

Remote Energy Management: ComfortChoice® from Carrier Corporation

Carrier Corporation (www.carrier.com) is a leader in providing heating, ventilation, air conditioning and refrigeration (HVACR) systems, components, controls and services for residential, commercial, industrial and transportation applications, and food service equipment, with 43,000 employees worldwide and \$14.6 billion in annual sales. It is a subsidiary of United Technologies Corporation, provider of a broad range of high-tech products and support services to the aerospace and building systems industries.

Energy Demand Outpaces Supply

In early 2000, Carrier began developing a solution to address the growing problem of energy shortages, which costs US business \$29 billion every year. Research had shown that a mere 10% reduction in peak electricity consumption would eliminate price spikes and help curb blackouts and brownouts. Ultimately, new power plants and upgrades to the transmission and distribution infrastructure are needed to address the problem; however those solutions were, and still are, many years away.

The Carrier solution, ComfortChoice®, was designed to provide control over peak consumption by managing residential and light commercial demand. The system includes a 2-Way programmable thermostat, ComfortChoice Manager, which is web-based load-curtailement software for the energy provider, www.MyTstat.com software that provides homeowners with Internet access to their thermostats, and a wireless connection to tie it all together. In developing this product, Carrier went in search of a nationwide wireless network that could provide reliable and fast communication to provide utilities with wireless access to a homeowner's thermostat.

The Right Wireless Technology

“We were searching for an affordable 2-Way wireless communications option for a low-bandwidth, high volume application. We were targeting utilities as our customer, and were competing against existing residential energy management solutions with 1-Way communications,” said Ray Archacki, Senior Product Manager for Carrier Electronics. “We identified 2-Way messaging as the technology that most closely matched our cost.”



“We chose SkyTel over the competitors because of their name recognition and the dedication of their technical and marketing support team. SkyTel is a key component of the ComfortChoice® solution. Homeowners see the Carrier product, and utility providers use the ComfortChoice Manager software. The SkyTel ReFLEX Network provides the communication that links the systems together.”



*“The SkyTel
Network
provides the
communication
that links
the systems
together.”*

ComfortChoice Provides a Solution Today

Carrier’s ComfortChoice® solution enables energy providers to manage their residential and light commercial customers’ energy demand by adjusting thermostat settings wirelessly. These adjustments, usually made during peak demand periods, reduce the frequency of operation for heating and cooling systems, reducing overall energy consumption.

For utility companies and energy providers, ComfortChoice® can lessen the need for new power plants and infrastructure upgrades by reducing the amount of energy needed during peak demand. And, because of the benefits to consumers, it can lead to greater acceptance and participation in demand-management programs. Lower production can also mean fewer emissions and pollutants.

Consumers receive a product they can use year-round with ComfortChoice®, reducing their overall energy costs by 15 to 25%. By giving consumers wireless control over their thermostat and the flexibility to override energy curtailments, homeowners come home every day to their ideal comfort level.

“Over the years, we have built a strong working relationship with the SkyTel Telemetry team,” Archacki said. “We have met talented, responsive technicians, who eagerly help us solve our communication issues. With SkyTel, we see more than a communication service. I think we chose the correct option.”



M2M SERVICES

www.skytel.com
1-800-395-5796