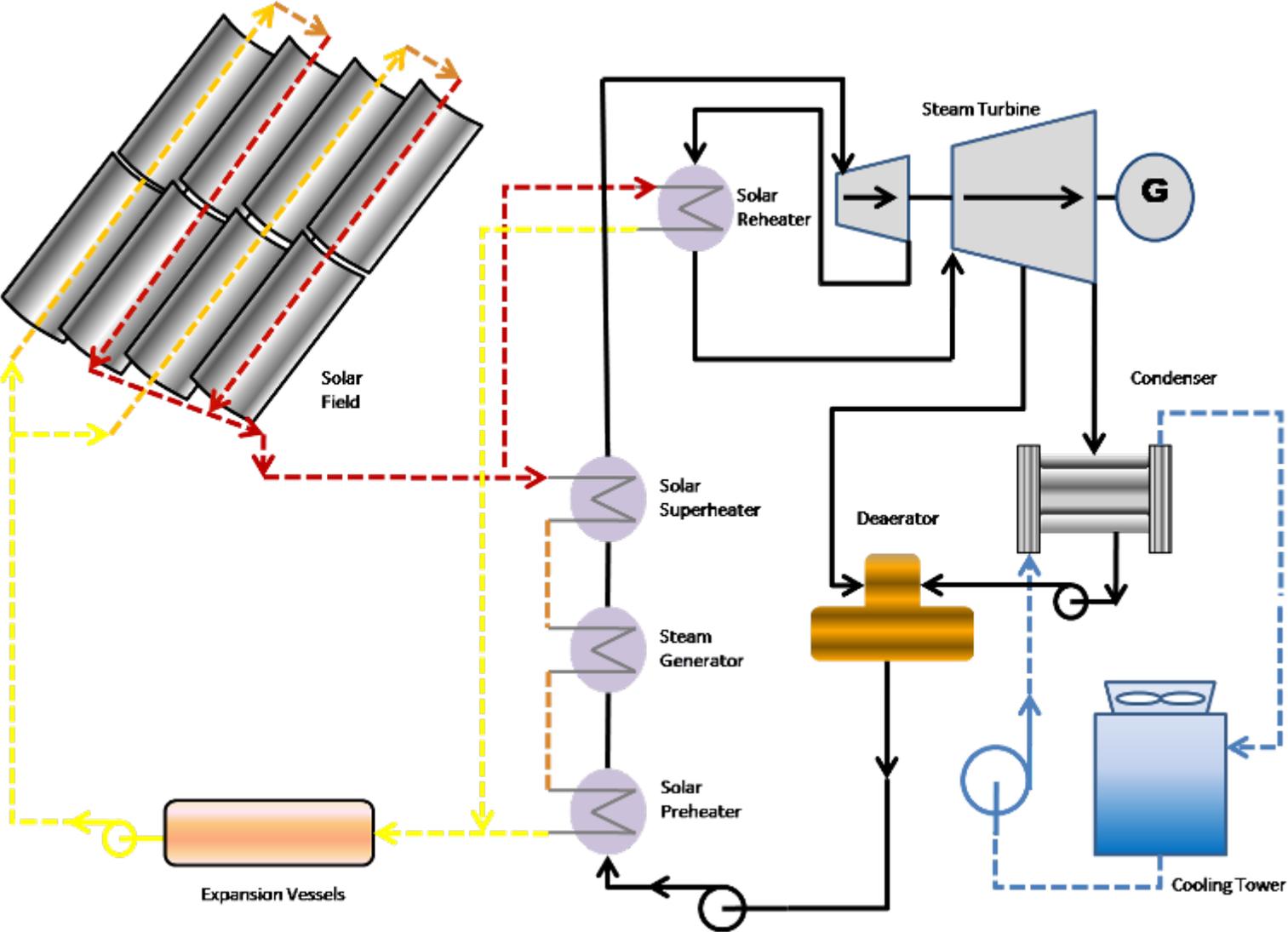
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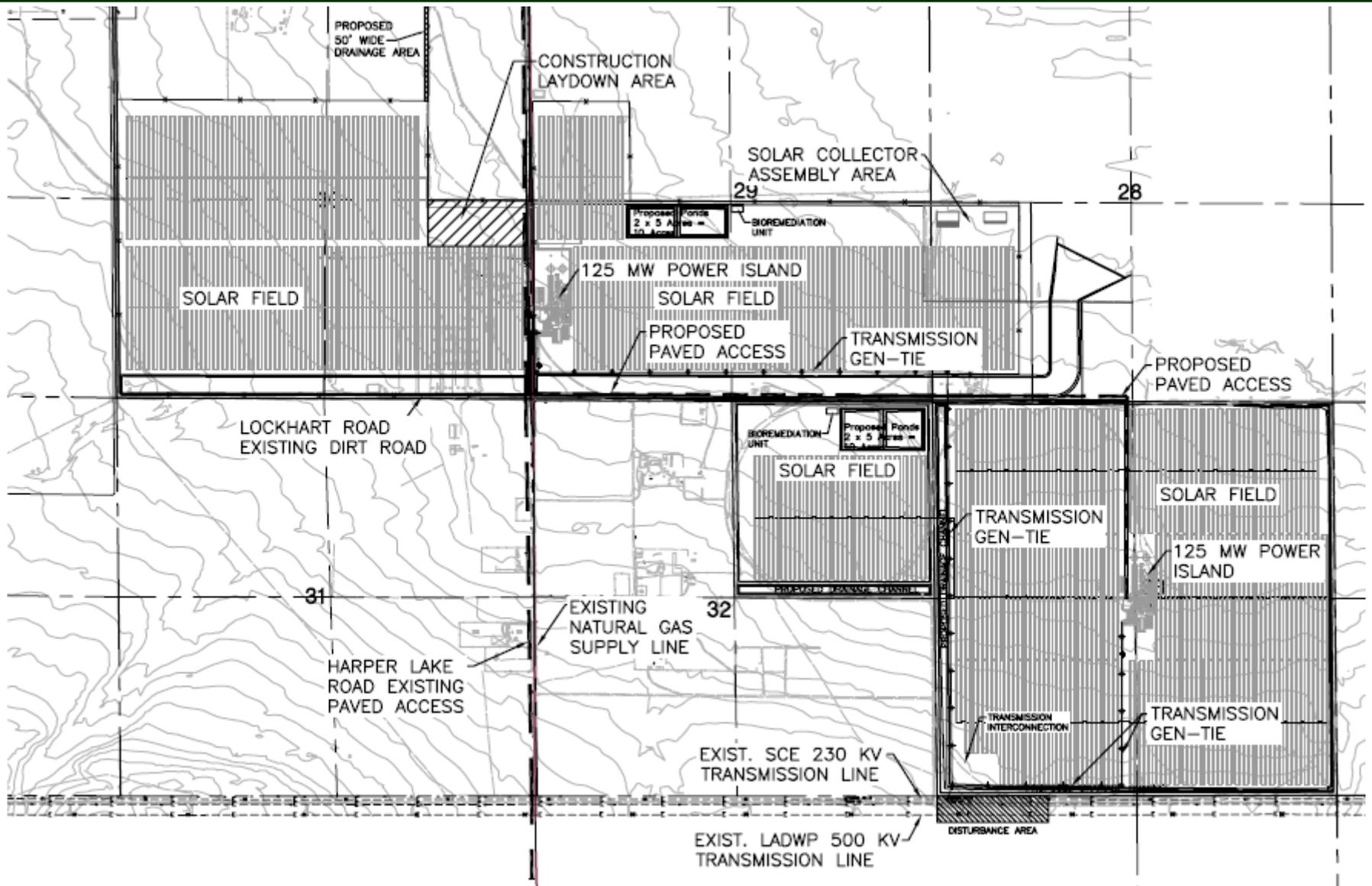
Site Location and Characteristics

