**ORIGINAL**

E000006584

# MEMORANDUM

TO: Docket Control

FROM: Elijah O. Abinah
Director
Utilities Division

DATE: May 19, 2020

RE: IN THE MATTER OF THE APPLICATION OF ARIZONA PUBLIC SERVICE COMPANY FOR A HEARING TO DETERMINE THE FAIR VALUE OF THE UTILITY PROPERTY OF THE COMPANY FOR RATEMAKING PURPOSES, TO FIX A JUST AND REASONABLE RATE OF RETURN THEREON, TO APPROVE RATE SCHEDULES DESIGNED TO DEVELOP SUCH RETURN. (DOCKET NO. E-01345A-19-0236)

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In Decision No. 77270, dated June 27, 2019, the Arizona Corporation Commission ("Commission") directed Arizona Public Service Company ("APS") to fund and implement a Customer Outreach and Education Program that was to be developed and administered by the Commission's Utilities Division Staff ("Staff"). In Finding of Fact 39, Staff was directed to hire, and APS was directed to pay for, an independent consultant to complete this task.

Attached is the evaluation completed by Staff's consultant, Barbara R. Alexander. This report is being docketed in the APS Rate Review Docket No. E-01345A-19-0003 and the APS Rate Case Docket No. E-01345A-19-0236.

EOA:RSP:elr

Originator: Ranelle Paladino

Attachments

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On this 19th day of May 2020, the foregoing document was filed with Docket Control as a Utilities Division Memorandum, and copies of the foregoing were mailed on behalf of the Utilities Division to the following who have not consented to email service. On this date or as soon as possible thereafter, the Commission's eDocket program will automatically email a link to the foregoing to the following who have consented to email service.

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# AN EVALUATION OF ARIZONA PUBLIC SERVICE COMPANY'S CUSTOMER EDUCATION PLAN AND ITS IMPLEMENTATION

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May 19, 2020

PREPARED ON BEHALF OF THE STAFF OF THE ARIZONA CORPORATION COMMISSION

DOCKET NO. E-01345A-19-0236
And
DOCKET NO. E-01345A-19-0003

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# I. EXECUTIVE SUMMARY

NOTE: This Executive Summary does not include the footnotes and citations provided in the body of the Report.

BEST PRACTICES. This Report relies on the Marketing, Education, and Outreach (ME&O) plans developed by the California investor owned electric utilities to implement the Time of Use rate mandate for residential customers as the basis for comparing the APS Plan to "best practices." While no other U.S. investor owned utility has been ordered to impose rate design changes for all its residential customers similar to that ordered by the Commission in its August 2017 Order for APS, the California experience reflects the closest comparison.

The Table of Contents for the Southern California Edison (similar to those in effect for Pacific Gas & Electric and San Diego Gas & Electric) ME&O plan includes the following key issues and attributes, most of which are missing from the APS Education Plan:

- ME&O Messaging Strategy
- Current Market Overview
- Research Results and Implications/Challenges
- Risks and Barriers to Achieve Goals
- Specific Marketing Actions and Timeline
- Ongoing Research on messaging, customer satisfaction, awareness
- Marketing Objectives: specific with each phase
- Target Audience and Segmentation: customer demographics; low income; relationship to solar customers
- Specific messages and timing for all outbound communications
- New/Transfer Customer Engagement
- Partner and Community Based Organization Strategy
- Measurement and Metrics: goals; ongoing tracking surveys; measurement plan; accountability and enforcement
- Budget

HOW APS DEVELOPED ITS EDUCATION PLAN. The Commission required APS to file a draft Customer Education and Outreach Plan pursuant to Decision 76295 that was subject to Stakeholder review over a 10-day calendar period. APS filed its final Plan on September 29, 2017 consisting of 15 pages. The purpose of this Plan was to educate customers about the Commission's approval of a Settlement agreement to migrate all non-solar residential customers to one of five new rate plans starting February 2018 and concluding by May 1, 2018, a period of 4-5 months from the submittal of the Plan. This Settlement was the result of APS's 2016 rate case filing in which APS had recommended that all residential customers move to time of use and/or demand rates. The Education Plan was to be funded by a $5 million transfer of unallocated Demand Side Management funds.

