

Customer Performance and the Design of Demand Response Programs

About CPG

Consulting, Research, and Design Services

- Guide Management and Marketing Strategy
- Launch Innovations
- Improve Performance of Customers and Employees



Scientific
Instruments



Publishing



Behavioral Health

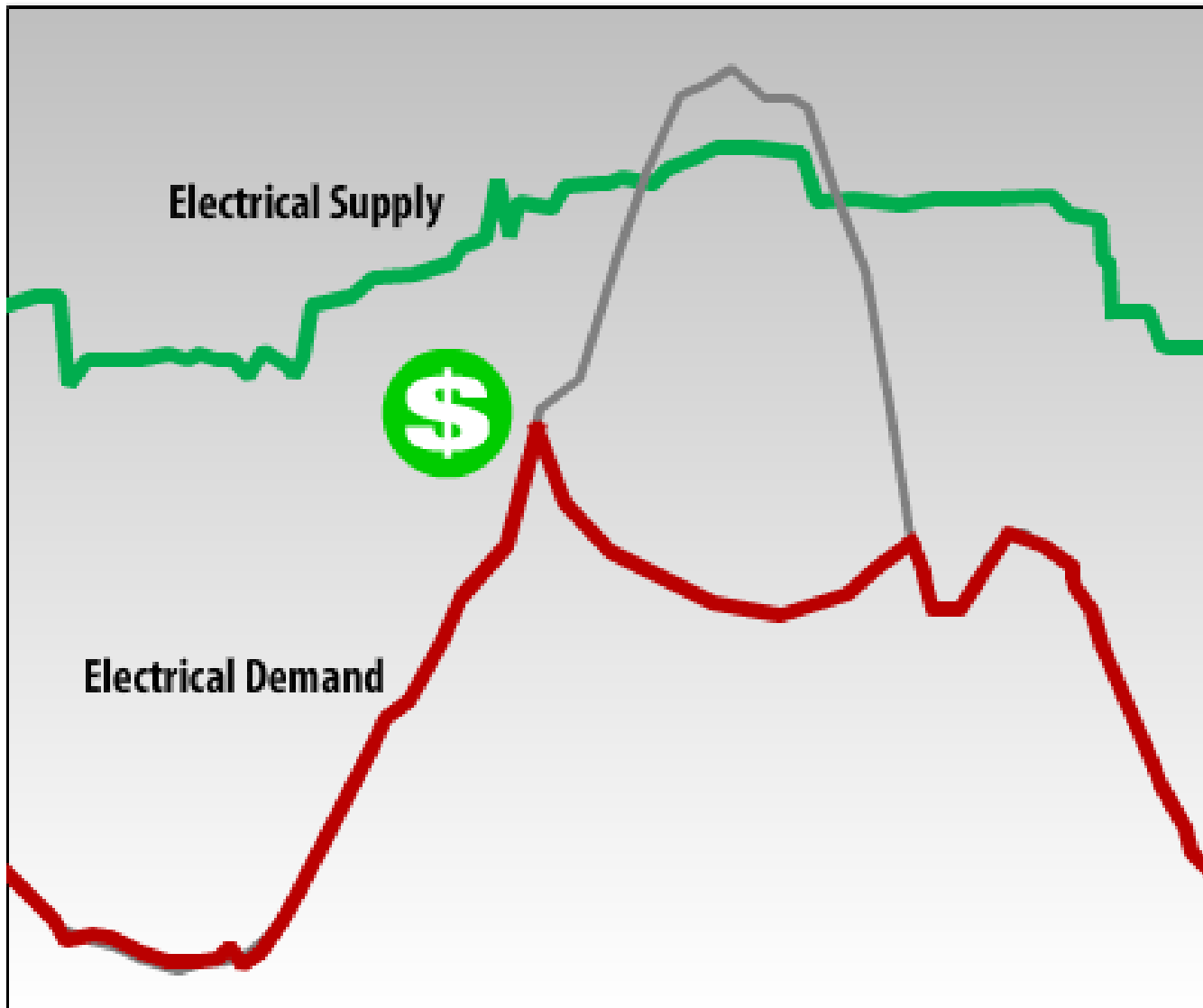


Smart Meter
Systems

My Presentation Today

1. A Customer's View of Demand Response
2. Customer Performance and Demand Response
 - Customer Motivation
 - Designing Programs that are EZ4U
 - Enabling a Support Structure

Demand Response



For Customers, Demand Response Is Like...



