

## Case Study

### Our Client:

2- Hotel Complex in Springfield, IL

### Use Case Site:

- A two-hotel complex, built in the early 90s; with a total of 551 rooms combined.
- These hotels host conferences and are exposed to variable occupancy patterns which lead to peak demands.
- Located in Springfield IL, both hotels endure freezing cold winters and blazing hot summers.

### The Challenge:

- Unstable occupancy rates require a solution to provide efficient climate settings
- HVAC systems can only be controlled from the guests' rooms
- No monitoring or control in checked-in rooms. Unoccupied rooms are controlled by maintenance and housekeeping personnel.
- Property managers must maintain minimal temperatures in all rooms during winter to avoid frozen plumbing that might cause damage to equipment.

### Our System:

#### Multi-Room Climate Intelligence

The Climate Intelligence Platform utilizes a network of Climate Nodes that connects to all HVAC units and senses all key parameters in every room (temperature, humidity, occupancy, openings, etc.). Applying sophisticated data analysis models and deep learning algorithms, the fully integrated system maximizes climate comfort while minimizing workload of heating & cooling systems, optimizing operational workload and significantly reducing energy consumption.



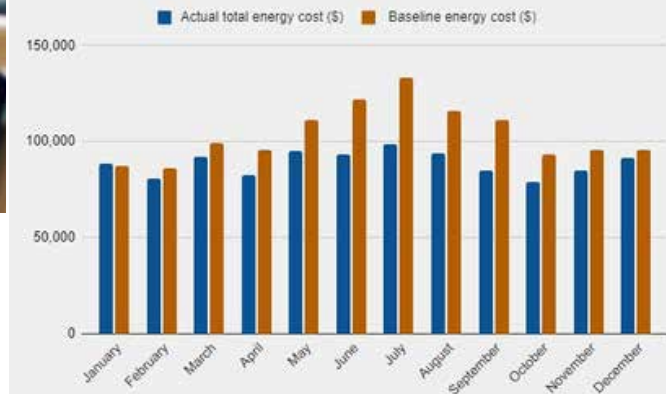
### Climate as a Service:

Our clients benefitted from reduced utility costs and return on investment from day one:

- Upfront Payment: \$0
- Annual Electricity Savings: \$83,000
- Annual Gas Savings: \$25,000
- Total Annual Savings: \$108,000
- Net Annual cost: \$47,000
- **Net Annual Savings: \$61,000**



### Energy Cost Comparison:



Seen above is the cost comparison before and after system installation. The numbers show how effective the system is when it comes to energy savings and peak shaving.





## Features & Benefits:



- **Compatibility.** A climate node network, that can connect to and control all end-units: fan coils, heat pumps, PTACs, etc.
- **Plug & Play, seamless installation.** A very quick installation that can be executed in the time it takes for a room to be cleaned.
- **Wireless sensing precision.** The Climate Intelligence platform is connected via a scalable wireless ZigBee network and does not interfere with WIFI service.
- **Behind-the-scenes automation.** Senses, learns, and automates climate comfort in every room. Demonstrated energy savings - **up to 45%** - without compromising climate comfort.
- **Demand management.** The platform controls all end-units, taking into account local weather and utility tariffs, enabling automated peak-demand control.
- **IAQ Sensing and Monitoring.** Monitors indoor air quality 24/7 in each room, creating the safest environment in the New Normal.
- **De-humidification sequencing.** Smart algorithm based on room and ambient temperature & humidity to enhance indoor climate comfort and energy savings.
- **Predictive maintenance.** The system undergoes constant performance analysis that enables it to identify abnormalities and address them before issues arise.
- **Full remote control.** Easy and intuitive remote monitoring and control from any device. Minimizes technical workload on-site.
- **Personalized indoor climate.** Each room can be personalized to the resident's temperature preference.
- **No Capex.** No capital expenditure. Fixed Climate-as-a-Service monthly fee, enabling product to pay for itself.



### New Normal Post COVID19:

- The Airkind platform is agile, enabling guests full control of their room when checked in, and automatically applying energy saving modes when the rooms are vacant.
- The new OakIAQ sensor allows monitoring indoor air quality in every room 24/7, enabling hotels to be branded as the safest home away from home in the New Normal.

