

BOTTOM LINE

Spa Botanicals¹, a hair salon and spa with seven locations in Houston, TX, was looking for ways to save money on air conditioning. Using InThrMa's web based energy management suite, Spa Botanicals reduced operational and electricity costs, centralized control over all thermostats, introduced building automation features, and identified numerous employee-driven inefficiencies that led to additional savings. Combined, these savings amounted to over \$35,000 annually, more than 10% of its electricity expenses.

BACKGROUND

With annual electricity expenses of approximately \$350,000 per year, Spa Botanicals wanted to identify opportunities to save money, but the building management systems from major manufacturers were not designed for light commercial customers. These systems were prohibitively expensive, especially since each store would require a separate hardware installation and software license amounting to more than \$50,000 across the seven properties. "Everything I found was engineered for large commercial and industrial buildings, such as manufacturing facilities. These building management systems were suitable for those customers, but I basically run seven small businesses, and I need an affordable way to centralize control across all of them." Said Dan Moyer, VP and Director of Operations for Spa Botanicals. By selecting InThrMa, Moyer had access to all of the automation and analytics he needed to reduce operational costs, at a fraction the cost of larger building management systems.

SAVINGS

\$20,000 Savings Annually: Automated system diagnostics

With such significant costs associated with air conditioning, Spa Botanicals needed to ensure that its HVAC system was running as efficiently as possible, and that maintenance needs, such as inoperable compressors or blower fans, were spotted quickly. Every week, Moyer dispatched a maintenance team to each location to do simple diagnostics. These tests were essential to early detection of problems, but the labor costs were high.

Using InThrMa, combined with remote sensors installed on the AC units, Spa Botanicals has been able to automate these maintenance checks. In addition, InThrMa's analytics can identify problems and automatically alert Moyer. This automation and remote monitoring saves the company about \$15,000 annually in labor, with an additional \$5,000 in early detection of HVAC problems.

\$15,000 Savings Annually: Remote, centralized energy management and improved operational efficiency

- **Reduced manager error:** Spa Botanicals wanted to centralize control of all 40 thermostats in order to increase operational efficiency and rein in costs. "Store managers have enough to think about, and don't worry about utility expenses the way I do. For example, if they forget to turn off the system during a holiday, that can cost me up to \$400 per day. Using InThrMa, I can relieve them of this task, and also ensure that one of our major costs is being optimally managed in a centralized fashion. What's more, I can spend my own holiday without worrying that we aren't flushing money down the drain."
- **Fewer employee overrides:** InThrMa has also helped Spa Botanicals identify additional operational savings by reducing inefficiencies caused by on-site control of the thermostats. Each day, InThrMa sends Spa Botanicals a report detailing HVAC utilization and which thermostats were manually overridden. "Employees were playing ping pong with the thermostat. I can now follow up with the store managers to help address the individual comfort needs of employees while reducing employee system overrides."
- **Greater store oversight:** Spa Botanicals has been able to monitor employees more effectively. InThrMa's analytics learn how an HVAC system operates under normal conditions, and can alert building managers when system performance diverges from historical patterns. While this often indicates problems in the HVAC system itself, at times it can also point to employee-driven inefficiencies. For example, he was alerted when one store's AC usage was erratic. When he followed up with the store manager, he could immediately determine that employees were changing the thermostat set points after coming in from their outside breaks. He figures he never would have identified this problem without InThrMa.

ADDITIONAL BENEFITS

Beyond the direct financial benefit, Moyer commented on InThrMa's general value to the firm: "When I first started using the InThrMa suite, I just wanted to make sure that the energy savings more than paid for the subscription. I have been pleased with its performance in that regard. What I did not initially anticipate is how much additional value the product generates. It extends my presence into all seven store locations, and it has allowed me to make many operational changes that have improved overall company profits. I used to have my stores on my mind at all hours of the day. Now, I at least have the peace of mind to know that InThrMa will let me know if something malfunctions. I now think of it in the same way I think of any other essential technology investment we make, such as our security alarm or customer billing system.

¹ The names of the spa and manager have been changed. However, all details related to the case study have been reviewed by the business owners for accuracy.