Developing a Customer Value Driven Program Strategy

By
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Abstract

Utilities have been spending hundreds of millions of dollars over the last several years developing programs based on what they were (a) ordered to do by regulators or (b) what the utility felt would work or what the utility wanted to offer. In general these programs have not been successful in obtaining their market share and/or profitability goals. One of the primary reasons these programs were not "successful" is that they were not based on the **customer's value proposition.**

The focus of this paper is to illustrate methods for answering the question **"What type programs should our company be developing based on what customers value?"** and evaluating program market share and profit/return potential **before** the program is implemented. The approach described has been used many times by firms in competitive industries to "optimize" and refine the details of a specific program **prior** to spending vast sums on implementing programs that had very little chance of meeting goals. By using the methods described in this paper, your firm can

- estimate the program market share potential using a variety of program alternative features based on customer value, and
- maximize expected profit or margin dollars, and
- determine which customers are the best target markets, which will maximize early successes.

As firms who have used these methods know, the time and cost rewards of implementing successful programs and not implementing unsuccessful programs are potentially millions of dollars and saved careers.

Introduction

In the future, the ability to develop successful program strategies for new products and services will be critical to a utility's financial well-being. Characteristics of successful program strategies include their power to build customer retention and loyalty, their level of profit, their popularity within the target market (market share), and repeat sales.

Program strategies can be developed in two basic ways. The first, and more traditional approach, is to do what utilities have done in DSM, or perhaps their unregulated ventures, and that is to keep throwing products and services at the customer until something works. It is based on what utilities "want " to provide ("it is in our core business,") or what utilities think customers "want." It is very internally focused. This approach leaves program development exposed to serious and continuing risk of failure – in terms of successful program development and in terms of credibility.

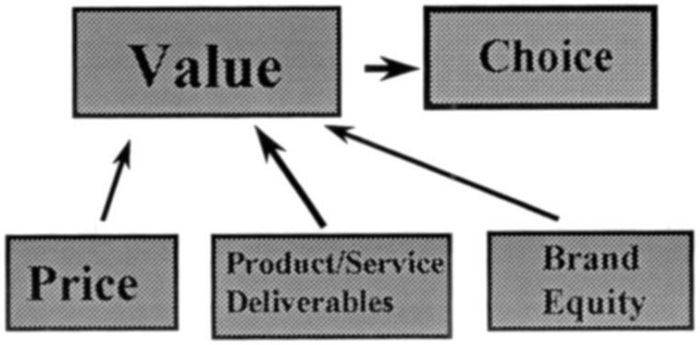
The second approach is to discover what customers value and thus are willing to pay for. This process is very external, i.e., customer focused. This approach has a greater probability of success because it is based on actual customer values. This approach however, does require an understanding of the customer's value proposition.

A customer's value proposition is that combination of price, brand, and product (or service) attributes that will result in a purchase decision (or choice) for one alternative over other competing alternatives (i.e. it is based on "choices"). Note, the program strategy evaluation approach discussed here generally will NOT yield the same results as one based on information from questions that ask (and even rank) what customers "want", "need", or have "high interest in." These questions describe what customers "want", "need", or have "interest in," **not** what they value when forced to "trade-off" other things or make tough choices.

Using the concept of **Customer Value Modeling**[1] to develop marketing strategy is not new. Several authors like Bradley Gale in ***Managing Customer Value***[2] and Frederick Reichheld in ***The Loyalty Effect***[3] have suggested this approach. This approach works because as they point out, true **customer choice** is based on the **customer's value proposition**. To illustrate, consider the following diagram showing the components of value.

In this diagram, a customer's value proposition has three primary components. They are: Price,

Value Proposition Model



If customers perceive service and brand parity among competitors, price will become the dominant issue.

Product/Service attributes (or characteristics), and Brand.

- **Price.** The price is defined as the total price paid for the "bundled" offering, not just the initial purchase price but the additional costs such as setup and delivery, and operating costs. Thus "price" as this paper will use it is the total or long-term price.
- **Product/service attributes.** This can be the attribute of a specific product or service or it can be a "bundle" of services or products that have been combined to evaluate an overall program strategy. This "bundle" may include varying types and levels of service and product offerings, as this paper will illustrate.
- **Brand equity.** Brand equity is the customer's perception or "value" of a company as a supplier/provider and is NOT the "value" of their product or service offering. The "value" of a company as a supplier/provider is based on (a) their image of the company or it's reputation, (b) their perception and experience of how well the company does the "basics" of providing products and service now, and (c) their perception and experience of how good a job it will do when creating this "new" service or product.