APS submitted its draft plan to Stakeholders. However, most of the comments from consumer organizations were ignored in the final version of the Plan. Several consumer representatives reported that they attempted to get more detailed information from APS about how this Plan would be implemented, including information on messaging, reporting, and performance metrics. All the major consumer organizations submitted a detailed letter to APS pointing out the deficiencies of the draft plan and identifying specific content that should be included in the Plan.

APS's filing letter that accompanied the submission of the Final Plan stated that the Stakeholder input resulted in improvements to the Plan in only three areas and that APS had adopted these recommendations: (1) Spanish language messaging; (2) allowing customers to opt out of text messaging at any time; and (3) demand side management messaging. Therefore, APS ignored the comments of the consumer organizations and failed to even describe or reference those comments in its cover letter accompanying the Final Plan to the Commission on September 29th.

In this Plan APS promised to notify customers through a variety of channels, including bill messages, web portal, text messages, social media posts, and formal TV and newspaper media, of their "best rate, a rate plan that provides them with the lowest electricity bill based on the analysis of the customer's most recent 12-months usage data." This information was to be accompanied with messages and education to encourage "further awareness, understanding, and cost saving opportunities through customer touchpoints." Further, APS proposed to use customer segmentation analytics to educate customers on their "best rate" and how to manage electricity to save on their electric bill. This customer segmentation process would depend on analysis of the customer's historical usage. Overall, APS promised to use customer usage patterns, various levels of engagement, and various communication methods to achieve their objectives.

APS stated its "goals" as (1) drive awareness of new rate structures and "best rate" choices; (2) acknowledge customer interest and answer customer questions; (3) educate customers on opportunities to save through the core message of "shift, stagger, and save," and demand side management programs; (4) encourage customers to "engage" with their electricity usage and learn how usage can affect their total bill; and (5) increase customer adoption of tools and resources to "facilitate their electricity usage awareness and control."

A critical aspect of the APS Plan is that the messages focused on "saving" on a plan, but that calculation was not based on promises of saving on lower future electricity rates by reducing peak or demand usage. Nor was it based on comparing a customer's new plan with the customer's old plan, but rather on comparing the customer's usage profile to each of the new plans. As a result of the strict limitations associated with service under the flat rate options due to their annual usage limitations, it was assumed that the vast majority of customers who had not voluntarily selected a time of use or demand charge plan in the past would be moved to a time of use or demand side for the first time.

NO IDENTIFICATION OF RISKS AND BARRIERS IN PLAN. The APS Plan failed to identify risks and barriers to achieve its intended goals and objectives:

- Rate design changes for all customers;
- Changes in rate design with increase in rates;
- Short time period for education;
- No significant change in bill presentation, especially for demand charges;
- Customers pay monthly bills not annual bills and all bill impact projections based on annual costs;
- No bill protections or exemptions for low income customers or those with special needs.

The following table shows the residential customer enrollment in the legacy rate plans at the time of the 2016 rate case and the enrollment of non-solar residential customers in the new rate plans in December 2018:

| Rate Class | 2015 Test Year | 2018 Actual | % Change (2015 to 2018) |
|---|---|---|---|
| Basic Rate Plans (R-XS, R-Basic, R-Basic Legacy) | 420,207 | 456,301 | 9% |
| Time of Use-Energy (R-TOU-E) | 329,997 | 372,869 | 13% |
| Time of Use-Demand (R-2, R-3, R-TECH) | 263,930 | 192,225 | (27%) |
| Total | 1,046,990 | 1,100,816 | |

APS PERFORMANCE TRACKING WAS INSUFFICIENT: APS's Customer Education Plan did not include any performance metrics or methodology to allow an objective determination of its success or failure in meeting its stated objectives. When later asked how the Company determined the success or value of its Plan, the response primarily took the form of compiling the volume of its various customer communications.

While APS's response touted its success or "effectiveness" in a later communication to the Commission based, in part, on the fact that 22.8% of residential customers voluntarily switched to a new service plan during the transition period, the actual Plan itself does not establish any goals or objectives to reflect customer switch rates. As a result, it is not possible to determine if this switch rate was reasonable or not.

