WHAT TEXANS WANT FROM THEIR ELECTRIC UTILITY

Mike Sloan
Virtus Energy Research Associates, Inc.
906 ½ Congress Avenue
Austin, TX 78701
(sloan@vera.com)

Gillan A. Taddune
Senior Economist
Public Utility Commission of Texas
Austin, TX 78711-3326
(gillan.taddune@puc.state.tx.us)

ABSTRACT

By the summer of 1999, nearly $200 million worth of new renewable energy projects will be installed in Texas. This surge in activity can be traced, more than any other factor, to recognition by utility decision makers that Texas' customers undeniably favor renewable energy resources over conventional resources. This conclusion surfaced from the public input requirements of Integrated Resource Planning (IRP). The eight largest investor-owned utilities in Texas have each used the Deliberative Polling™ process to ascertain what their customers want. While the various utilities represent a diverse cross section of Texans, the poll results produce strikingly consistent trends that provide a consistent and powerful public endorsement for clean energy from renewable resources and energy efficiency.

1. INTRODUCTION

In 1996, The Public Utility Commission of Texas (PUCT) adopted rules setting forth the procedural requirements for utilities planning to construct or acquire new resources. All utilities subject to the IRP filing requirement must begin the IRP process with a public consultation event, provide a description of the event, and demonstrate that the views and preferences of its customers were considered in preparing the preliminary IRP. All the major investor-owned utilities in Texas opted to obtain customer input by conducting a Deliberative Poll.™[1] This type of public participation process differs from simple surveys in that it seeks informed opinions on certain issues. In the context of IRP, customer opinions are sought primarily on utility resource planning issues such as: resource options for meeting future need; willingness to pay for various resources; environmental, reliability, and quality of service considerations; and new products and services.

Utilities have responded to the extraordinary customer support for clean energy by incorporating low cost renewables into their resource acquisition plans. Due largely to the "willingness to pay" information extracted from these polls, utilities and their regulators have taken a keen interest in "green pricing", culminating in the adoption of statewide standards for renewable energy tariffs by the PUCT. The preferences of Texans embodied by these poll results are also expected to help shape electric utility restructuring, which is currently ongoing in the state

2. PUBLIC PARTICIPATION AND IRP

Public participation—considered tedious, unnecessary, and costly by some while invaluable, unprecedented, and essential by others—has remained an integral part of the electric planning process. Perhaps the most unconventional characteristic of the process is the *democratic element* it infuses into an industry comprised of monopoly service providers—an industry where residential customer views and preferences concerning resource planning matters have been, for the most part, either assumed or ignored.

Why is public input required by the PUCT and what type of information does it seek to provide? According to PUCT Substantive Rules, public participation assists in the transition to a more competitive marketplace by aligning the interests of electric utilities more closely with those of its customers. From a customer's perspective, public participation enables them to provide non-technical guidance to their utilities with respect to resource planning matters and can help foster the development of new resources, products and services. From a utility perspective, customer opinion, when analyzed collectively, can help create a resource plan that achieves the requirements of

[1] These utilities are: Central Power and Light Company, El Paso Electric Company, Entergy Gulf States, Houston Lighting & Power Company, Southwestern Electric Power Company, Southwestern Public Service Company, Texas Utilities Electric Company, and West Texas Utilities.

lowest reasonable system cost as precisely defined in the PUCT's IRP rules.[2]

Specifically, the PUCT rules require that utilities consider the views of their customers in determining:

- The resource selection criteria and specific weights to be applied in the utility's resource solicitation, if a solicitation is to be conducted;
- The ongoing strategies of the utility to achieve the lowest reasonable system cost;
- Whether targeted bidding may be justified in order to obtain an appropriate and reliable mix of resources;
- An appropriate resource mix for the electric utility; and
- Limits, including upper bounds of costs and capacity, relating to an ongoing demand-side resource solicitation.