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Community Benefits

- 250 MW net production – electricity to supply approx. 70,000 homes
- Proven solar technology
- 100% power generation from the solar resource
- Minimized visual and noise impacts
- Layout minimizes biological impacts
- Compatible land use (next door to same technology)





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Project Description

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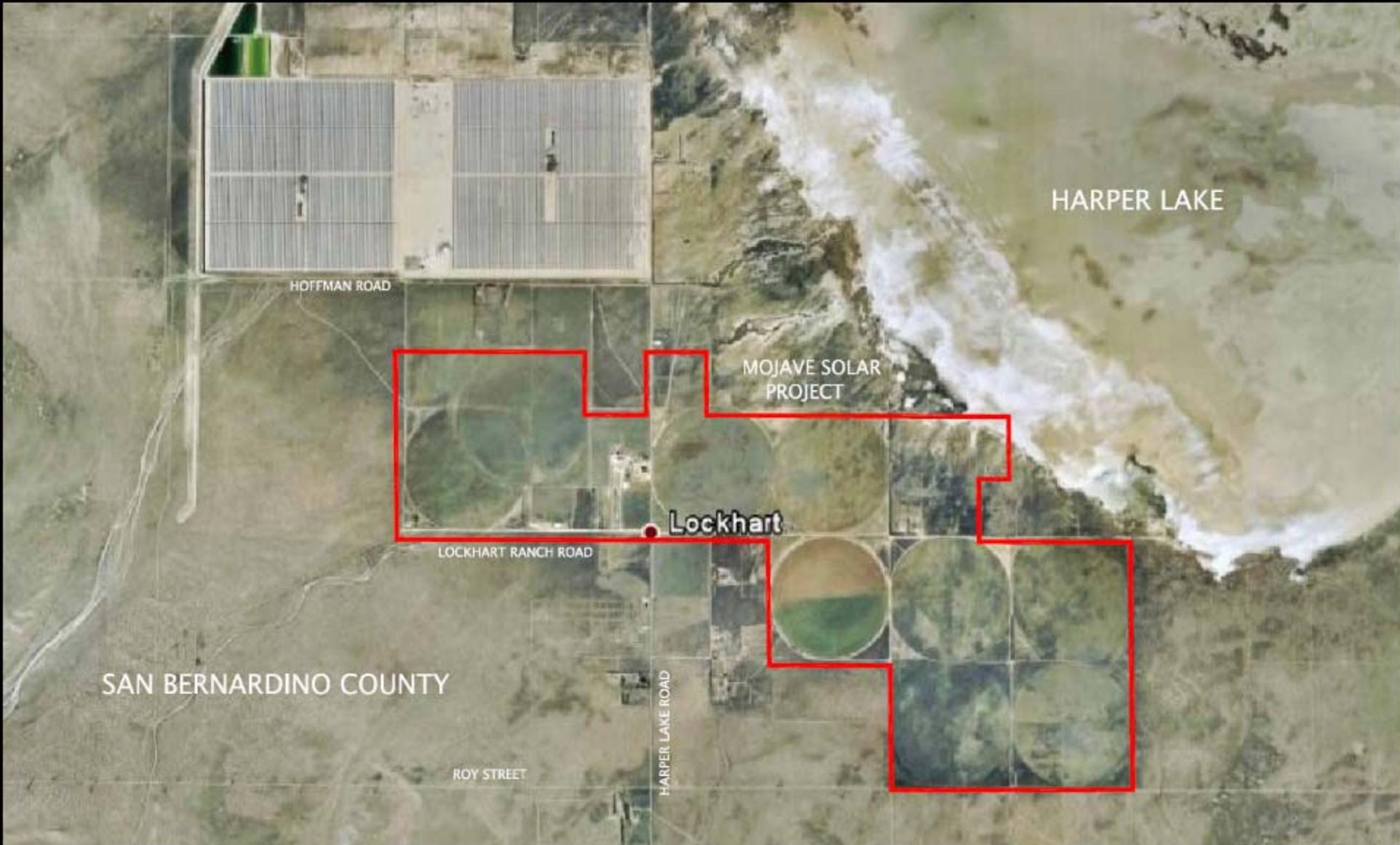
Site Location and Characteristics

