

REDHAWK 500 kV SUBSTATION

PINNACLE WEST ENERGY
MARICOPA COUNTY, AZ
MR. PETER RUSSELL, PROJECT MANAGER

PROJECT COST: \$13,000,000
COMPLETION DATE: 2002
PHONE: (602) 250-4247

PROJECT DESCRIPTION

ECI was engaged by Pinnacle West Energy (PWE) through Arizona Public Service Company (APS) as a member of an EPC Team on the Redhawk 500 kV Switchyard. This was part of PWE's "Flagship" Redhawk 2000 MW generating station. The project was completed on schedule despite a very short 14 month window from design start to energization

ECI's scope of work included complete civil, electrical and mechanical design, project management as well as interface with communications design provided by PWE. The project was completed as a design/build team with PAR Electrical Contractors. APS acted as the overall Team Manager. This project was the first all-rigid 500 kV bus design rated with the APS system.



Switchyard Viewed from Plant Site

TEAM / RESPONSIBILITIES

- ▲ DAN DONOVAN – PROJECT MANAGER
- ▲ GARY BOWLES – TRANSMISSION QUALITY CONTROL
- ▲ ED PEACE – TRANSMISSION MANAGER
- ▲ JON BORMANN – DESIGN ENGINEER
- ▲ DAVE JOHNSON – DESIGNER

KEY FACTS & HIGHLIGHTS

- ▲ ONLY 14 MONTHS FROM DESIGN START TO ENERGIZATION
- ▲ BREAKER-AND-ONE-HALF (11 BAYS)
- ▲ POWER PLANT DCS, SONET & EMS INTERFACE
- ▲ CONTROL BUILDING W/COMPUTER ACCESS FLOORING (44' x 56')
- ▲ 63 kV RIGID BUS DESIGN



Switchyard & 500 kV Line Exits

◆ *Engineering With Distinction* ◆