Why Lie on a Bed of Nails When...



I say it's heavenly...

The Boss says it's G-E Air Conditioning

LUCKY ANGEL! Fingertip controls enable her to have her own particular brand of "heavenly" climate. Thanks, of course, to General Electric Personal Weather Control. Her boss says it adds wings to her work.

It's a blessing to her building owner, too. G-E Air Conditioning saved him plenty in installation costs. A simple piping system is all that's needed to provide summer cooling and winter heating.

To building, hotel, or hospital managers who want a *quality* air conditioning system of any type ... plus reliably G-E equipment and economical installation -- there's a General Electric representative near you. Call him today. *General Electric Company, Air Conditioning Dept., Section AT3910, Bloomfield, New Jersey.*



GENERAL  ELECTRIC

Better Air Conditioning

You Can Always Make More Electrons, Right?



The Problem is Clear



Design Programs for Customer Performance



Goals and Feedback



Processes,
People,
Tools, and
Interfaces



Your New Electricity Rate
Your Energy. Your Way.

Ask Ben

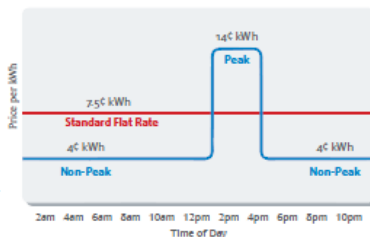
Q: Are ComEd's electricity costs the same during summer and non-summer months?
A: No, summer costs are slightly higher than non-summer, due to increased costs to produce electricity.

Your New Rate: Shift-and-Save

Shift-and-Save Pricing has two rates: peak (higher price) and non-peak (lower price). Manage electricity costs by shifting usage to lower-price hours. Conserve electricity during higher price hours. On weekends, ComEd charges you the non-peak price.

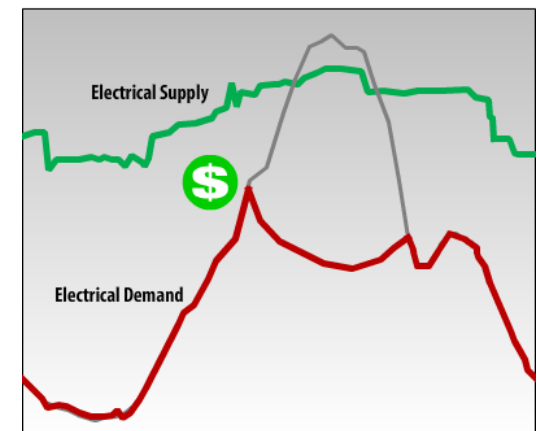
With this new rate, your electricity costs over one year may increase, decrease, or stay the same. It will take four seasons (12 months) to determine whether Shift-and-Save Pricing can reduce your electricity costs.

It's up to you.



Prices are approximate. See ComEd's schedule of rates for prices related to your service and season.

