

# GoodCents *SELECT*<sup>®</sup>



*Updated January 2008*



“It’s the only mass-deployed system  
of its kind in the world.  
This is the future.”

*Bob Chiste*  
*CEO Comverge*  
*From Newsweek Next Frontiers*  
*November 2005*



# Program Highlights

- **GoodCents** *SELECT*<sup>®</sup> is a residential critical peak pricing program.
- **GoodCents** *SELECT*<sup>®</sup> is an interactive energy management system that gives residential customers control over their energy purchases by allowing them to program their central heating and cooling system, water heater and even their pool pump to automatically respond to varying prices.



# Program Highlights

- **GoodCents** *SELECT*<sup>®</sup> was first introduced to customers in March 2000
- More than 8,800 customers participate in the GoodCents Select program



# Program Overview

- A time-varying rate with a near real-time pricing component.
- An in-home, customer-programmed, automated energy management (AEM) system capable of responding to price changes, based on customer preferences.
- A way to communicate critical price signals to program participants.
- A means of recording and retrieving billing determinants.



# Distinguishing Characteristics

- Not Direct Load Control (DLC)
- Equipment in customer's house provides automatic price response.
- Each customer programs equipment for customized response.
- Customer has option to override programmed responses at any time including the option to “buy through” the critical price period.



# Price Structure *Overview*

- Rate features prices based upon the time of day and the day of week with time periods that vary by season.
- The prices generally reflect the actual cost of producing electricity during those periods.



# Price Structure *Details*

- Participation Charge of \$4.95 per month

- Prices per kWh

<b>Low</b>	<b>6.8 ¢/kWh</b>
<b>Medium</b>	<b>8.1 ¢/kWh</b>
<b>High</b>	<b>12.6 ¢/kWh</b>
<b>Critical</b>	<b>33.5 ¢/kWh</b>

- Standard Residential Rate: 9.0 ¢/kWh

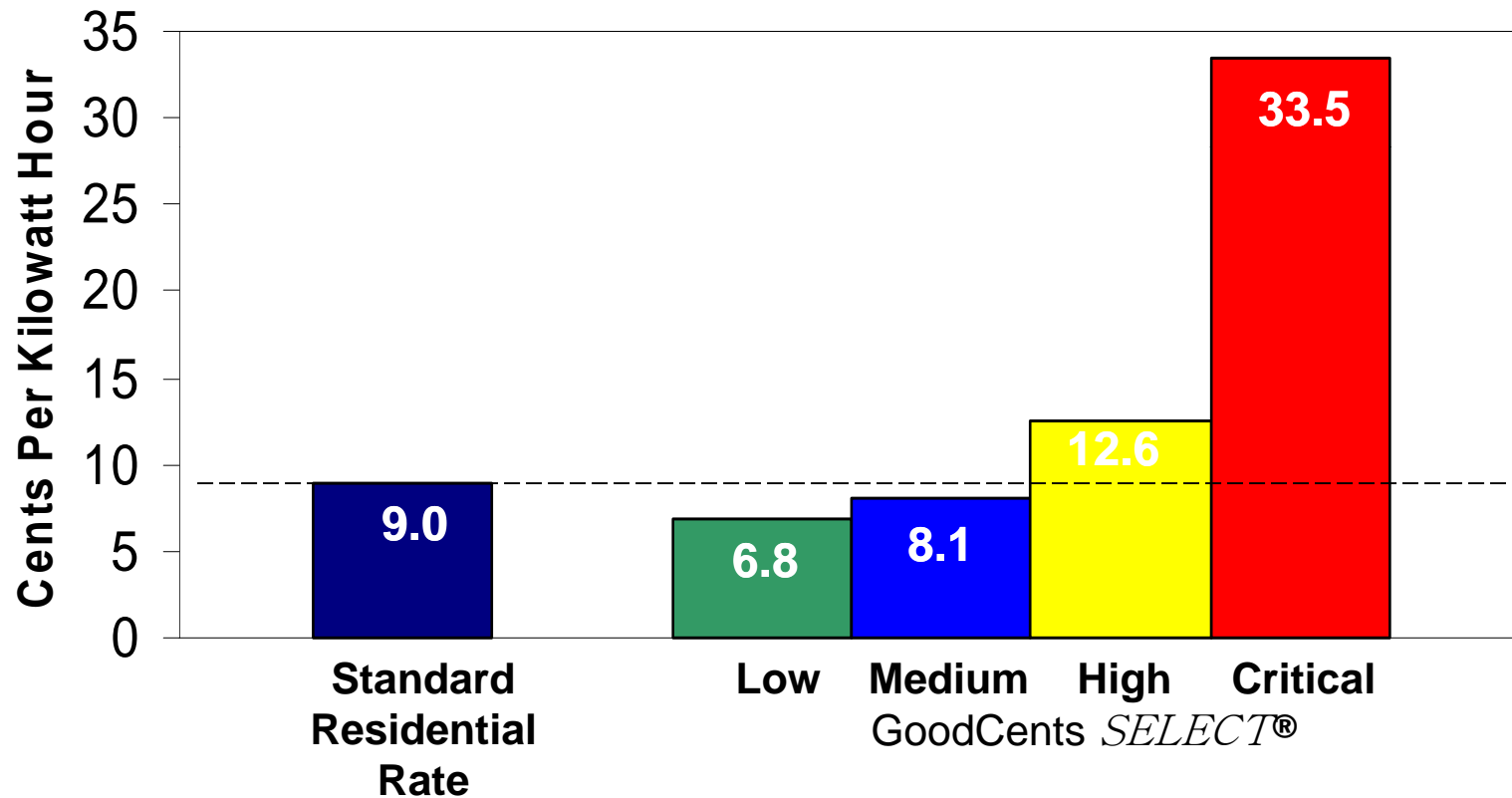
Prices effective January 1, 2008. The customer charge and participation charge and any applicable taxes are not included in the prices above. Prices are subject to change.





