CASE STUDY:

DENVER PLACE NORTH AND SOUTH TOWERS
Denver

In 1996, Amerimar Realty Management embarked upon an energy retrofit project aimed at improving the energy efficiency of its North and South Towers at Denver Place. These two towers were built in 1980 and are part of the largest mixed-use commercial real estate project in downtown Denver. The two towers, 34 and 23 stories each, encompass 815,000 gross square feet and are connected by two six-level terraces. The property also includes a 370,000 square foot, three-level subterranean parking garage. The building is home to the U.S. EPA Region VIII headquarters, as well as a variety of legal, financial, technology, and real estate entities.

The $1.35M project received $550,000 in funding from Public Service Company of Colorado through a demand-side management program, and the remaining project costs were financed over a seven-year period.

Included in the retrofit project were the following energy efficiency measures:

- A hybrid heating system, incorporating new natural gas-fired boilers, was installed to heat the building through the water circulation loop both at night and during early morning. This greatly reduces the amount of electric resistance heating needed by the building.
- A new energy management system (EMS) was installed to optimize the hybrid heating system.
- All fluorescent lighting was changed from T12 lamps with magnetic ballasts to T8 lamps with electronic ballasts.
- The garage ramp snow melting systems were converted from electric to natural gas.
- Two 550-ton plate-and-frame heat exchangers were installed to eliminate the need for operating an electric chiller on warm days during non-summer months. These heat exchangers cool the building using 40-degree condenser water from the cooling towers.

Energy costs have been reduced approximately $300,000 per year as a result of these energy efficiency upgrades and a number of other "no-cost/low-cost" operational improvements. Denver Place North and South Towers were the first buildings in Colorado to receive the **ENERGY STAR®** Label and just the seventh in the country.