

# Performance Contracting

## Pittsburgh Symphony Orchestra Heinz Hall

Pittsburgh, PA

**Project Cost:** \$1.1 million

**Annual Cost Savings:** \$122,500

**Facility Description:** Heinz Hall Performing Arts Center, constructed in 1927 as a 2,800-seat theatre

**Contract Term:** 10-year Energy Savings Performance Contracts (ESPC)



Former Pittsburgh Symphony Executive Vice President and Managing Director, Gideon Toeplitz (left) tours Heinz Hall with Equitable Resources President and Chief Executive Officer Murry Gerber.

*“With Cultural budget dollars shrinking, these improvements yield savings that can be applied to other programs and needs. Moreover, we have enhanced the overall ambiance for performers and audiences alike.”*

Gideon Toeplitz  
Executive Vice President and  
Managing Director  
Pittsburgh Symphony

Increased comfort for the audience and musicians, improved sound quality and more efficient lighting are just a few of the notable performances from new energy conservation measures implemented by NORESKO at the Pittsburgh Symphony's 1920's -vintage Heinz Hall. The orchestra is guaranteed to save a minimum of \$122,500 yearly in energy bills over the next 10 years. The savings will pay for the improvements and then provide a welcome windfall for the non-profit's other programs and needs.

Capital improvements were paid for by a foundation grant secured by the Pittsburgh Symphony. NORESKO guarantees the energy savings over the 10-year contract period.

The comprehensive package of measures installed by NORESKO during the Winter and Spring of 1998 included:

- Reducing overall energy consumption and maintenance, while improving lighting quality throughout the theatre, by replacing general and theatre lighting.
- Installing two 300-ton high-efficiency Trane chillers, modifying the piping and adding an automation system for the chiller and condenser water pumping system. This resulted in attenuating vibration and sound. To improve safety, the Company upgraded ventilation in the chiller plant.
- Replacing the condenser water pump, including spring isolation, which attenuated vibration and sound. NORESKO also retrofitted two cooling towers, modified a cooling tower sump and retrofitted the piping system for the backup pump.
- Replacing the chilled water pump, including spring isolation, and retrofitting the pump system with variable frequency drives to save electricity during part-load operation. The Company also modified the secondary loop piping and retrofitted the backup pump system.
- Installing seven air handling units and integrating them into a new building automation system for improved direct digital control of theatre temperatures.
- Converting the cooling tower makeup water system from purchased water to well water.
- Retrofitting the waterfall pump with a variable frequency drive to allow flexibility in adjusting the flow, depending on use of the space around the waterfall, and to reduce energy costs at lower flow rates.
- Replacing electric unit heaters with gas-fired radiant heaters to save on electricity costs.

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