

Orange Grove Energy, L.P.

**Orange Grove Project** 

### Presentation Outline

Introduction

- Project Overview
- Environmental Review & Permits

Key Environmental Features

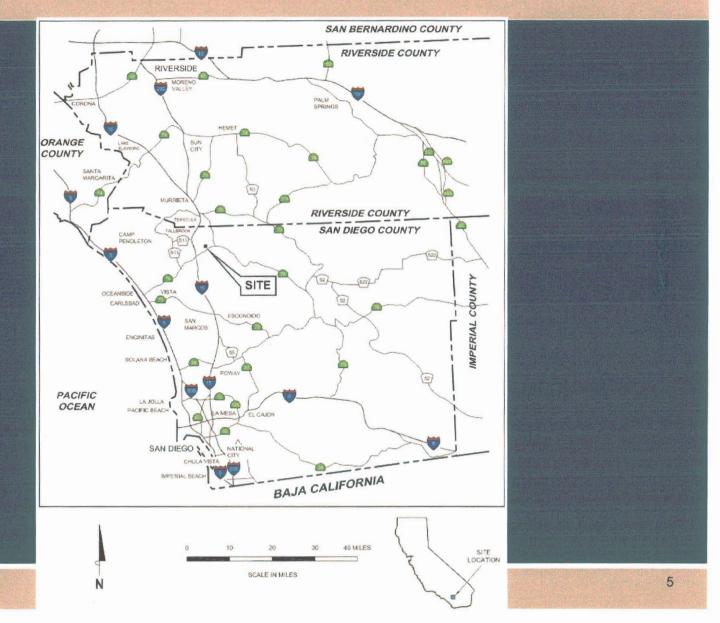
### Introduction

- Orange Grove Energy, L.P.
- Project purpose and need (RFO)
- Peaking plant design
- Electricity will feed local grid (69 KV)
- Committed measures to minimize impacts
- Project schedule

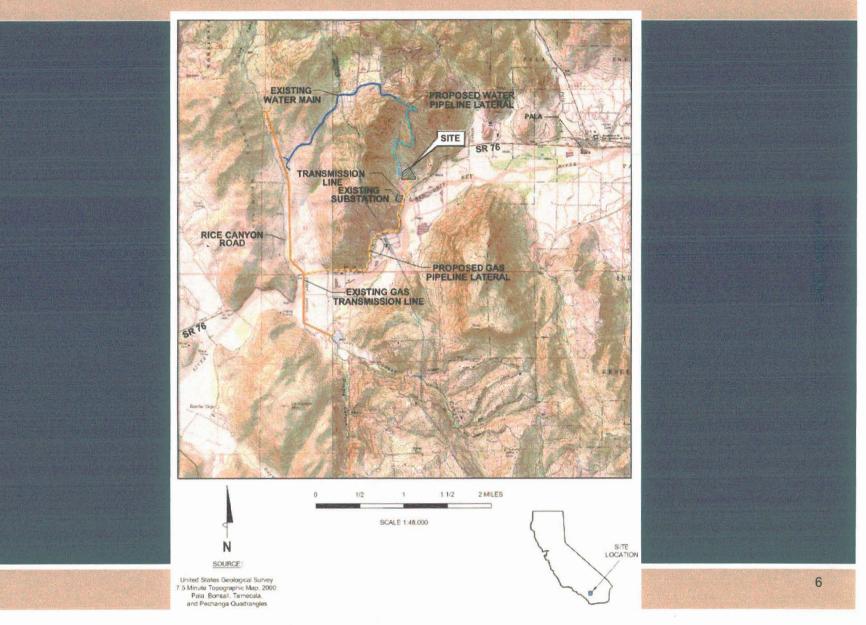
### **Project Benefits**

- Improve local grid reliability
- \$85 million total increase to local taxable property value
- \$5 million construction payroll
- \$950,000 annual operations payroll
- \$10.8 million in local non-payroll spending
- Indirect "ripple" effect = job, spending and tax benefits
- Net increase in natural habitat

