Meeting high standards for HVAC performance on a Miami high-rise.

ECM Technologies achieves average of **13% savings** at the equipment level.

TRANSWESTERN

Overview

Miami Tower is a 47-story, 625-foot-high, world-class office building situated atop a 10-story parking facility. The property features numerous tenant amenities including a 150-seat auditorium for group meetings, as well as the spectacular elevated Sky Lobby Terrace for special events.

This unique building presented the opportunity to generate ThermaClear® performance data on a high-rise in the heat of the Sunbelt and the high humidity conditions of Miami, Florida.

Savings

Estimated annual energy reduction

129,284 kWh

CO2 equivalent savings

91.6 metric tons

Estimated annual carbon reduction

10,310 gallons of gasoline

"We maintain a high-rise that has become a recognizable fixture of the Miami skyline. There's a lot of glass in the building which adds to the already hot temperatures that our HVAC systems combat to keep occupants cool. ThermaClear® did its job as projected to help those systems do their job more efficiently."

BUILDING MAINTENANCE MANAGER

Proving the efficacy of ThermaClear®

Unit Type

300-Ton Water-cooled chiller

Conditioned Space

503,000 ft^2

Installed by

Critical cooling needs

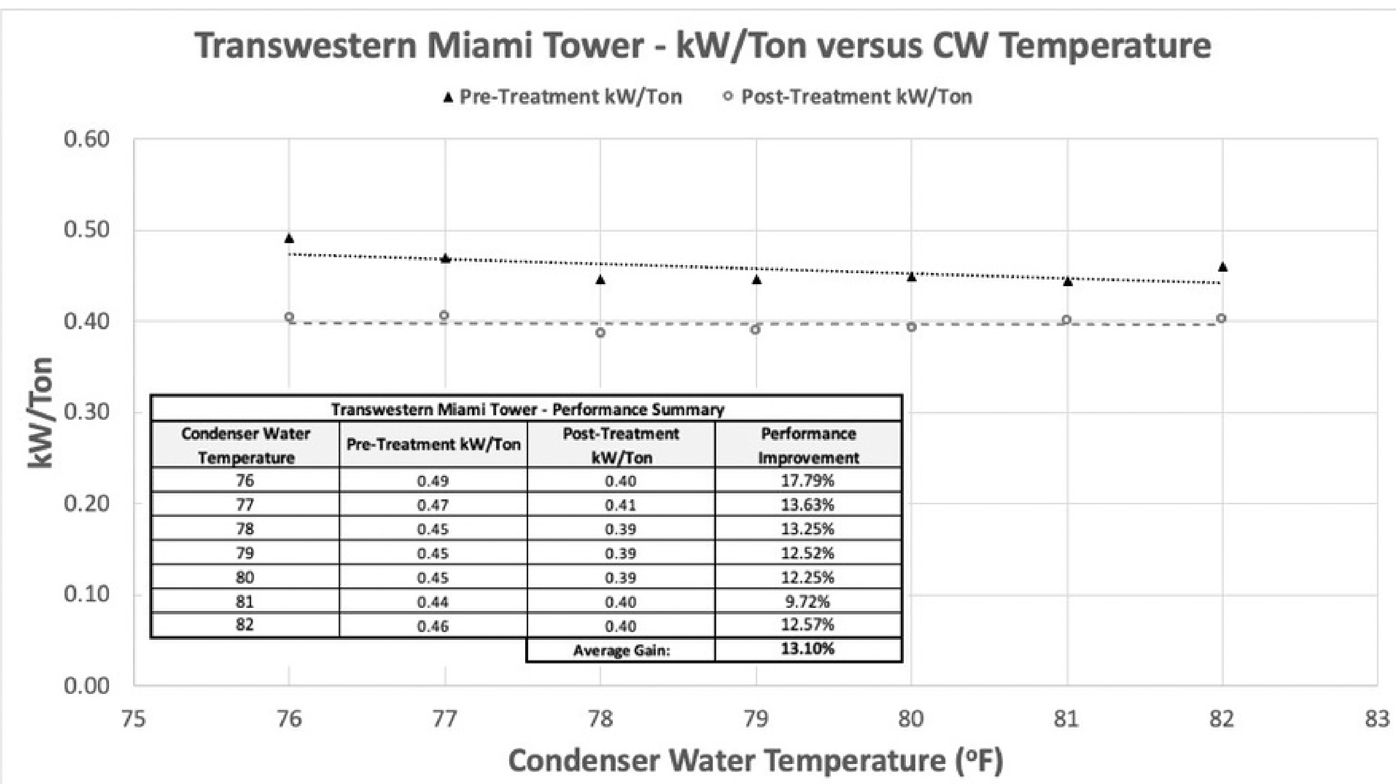
Impact system efficiency with high-demand cooling within a high-rise building predominantly composed of glass and steel.

Due to solar heat gain and internal heat loads this building requires year-round cooling.

Heavily trafficked site by business people and commuters with connection to public transportation.

Performance Measurement & Verification

ThermaClear® performance was validated through comprehensive, real-time monitoring throughout ECM Technologies research and development process. Our monitoring system adhered to International Performance Measurement and Verification Protocol standards to capture key indoor and outdoor metrics like temperature, humidity, chilled water / air flow and energy consumption. Data was recorded every minute over an extended testing period, ranging between 3 and 9 months per test, to capture both pre- and post-treatment data.



Transwestern Miami Tower - Performance Summary

Condenser Water Temperature	Pre-Treatment kW/Ton	Post-Treatment kW/Ton	Performance Improvement
76	0.49	0.40	17.79%
77	0.47	0.41	13.63%
78	0.45	0.39	13.25%
79	0.45	0.39	12.52%
80	0.45	0.39	12.25%
81	0.44	0.40	9.72%
82	0.46	0.40	12.57%
		Average Gain:	13.10%