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Community Benefits

- Excellent solar resource
- Already disturbed land – fallow agricultural land
- Land use compatible with existing area – near existing large-scale solar facilities (SEGS VIII and IX)
- SCE's Kramer-Cool Water 230 kV transmission line adjacent to southern property boundary
- Natural gas (for ancillary purposes) available from Southwest Gas Corporation natural gas pipeline adjacent to site
- Property enables layout of solar field and power plant to minimize biological impacts
- Adjudicated ground (well) water available for Project use is not otherwise suitable for potable water
- Nearby available and skilled workforce

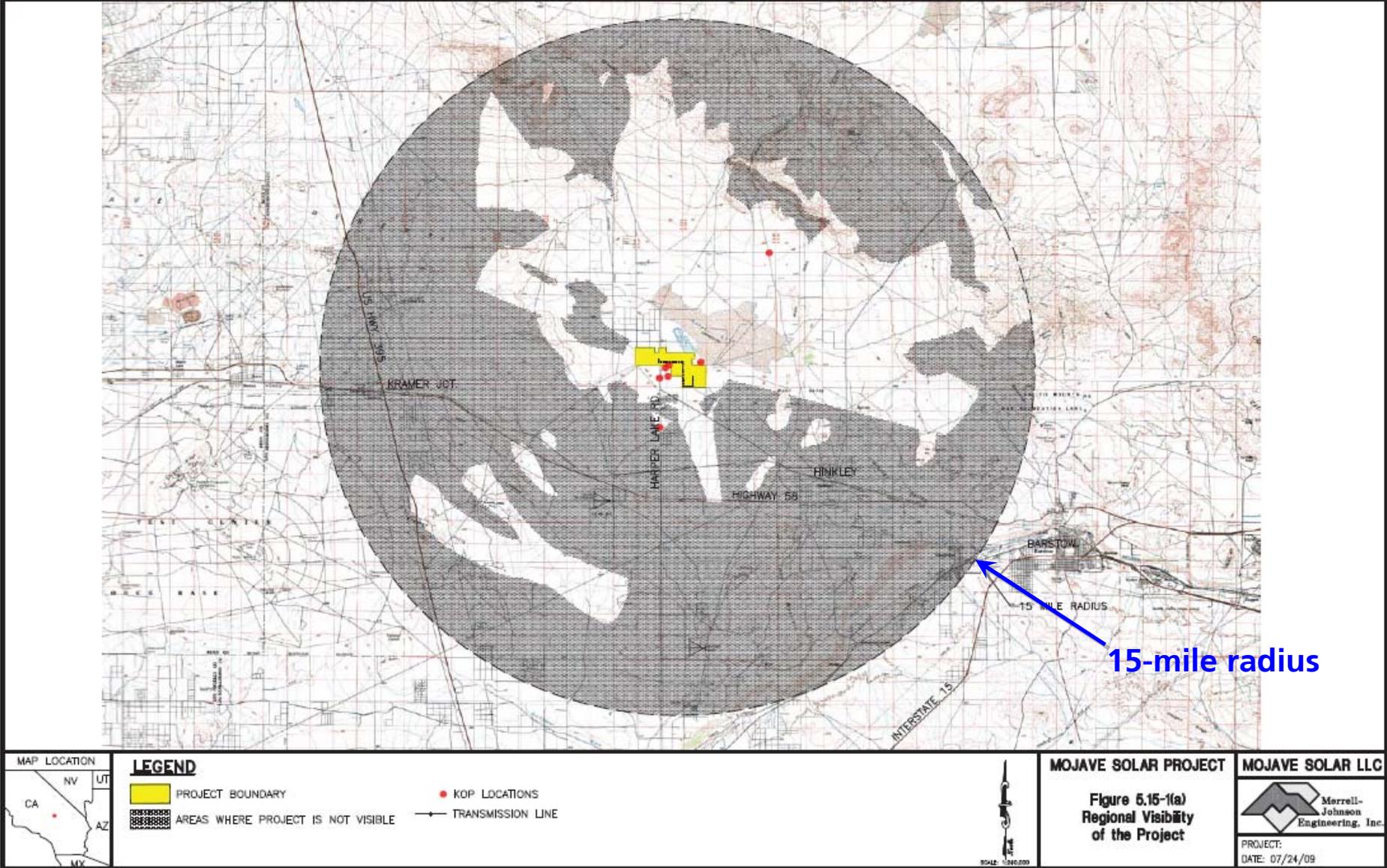


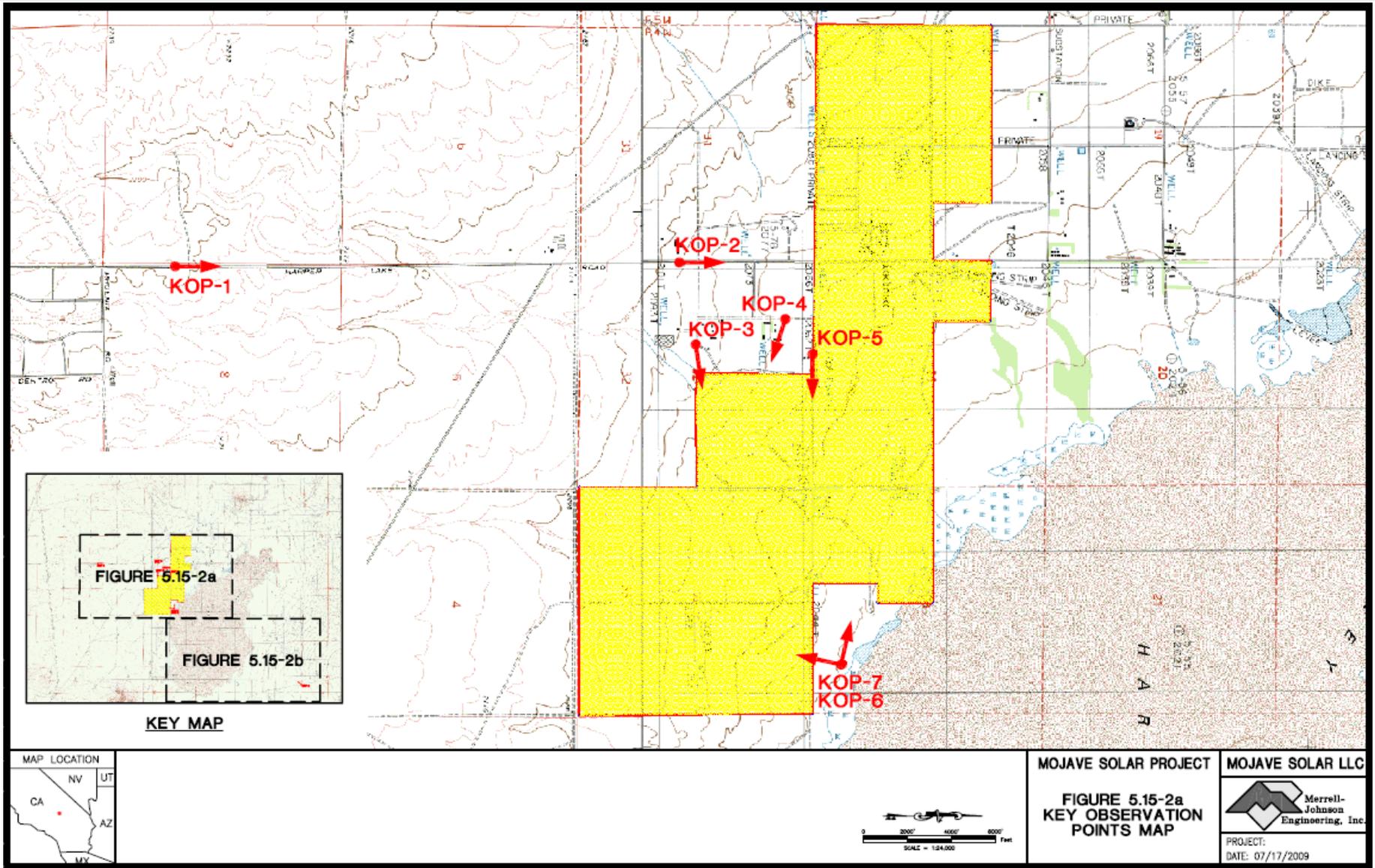


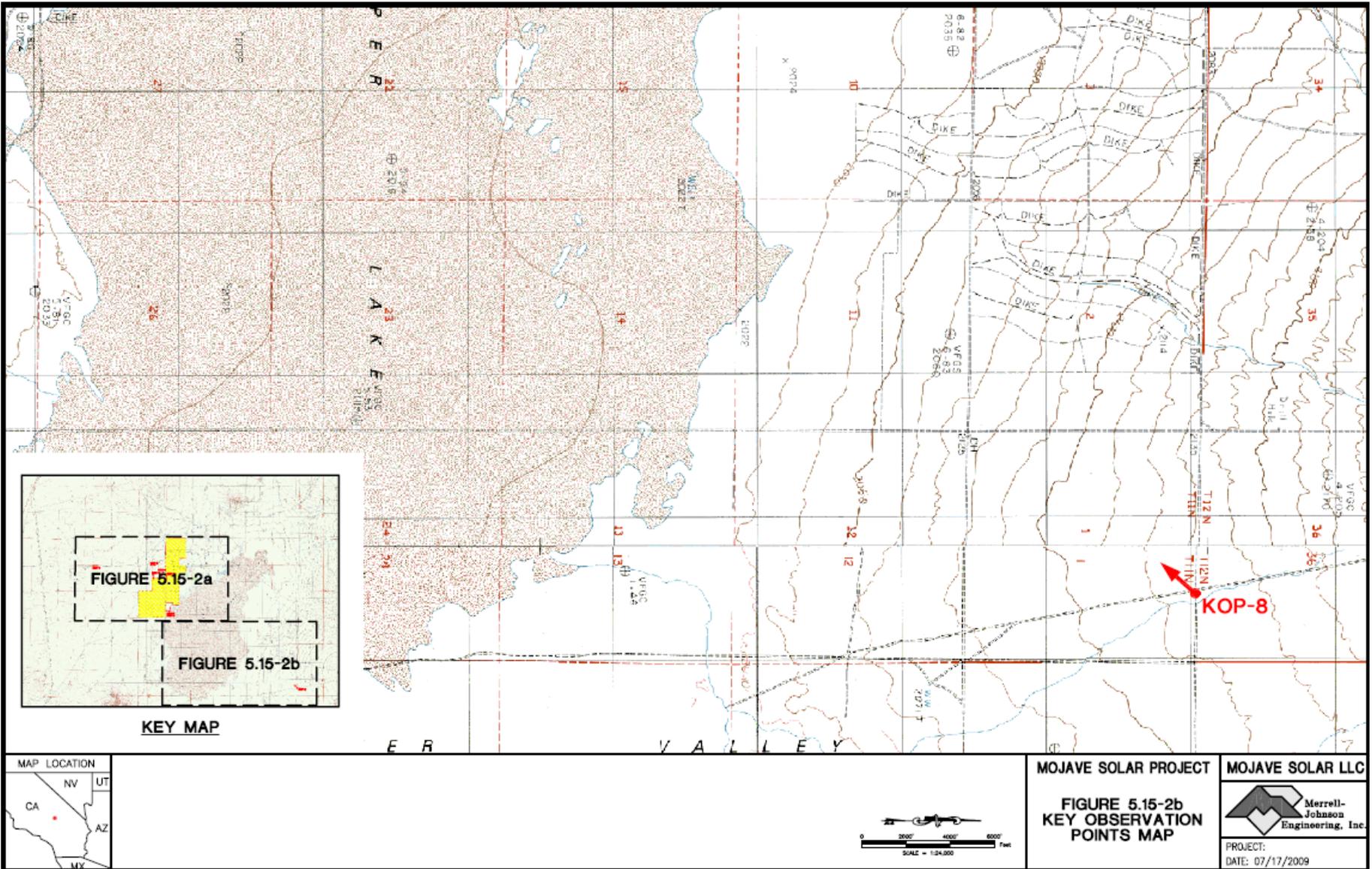




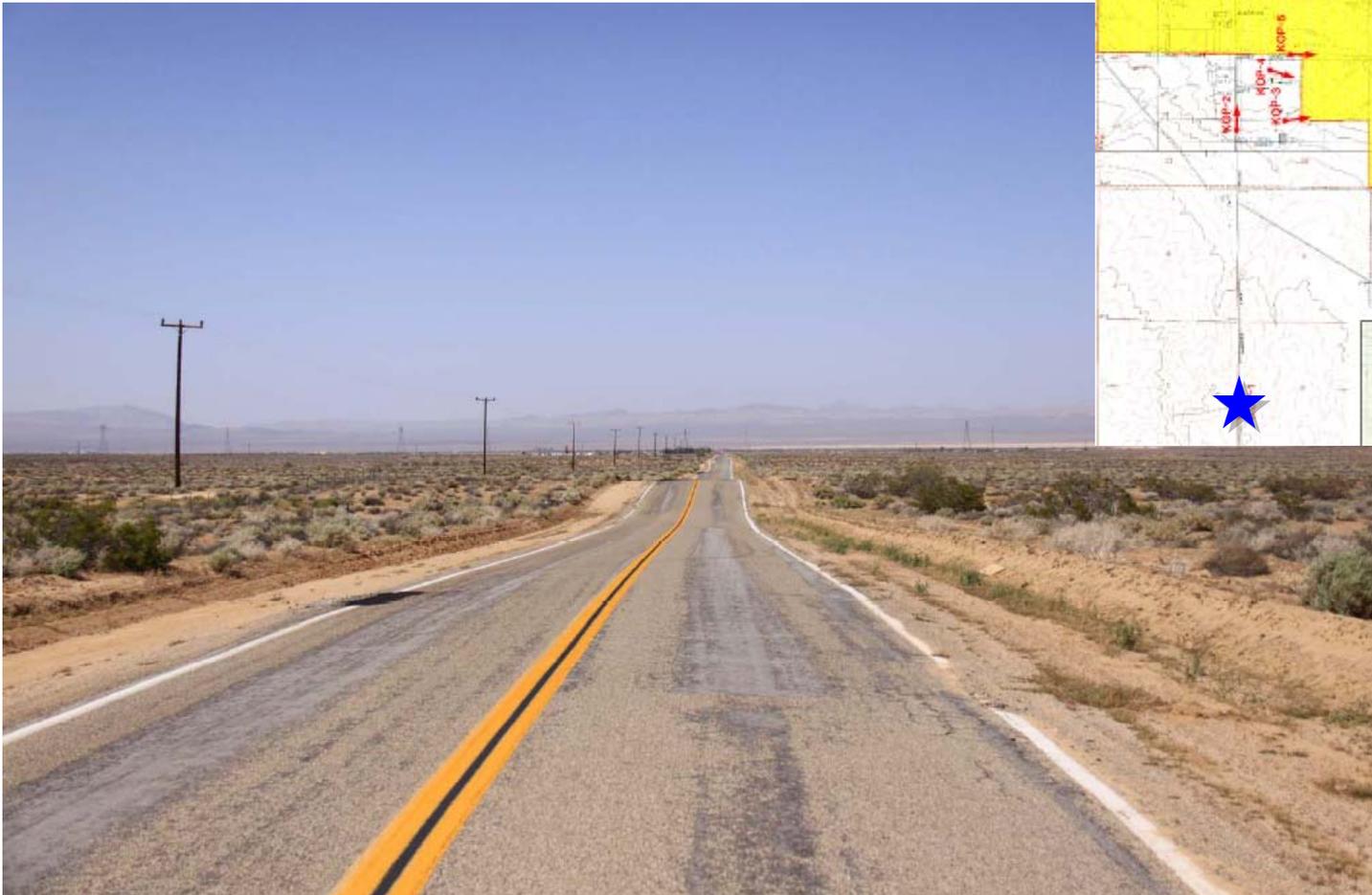
- **Topography:**
 - Slope <1% (very flat)
- **Solar Resource:**
 - >7.7 kWh/m²/day (extremely high)
- **Land:**
 - Approximately 1765 acres total development
 - Privately owned and/or under option by Abengoa Solar
 - Previously disturbed/fallow agricultural land
 - One ¼ section (160 acres) of land still actively farmed
- **Transmission Interconnection:**
 - CAISO/SCE 230 kV Kramer-Cool Water line
- **Land Use:**
 - Previous Solar Developments in Area
 - Property previously proposed as SEGS XI & XII in 1990s
 - SEGS VIII & IX (80 MW each) are located just NW of the site







