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Nantum OS by Prescriptive Data achieves savings for eight NYC Rudin Management properties

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Manhattan, NY Prescriptive Data, a software-as-a-service (SaaS) technology company, shows significant energy and cost savings highlighted in a case study released by the New York State Energy Research & Development Authority (NYSERDA).

The NYSERDA study provides an in-depth look at how Rudin Management Co. used real-time energy management (RTEM) to optimize commercial building operations. The report tracked energy and cost savings across eight NYC Rudin properties before and after Prescriptive Data's building operating system, Nantum OS, was employed over a four-year period from 2012 to 2018.

As a result of using Nantum, Prescriptive Data achieved:

- \$5 million demonstrated savings across Rudin's commercial portfolio;
- 9.4% average annual normalized occupied building savings; and
- 13.6% average annual normalized non-occupied building energy savings.

In addition to cost and energy savings, NYSERDA highlighted several strategic non-energy benefits by employing Nantum OS.

"Over the years, we've worked diligently to integrate sustainability into our daily building operations and management strategies," said Gene Boniberger, Senior Vice President and Director of Building Operations at Rudin Management. "We are proud of this milestone to reduce energy consumption and expenses across the portfolio, while improving energy efficiency and environmental performance of the city's built environment."

"Integrating and optimizing energy performance in buildings is critical to reducing harmful greenhouse gas emissions from buildings and meeting Governor Andrew M. Cuomo's nation-leading energy and climate goals." said Janet Joseph, Senior Vice President for Strategy and Market Development at the New York State Energy Research and Development Authority. "This technology saves energy and reduces consumer costs while providing more comfortable, healthier spaces to live and work in."

Methodology

Rudin's experience with RTEM began in 2012 with a pilot deployment of Di-BOSS, an in-house RTEM system developed in partnership with a systems integrator. The initial learning experience with Di-BOSS was used to further the commercialization of the RTEM system and the development of the Nantum OS operating system. Prescriptive Data was launched in 2016.

NYSERDA performed an independent assessment of Rudin's use of Nantum to optimize building operations. The electric utility meter data from Con Edison for the eight Rudin properties upgraded in 2016 to Nantum OS with NYSERDA's funding assistance were analyzed using standard industry techniques.

The case study compares the daily and seasonal consumption patterns before and after the 2016 Nantum upgrades to identify operational differences and impacts in building electricity consumption. The study identified best practices in minimizing energy usages, based on key observations in the analysis of Rudin's operational processes using Nantum. These are:

Start-Up: Scheduling Building mechanical system start-up at the beginning of the day; and
Capacity Control Strategies: Automatic adjusting building mechanical system capacity according to the actual building occupancy level during the day.

Key Findings

The report shows that upgrades to Nantum from Di-BOSS in 2016 resulted in weather-normalized savings from 4.2% to 16.8% during the occupied days on non-holiday weekdays, and from 6% to over 22% savings during non-occupied days on weekends and holidays.

In addition to cost and energy savings, NYSERDA highlighted several strategic non-energy benefits by employing Nantum. They include:

Reducing manual errors and missed opportunities;
Freeing up building staff from routine monitoring to address issues that impact tenant satisfaction proactively;
Preserving staff experience and knowledge for the next generation of building leaders; and
Institutionalizing energy-saving practices as repeatable processes, irrespective of the differences between the buildings.