

UPTIME'S POTY 2010 PROGRAM OF THE YEAR



APS Hardware and Software List:

Hardware:

- 8 - Infrared Cameras for T&D
- 2 - Triple Five Industries FD50
- 1 - Triple Five Industries AMS 8
- 1 - FLIR GasfindIR LW (SF6 detection)
- 1 - LIS Laser Leak Detector
- 1 - Olympus Boroscope
- 1 - Transport X Portable DGA Tester
- 2 - Ofil DayCor Cameras (daytime corona detection)
- 4 - UE10000 Ultraprobes
- 2 - EA Mini TEVs (transient earth voltage meters)
- 2 - I-series Infrared Cameras

- 1 - Live Line Digital Hot Stick Visual Inspection Camera 10 with Sound Level Meters
- 1 - Commtest Vibration Set

Software

- MAXIMO
- PDIQ
- FLIR Reporter
- Commtest Vb Software
- UE Systems Spectrum
- FLIR Examine IR
- In- House DayCor Criteria Program
- In-House ENCI
- In-House IR Criteria Calculator

Best Infrared Transmission and Distribution

APS Predictive Maintenance Program Highlights

Arizona Public Service's Company is the largest electric utility in the state of Arizona. APS provides service to 1.1 million customers in eleven Arizona counties and a service area of 34,645 square miles. The facilities required to serve this area include 54 generation units, 411 substations, 28,022 miles of distribution lines and 5,234 miles of transmission line.

Program Highlights

Arizona Public Service Co. PDM group has evolved

over the last ten years from one tech, a laptop and an IR camera to a full service predictive maintenance department. Today APS has made a commitment of nine techs and an administrative technician, and have

a training budget that allows every employee three opportunities per year. Additionally, we combine efforts with 12 statewide visual inspectors with a detailed and comprehensive RCM program; the PDM department is strategic in managing to inspect their facilities according to its maintenance basis. Technologies include visual inspections, Infrared Thermography, Partial Discharge Detection, Corona Detection Cameras, Vibration Acoustical Emissions, Gas Detections Systems, Boroscope, Airborne Acoustical

Emissions and Dissolved Gas Analysis. APS employs a condition status program that allows all information to be input and give management and maintenance a "dashboard" view of all equipment and locations in our system.

In the last nine years, four of which were exclusively infrared, APS has a total cost benefit of over 12 million dollars. In 2010 alone, the cost benefit is 1.4 million dollars.



From Left: Kevin Stewart, Wes Horne, Tom Leslie, Dave Thornton, Bob Christenson, Carlton Boop, Ian Hatfield and Scott Alford. Not Pictured - Danny Maksim and Rachel Brooks.

APS

Predictive Maintenance