Pre-Project View



On Harper Lake Road Looking North – 2.5 miles from site

Post-Project Simulated View



On Harper Lake Road Looking North – 2.5 miles from site

Pre-Project View



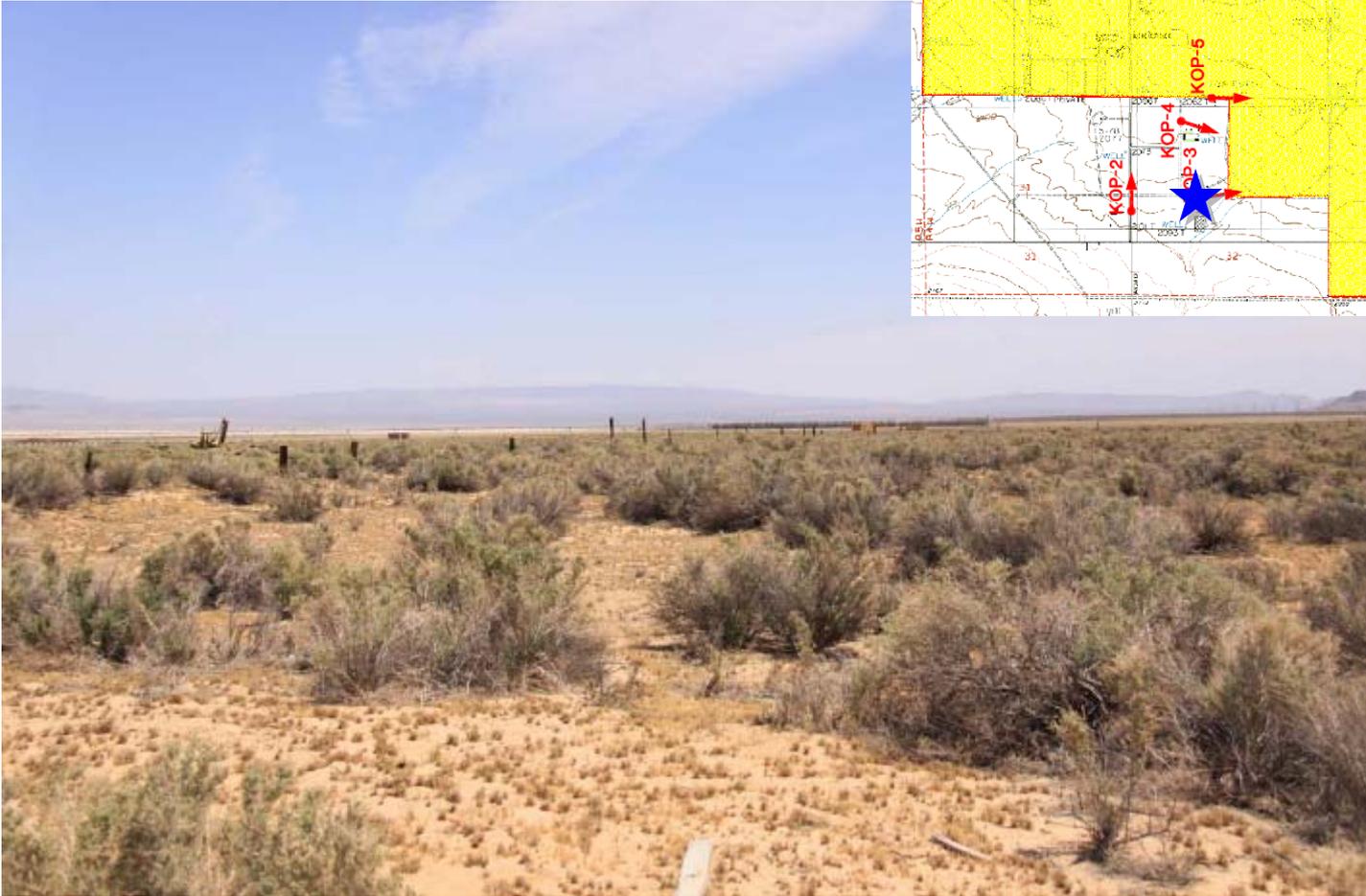
On Harper Lake Road Looking North – 0.75 miles from site