APS later presented information about how it internally decided to track the plan's implementation through the number of advertisements it published, the number of social media posts published, the number of web pages visited, the number of meetings with APS personnel as speakers, and the number of bill inserts and customer communications it issued.

None of the APS internal performance tracking metrics or results were included in the Education Plan and not all of them are related to the Education Plan's implementation. Nor has the Commission approved the "targets" that APS established for itself in these metrics.

APS'S CUSTOMER EDUCATION PLAN DID NOT CONFORM TO BEST PRACTICES. APS's Customer Education Plan failed to include essential components of a reasonable customer education plan or program given the monumental task that the Company stated it could achieve. Among the key defects or omissions:

A. APS did not include a performance metrics or other measures of success, that is, how it would measure the achievement of its stated goals and objectives in its Customer Education Plan.

B. While APS's Plan specifically identified many "touchpoints" to measure communications or interactions with customers, APS did not identify the volume or type of customer inquiries or complaints as indicia of the Plan's success.

C. APS's Plan did not propose to track the success of its Plan by relying on call center call completion, abandonment rate, or other indicia of customer experience in attempting to communicate with APS's customer call center. However, APS's customer service performance at its call center was below average during the transition period and remains below average today.

D. The APS Plan did not propose to measure the number of customers who actually signed up to receive text messages, enroll with the APS web portal to view their account usage details, or enroll in budget billing (a program emphasized to customers who were questioning the difference in higher summer bills under their rate plan). In fact, the data concerning these enrollments reflect less than half of APS's residential customers.

E. The APS plan did not establish any objectives or goals that actually measured customer behavior as a result of the APS communications, including any measurement of switch rates or a measurement of whether customers were actually put on the "best plan" as a result of APS's educational program. The fact that only 22% of its residential customers affirmatively chose a "best" plan during the transition period raises questions about this level of customer response and indicates that lack of any determination as to whether the feedback loop between the Plan itself and the actual customer response to the Plan's messages was reasonable. Other data suggests that APS's communications designed to educate customers about their "best" or "most economical" plan have not been successful. As of the September 2019 mailing to residential customers, 400,008 customers were informed that they were not on the most economical plan, 36% of APS's residential customers.

F. Finally, APS did not conduct any research to determine customer comprehension or understanding of its customer communications and messaging about the new rate plans, their names, or the details of the plan options, after the Settlement Agreement was reached. Nor has APS conducted any customer research concerning how or whether customers actually understand how their rate plan works since the transition was implemented. Rather, APS's research and messaging relies almost entirely on pre-transition research conducted when the time of use and demand feature rate plans were voluntary. Of particular concern is that APS renamed all its rate plans AFTER the Education Plan was submitted and has not conducted any customer research on whether the "SAVER" and "PREMIER" rate names are understood by customers or that those names properly reflect the key attributes of the rate plan.

G. The APS Customer Education Plan did not present information on the demographic characteristics for residential customers in its service territory. Customer housing patterns, family size, educational achievement, literacy, income, and employment situations all need to be considered in developing a customer focused educational strategy. APS used the same messages and themes in all its communications.

H. The Plan did not specifically identify the special needs of low income and fixed income customers in its Education Plan or develop specific communication channels and messaging for these customers. Nor did APS's Plan include any specific coordination with or involvement by local community organizations to educate special needs and/or vulnerable customers about these rate changes in a manner that responds to their specific needs. APS's Plan did not include any funding to local community organizations to implement targeted education and counseling on rate options.

APS'S DEMAND CHARGE RATE EDUCATION HAS BEEN FAULTY. APS's Education Plan relied primarily on its experience in explaining demand rates and demand rate plans to its customers when these rate options were voluntary to implement the new rate plan mandates and the transition in 2017-2018. That Plan stated that it would rely on the "shift, stagger, and save" messaging that had been in use since 2016.

But the Plan did not include specific messages or educational content to explain the demand rate plans or how the rate-specific criteria to move customers into those plans would be explained to affected customers. Instead, demand rate plans were presented as opportunities to "save" by shifting usage and taking "control" of usage on an hourly basis. It should be noted that the change in the peak usage hours from the legacy TOU and demand rate plans compared to the newly adopted plans was not specifically discussed in the Education Plan.