# Price Structure Comparison

## Standard Residential vs. GoodCents *SELECT*®





# Price Structure

## *Pricing Periods*

### May 1 - October 31

#### Weekdays:

Low	11 p.m. - 6 a.m.
Medium	6 a.m. - 1 p.m. & 6 p.m. - 11 p.m.
High	1 p.m. - 6 p.m.

#### Weekends & Holidays:

(Memorial Day, Independence Day,  
Labor Day)

Low	11 p.m. - 6 a.m.
Medium	6 a.m. - 11 p.m.
High	NONE

### November 1 - April 30

#### Weekdays:

Low	11 p.m. - 5 a.m.
Medium	5 a.m. - 6 a.m. & 10 a.m. - 11 p.m.
High	6 a.m. - 10 a.m.

#### Weekends & Holidays:

(Thanksgiving Day, Christmas Day,  
New Year's Day)

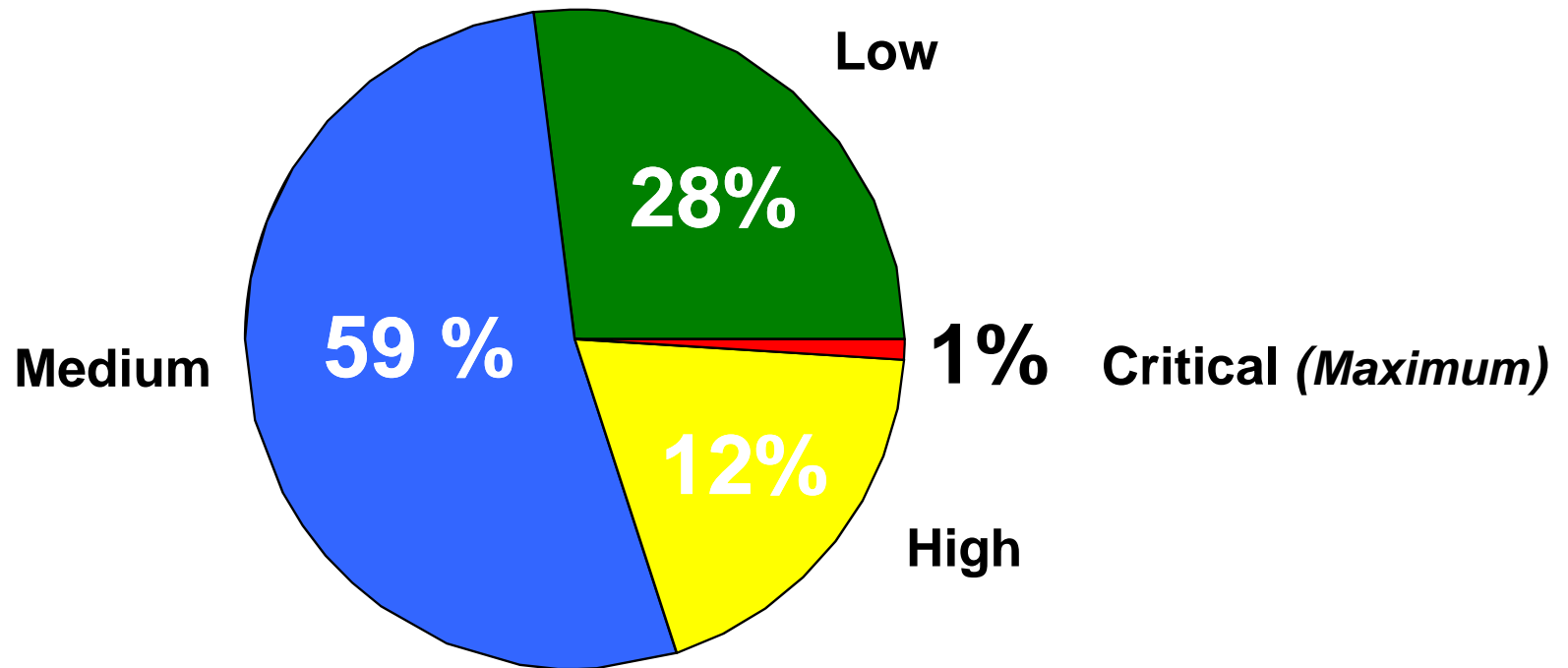
Low	11 p.m. - 6 a.m.
Medium	6 a.m. - 11 p.m.
High	NONE

Critical price periods are not predetermined and will only go into effect when the demand for electricity is extremely high. Critical pricing periods will not exceed 1 percent of the total annual hours.




# Price Structure

## *Percent of Annual Hours in Effect*



One-hour or two-hour critical price periods are most likely to occur Monday-Friday between 6:00 am - 10:00 am (winter) and between 3:00 p.m. - 6:00 p.m. (summer).



## Customer Response to Good Cents Select: Energy (kWh) and Revenue

- Energy consumption and revenue lower for first year GCS customers.
  - First year energy difference about 555 kWh per customer.
  - Second year, the energy difference is approximately 251 kWh per customer.
- Tenure in program may change this for many participants.



# Critical Period Pricing

- The highest price tier of the RSVP rate.
- The utility sends via paging signal notification one half hour to customer's gateway that a critical price period is about to occur.
- The customer's programmed thermostat automatically responds to the critical period pricing notification.
- Over the past 5 years Gulf Power has issued an average of 6 critical calls per year.
- The introduction of the critical price consistently and effectively reduces customer demand.

