

April 2009

# Southern PHC

plumbing • heating • cooling

Phoenix Convention Center, in the  
LEED, Mechanically

Product Focus: Heating and Cooling

Company Profiles

# Government Green.

eternal   
ADVANCED HYBRID WATER HEATING

President Obama recently addressed the nation and announced his plan for reviving the weakened US economy. One of the plan's primary focuses is on energy efficiency; by investing in the greening of homes and lifestyles, America can reduce waste and spur innovative opportunities.



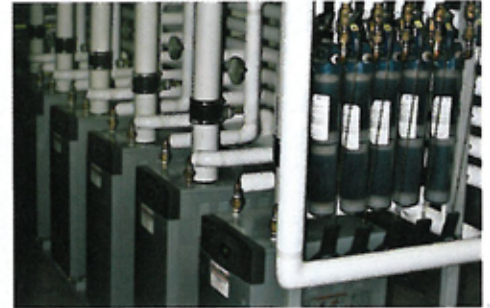
The speech was well received and many saw the trend before President Obama even announced it. One such case is the partnership between United Mechanical in Dallas, a private design and build contractor with over 60 years of experience in specialized skill projects, and a 1 million square feet government facility that has an antiquated boiler system serving its modern hot water needs.

The Facility (its identity undisclosed due to security) features onsite commercial kitchen, showers, numerous lavatories and even a salon. Two 1 million BTU gas fired boilers along with a 2,000 gallon storage tank had been serving the entire compound for decades. When the new administration made its green intentions known, the facility contacted United Mechanical for advice and help.

Gary Scoggins, design engineer, was charged with the task of designing a system that would service the needs of this mammoth facility. The objectives were to maximize efficiency, ensure reliability, and improve serviceability. Gary tackled the challenge by carefully monitoring and measuring the usage pattern and actual flows of each fixture. After studying the Facility's hot water needs, a plan was formed.

United Mechanical's highly talented Mike Edenstrom, head installer, zoned the project into three separate loops servicing different functions of the Facility. Six Eternal Hybrid water heaters were chosen for ease of installation with PVC venting and recirculation friendly characteristics. Each zone is serviced by two Eternal Hybrids in parallel manifold.

The install is carefully planned as hot water service cannot be interrupted even as new equipment is being installed. Mike skillfully met the Facility's requirement by configuring a header system that allowed quick switching of equipment without stopping the hot water service. He also built a custom rack that houses the six Eternals allowing any single unit to be swapped out quickly should any single one go down.



Even more impressive, the original equipment took over 200 square feet of space and the mechanical room was very difficult to walk in and out of. After replacing the old system with just six Eternals, the Facility's maintenance crew is overjoyed by the newfound space and ease of access to servicing the equipment. The new system takes up just over 10 square feet of space.

The project was completed just before 2009 rolled around, and the Facility is very happy with the results. Not only did United Mechanical and Eternal meet the green challenge, but the hot water service is better than ever.



Mike Edenstrom, head installer  
United Mechanical