The training provided to the Company's customer service representatives reflects the complexity of explaining the demand charge feature of these rate plans and the manner in

which the demand charge dollar amount is calculated and presented on the customer bill. The only manner in which the customer can actually see the daily peak usage and any demand value since the issuance of the last bill is on the APS web portal and on the APS app if downloaded to the customer's smart phone. However, these features only show the customer's demand event up to the prior day. On the customer's bill, there is no presentation of the demand charge rate itself (the dollar amount per kW stated in the tariff) or when the demand peak was incurred. Furthermore, the total dollar amount of the applicable demand charge does not appear on the customer's bill. The right column on the bill tells the customer the "on peak demand meter reading" and the "on peak demand in kW." The other column shows a long list of detailed and itemized charges, including two different dollar amounts labeled "generation demand charge" and a "distribution demand charge."

APS HAS NOT EVALUATED THE ACCURACY OF ITS RATE PLAN EDUCATION FOR NEW AND MOVING CUSTOMERS. APS did not change its method or approach in dealing with customers calling for new or transferred service that was adopted at the time it implemented voluntary time of use and demand rate options. This approach relies on asking a few basic "lifestyle" questions about the square footage of the home, whether the home is all electric or any gas appliances, or whether there is a pool or spa. At the customer's request, all the rate plan options are identified, and the customer is referred to the aps.com web portal for more detailed information. New customers are informed about the importance of reviewing their rate plan after 3-6 months of usage and to use the Rate Comparison Tool on the website.

APS has not undertaken any specific customer research as to whether the plan recommended to the new or moving customer who are put on a plan without any actual historical usage information has actually resulted in the "best" plan or whether these customers have switched to a cheaper plan and, if so, when.

ANNUAL RATE REVIEW AND INVOLUNTARY RATE CHANGES. While not discussed in the Education Plan, APS conducts an annual review of those customers who are no longer qualified for the customer's current rate plan and changes that customer's rate plan without explicit customer approval. This annual rate migration is undertaken based on a review of the customers with at least 12 months of historical usage. The number of customers who were involuntarily migrated to a different service plan as of the December 2019 review totaled 58,984; 30,900 of whom were moved from Lite Choice to Premier Choice or Saver Choice and 24,228 customers on Premier Choice moved to Lite Choice and Saver Choice. This switch was announced to customers via a bill message. However, even APS's own internal training materials informs their representatives that "the reassigned plan is not necessarily the least expensive plan so always perform a service plan comparison for customers who contact us."

The fact that so many customers are being served by plans for which they are no longer qualified based on their historical usage suggests a concern with the efficacy of APS's Education Plan.

THERE IS NO FORMAL CUSTOMER EDUCATION PLAN FOR 2020 AND BEYOND. APS has not updated its Education Plan or undertaken steps to update its Customer Education goals and objectives since the end of the transition period covered by the 2017 Plan. Rather, APS has developed what it refers to as various "plans" for marketing of various approved APS programs (for example, home performance, DSM, energy education, safety net, and other routine customer communications for ongoing initiatives). However, these documents do not include any of the key components of an education plan as set forth in this Report. Nor are the various communication "plans" coordinated or reflective of any ongoing customer research.

RECENT POSITIVE DEVELOPMENTS. After the discovery of the errors in its rate analysis tool APS issued a public apology and has pledged to issue refunds to affected customers funded by shareholders. Additional initiatives are worth noting as positive developments.

- At the direction of the Commission, APS is implementing a "pro forma" bill in March 2020 that includes information that is customer specific about the monthly and annual total bill implications of the customer's rate plan compared to the "lowest cost" rate plan for which the customer qualifies. This is likely to improve customer understanding of the bill impacts of their own plan compared to other options.
- APS is conducting more outreach and engagement with stakeholders.
- APS is developing a redesigned residential customer bill and has sought stakeholder input on its design options. One aspect of the bill redesign that should be the focus of consumer and Commission attention is the presentation of demand charges, how they are calculated and what specific usage profile triggered the billed demand charge. There is no evidence to date that reflects any significant change from the current bill information on demand charges in the bill design discussions or bill design formats I have reviewed.