Rewards
& Punishments

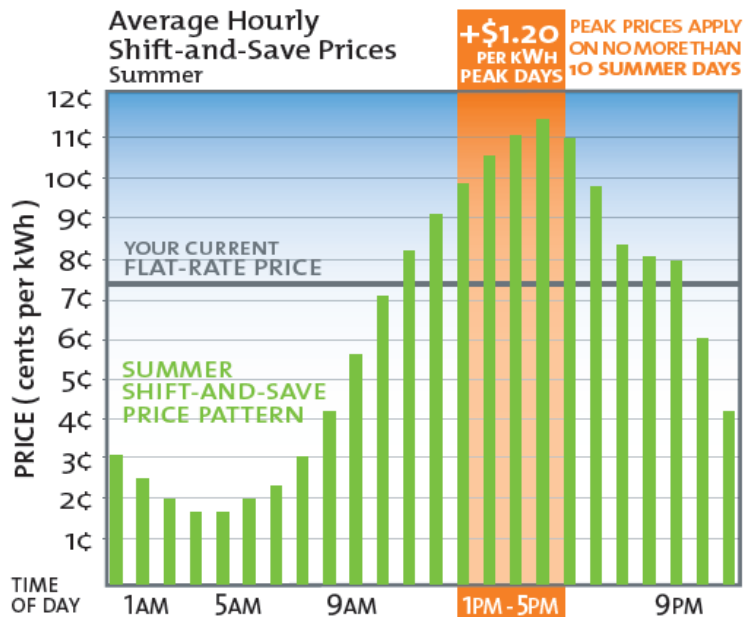


Customer Education

Customer Motivation

Fear **Imitation**
Pride **Gain**

Fear



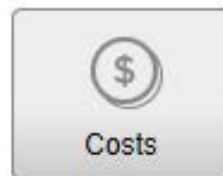
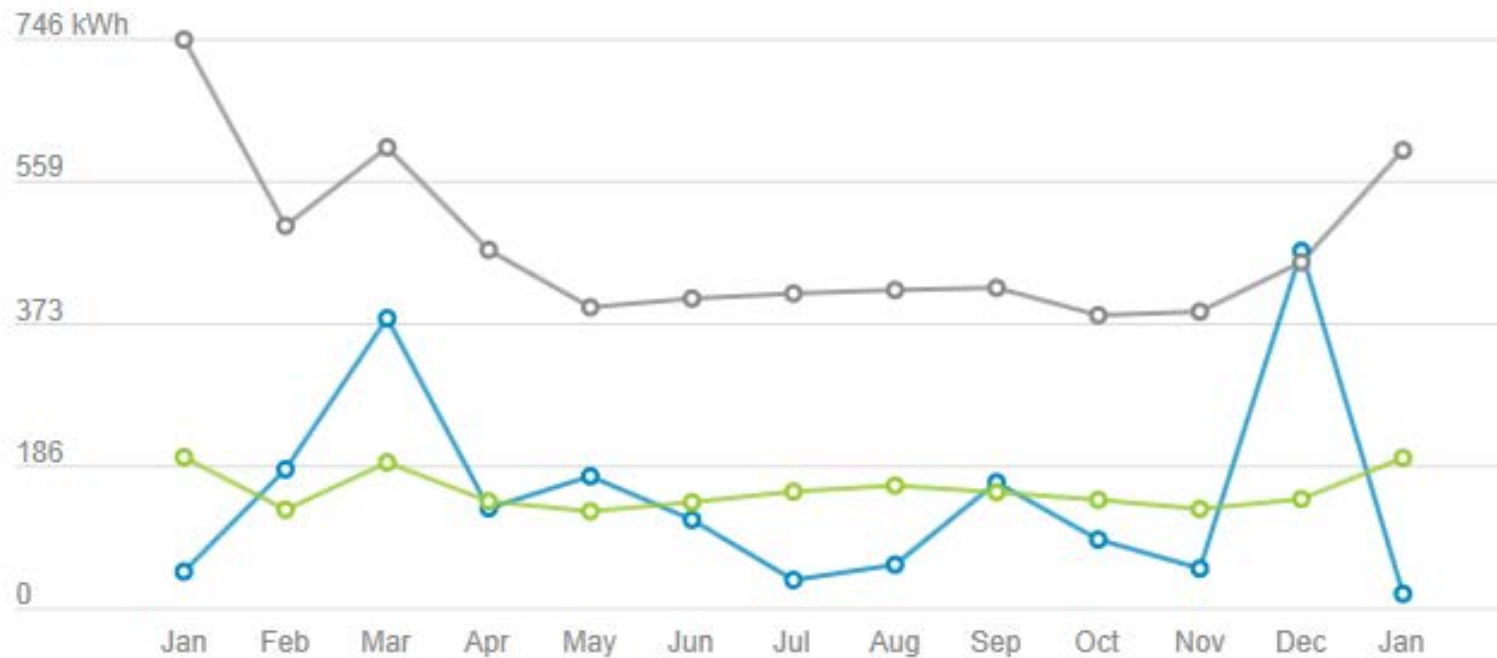
Cents per kWh for illustrative purposes only. Prices do not include distribution charges for the delivery of the electricity. Actual rates will vary.