2.1 Deliberative Polling™

Deliberative Polling™ was developed by Professor James Fishkin of The University of Texas at Austin. This polling process differs from others in that it samples informed or educated opinions of certain issues. In the context of utility resource planning, opinions are mainly sought regarding resource preferences to meet generation needs.

The Central and South West Corporation (CSW) was the first company to conduct a Deliberative Poll™ to fulfill the public participation requirement of its IRP. The PUCT set a regulatory precedent by approving this type of public input process. This action is most likely the reason why all other investor-owned utilities subsequently have chosen to conduct Deliberative Polls™. What are the characteristics inherent in Deliberative Polling™ that would lend themselves to PUCT approval? It is presumably because the methodology utilized in these polls:

- Encourages active participation of customers via discussions carried out in small group sessions that are facilitated by neutral, independent moderators;
- Enables participants to address specific questions to a panel of experts in a large group setting;
- Ensures that the sample of customers polled is randomly selected, statistically valid, and demographically representative of the utility's service area; and
- Utilizes informational materials developed by an independent advisory board that is comprised of individuals representing diverse interests.

2.2 Deliberative Polling™ Methodology in an IRP Context

Participant Selection: Participants are chosen randomly and are initially surveyed without having the opportunity to educate themselves on electric resource planning issues. The random selection of participants helps to ensure that the survey results are unbiased and reflect the true preferences of customers within a utility's service territory. Prior to a scheduled workshop, participants are given educational materials and are encouraged to spend time learning about their utility and the IRP process.

Educational Materials: Educational materials include information such as:

- A description of the utility, number of customers it serves, customer types and rates;
- A description of the utility's current generating system;
- The distinction between supply-side and demand-side resources;
- A description of resource types available to meet generation requirements including the associated cost, reliability, risk, and environmental impact of each resource; and
- A description of the utility's future need for new resources.

The educational materials are developed by an advisory group comprised of representatives from diverse stakeholder groups such as environmental; low income; and residential, industrial, and commercial customer interests. It is the advisory group's responsibility to ensure that the materials distributed to customers present information that is unbiased and well balanced.

The Town Meeting: Participants arrive at a specific location, such as a college campus or convention hotel, and are prepared to spend up to two full days discussing electric resource planning issues. Most utilities have referred to this event as a town meeting. The utility covers all event expenses and generally provides a stipend of about $200 to each participant. Once assembled, participants are divided into groups of 12-15 customers. Discussions are facilitated by a neutral moderator who is not an authority on any of the issues. The moderator is present to facilitate conversation in the group but is not allowed to provide any information other than that offered in the educational materials. The

[2] PUC Subst. R. 25.161(f) requires that, in determining the lowest reasonable system cost of an electric utility's plan, the commission shall consider in addition to direct costs: (1) the effect on the rates and bills of various types of customers, (2) minimization of the risks of future fuel costs and regulations, (3) the appropriateness and reliability of the mix of resources; an appropriate and reliable mix of resources may include a portfolio of cost-effective sources of power including but not limited to resources that are fueled and non-fueled, such as renewable resources and conservation measures and a mixture of long-term and short-term contracts, and (4) the costs of compliance with the environmental protection requirements of all applicable state and federal laws, rules, and orders.

purpose of the small group discussion is to provide an unbiased forum for customers to actively discuss the issues among themselves, ask and answer questions, and formulate opinions on the topic at hand.

Each small group session is followed by a large group session in which all customers gather to pose questions to a panel of experts. Each small group has one or more of its members ask at least two questions to the panel of experts. These questions are usually broad and require both factual and policy elements in response. For example, customers in each poll have generally asked a question along the lines of, "Why doesn't the utility use more wind and solar power?". A moderator ensures that the answer is adequately answered from a spectrum of expert perspectives. For instance, the question posed above may prompt responses from the utility, renewables, coal, and environmental experts. This forum enables all participants to be exposed to a diverse range of questions and to hear differing responses from various panel members.

Each small and large group session is focused on a single topic. For example, one session may be dedicated to supply-side options available to meet future resource needs, while another may focus on those options related to demand-side management (DSM) and energy efficiency.