RECOMMENDATIONS. While this Report identifies the shortcomings of APS's Customer Education Plan, it is not my recommendation that the Commission or the Commission Staff should develop a customer education plan or implement customer education on behalf of APS. Public utilities should be held to account for their investments and policy decisions and rewarded or penalized for conduct that does not conform to clearly defined expectations. The utility and its management should be held responsible for basic utility services and service performance. This approach allows the Commission to retain and properly exercise its role as the regulator with judicial powers and enforcement remedies. It would be difficult if not improper for the Commission to evaluate its own actions in educating APS's customers on rate designs and customer service programs.

Rather, the Commission should order APS to create and propose a Customer Education Plan concerning not only rate design options but integrate its rate design education with its limited income programs, demand side management programs, and consumer protection rights and remedies to ensure the retention of essential electricity service. Such a comprehensive plan would allow APS to develop customer educational materials and outreach strategies in a

coordinated manner for its residential customers. Most importantly, such a plan should address all the many deficiencies of the Customer Education Plan implemented in 2017-2018 as identified in this Report, particularly including the need for ongoing customer research and feedback mechanisms. As a key requirement, the Commission should require the Plan to include performance standards and reporting mechanisms that will allow a meaningful and regular review of APS's progress in implementing the plan and achieving its goals and objectives. The ongoing reliance on counting customer communication "touchpoints" in all of the APS outreach programs is not a proper means of developing or evaluating a customer education plan. Performance standards should include, at a minimum, measuring and reporting quarterly on:

- Customer initiated changes to their rate plans;
- APS initiated changes to customer rate plans;
- Number of customers not on the "best" or "most economical rate" by rate class;
- frequency and type of complaints;
- Call center performance;
- Results of customer research on messaging and bill presentment;
- Enrollment for limited income programs;
- Achievement of participation objectives for demand side management programs;
- An evaluation of how the rate plans have resulted in system wide benefits, such as lowering peak energy usage and reducing generation supply costs; and
- Key indicia of credit and collection activities, such as disconnection notices, disconnections, and payment arrangements.

A future Customer Education Plan should be developed with frequent and substantive interaction with consumer stakeholders and reflect an obligation for ongoing customer research and feedback mechanisms that will encourage an organic and updated Plan. After opportunity for stakeholder input and response to that input by APS, the Plan should be the subject of a more formal review process with opportunity for hearings if substantive disagreements cannot be resolved in a collaborative manner.

Finally, it might be appropriate as well for the Commission to regularly consider whether the number and complexity of the current residential rate plans, particularly those with demand charge features, should be simplified based on customer feedback and measurements of customer understanding and satisfaction. Such an analysis should consider the actual impact of these current plans on reducing peak usage or contributing to the lower cost of generation supply and determine if the policy objectives associated with this move to time based and demand charge rates for the vast majority of residential customers are achieving their intended purpose.

## II. INTRODUCTION AND PURPOSE OF REPORT

This Report provides an evaluation of the Arizona Public Service Company("APS") Customer Education and Outreach Plan ("Customer Education Plan" or "Plan") dated September 29, 2017 and the implementation of that plan up to and including current activities. The review and evaluation was conducted by means of formal discovery conducted as part of the pending base rate case in Docket No. E-01345A-19-0235, as well as a review of the material developed and reflected in review of the APS consumer education plan conducted for the Staff as part of Docket No. E-01345A-19-0003 (rate review). In addition to discovery responses from APS, the report also relies on input from residential stakeholders who responded to formal interrogatories and several subsequent informal interviews.

Finally, this Report relies on Ms. Alexander's 30-year experience in public utility regulation on behalf of residential customers. Ms. Alexander's background and experience are attached to this Report as Appendix A.

There are several issues that this Report does not address:

- This Report did not conduct an audit of APS's consumer education plan expenditures under the Plan, the cost of the rate impact tool (original and revised to correct the errors discovered in 2019), or customer communication costs included in this rate case.
- The purpose of this evaluation did not include a review of the accuracy of the APS rate analysis tool and the subsequent discovery of an error in the computerized algorithm to predict a customer's "best plan." APS publicly acknowledged this error in 2019 and announced a plan for its resolution in the form of bill credits to affected customers and a revision of the rate impact tool to correct the error. While this event clearly had an impact on APS's reputation with its customers and adversely impacted some customers, the rate impact tool error and its resolution is not the subject of this evaluation of APS's Customer Education Plan.
- Further, this Report does not explicitly explore the experience of rooftop solar customers in their transition to the newly approved applicable rates. The Education Plan did not address the specific needs of these customers. These customers are typically more aware of their usage profile and their smaller number allows for a more targeted and detailed communication compared to mass market residential customers.

