



“Converting to gas has given us the flexibility of running our buildings separately whereas using steam constricted us to only one mode for the entire premises.”

- Mark Tanney,
Director of Operations,
ASI Management

The Land Title Building

Natural Gas Boilers for On-Site Steam Generation

The decision to convert The Land Title Building to PGW natural gas was easy. Doing nothing, and staying on the Center City district steam loop, would be easy too. However, when the benefits of natural gas heat were stacked alongside purchased steam, clearly, making a change outweighed the obstacles. Once PGW completed the full project assessment, ASI Management, the company that operates The Land Title Building was convinced that switching to natural gas was an obvious decision.

ASI was familiar with the challenges:

- Compounding concerns, the building is listed on the National Register of Historical Places, so renovations require special scrutiny, which can make approvals difficult;
- The 365,000 square foot office building actually is a two building complex, joined at the first floor. One office tower is 22 stories, 331 feet tall; the other is 16 stories high. Each tower has different conditioned space requirements and varying heating needs. District steam heat system served both;
- Changing the heating system in an occupied office building was a challenge. The district steam system was doing the job, albeit the towers weren't independently controlled;
- Other challenges were to provide stacks and venting for the new boilers;
- ASI Management was convinced they were getting a deal from the steam company -- a 25% discount on their purchased steam bill.

What the management team couldn't ignore was converting to natural gas could save ASI more than 60% annually. Generating steam on-site with natural gas boilers would cost \$7.00 - \$9.00 per MMBtu as opposed to the purchased steam costs of \$25.00 - \$30.00 per MMBtu.

What about the 25% discount on the purchased steam bill? That's included in the price above. In actuality, it's a 25% discount on the non-fuel portion of the steam bill, which amounts to a 5% discount



on the overall bill. Recognizing natural gas rates were at an industry low, ASI's Director of Operations Mark Tanney, knew it was time for a change.

Tanney worked closely with PGW's Marketing team. Together it was determined that four (two 150 HP and two 50 HP) natural gas boilers would generate the requisite steam to satisfy the building's unique heating demand profile. The solution to stack and venting issues was to install boilers on the top floor of each tower. The challenge of getting the boilers to the roof was solved by specifying sectional boilers, which were brought up in service elevators and assembled on site. Separating the heating equipment and taking advantage of each boiler's ability to run individually, created greater operational control. A key factor in the project's success was the ability to efficiently respond to each tower's unique energy demand. Control meant savings and energy conservation.

Noting the benefits of on-site steam generation, Tanney confirmed, "I have a greater degree of control to meet both towers' heating needs. The conversion to natural gas has given us the flexibility of running our buildings separately. Purchased steam previously constricted us to only one mode for the entire premises."

The conversion project payback period was estimated to be a year and a half. In fact, the first month of the heating season after the conversion, ASI saved \$40,000. Significant cost savings concerns weren't the only factors driving Land Title's conversion from purchased steam to natural gas. Tanney emphasized that his trust and continuing relationship with PGW made the decision to convert easy.

"PGW carefully audited our energy usage and analyzed our steam bills. When they proposed the solution, they explained the potential usage operational cost savings and benefits of converting to natural gas. More important -- they addressed the obstacles. They were with us every step of the way throughout the conversion. When the project was completed, they followed up to make sure that we achieved the projected savings and that we were fully satisfied."

Customer satisfaction is a source of pride for PGW. It's not just about getting the natural gas service into a building; it's about the customer relationship. PGW understands that conversion projects require a significant investment and commitment. While PGW gains new customers, who will be with us for a long time, a good project is one that lives up to its promise. New projects are created when promises are met. When asked if he would consider PGW natural gas for ASI's next energy efficient, cost savings project, Tanney responded, "Without a doubt."