Post-Project Simulated View



On Harper Lake Road Looking North – 0.75 miles from site

Pre-Project View



Looking East on Roy Road East of Edie Road – 250 yards from site

Post-Project Simulated View



Looking East on Roy Road East of Edie Road – 250 yards from site

Pre-Project View



Looking ESE on Edie Road (South of Lockhart Ranch Road) – 0.25 mile from site

Post-Project Simulated View



Looking ESE on Edie Road (South of Lockhart Ranch Road) – 0.25 mile from site

Pre-Project View



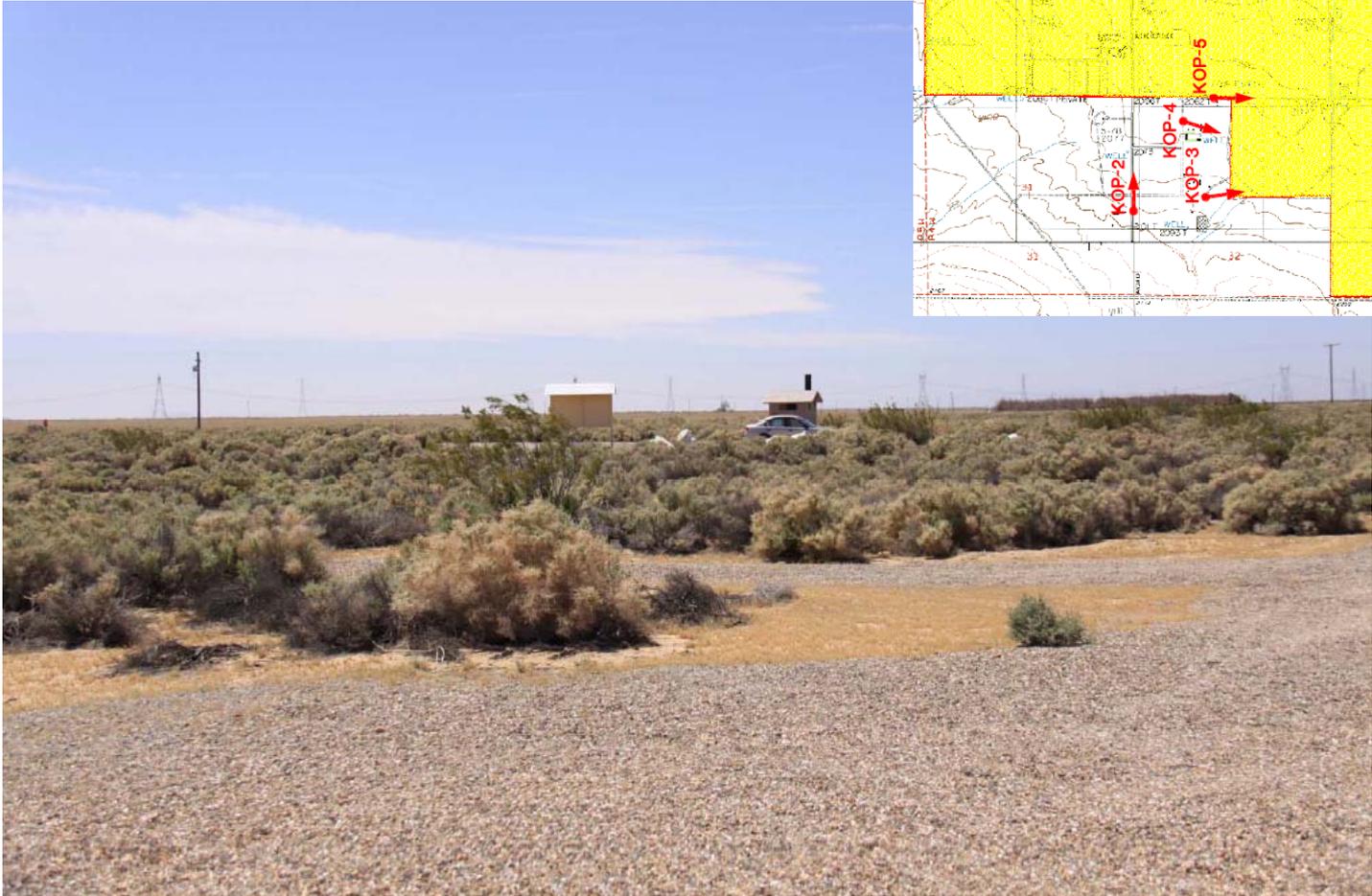
Looking East on Lockhart Ranch Road – with site directly north and 1,000 feet east

Post-Project Simulated View



Looking East on Lockhart Ranch Road – with site directly north and 1,000 feet east