# Project Overview (1 of 11)



# Project Overview (2 of 11)



## Project Overview (3 of 11)

- Major Project Components:
  - Net 96 MW Power Plant on 8.5-acre site
    - Two GE LM6000 SPRINT combustion turbine generators
    - Continuous Emissions Monitoring System (CEMS)
    - Best Available Control Technology for Emissions
    - · Acoustic enclosures for major equipment
    - Demineralized water treatment system (trailer-mounted)
  - Appx. 0.2 mile transmission line interconnection
  - Appx. 1.5 mile water pipeline (min. 8-inch dia.)
  - Appx. 2.0 mile natural gas pipeline (10-inch dia.)

### Project Overview (4 of 11)

- Transmission Line Interconnection:
  - Underground transmission cable
  - Interconnection to existing PG&E Pala substation
  - Located on disturbed lands No disturbance to natural habitat
  - Horizontal directional boring beneath normally dry drainage to avoid impact to drainage

### Project Overview (5 of 11)

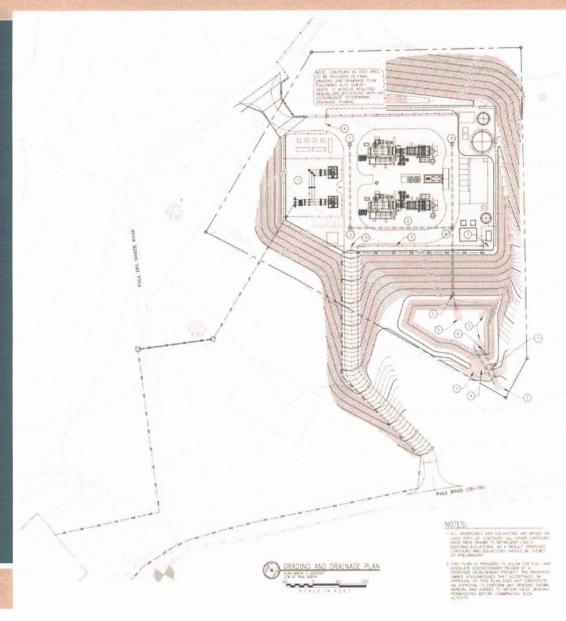
- Water Supply:
  - Underground pipeline
  - Connection to Rainbow Water District water main
  - Constructed in Pala Del Norte Road shoulder
  - No disturbance to natural habitat
  - 540,000 gallon raw water/fire water storage tank onsite

## Project Overview (6 of 11)

- Natural Gas Pipeline:
  - Underground pipeline (10-inch diameter)
  - Connection to existing SDG&E gas transmission line
  - Route to follow State Route 76
  - No disturbance to natural habitat
  - Pipeline to be constructed and operated by SDG&E

### **Project Overview** (7 of 11)

#### ORANGE GROVE ENERGY, L.P.



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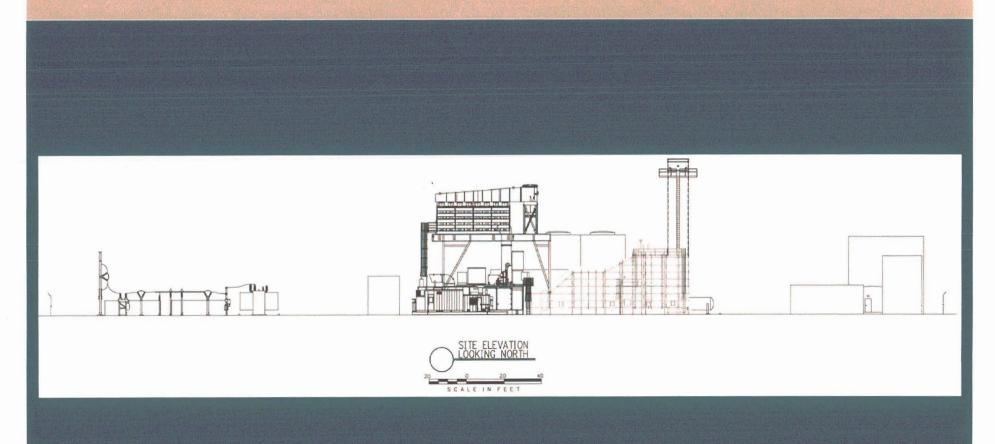
PROPOSED CRUSHED ROOK SUPERCE PROPOSED NATIVE CROUND COVER