This Report is organized by first identifying the best practices that should govern an evaluation of APS's Customer Education Plan and then comparing the Plan and its implementation with those best practices. Specific issues that receive detailed analysis in the Report include the presentation of demand rates and charges, the policies governing the rate plans for new and moving customers, the annual plan review process, and the lack of any

current comprehensive customer education plan. Finally, the Report identifies the recommendations for APS's ongoing customer education programs and identifies the reforms and enhanced content that should be included in such plans and programs to ensure that the Arizona Corporation Commission ("Commission") can exercise its proper regulatory oversight.

## III. BEST PRACTICES FOR CONSUMER EDUCATION PLANS GOVERNING RATE TRANSITION FOR RESIDENTIAL CUSTOMERS

There are very few models to rely upon for best practices in the development and implementation of customer education plans for the scope and scale of the rate transitions at issue in this Report. No other investor owned utility has been ordered to impose rate design changes for all its residential customers similar to that ordered by the Commission in its August 2017 Order for APS. However, the California experience reflects the closest comparison.

There are no other investor owned utilities that have been ordered or have been approved to transfer the vast majority of its residential customers to either time of use or time of use with demand charge features. As a result, there is no large number of customer education plans to compare to APS's Plan other than the California electric utility customer education plans. Customer education plans prepared and implemented by several other electric utilities that are moving to default or mandatory time of use rate plans in California were compared to the APS plan to identify best practices.[1] The move to time-based rates for residential customers in California is being implemented pursuant to consumer protections that are not applicable to the Arizona rate plan mandates. These consumer protections are identified in Appendix B to this Report. However, regardless of these policy differences, the California electric utility customer education plans include content and criteria that are appropriate to compare to the APS Plan. These California Marketing, Education & Outreach (ME&O) plans are properly relied upon for "best practices" in the transformation of residential customer rate design.

The Marketing, Education, and Outreach Plan developed by Southern California Edison for the transition of its residential customers to default time of use rates was developed and is still undergoing development to reflect both statutory directives and Commission ordered content.[2] The Table of Contents for this Plan clearly documents the key criteria and content that should be reflected in any Customer Education Plan that seeks to make the significant changes in customer rate design as ordered in Arizona.[3]

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[1] Ms. Alexander submitted testimony on behalf of The Utility Reform Network (TURN) and the Center for Accessible Technology on proposed updates and amendments to customer education plans submitted by Southern California Edison and Pacific Gas & Electric before the California PUC in Docket No. A.17-12-011, et al. (October 28, 2018).

[2] As an example of the customer education plan approach and content required by the California electric utilities for the transition to time of use rates, see the approved Southern California Edison Marketing, Education, and Outreach Plan submitted in 2017: https://library.sce.com/content/dam/sce-doclib/public/regulatory/filings/approved/electric/ELECTRIC_3500-E.pdf This Plan reflects content that includes all the specific items identified in this Report that are missing from the APS Plan.

[3] It is fair to recognize that the California customer education plans reflect a multi-year program that included several opt in and opt out time of use pilot programs that were evaluated by third party consultants, the costs of which were included in these plans. SCE serves over 15 million customers and the multi-year education plan included a budget that totaled almost $70 million over a four-year period. This level of costs is not suggested as appropriate for APS. Rather, it is the overall content and approach of the California education plans that is reasonable to compare to APS's 2017 Plan.

