A Customer Success Story

“How Seabreeze Experienced Superior Energy Efficiency Using Locbit Integration”

The original goal was to save Seabreeze 10-15% through automations. We were able to achieve 20-25%. This is predominant and noticeable in the trend in monthly and annual averages for both kWh and the $ amount representing the bill. Before implementation of any services, energy numbers had a steady climb as the smart city built out. With Locbit deployed, it is evident that the kWh blended rate has a better than promised reduction over said blend when Locbit is not in use. Part of this is accomplished by unifying the thermostats harmoniously.

Customer Overview:

Company Name: Seabreeze Properties / North City Campus – Quad Block

Industry: Apartments, Complexes, Housing

Location: Merge Carmel Valley Office 5550 Carmel Mountain Rd., Suite 204, San Diego, CA 92130

The Challenge:

Seabreeze initially had an ever-increasing electrical bill from the 2016-2018 annual months. During these months the average Kilowatt per hour/per month was:

- 82,167 kWh for the 240 E. Barham Meter; and,
- 43,569 kWh for the 251 North City Drive Meter.

The cost per kWh was $.20-21 cents.

The average cost per month in billing was:

- $16,648 for the 240 E. Barham Meter; and,
- $9,300 for the 251 North City Drive Meter.

Then, Locbit along with Seabreeze staff and occupants were negatively impacted by COVID. Services were shut down and student occupants returned home; bills were drastically low during this period.

Seabreeze staff began returning along with occupants during 2022, where the month average Kilowatt per hour/per month was:

- 74,452 kWh for the 240 E. Barham Meter; and,
- 40,712 kWh for the 251 North City Drive Meter.

The cost per kWh was $.30-31 cents.

The average cost per month in billing was:

- $22,303 for the 240 E. Barham Meter; and,
- $12,401 for the 251 North City Drive Meter.

Proof of Concept occurred in August-September-October of 2024, Seabreeze had an internal outage with the associated systems and had to turn Locbit off. After one month of monitoring, the overall bill for both meters reached approximately $67,000 demonstrating an increase of nearly $28,000 for that specific month in which no BMS system or control system was in place. This indicates the high cost of an uncontrolled/unregulated network of thermostats within a large multi-tenant facility.

As of today, and the past 12 months. California's Blended billed rate has averaged $.45-.48 cents. Over the years we have seen a steeper increase as to the blended energy costs being billed especially to commercial tariffs.

The Solution:

Locbit was commissioned to assist with this issue by deploying automations which assist in controlling the usage and performance of building management nodes, increasing proficiency and optimizing load. Seabreeze deployed Locbit in March of 2023 to July of 2024 to support controlling electrical load and thermostat usage. The monthly average Kilowatt per hour/per month was;

- 64,817 kWh for the 240 E. Barham Meter; and,
- 37,251 kWh for the 251 North City Drive Meter.

The blended cost, with Locbit automations in place, per kWh was $.38 cents.

The average cost per month in billing was:

- $24,564 for the 240 E. Barham Meter; and,
- $14,258 for the 251 North City Drive Meter.

Automation primarily accounted for the control of thermostat low and high limits. Seabreeze was gracious to allow us to return as we were a previous client that was negatively impacted by COVID. When we initially installed our system, we focused on monitoring and analytical discussions and surmised that we would be able to save the QUAD property 10-15%. Once Seabreeze and Locbit were ready, we discussed automations and deployed them. After functionally deploying automations, we noticed several issues including two SATEC Controllers appearing offline or working incorrectly, which directly contributed to spikes in energy usage and issues with Thermostat settings. Secondly, after a few months we noticed that

an Automated Router internal to the system was driving thermostat settings opposite of what the students were setting in the room itself and the workflows we were attempting to deploy autonomously. We conferred with Seabreeze and received permission to disconnect this device. We experienced a huge increase in performance and noticed instant decreases in the electrical bill.

As of today, Seabreeze is working to install brand new controllers to help support a healthier system. We are not currently deploying automation and are on standby to support further.

Implementation and Deployment:

In the case of the QUAD, we deployed a Single server racked in the central closet on first floor, room EL1. This server connected via ethernet to the BACnet supported network. This network is essential to BMS operations and acts as the standard backbone for Thermostats, HVAC, Solar systems and all associated infrastructure supporting controllers. Buildout of the server took approximately one month, deployment occurred over the 30 days thereafter. Automations were launched 4 months after initial deployment. The system has been in-place for nearly 24 months.

Results and Outcomes:

Highlighted measurable improvements and key performance indicators (KPIs) achieved after two years of deploying services.

- Quantifiable results (e.g., increased revenue, reduced costs, improved efficiency).
    - Reduced kW demand
    - Reduced cost, greatly resisting the current $.45-.48 cent kWh blended rate
    - Improved efficiency across thermostat operations
    - Error or Fault detection through monitoring anomalies (Preventative Maintenance)
- Automations
    - The deployment of automations that assisted in Improved control of thermostat ranges and temperatures

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Customer Testimonial:

Thank you! I don't believe anything else needs to be added. The entire letter stating percentages saved during, before, and after Locbit speaks for themselves and should properly serve as a positive statement attributing to the success of Locbit.

Brandon Esswein // Property Manager

Company: Brandon Esswein

Name: DocuSigned by: Brandon Esswein 0D21CF27D1E0403...

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