Each customer has a different weighting for each of these three components, but when combined, these weightings equal the relative value the customer places on any particular product or service offering, at a specified price, from a specified supplier (Brand), when compared to an alternative. To illustrate the concept and the three components, assume that the three components have been scaled to add to 100%. See the Table 1[4] below for an example of the value that customers place on each of the three components. Note an expanded version of the Product/Service Deliverables component is featured in Table 2.

Table 1[4]

Major Component	**% Ranges** Low	High
Price	6%	20%
Brand	4%	10%
Product/Service Deliverables*	90%	70%
Total	100%	100%

* The sum of VALUE for all product /service attributes/benefits. See Table 2 for more details on individual product/service attribute values.

Developing a Value-based Program Strategy

Value-based strategies are predicated on the availability of sophisticated customer information. This type of information generally requires research data developed using a form of conjoint analysis. If this type of information is **not available** in your organization, **please skip to Step Three (3) of this paper.**

There are a number of steps involved in the development of a value-based program strategy. The steps are:

1. If prior Customer Value Proposition information is available, choose a general type program based on where CUSTOMERS place high VALUE
2. If prior Customer Value Proposition information is available, estimate a "first-cut" overall market size and "approximate" price.
3. Collect new **program specific** customer choice data and fine tune program features and target markets using conjoint and discrete choice methods.
4. From steps #1 - #3, determine if the approximate costs and required profit levels meet expectations. If they do, the strategy is complete. If not, the results from step #3 along with costs and expected profit margin goals must be reviewed and alternatives evaluated. Once the program's estimated return meets internal company requirements, the strategy is complete and you can begin the tactics of implementing the program.

Step 1 - Choose a general program type based on customer values

Since our purpose in this step is to determine the general type of program to offer that has the highest Value for the attributes that make up the Product/Service Deliverables component of the customer's total value proposition as shown in Table 1. The following table illustrates ranges of value customers attach to the general categories of Product/Service Deliverables and the attributes of each category.

In Table 2, which is based on actual customer data, it is clear that customers place greatest value in the category of having reliable, quality service (25% - 50%) and in receiving specific types of "new" products/services that also improve their overall service quality and help them control costs (15% - 35%). It should be noted that research done by Energy Market Solutions shows that customers do not care whether the improvement is on "their side" of the meter, or on the utility system's side, and that they are interested in "controlling" costs, not necessarily lowering them. Customers are interested in solutions that improve their operations and help them manage costs.

Table 2[4]

General Category	Components	High Range	Low Range
Service Response		**8% - 12%**	**6% - 10%**
	Timely Resolution		
	Initial Response		
	Connected to the Right Person		
Meets My Information Needs		**8% - 12%**	**6% - 10%**
	Customer Service. Center Hours		
	Accuracy of Information		
	Having an Assigned Service Rep.		
Provides Reliable Service		**30% - 50%**	**25% - 45%**
	Frequency of Voltage Variations		
	Duration of "Long" Outages		
	Frequency of "Long" Outages		
	Frequency of "Short" Outages		
Provides New Products/Services		**25% - 35%**	**15% - 25%**
	Marketer/Brokerage		
	Green Power		
	Rate Analysis & Cost Management		
	Service/Maintenance Programs		
	Power Outage Reduction Consulting		
	Typical Totals	**80% - 90%**	**60% - 70%**

The above table shows that there are two promising categories on which to focus program development. For illustration purposes, this paper will focus on the "Provides new Products/Services" category. It will be assumed that one of the products or services your company is considering offering is renewable energy or green power.

The key **program strategy question** thus is whether or not to offer (1) any renewable energy service or product, (2) a "token" amount of renewable energy or "limited first-come" service, or (3) a "full" offering to all customers with a "significant amount" of renewable energy.

Step 2 – Estimate the "First-Cut" Market Share & "Approximate" Price based on customer values

Our objective in this step is to illustrate how you would go about estimating market share and approximate initial price for a renewable energy service or product from prior data collected from customers.