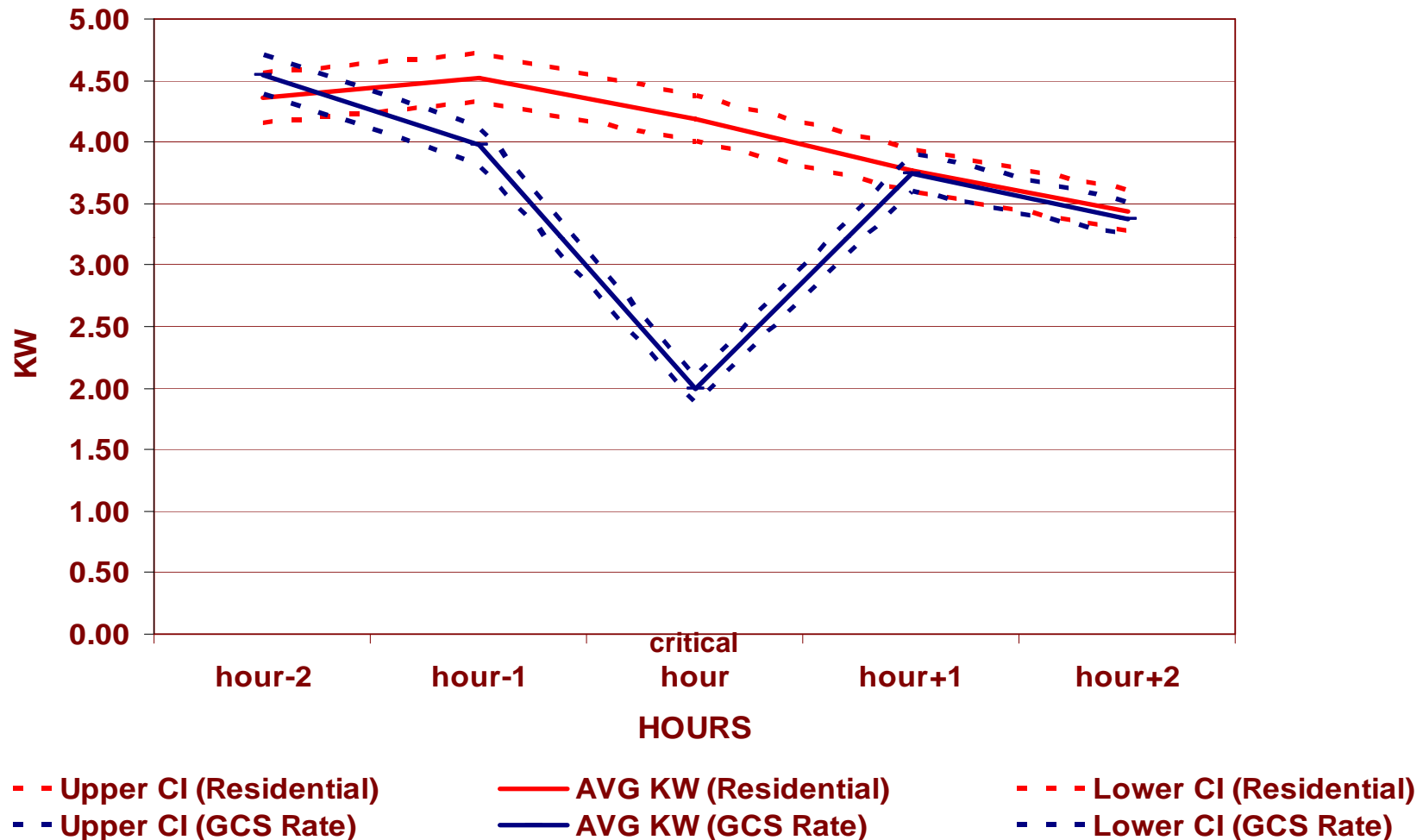


## Customer Response to GoodCents Select: Critical Period Demand (kW)

- Winter Critical
  - The average demand (kW) reduction when Critical Price is invoked in the winter is 2.20 kW per customer.
  
- Summer Critical
  - The average demand (kW) reduction when Critical Price is invoked in the summer is 1.73 kW per customer.

