

MORNINGSIDE HEIGHTS HOUSING CORPORATION

80 LaSalle Street
New York City, N.Y.



CASE STUDY

MORNINSIDE HEIGHTS HOUSING CORPORATION

("Morningside Gardens") is a residential cooperative apartment complex with more than 980 units and is located on the upper west side of Manhattan. Opened in 1954, the eight acre, beautifully landscaped campus borders on Broadway and Amsterdam Avenue and comprises six high-rise buildings, twenty-four floors each. The buildings are heated by a central plant consisting of (4) 500hp boilers that supplies 5 lbs steam pressure to each building. Steam flow to each building is regulated by a single MEPCO Vari-Vac Steam valve.

PEPCO furnished and installed the ENERGUARD in building 70 as a pilot project to demonstrate to the board that overheating could be controlled and the upgrade could be paid for thru fuel saving in under 3 years. Before the ENERGUARD was installed the studio line apartment temperatures averaged 85 degrees to get the 2 bedroom line to be a comfortable 72 degrees. To achieve even heat distribution the ENERGUARD controls the modulation of (13) new 4" riser steam valves. The system went on-line in March 2009 and the fuel savings as of January, 2010 are averaging 40% to 60% daily. The savings are measured by comparing metered condensate return gallons from building 70 vs the 501 building. The buildings are identical. As the space temperature in the studio lines reach set point the steam valve modulates to the closed position to restrict steam flow and reducing usage. Heat distribution is even through-out each line in the building.

In July 2010 the Board approved a budget of \$1,100,000 to expand the ENERGUARD System in the remaining buildings. PEPCO furnished and installed 57 new 4" Steam valves, and over 400 monitoring and control points.

Further expansion of the system includes Card Access and Lighting Control.

DELTA PRODUCTS:

21 DELTA DSC-1616E
12 DELTA DAC-1212E
3 DAC-T305
18 DAC-633
6 DSM-WRL
2 ASM
ORCAweb
60 Wireless Temperature Sensors



**Morningside Heights Housing Corp.
New York, NY**

HIGHLIGHTS:

- * Fuel Savings 40% to 60% Daily
- * Control (13) 4" Steam Valves
- * Control MEPCO Vari-Vac System
- * DELTA to INTECH 21 via MODBUS
- * 31 Condensate lines monitored
- * Domestic Hot Water Monitored
- * Weather Station installed on Roof
- * Web Based Color Graphics
- * Password Protected
- * Alarms\Exception Reports
- * P.C. Color Graphics
- * Historical Trending
- * XY Trend Plot Of All Variables

Visit <http://207.237.14.3/Deltaweb/login.asp>

User Name: DEMO

Password: DEMO

Engineer: Schuyler Engineering, P.C.

Contact: Call PEPCO for contact info

**BOILER CONTROL * HVAC CONTROL * HEAT-MASTER™ * ENERGUARD™ * WIRELESS TEMPERATURE SENSORS
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