Assume you have prior "Baseline" Value data and wish to evaluate (a) a base case where customers are not willing to pay any premium for renewable energy versus (b) two alternative scenarios where they would pay a premium as shown in Table 3. It is assumed that offering renewable energy must have some price premium so the options are:

1. "limited" service at price premiums 1, 2, or 3
2. "full" service at price premiums 1, 2, or 3

Table 3[4]

% Overall Market who prefer the indicated level of Renewable energy service at the indicated price premiums

Type Service	Price Premium 1	Price Premium 2	Price Premium 3
"Limited" option	18%	14%	2%
"Full" option	3%	1%	0.2%

Since the total number of customers AND the approximate net return from each of the price premiums will be known, it can be determined if offering the "Limited" service at price premium 2 is the scenario that provides the **Greatest Total $ of Return** to your company. This is the scenario to be evaluated in more detail in Step 3.

Clearly the above type information would help determine the "first-cut" market share, but how do you get this type information? The table below illustrates how the analysis is done for each scenario, for each respondent. Note that it is possible to "calculate" the highest "value" for each respondent for a given scenario.

This example[4] illustrates how VALUE can be calculated and CHOICE determined for a customer that is evaluating two scenarios. Note, (1) Scenario A and Scenario B have all attributes at the same level except for price and the type renewable energy service offered, and (2) different price premium vs. amount scenarios can be similarly compared.

Scenario A: No Renewable Energy Service Available & Price is the Current Price
Scenario B: "Limited" Renewable Energy Service at a 10% Price Premium

Table 4[4]

Example calculation for one Customer			How VALUES are Calculated			How Choices are Made	
Attribute	Level	Level Description	Conjoint Coef.	Diff Hi-Lo	Value Pct	Value of Scenario A	Value of Scenario B
1) Nuisance Outage Freq.	1	Once a week or more	-1.35				
of my power	2	Once a month	0.04			0.04	0.04
	3	Once a quarter or less	1.44	2.79	13.9		
2) Long Outage Frequency	1	Once a week or more	-1.38				
of my power	2	Once a month	0.05				
	3	Once a quarter or less	1.48	2.86	14.3	1.48	1.48
3) Voltage Variations	1	Occurrence is daily	-0.82				
in my power	2	Occurrence is one a week	-0.6			-0.6	-0.6
	3	Occurrence is twice a month	0.02				
	4	Occurrence is once a month or less	1.54	2.36	11.8		
4) Power Reliability Consulting	1	Consulting Services Available	2.28				
optional service	2	Consulting Services Not Available	-0.5	2.78	13.9	-1.95	-1.95
5) Renewable Energy	1	"Full or Significant" amount of usage	2.85				
optional service	2	"Limited or small" amount of usage	-0.54				-0.54
	3	Not available	-1.12	3.97	19.8	-1.12	
6) Resolution Timeliness	1	Always resolved in timely manner	1.28				
of requests to my utility	2	Usually resolved in timely manner	-0.22			-0.22	-0.22
	3	Occasionally resolved in timely manner	-0.95	2.23	11.1		
7) Total Price	1	20% less	1.54				
	2	10% less	1.0				
	3	same	-0.5			-0.5	
	4	5% more	-1.2				
	5	10% more	-1.5	3.04	15.2		-1.5
				20.03	100.0	-2.87	-3.29
						This customer would choose Scenario A over Scenario B.	

Note in this example:

1. There are a total of 7 attributes. The effect of another supplier could also have been analyzed if a "Brand" had been added.
2. Attributes are shown for several levels of "Basic" service (see attributes 1, 2, 3, & 6). If desired, these attributes could also be varied to determine the incremental added effect of offering renewable energy services (attribute 5).
3. Attribute 4 is shown as another possible "new" service. If desired, offering this service with renewable energy could also be evaluated.

Step 3 – Fine-tune the product features using conjoint and discrete choice methods

Whether or not prior data is available on a "first-cut" of market share and the most attractive scenarios, it is now necessary to determine more details about possible program design features. This additional information is needed to evaluate whether or not the estimated program return can meet internal requirements.

In order to do this, new data collection is required and a two-fold analysis is recommended. The purpose of the first portion of the analysis will be to understand how customers value different characteristics of a renewable energy program. The purpose of the second will be to determine what percentage of total electricity the utility can expect customers to purchase from a Renewable Energy Program, and what percentage of customers are likely to participate, given certain offerings and prices.