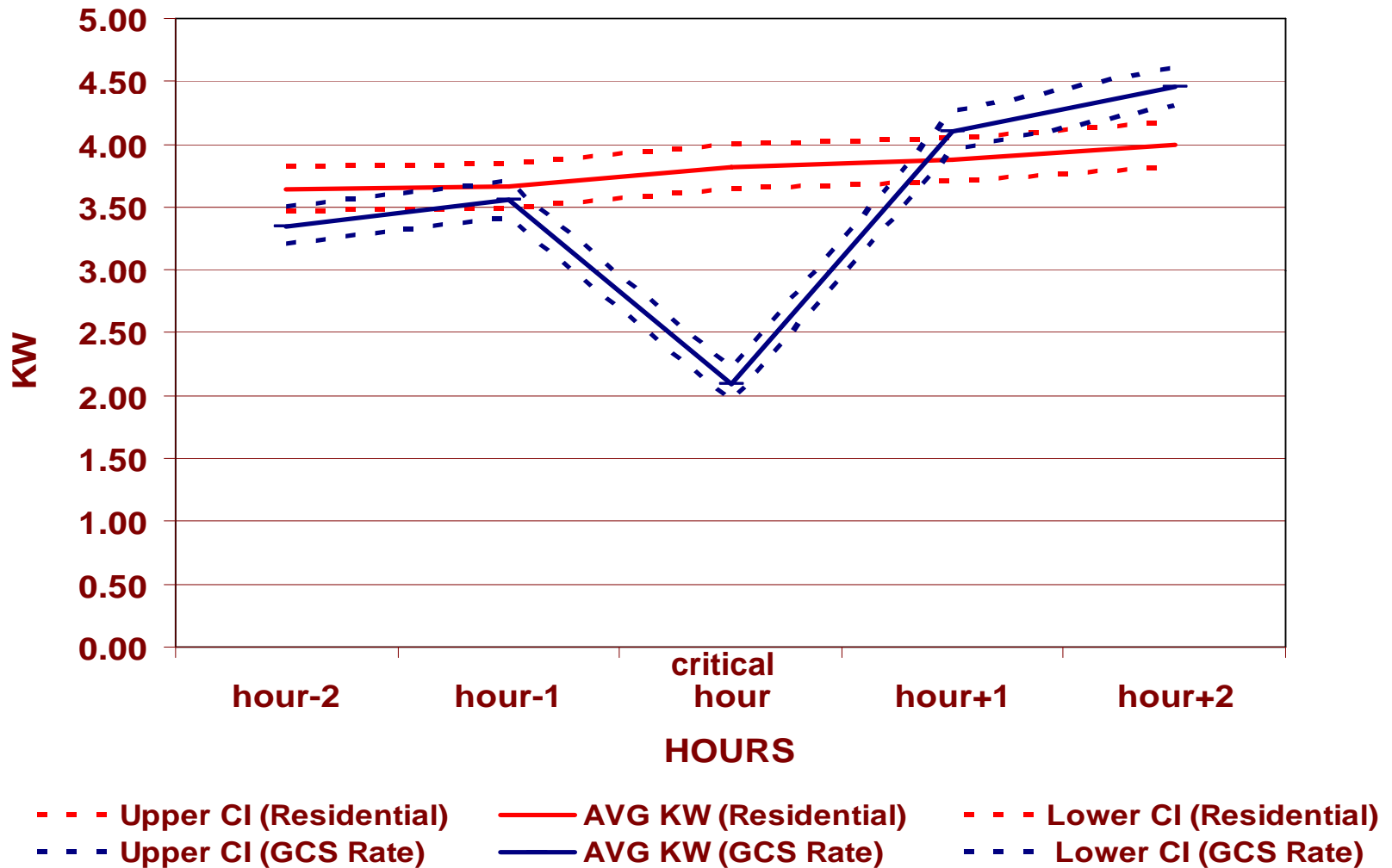
**Note: These average demand responses include all program participants regardless of customer's program settings or choice to buy through the critical price period.**

# Customer Average KW in Winter



*CI = Confidence Interval*  
*See additional info in Appendix*

# Customer Average KW in Summer



*CI = Confidence Interval*  
*See additional info in Appendix*



# The SuperStat®



- The customer thermostat, also referred to as a control center, enables the customer to program their central heating and cooling system, water heater and pool pump (*if applicable*) to fit their lifestyle, desired comfort level, and savings goals. Also allows customers to override pre-programmed settings.