After the town meeting is over, customers fill out a survey, the results of which are filed at the PUCT with a utility's resource plan. It is important to note that it is the views of residential customers that are being sought in this process.

2.3 Other Forms of Public Participation

The PUCT does not require that utilities conduct Deliberative Polls™ to fulfill the public participation requirement of an IRP. The IRP rules relating to public participation are designed to allow utilities the flexibility to create a program that best meets its needs and the needs of its customers. For example, two wholesale cooperatives have conducted their own polls that were designed to encourage the active participation of their customers, but were not as extensive or rigorous as the Deliberative Polling process. The results of these two polls will not be filed at the PUCT until July, 1999.

3. DELIBERATIVE POLL™ RESULTS

Perhaps the most striking result of the customer polls conducted to date is the consistently strong support from Texans for nonpolluting renewable energy resources and energy efficiency. The basic results in all eight cases are that customers: (1) prefer end-use efficiency and renewable resources over conventional power, (2) want a mix of resources, which includes renewables, (3) overwhelmingly prefer long-term price stability and predictability, (4) are seriously concerned about global warming and air pollution, (5) are willing to pay more to receive clean electricity from renewables.

Results of the Deliberative Polls™ conducted by the eight largest investor-owned utilities in Texas are summarized in Table 1. While the polling surveys typically contained 30 or more questions, Table 1 focuses on 7 questions relevant to renewable energy. With 67% of the state's electric customers embodied in the results of these eight polls, it can be generalized that Texans want renewable energy and are willing to pay extra to ensure that these cleaner energy sources are added to the state's resource portfolio.

The remainder of this section highlights specific results (population-weighted averages) from the polls evaluated in aggregate.

3.1 Customer Preferences for Future Resources

All customers are directly asked about their preference for how their utility should meet its future energy needs. The question is usually phrased as follows: *Assuming the cost is the same, which of these four do you think your utility should pursue first? (a) providing customers with ways to save energy and thereby reduce the need for additional electric generation (reduce need) (b) generating electricity using fuels such as natural gas and coal (fossil fuel plant) (c) generating electricity using renewable technologies such as wind and solar power (renewables) (d) buying wholesale electric power from another company (buy and transport).* Aggregate results for all eight utilities are as follows:

First Choice Preference (assuming cost same):

49% prefer renewables (Solar, Wind, Biomass)
31% prefer reduce need (Energy Efficiency)
14% prefer fossil (Gas, Coal)
5% prefer to buy & transport from others

3.2 Planning Goals

The survey also attempts to assess the general values of a utility's customers so that they can be integrated into a utility's resource plan. The survey generally asks the following question pertaining to customer values: *Following is a list of items relating to energy. Please tell us how important you think each statement is to you, using a 0 to 10 scale, where 0 stands for not at all important, 10 stands for extremely important, and 5 stands for average importance? (a) to receive electricity at the lowest cost (b) to protect the environment from pollution created by electric*
generation (c) to be sure that there is enough electricity to

meet the needs now and in the future (d) to ensure that basic needs for electricity in all households are met (e) to ensure that there are as few outages as possible. Aggregate results for the 8 utilities are:

Important Planning Goals (scale of 0-10)

9.5	having enough electricity for the future
9.2	ensuring everyone's needs are met
9.0	minimizing electric outages
8.7	protecting the environment
8.2	achieving the lowest cost

All planning goals — based on the scores in the 8 and 9 range — are regarded by customers as being important. Additional results confirm that customers tend to take a long-term perspective and favor long-term solutions over short-term solutions. Unquestionably, Texas customers expect more from resource planning than merely to strive for the lowest possible cost.