How customers value renewable energy program characteristics

Conjoint analysis will be used to understand how customers value the different characteristics of a renewable energy program, and how the program can be optimized based on this knowledge. The specific objectives from this part of the analysis are to:

- determine the relative importance of each of the factors which affect customers' decisions in considering renewable power (e.g., type of renewable power);
- identify the preferred levels of all the factors (e.g., solar photovoltaic); and
- identify demographic profiles, as well as segments, based on customers' values, towards renewable energy sources.

The following list shows the initial items to be included in the analysis.

Factor	Levels
Potential renewable sources	Landfill gas Solar photovoltaic Biomass Oceanic currents
Price	0% premium 10% premium 20% premium 30% premium
Contract	Required Not required
Funding	Flat monthly payment Donations Monthly payment for kWh blocks Pay per use (% of renewable power)
Visibility	Centralized, not visible Centralized, local and visible Decentralized
Percent of renewable mix	<10% 10 – 24% 25%+

The output from the conjoint analysis can be shown in charts that graphically indicate both the relative importances of each of the factors, as well as the importance of the levels within each factor. These charts can be done in total as well for different demographic/firmographic profiles. In addition, respondents' scores from the conjoint would be used in a cluster analysis to form segments. These segments would be based on respondents' **behavioral values** toward renewable power. These segments would be very useful in developing specific marketing program strategy designed to meet the needs of each of these different market segments.

Total market demand

The second part of the analysis is to determine what percentage of total electricity the utility can expect customers to purchase from a renewable energy program given certain offerings and prices. To effectively determine expected market share, discrete choice type analysis will be used. Discrete choice specifically deals with whether or not a customer would select renewable power and what impact price has on their choice. Following are the specific objectives that discrete choice analysis will answer:

- determine whether customers would be willing to voluntarily increase their electricity cost and purchase a portion of their electricity generated from renewable energy resources;
- estimate potential market share for different percentages of renewable power; and
- determine the impact of price on participation.

In order to keep sample sizes to an affordable price range, discrete choice usually only deals with a few key factors. It would include a renewable power alternative at varying prices along with an option not to select any renewable power. Also included in the renewable power alternative would be a percentage of the electric power that the customer would accept, at a particular price, from a renewable energy source.

Percentage Increase for Renewable Power	**Percentage of Electric Bill Which Would Come From Renewable Power**
0%	
10%	
20%	
30%	
40%	
50%	

"Value-based trade-off" information can also be used to identify **the best target customers.** To do this in our renewable energy example, simply calculate the percentage of customers who prefer the scenario identified as the most attractive by segment, and compare it to the % of the population in each segment. The segments with the highest percentage who prefer the most attractive alternative would then become the target customers. See Table 5[4] for an example.

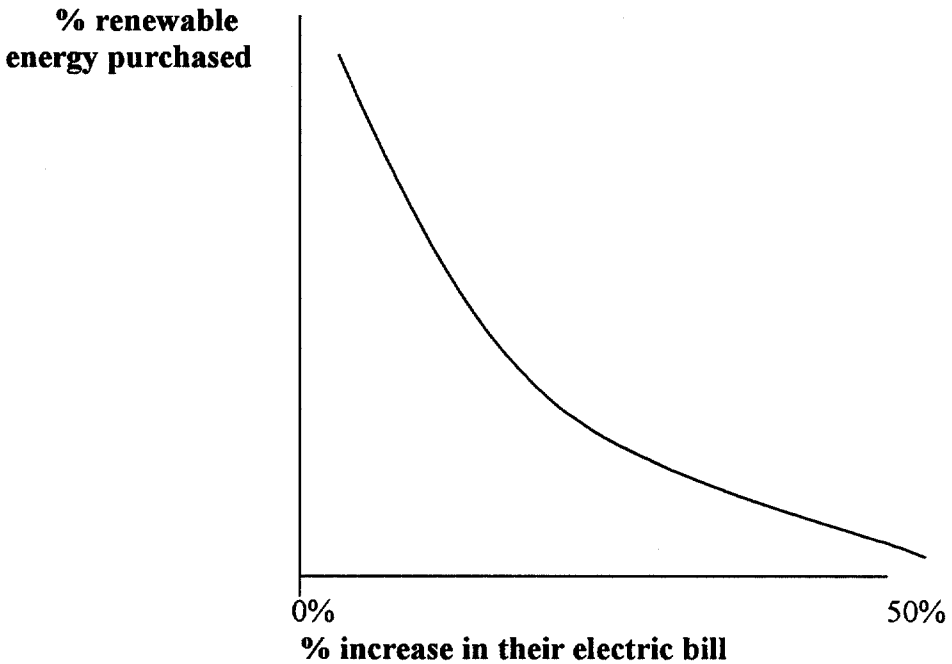
Table 5[4]