The Table of Contents for the Southern California Edison (similar to those in effect for Pacific Gas & Electric and San Diego Gas & Electric) ME&O plan includes the following key issues and attributes, most of which are missing from the APS Education Plan:

- ME&O Messaging Strategy
- Current Market Overview
- Research Results and Implications/Challenges
- Risks and Barriers to Achieve Goals
- Specific Marketing Actions and Timeline
- Ongoing Research on messaging, customer satisfaction, awareness
- Marketing Objectives: specific with each phase
- Target Audience and Segmentation: customer demographics; low income; relationship to solar customers
- Specific messages and timing for all outbound communications
- New/Transfer Customer Engagement
- Partner and Community Based Organization Strategy
- Measurement and Metrics: goals; ongoing tracking surveys; measurement plan; accountability and enforcement
- Budget

## IV. APS'S CUSTOMER EDUCATION AND OUTREACH PLAN

The Commission required APS to file a draft Customer Education and Outreach Plan pursuant to Decision 76295[4] that was subject to Stakeholder review over a 10-day calendar period, followed by final approval by the Commission Staff. APS filed its final Plan on September 29, 2017 consisting of 15 pages. The purpose of this Plan was to educate customers about the Commission's approval of a Settlement agreement to migrate all residential customers to one of six new rate plans starting February 2018 and concluding by May 1, 2018, a period of 4-5 months from the submittal of the Plan. This Settlement was the result of APS's 2016 rate case filing that had recommended that all residential customers move to time of use and/or demand rates. The Education Plan was to be funded by a $5 million transfer of unallocated Demand Side Management funds.

APS submitted its draft plan to Stakeholders. Several consumer representatives reported that they attempted to get more detailed information from APS about how this Plan would be implemented, including information on messaging, reporting, and performance metrics.[5] All of the major consumer representatives submitted a detailed critique of the proposed Education Plan on September 21, 2017.[6] These organizations identified the lack of specific information in the APS draft plan on actual proposed customer communications, the lack of any commitment on performance measures and the need for more detailed monthly reporting, including the need to monitor the number of customers transitioned to the new rate plans. It is also important to recognize that this communication to APS specifically referenced the California education plans associated with the move to time of use rates as an appropriate model for APS to follow. These comments also included a list of proposed metrics. Among the specific recommendations made by the consumer organizations:

> 1. **Messaging, content and tactics.** APS should provide the Commission with a comprehensive set of examples of the communications that various customer classes and groups will receive and how and when they will receive that information.[1] We are also interested in learning if all, or any, of these communications will be provided in Spanish or other languages. (We believe that they should

[4] Docket Nos. E-01345A-16-0036 and E-01345A-16-0123 (August 18, 2017). This Order approved the Settlement that concluded the 2016 Rate Case filed by APS.

[5] See, e.g., Response from Wildfire and RUCO to Staff Data Request #1 to Intervenors. Subsequent discussions with representatives from Wildfire and RUCO confirmed their frustration and inability to achieve a meaningful dialogue with APS representatives on the details of this Plan and the lack of APS's respond to their efforts to engage in the implementation of the Plan.

[6] https://docket.images.azcc.gov/0000182833.pdf This communication was signed by representatives of Arizona Community Action Association (now renamed Wildfire), Arizona Interfaith Power & Light, Arizona PIRG Education Fund, Conservative Alliance for Solar Energy, Environmental Arizona Research & Policy Center, Sierra Club-Grand Canyon Chapter, and Southwest Energy Efficiency Project.

be.) APS should also clarify if any customers will be charged for text messages, and how customers can opt-out of communications if they wish not to be charged. Finally, APS should explain how it will incorporate messaging on the availability of energy efficiency programs, services, and tools to help customers manage their rate options.

2. **Enrollment and transition process to new rates.** APS should provide the Commission with monthly reports that provide information on the number of customers by customer class projected to and enrolled and transitioned to each rate plan. APS should also provide the Commission with information on customers who are put on the default rate plan and the plan that these customers choose after the 90-day period expires. Finally, information should be provided on the number of customers who prefer to use a plan other than the demand rate or time-of-use (TOU) rate options.

3. **Budget and expenditures.** The APS plan does not describe a budget or how funds will be spent. A budget should be provided so that the Commission and stakeholders understand how ratepayer money will be invested. APS should report regularly on actual expenditures relative to this budget.