3.3 Willingness To Pay More For Renewables

The range of resource options embodies substantial differences in characteristics such as cost, predictability and environmental impacts. Therefore, the survey requests willingness to pay information to gauge how customers value different resources. This information is later utilized by the utility to develop a resource portfolio that reflects the elements of lowest reasonable system cost. The question for renewables, simply stated, asks the following: *How much more, if anything, would you be willing to pay per month above your current bill for your utility to pursue electric generation using renewable technologies such as wind and solar power?* Aggregate results are:

Willingness to Pay More (median value stated)

$5.00	per month more for renewables
$2.00	per month more for efficiency
$0	more for coal, natural gas and purchase power.

3.4 How Should Utilities Invest in Renewables?

Utilities planning to offer renewable resources to its customers may do so by spreading the additional cost to all customers, or by offering a voluntary "green pricing" rate and subsequently charging only those customers who wish to pay more. In order to gauge customer opinion on this issue the following question is asked: *One way that the utility could invest in renewable resources such as wind and solar power, would be to spread the costs of such projects among all customers. Another way is to offer renewable energy programs that allow just those customers who want these resources to pay more for renewable energy. Do you feel that the utility should invest in renewable energy by: (a) spreading the cost to all customers (b) offering programs which only allocate costs to those who want renewable energy (c) both methods (d) should the utility not invest in renewable energy?* Aggregate results are

How should your utility invest in Renewables?

71%	prefer spreading costs (all or part)
21%	use voluntary methods only
2%	don't invest.

These results, statistically representative of two thirds of Texas electric ratepayers, are a compelling argument for including renewable energy purchases in base rates. In the context of electric utility restructuring, the results also provide good reason to include broad-based renewable energy incentives such as a renewable portfolio standard (RPS) or systems benefits charge (SBC) in restructuring legislation.

4. UTILITY AND REGULATORY RESPONSE TO CUSTOMER PREFERENCES

Central and South West Services (CSW), Reliant Energy-HL&P, El Paso Electric (EPE), and Southwestern Public Service Company (SPS) have all filed IRPs with the PUCT. CSW incorporated its customers' preferences for renewable resources by gaining PUCT approval to raise customers' rates by 25 cents per month to acquire 50-75 MW of renewable resources through a targeted solicitation. This effort culminated in development of a 75 MW wind farm in McCamey, Texas. The project is being developed by FPL Energy for CSW and it will have a much smaller impact on the average residential customer's bill than expected — only 4 cents more per month.

SPS and EPE both plan to conduct targeted solicitations for renewables during the summer of 1999. Both of these utilities are considerably smaller than CSW, yet both had very strong customer support for renewables. SPS intends to acquire 17 MW and EPE 10 MW.

Reliant Energy, HL&P's parent corporation, has filed an IRP that does not include acquisition of new renewable resources. This filing has been postponed by the PUCT until summer, 1999. In February, 1999, Reliant announced the acquisition of 22 MW of new wind power from a 30 MW project developed by American National Power in Van Horn, Texas. Additional renewable energy acquisitions may ultimately occur to satisfy the preferences expressed by HL&P's customers.

Customers' expressed willingness to pay more for renewables has convinced many utilities in Texas to ponder voluntary renewable energy programs. In October 1998, the PUCT adopted rule §25.251 relating to renewable energy tariffs, which establishes minimum program requirements for regulated utilities in Texas wishing to offer renewable energy to their customers on a voluntary basis. If a utility chooses to offer a "green pricing" option, participating customers may be charged a premium above their standard energy cost to cover allowable marketing expenses and any cost of a renewable resource that exceeds the utility's average system cost. Marketing costs are capped at 20% of the renewable energy price during the program's first two years and 10% each year thereafter. It is envisioned that the requirements set forth in this rule will ensure that customers participating in voluntary "green pricing" programs will receive energy from new, non-polluting renewable resources at a fair and reasonable price.

5. CONCLUSION

The public participation requirements contained in the PUCT IRP rules have provided invaluable information about customers and their preferences for renewable resources. Moreover, the geographical diversity and demographic representation of customers and their respective service territories indicate that the desire for renewable energy in Texas is consistent and widespread among customers.