% of customers by Segment who prefer the "Limited" Option @ price Premium 2 & The % of the Population in each segment

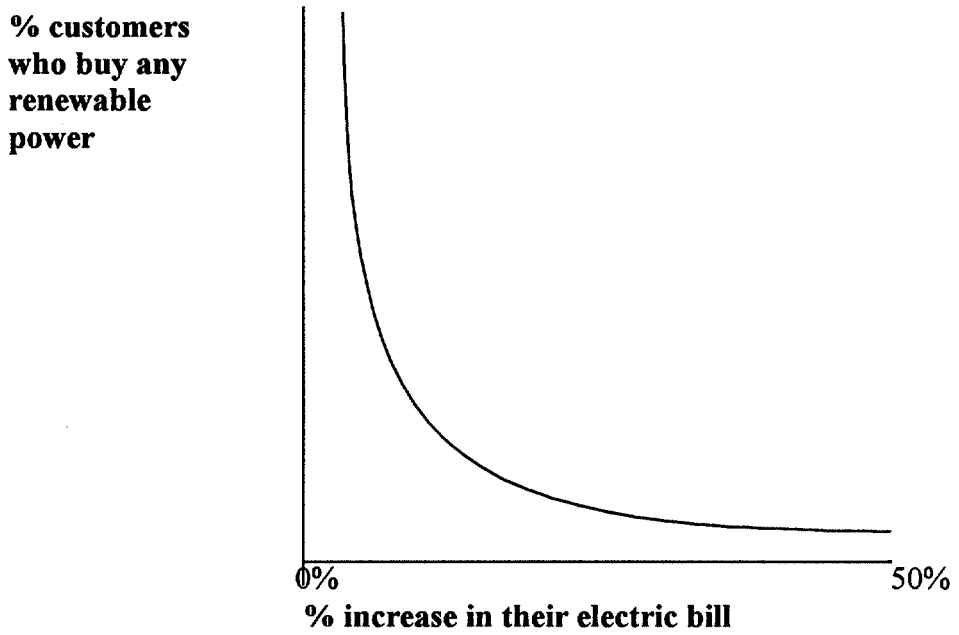
	Seg. 1	Seg. 2	Seg. 3	Seg. 4	Seg. 5	Seg. 6	Seg. 7	Totals
% of those who prefer by Segment	5%	10%	0.5%	55%	0.5%	10%	20%	100%
% of Total Population who prefer by Segment	2%	4%	3%	8%	2%	4%	1%	24%

The choice task part of the survey would collect the following information:

- the percentage of renewable power the customers would be willing to accept at different percentage increases to their total electric bill:



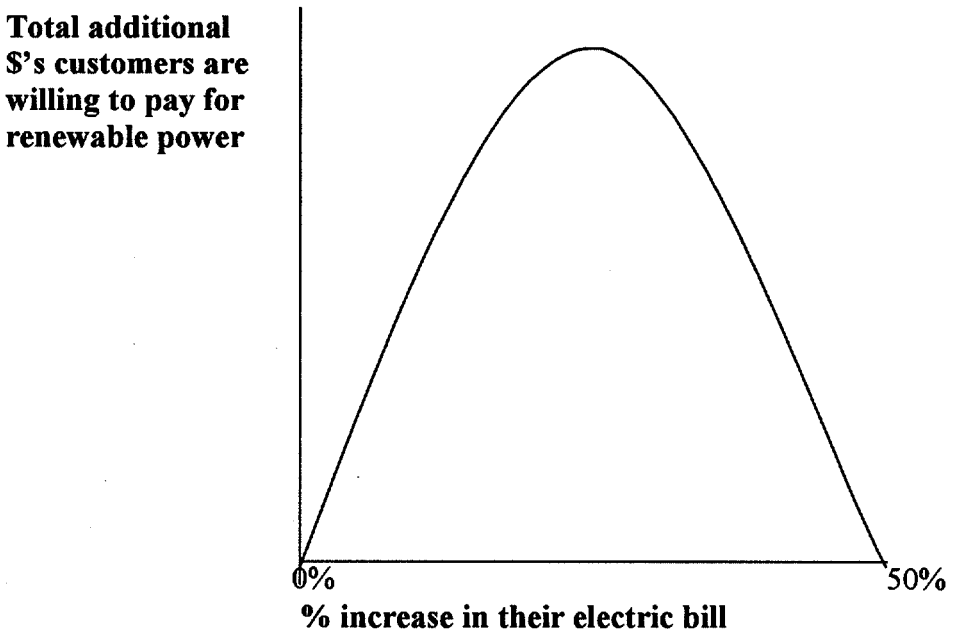
- the number of customers willing to purchase any renewable power at different percentage increases to their total electric bill; and