A Critical Peak Price's motivational power comes from the fear it inspires – a 1,400% increase in the price of electricity!

Pride

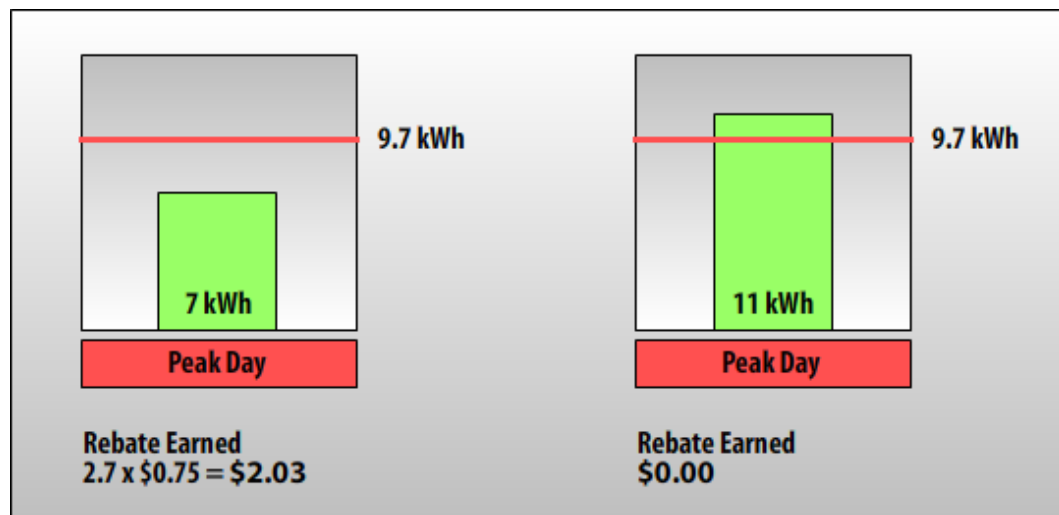


Imitation

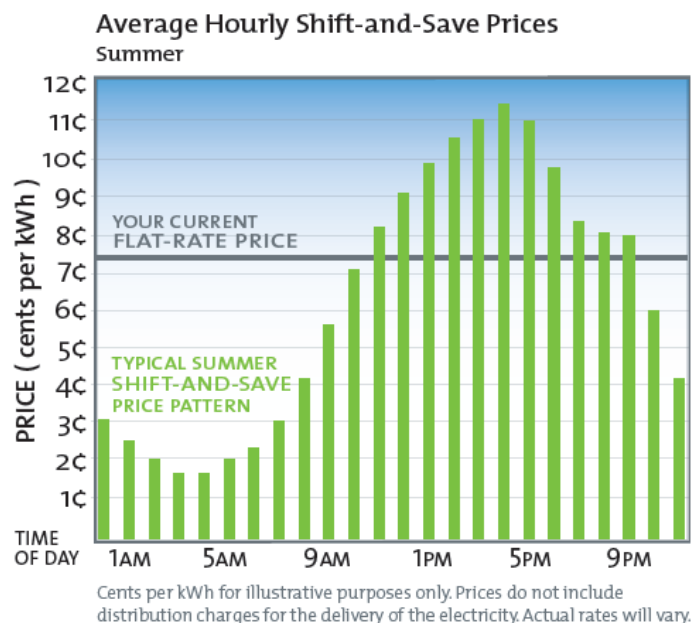


- You
 - All similar homes
 - Efficient similar homes
- [What homes are compared?](#)