Pre-Project View



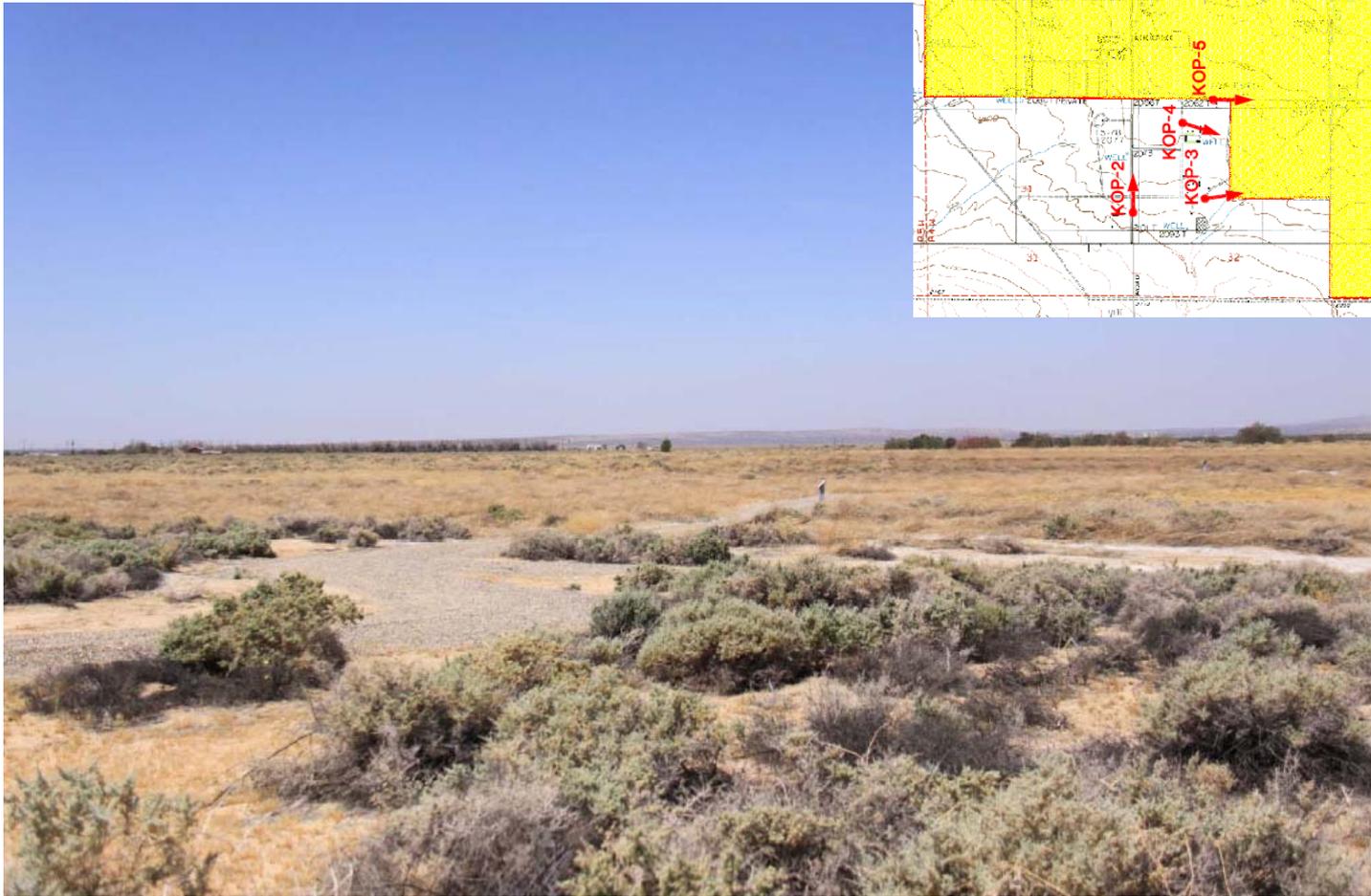
Looking SSW from BLM Watchable Wildlife Area – 250 yards from site

Post-Project Simulated View



Looking SSW from BLM Watchable Wildlife Area – 250 yards from site

Pre-Project View



Looking ENE from BLM Watchable Wildlife Area – 0.40 mile from site

Post-Project Simulated View



Looking ENE from BLM Watchable Wildlife Area – 0.40 mile from site

Pre-Project View



Looking Southeast from Fossil Bed Road Near Black Canyon Road – 6 miles from site

Post-Project Simulated View



Looking Southeast from Fossil Bed Road Near Black Canyon Road – 6 miles from site

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Community Benefits

- An input-output model (IMPLAN Professional) was used to estimate economic impacts based on the Project construction-phase expenditures that would benefit the local economies.
- The total estimated annual beneficial economic impacts from the 26-month construction phase:

Direct economic output: \$158,158,387
Indirect economic output: \$39,285,000
Induced economic output: \$107,728,086
Total impact: \$305,171,473



- Also, during the construction phase, the Project's estimated annual employment creation within the study area would be:

Direct employment: 830 (1162 @ peak)
Indirect employment: 666
Induced employment: 1,045
Total employment creation: 2,541



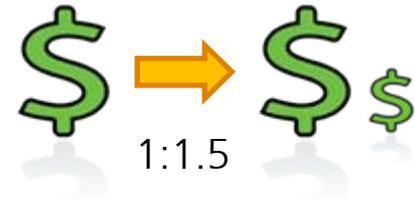
- Direct Employment
 - 73 seasonal, 63 permanent employees for operations
- Per input-output model (IMPLAN Professional), the impacts from the operation of the Project within the local economies would be

Direct economic output: \$12,632,021

Indirect economic output: \$3,512,846

Induced economic output: \$2,806,602

Total impact: \$18,951,469



- During the operations phase, the Project's estimated annual employment creation within the study area would be:

Direct employment: 68 (avg.)

Indirect employment: 52

Induced employment: 40

Total employment creation: 160



Contacts

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Application for Certification

Docket No. 09-AFC-5

[http://www.energy.ca.gov/sitingcases/abengoa/
index.html](http://www.energy.ca.gov/sitingcases/abengoa/index.html)