

HARQUAHALA 500 kV SWITCHYARD DESIGN

PG&E GENERATING CO/SOUTHERN CALIFORNIA EDISON (SCE)
MARICOPA COUNTY, AZ
MR. CHRIS WARD, P.E., PROJECT MANAGER

COMPLETION DATE: AUGUST 2002
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PROJECT DESCRIPTION

ECI combined efforts with PAR Electrical Contractors to provide EPC (engineer, procure & construct) services for the Harquahala 500 kV Switchyard, a new GSU facility associated with 1000 MW gas fired generation facility. ECI provided “cradle to grave services”, beginning with the conceptual design and layout coordinated with SCE, through complete settings for all protection and communication equipment that was reviewed and approved by Salt River Project.



MODULAR CONTROL BUILDING

KEY FACTS & HIGHLIGHTS

- ▲ **FAST - TRACK SUCCESSFUL PERFORMANCE – ONLY 15 MONTHS FROM DESIGN START UNTIL ENERGIZATION**
- ▲ **COMPLETE PROTECTION CRITERIA & SETTINGS FOR 500 kV RELAYING & COMMUNICATIONS**
- ▲ **MICROWAVE AND SONET COMMUNICATIONS**
- ▲ **FINAL ECI DESIGN CONCEPT SIGNIFICANTLY REDUCED COST FROM OWNER’S PROPOSAL**



MICROWAVE ANTENNA



500 kV Yard Area

◆ *Engineering With Distinction* ◆