Gain

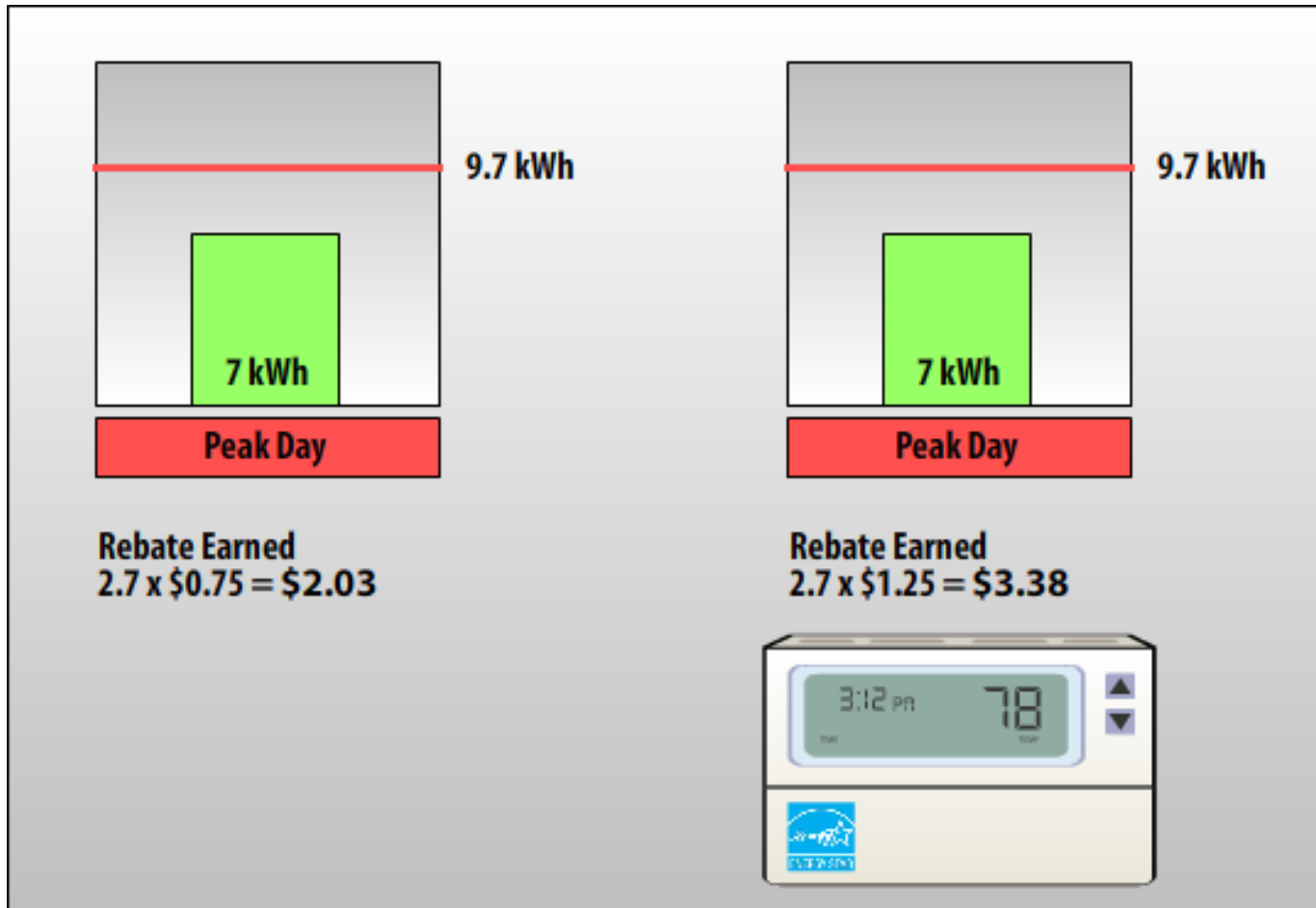


A Peak Time Rebate offers customers a reward when they use less electricity on a peak day.