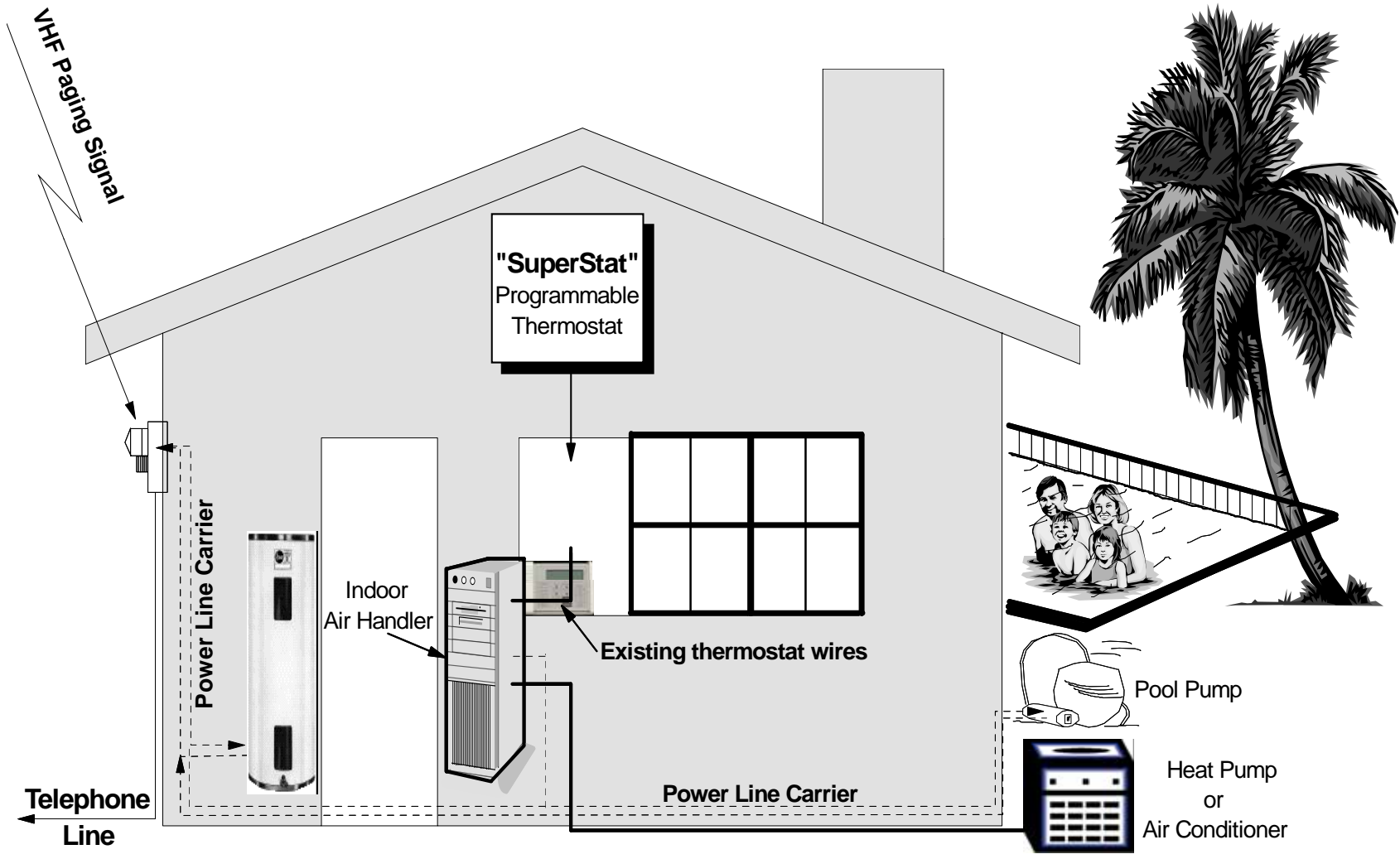
# Communications Gateway



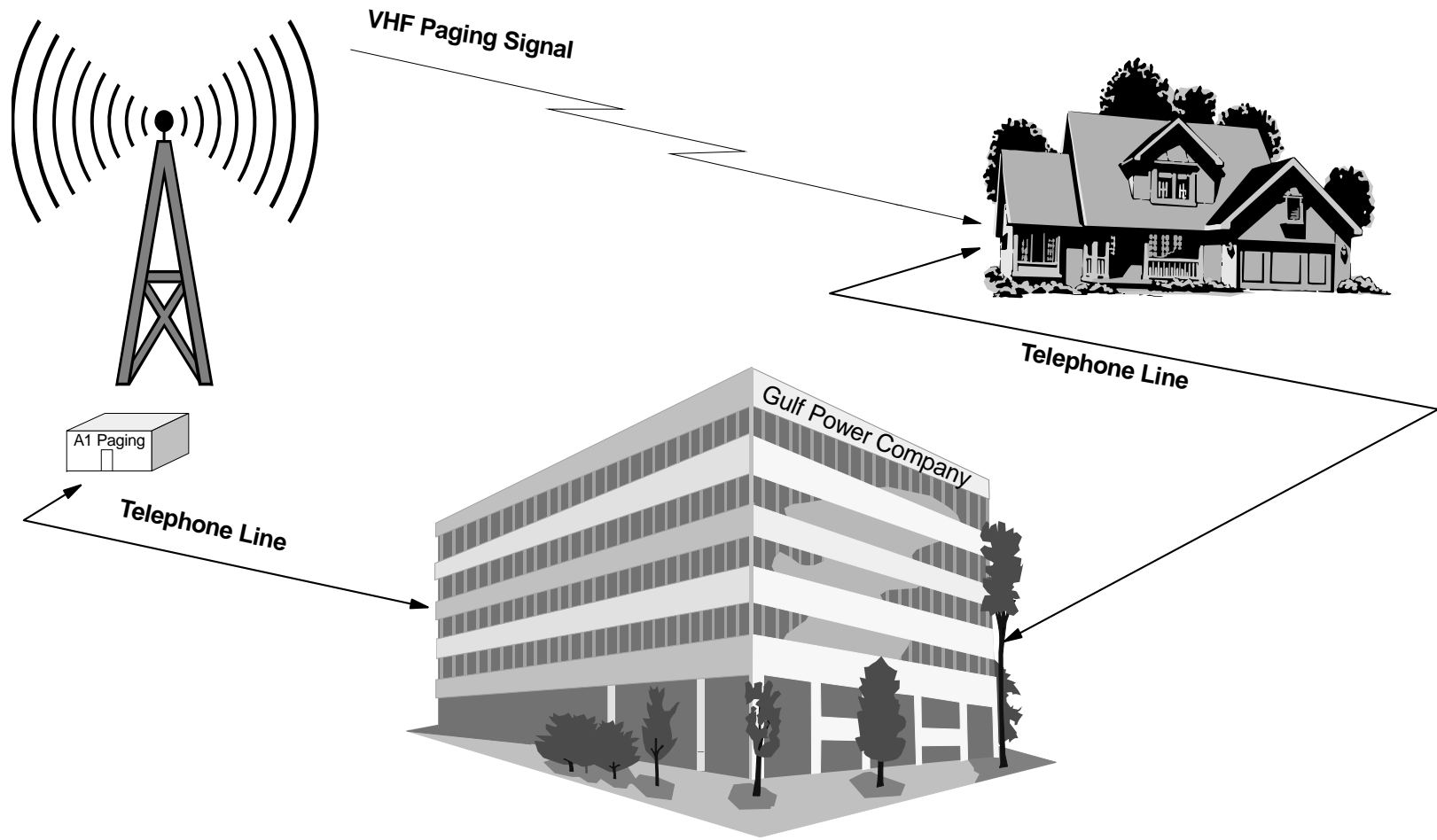
- **Handles communications between the SuperStat<sup>®</sup>, water heater relay and pool pump relay. Uses open standard protocol. Keeps tiers and has “buckets” to store usage in Low, Med, High, and Critical periods. The Gateway can also store 15 minute Load Research data. Maintains synchronization with SuperStat<sup>®</sup>. Communicates back to the utility. Also includes surge protection and outage notification feature.**



# Local Area Network (LAN)



# *Wide Area Network (WAN)*





# Utility Benefits

- Peak Load Reduction
- More Efficient kWh Sales
- Increase Customer Satisfaction



# Customer Feedback

- 89% of GoodCents Select participants say they are satisfied or very satisfied with their bill savings, with 71% very satisfied.
- 81% of GoodCents Select participants say they agree or strongly agree that they have not had to significantly adjust their lifestyle.