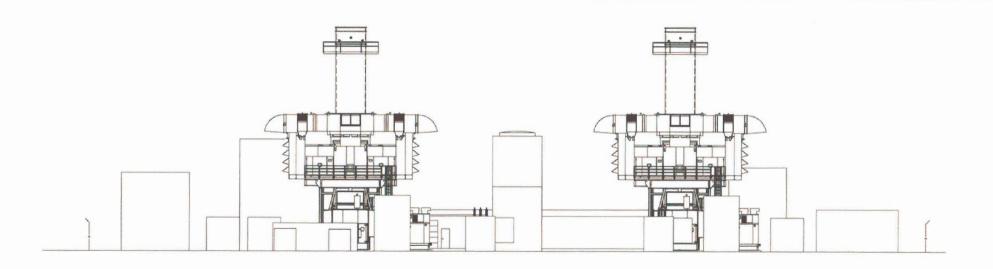
PROPERTY LINESCHING



# Project Overview (8 of 11)

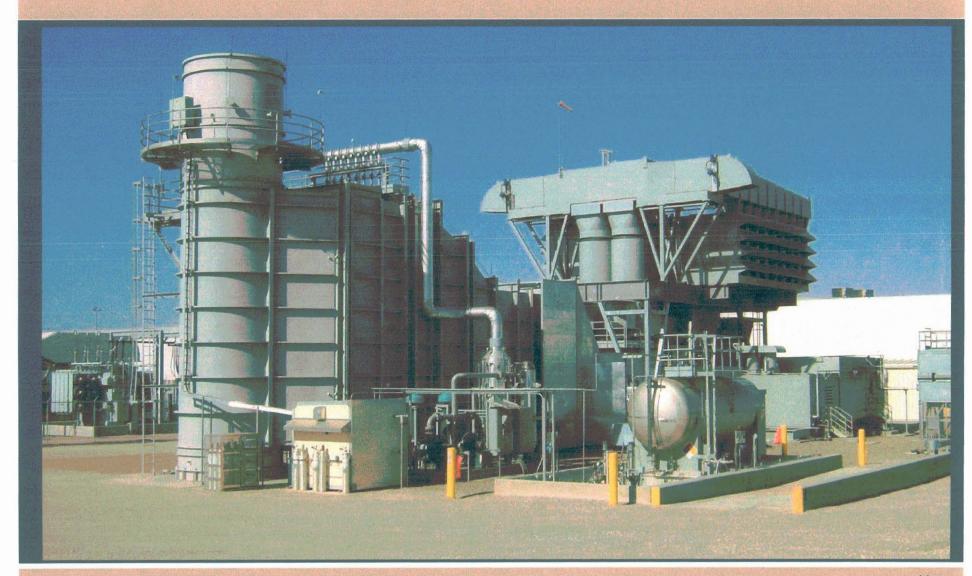


# Project Overview (9 of 11)

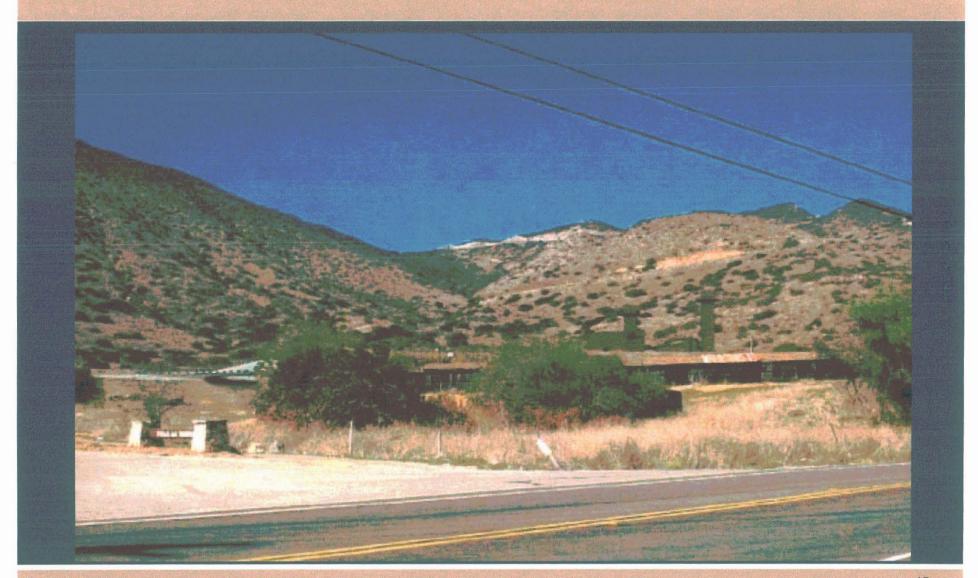




# Project Overview (10 of 11)



# Project Overview (11 of 11)



# Environmental Review & Permitting (1 of 3)

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 CEQA Lead Agency is California Energy Commission

SPPE process is proposed

CEC Environmental Impact Review

## Environmental Review & Permitting (2 of 3)

- Air quality
- Geologic hazards/resources
- Agriculture
- Soils
- Water resources
- Biological resources
- Cultural resources
- Paleontology
- Land Use

- Socioeconomics
- Transportation
- Noise
- Visual impact
- Waste management
- Hazardous materials
- Public health
- Worker safety
- Transmission system impacts

## Environmental Review & Permitting (3 of 3)

- Key Permits/Environmental Documents:
  - SPPE Application/Mitigated Negative Declaration (CEC)
  - Major Use Permit (County)
  - Authority to Construct/Permits to Operate (APCD)
  - Construction storm water NPDES permit (SWRCB)
  - Streambed Alteration Agreement (DFG)
  - Encroachment Permits (Caltrans)
  - Various ministerial permits/approvals (e.g., building and grading permits)

### Key Environmental Features (1 of 5)

ORANGE GROVE ENERGY, L.P.

### Air Quality:

- Clean-burning natural gas fuel
- BACT to limit emissions
- Continuous Emissions Monitoring Systems

### Water Resources:

- Designed to avoid disturbance to drainages
- No discharge of process water
- Storm water retained onsite for 50-year storm
- Project will not use ground water

- Biological Resources:
  - Site is a former orange grove
  - De minimis disturbance to natural habitat (< 1 acre)</li>
  - No Threatened or Endangered species onsite
  - Water and gas pipelines located along existing roads
  - Electric transmission line located in disturbed area
  - Construction laydown area will be reclaimed with Coastal sage scrub (net gain)
  - Only native species will be planted

### Key Environmental Features (3 of 5)



### Land Use:

- Minimum site size (8.5 acres)
- Use is consistent with current zoning

### Transportation:

- Negligible operations traffic (up to 4 employees/shift)
- Average 65 construction vehicles per day (6 months)

### Socioeconomics:

- \$85 million capital investment will contribute to tax base
- Minimal demand on infrastructure and public services

#### Noise Control:

- Acoustic enclosures on major equipment
- Operations typically in daytime hours
- Will conform with all relevant County standards

#### Visual Resources:

- Site is hidden from view by surrounding topography
- Few opportunities for view
- Finishes will be selected to blend with landscape
- Native oaks and shrubs to be used for screening

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