An hourly rate enables customers to gain by shifting tasks to lower-cost time periods of the day.

Additional Gains Through Automation



Designing Programs That Are EZ4U



What Happens When Father Knows Best

This is the door to Grandma's house.



The road to Grandma's House.
Which way would you go?

This is how the designer wants grandchildren to get to Grandma's house.

Your Demand Response Programs Must Be Easy



This



Not This

A Bright Spot in Thailand

Civic Participation in Sub-National Governments in Thailand

By Charas Suwanmala

Faculty of Political Science, Chulalongkorn University

Bangkok, Thailand

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Agendas of civic forum meetings at the village level

Agenda 1: Understanding objective and roles of village civic forums for local planning and budgeting.

Agenda 2: Identify problems, needs, and strategies of development

2.1 Building up your positive thinking: Your choices-the future of your community.

2.2 Identifying community problems and needs

2.3 Classifying and prioritizing community problems and needs

2.4 Identifying possible intervention, strategic actions, projects and activities for community problem solving.

Agenda 3: conclusion and completing given forms.

We Call This “Customer-Centered Design”



Customer Goals, Tasks, and Requirements

Goal: Better Manage Electric Usage and Costs

Notify Customers

Task 1

Install Smart
Meters

Task 2

Activate Services

Task 3

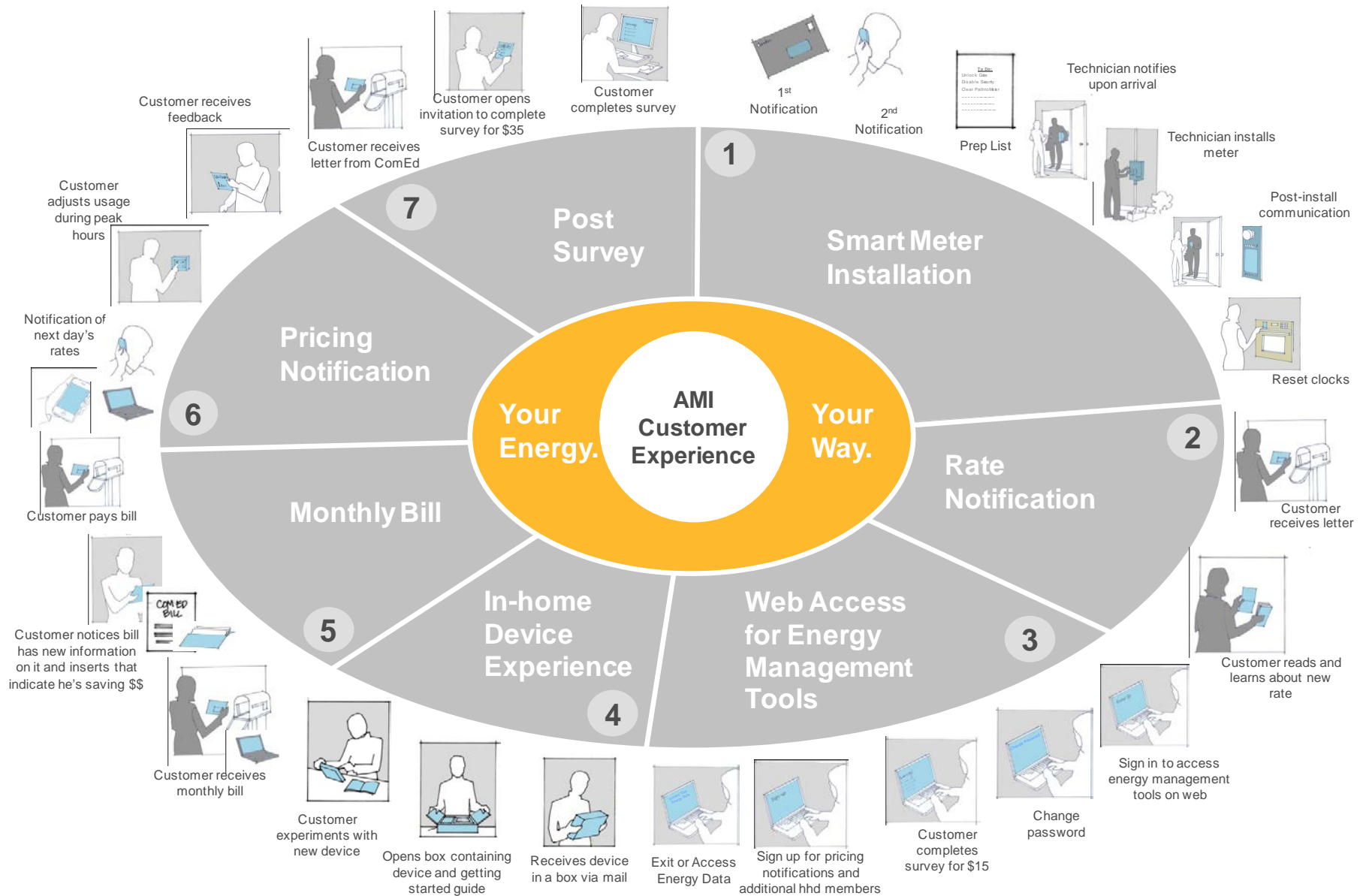
Key Requirements

- Increase the amount of information that informs customers about smart meters and the installation process.
- Increase the precision of notifications as to when meter installation for a particular residence will occur.

Enabling Requirements

- Company shall notify customers a minimum of three times prior to installation.
- Company shall notify customers of installation time one day before installation

A Customer-Centered Design



Enabling a Support Structure

National Action Plan on **Demand Response**

THE FEDERAL ENERGY REGULATORY
COMMISSION STAFF



June 17, 2010

Docket No. AD09-10

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Definitive Insights • Eastern Research Group

Key Strategies and Activities

Communications Program

- Develop a Communications Umbrella
- Partnership development

- Communication with, and technical assistance to, states and federal agencies
- Local implementation

Assistance to States

- Panel of demand response experts
- Demand response technical assistance program
- Demand response grant program