# Customer Feedback

**“Does offering programs such as GoodCents SELECT® improve your overall satisfaction with Gulf Power?”**

	<i>% Replying YES</i>
■ Participants	87%
■ Non-Participants*	39%

**\*Non-Participants who chose the standard residential rate**



# Customer Benefits

- Control
- Choice
- Comfort
- Bill Savings





# Regulatory Benefits

- Avoid future generation costs
- Keep rates low
- Encourage and enable conservation



# Awards and Recognition

- 2002 Association of Energy Services Professionals International Award
- 2002 National Society of Professional Engineers New Product Award
- 2001 Financial Times' Global Energy Award, finalist
- 2001 Florida Governor's New Product Award
  
- Wall Street Journal, January 2006
- Newsweek magazine, "Top Ten Eco-Friendly Companies", Nov. 21, 2005
- Chartwell's Best Practices Newsletter, December 2005
- This Old House magazine, "Shopping for Smart Thermostats", September 2002
- Wall Street Journal, "Some Utilities Offer Discounts For Using Power at Odd Hours", Aug. 22, 2002
- Quicken.com, an online business publication, May 2002
- ESource, an electric industry print publication, March 2002
- Business Now, an ABC news magazine
- Transmission and Distribution World, February 2001



# Gulf Power Company

- Gulf Power Company is a subsidiary of Southern Company and is headquartered in Pensacola, Florida.
- Provides electricity and energy services to more than 400,000 customers in 10 counties in Northwest Florida.
- The company offers a variety of incentives and pricing options that allow customers to use electricity more efficiently and control their energy costs, including GoodCents Select.

[www.gulfpower.com](http://www.gulfpower.com)



# Comverge, Inc.

- Gulf Power's GoodCents *Select*<sup>®</sup> equipment provider and service contractor is Comverge, Inc.
- Comverge provides the leading technology used by electric utilities to manage peak periods of energy use through demand and price response solutions that also promote conservation by customers.
- One of Top Ten Eco-Friendly companies in North America (Newsweek, Nov. 2005)

[www.comverge.com](http://www.comverge.com)



# Contact

David Eggart

GoodCents Select Team Leader

Gulf Power Company

[WDEGGART@southernco.com](mailto:WDEGGART@southernco.com)



# Appendix

## *Alternate Terminology*

- Price-responsive load management (PRLM)
- Advanced energy management (AEM)
- Critical peak pricing (CPP)
- Variable spot pricing
- 4-tier pricing
- TOU pricing with a “real-time kicker”



# *Appendix*

## *Load Research Studies*

### **Demand Savings per Customer**

- 1994 (Pilot)
  - Test group size = 237 customers  
Control group size = 194 customers
  - Measured summer kW response = -2.16  
Measured winter kW response = -2.97
  
- 2003
  - Test group size = 143  
Control group size = 118
  - Measured summer kW response = -1.73 kW  
Measured winter kW response = -2.20 kW



# *Appendix*

## *Load Research Studies*

### **Demand Savings per Customer (cont.)**

#### ■ 2006

- Test group size = 197 customers  
Control group size = 114 customers
- Measured summer kW response = -1.70 kW  
Measured winter kW response = -2.36 kW





# *Appendix*

## *Load Research Studies*

### **Energy Savings – Annual, per Customer**

- 1994 (Pilot)
  - Test group size = 237 customers  
Control group size = 194 customers
  - Annual kWh savings = -1580 kWh
  
- 2003
  - Test group size = 749 customers  
Control group size = 749 customers
  - Annual kWh savings = -762 kWh



# *Appendix*

## *Load Research Studies*

### **Energy Savings – Annual, per Customer (cont.)**

- 2006
  - Test group size = 994 customers  
Control group size = 544 customers
  - First year kWh savings = -555 kWh