Beginning with CSW's 75 MW McCamey wind farm development, utilities have responded by incorporating low cost renewables into their mix of resources. However, there are currently no regulated utilities that have opted to offer their customers "green pricing" programs that comply with the standards set forth in the PUCT's renewable energy tariff rule.

If IRP continues to be implemented, Texans will continue to see their utilities respond to their preferences for renewable energy via the acquisition of system wide resources. Yet, should deregulation of the utility industry occur, IRP will be rendered obsolete and the responsibility for development of renewable energy options for Texans will shift to the forces of the competitive marketplace. Establishing a truly competitive electric environment — the goal of any restructuring legislation — entails leveling the playing field through appropriate actions during a transitionary period. It is the authors' hope that pending legislation contemplating the restructuring of the Texas utility industry will capture the sentiments of Texas customers as conveyed in these extensive, utility-conducted polls. If this is indeed done, renewables will be afforded a just opportunity to compete and excel in the electric market of Texas' future.

6. DISCLAIMER

The views presented in this paper solely represent the views of the authors and do not necessarily reflect those of the Public Utility Commission Staff or Commissioners.

7. REFERENCES

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TABLE 1. TEXAS UTILITY CUSTOMER POLL RESULTS

(Based on Deliberative Polls™ at 8 largest investor-owned utilities, representing 67% of customers in Texas)

	AVERAGETU	SPS	EGS	HLP	EPE	SWEPCO	WTU	CPL	
Preference (1st choice, assuming cost is the same)									
Renewables	49%	56	48	37	58	42	28	35	16
Reduce Need	31%	30	28	50	20	44	50	31	46
Fossil (Gas + Coal)	14%	9	20	9	17	3	13	16	29
Buy & Transport	5%	-	-	2	3	-	6	18	8
Will you Pay more for....? (MEDIAN more on monthly bill)									
Renewables	$5	$5	$2	1.5	6.5	5	5	5	4
Efficiency	$2	$1	$1	1	3	2	2	2	2
Fossil	$0	$0	$0	0	0	0	0	0	1
How should utility Invest in Renewables?									
Spread costs (all or part)	71%	79	73	47	62	-	-	-	-
Green pricing only	21%	17	22	45	23	-	-	-	-
Don't invest	2%	1	2	1	5	-	-	-	-
Important Goals (10 = extremely important, 0 = not at all important)									
Enough electricity for future	9.5	9.4	9.6	9.5	9.5	9.5	-	-	-
Everyones needs met	9.2	9.3	9.1	9.2	9.2	8.9	-	-	-
Minimize outages	9.0	9.1	9.0	9.1	8.8				
Protect environment	8.7	8.8	8.4	8.4	8.8	9.3	8.5	8.3	8.7
Lowest cost	8.2	8.4	8.5	8.6	8.3	8.5	7.2	7.4	7.6
Stability (Would you rather costs be:)									
Higher now, steady later	69%	71	83	73	56	74	82	85	77
Lower now, uncertain later	13%	16	10	10	15	7	6	4	7
Global Warming is:									
Very or Somewhat Serious	71%	64	-	67	77	86	76	70	78
Not Very Serious / not at all	18%	22	-	18	14	8	14	20	14
Local Air Pollution is:									
Very or Somewhat Serious	74%	66	-	69	81	94	63	75	83
Not Very Serious / not at all	20%	25	-	26	12	5	35	24	14

	Company	Customers	Date of Poll
TU	Texas Utilities Electric Company	2,367,911	Oct-98
SPS	Southwestern Public Service Company	266,067	Oct-98
HLP	Houston Lighting and Power Company	1,522,793	May-98
EGS	Entergy Gulf States	315,708	Jan-98
EPE	El Paso Electric Company	212,802	Aug-97
SWEPCO*	Southwestern Electric Power Company	156,767	Aug-96
WTU*	West Texas Utilities	185,982	Aug-96
CPL*	Central Power and Light Company	616,761	Jun 96

* Central and South West Services (CSW) member utility