

# The Empire State Building: Sustainability and Operational Excellence



## Scope

- Leading international model for energy efficiency retrofits in the existing built environment
- ESRT designs and operates its buildings with environmental impact and resource conservation as a priority
- Initially deployed on Empire State Building, expanded across ESRT portfolio

## Challenge

- Target reduction of water use of 2% year-over-year
- Target 30% water consumption reduction by 2035 from a 2018 baseline
- Committed to carbon neutrality by 2030
- Prevent water leak damage and disruption to iconic building
- Any new technology deployment at the Empire State Building requires a positive ROI

## WINT's Solution

- Installed WINT on multiple water systems, including:
  - Main Feeds
  - Cooling towers
  - HVAC systems
  - Booster Pumps

## Results

- Detected **cooling tower malfunction** which would have gone unnoticed
- **Pump failed**, WINT immediately alerted of the malfunction
- Detected other **equipment malfunctions**, including condensate tank

## Success Metrics

- Environmental:
  - Consumption down by over **7.5 million gallons/year**
  - Reduced emissions by over **300 tons carbon/year**
- Financial:
  - Saving over **\$100,000/year**
  - Prevented damage of **>\$500,000**
  - ROI: **1,500%**
  - Payback period: **3 months**