Step 4 – Determine if expected Revenue and Return levels meet expectations

The total additional dollars customers are willing to pay at different percentage increases to their total electric bill can be developed from this information as shown.

These charts would be done in total, for different respondent profiles, and for the segments which were developed from the conjoint data. These revenues can then be compared with estimated cost to develop a total "net return" curve. Remember when this information is collected, it is important to be able to tie the responses to energy data in order to estimate the amount of renewable energy for which costs are being developed.



By using the above type information along with cost information, one can easily see how a "GO/NO GO" decision can be made, target markets identified, and market share estimated. At this point, the program strategy is complete.

Summary

Understanding your **Customer's Value Proposition** will increase your program's success by helping you **increase "take rates"**, and **get the best/highest total net return.**

The techniques described briefly in this paper are extremely powerful and have been utilized for years to help non-utility firms understand the drivers of **customer loyalty, customer choice** and to build **brand equity.**

These same techniques can be used effectively in utilities even if your company is not now facing customer choice. Utility programs where these techniques have been effectively used to "optimize" the program strategy and design include Outdoor Lighting, Service/Appliance Maintenance, Energy Management Services, Back-Up Generation, even Interruptible Rate Designs.

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[1] SDR, Inc. who is one of the leading firms specializing in the application of advanced modeling and analysis techniques to marketing information developed the Value model shown. Their offices are in Atlanta. Their primary clients are non-utility management and marketing consulting firms and market research companies.

[2] Bradley T. Gale, Managing Customer Value, The Free Press, 1994

[3] Frederick F. Reichheld, The Loyalty Effect, Harvard Business School Press, 1996

[4] The data in this table is based on actual utility Residential and C&I customer results from several studies conducted by Energy Market Solutions in 1997-1998. The source of the data is confidential and is used only for illustration.

Richard A. Wight - President - Energy Market Solutions

Energy Market Solutions (EMS) provides consulting services to gas and electric utilities in the areas of marketing, marketing research, program evaluation, and load research. Mr. Wight's most recent projects have involved directing research in the areas of: commercial and industrial customer expectations from de-regulation; determining the level of, and drivers of customer loyalty; implementing behavior-based market segmentation methods, identifying key corporate work culture factors; analyzing trade ally relationships; and, developing utility-focused market research training.

For the last several years, EMS's consulting practice has centered on: strategic positioning of utilities for competition (especially in commercial and industrial markets); managing customer satisfaction and loyalty in utilities; pricing for unbundled services; increasing brand equity and value; and market segmentation for utilities in competitive markets.

Prior to becoming President of EMS, Mr. Wight was a Vice President of A&C Enercom where he managed the direction and development of the company's Market Research, Market Planning, Program Design, Program Evaluation, Market Monitoring, and Rate/Price consulting functions.

Mr. Wight has over 30 years of utility management and consulting experience in distribution engineering, field operations, rate design, load research, marketing research, market planning, program development, and program evaluation. He chairs the curriculum committee for the EEI/EPRI sponsored course: "Managing The Marketing Research Process in a Deregulated Environment." at the University of Texas-Arlington, recently served as chair of the 1997 AMA/EEI/EPRI Electric Utility Customer Research Conference planning committee and as a faculty member of the EEI Electric Rates Advanced Course at Indiana University. His prior industry association experience includes chairing the Training & Professional Development subcommittee of the Association of Energy Services Professionals (AESP), serving on the faculty of the EEI Utility Rate Fundamentals Course at Indiana University, three years as a member of the Electric Utility Customer Research Council (EUMRC), serving as a faculty member of EEI Electric Utility Market Research Course at the University of Georgia, and serving on the faculty of the Georgia Tech Load Research Sampling Methods & Statistical Analysis Course.

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