- Web-based clearinghouse
- Technical papers

Tools and Materials

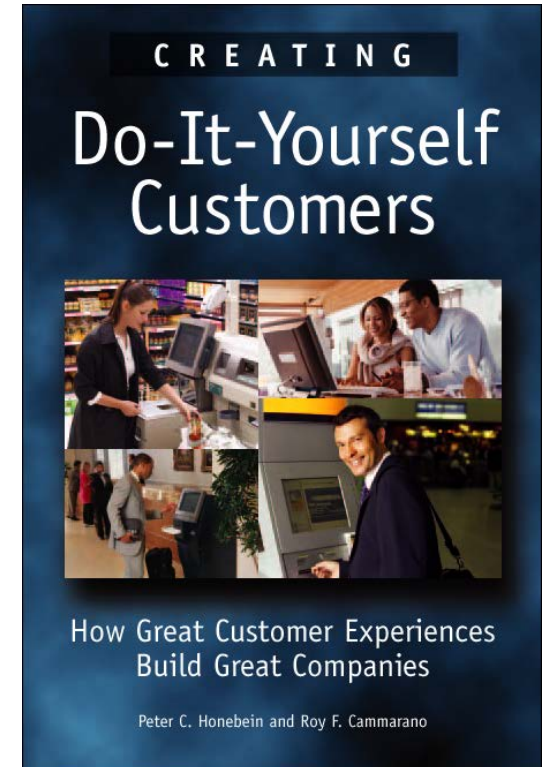
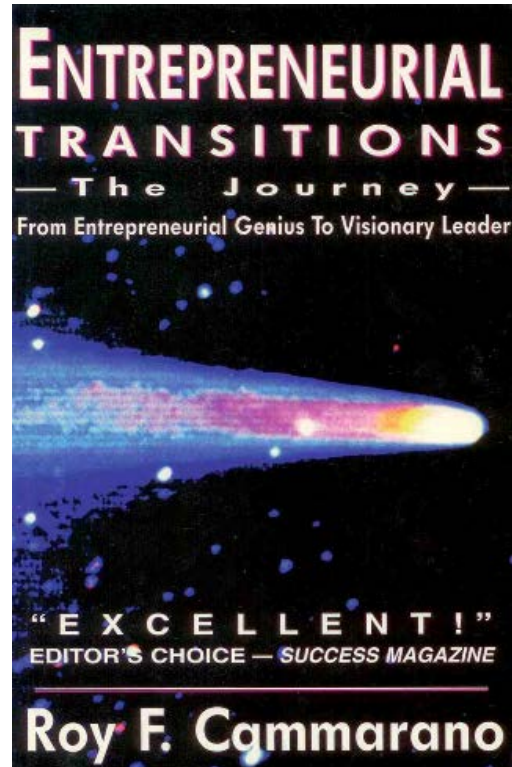
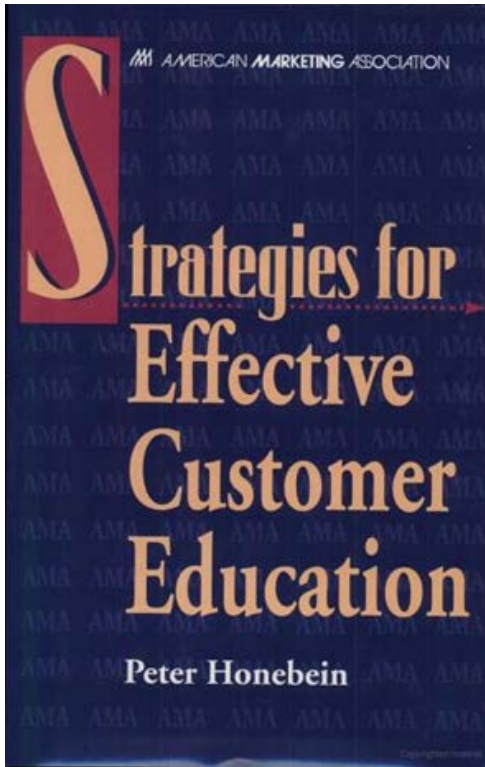
- Demand response estimation tools and methods

Find A Better Path With Your Customers



Credit: Kake Pugh

CPG's Thinking and Approaches



Additional Reading

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About Peter C. Honebein

Dr. Peter C. Honebein is an internationally-recognized expert on smart grid customer experience and is co-founder of the Customer Performance Group, a management and marketing strategy consulting firm. He is also an adjunct professor at the University of Nevada, Reno and Indiana University, where he teaches graduate and undergraduate classes in marketing, customer experience design, human performance technology, and instructional design.

As a designer and consultant, Dr. Honebein applies his vast knowledge of design, marketing, product development, and performance technology to solve novel problems related to human performance. He has created, marketed, and licensed commercial products, designed the system that tracked the cleanup of the Exxon Valdez oil spill, and consulted on the design, strategy, and launch of numerous innovations, products, and services, including the system that sequenced the human genome and smart metering systems for utilities such as SDG&E, ComEd, NV Energy, and Duquesne Light.

Dr. Honebein is the author of the books *Creating Do-It-Yourself Customers* and *Strategies for Effective Customer Education*, as well as numerous articles in such multidisciplinary publications as *The Electricity Journal*, *Metering International*, *Database Marketing & Customer Strategy Management*, *Marketing Management*, *Educational Technology*, and *Interactions*. He has also presented on topics related to the customer side of smart metering systems at numerous industry conferences.

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