4. **Quantifying, measuring, and reporting on effectiveness.** APS should propose and the Commission should establish and approve metrics for quantifying and measuring the effectiveness of APS' outreach and education activities. APS should also describe the tracking and reporting mechanisms it will implement to report on these metrics. The Commission should ensure that it receives a written report from APS no later than June 30, 2018. This report should describe how well the plan was executed and any lessons learned. Example metrics for the Commission's consideration could include the following:

a. Open rates and click-thru rates for rate education-related emails.
b. Percent increase in frequency of visits to customers' online accounts.
c. Number of rate-related customer complaints.
d. Number of views to rate education web pages.
e. Number of customers who have changed rates over the last quarter.
f. Number of events and presentations held in support of rate education and outreach and the number of people reached.
g. Number of community partners utilized to support rate education and outreach and the number of people reached.
h. Customer awareness of rate plans that may help them to mitigate electricity expenditures.
i. Customer knowledge of where to go to get more information about how to manage their energy use.
j. Customer understanding of how energy use can impact electricity bills.
k. Customer awareness of the rebates, energy efficiency programs, and tips offered by APS that can help them manage their energy bill.
l. Length of time, number of pages visited, unique visitors to the APS website.
m. Number of featured stories in the news regarding APS' rate reform.

5. **Regular engagement with consumer groups.** As you are likely aware, our organizations frequently communicate with ratepayers in APS' service territory and across the state. We understand the benefits of reducing peak electricity use and strongly support reducing electricity consumption on peak and overall, especially through energy efficiency programs. We appreciate ratepayers having choices on rate plans; however, to make an informed choice, ratepayers need clear and understandable information. We appreciate that APS has included

> consumer advocates in their outreach plan and has accepted an offer to meet with several of our groups. We further recommend that as part of the implementation of this Plan, APS formalize a consumer stakeholder working group that meets regularly to provide input and recommendations on the Plan ' s development and implementation. APS has formed similar working groups in the past, for example, when it designed and implemented its pre-pay pilot. These working groups are invaluable because the participating stakeholders can provide perspectives about the unique constituencies that they understand and represent.

APS's Final Plan did not address any of the recommendations and comments made by the consumer representatives who participated in the stakeholder review of the draft Plan. Several representatives stated that the speed with which this review occurred, and the high-level nature of the APS proposal made it difficult to develop specific comments. APS's filing letter that accompanied the submission of the Final Plan stated that the Stakeholder input resulted in improvements to the Plan in only three areas and that APS had adopted these recommendations: (1) Spanish language messaging; (2) allowing customers to opt out of text messaging at any time; and (3) demand side management messaging. Therefore, APS ignored the consumer organizations' comments and failed to even describe or reference those comments in its cover letter accompanying the Final Plan to the Commission on September 29th.

APS had approximately 1.1 million non-solar residential customers and based on the customer enrollment in rate plans as presented in the 2016 rate case, approximately 570,000 of these customers had already voluntarily selected a rate with a time of use component. However, the Settlement Agreement approved in Decision 76295 changed the design of every existing residential rate, including the flat rates and the time of use periods.[7] As a result, APS stated that it would transition customers to their "most like" rate in early 2018 if the customer did not otherwise select a new rate. The following chart shows the changes from the rates in effect in 2017 to those that were approved for residential customers as a result of the Settlement agreement as identified in the Education Plan. Please note that the actual names of the new rates were not yet identified by APS in this Plan[8] and, therefore, the stakeholders were unable to comment on the names used by APS to market the rate transition:

[7] The flat rate options eliminated the seasonal pricing feature and prohibited customers from enrolling or staying in these flat rate plans based on annual usage criteria.

[8] APS Final Education Plan, APS19R00423, page 5 of 15.

| OLD RATES ("legacy rates") | NEW RATES AS NAMED IN THE EDUCATION PLAN ("most like"; "best rates") | ACTUAL RATES USED BY APS IN THEIR MESSAGING (not named in the Plan) |
|---|---|---|
| E-12 (FLAT RATE) | R-XS; R-BASIC/LARGE | Lite Choice; Premier Choice; Premier Choice Large [Legacy rate] |
| ET-1, ET-2 | TOU-E | Saver Choice |
| ECT-1R; ECT0-2 | R-3 | Saver Choice Plus; Saver Choice Max |

In this Plan APS promised to notify customers through a variety of channels, including bill messages, web portal, text messages, social media posts, and formal TV and newspaper media, of their "best rate, a rate plan that provides them with the lowest electricity bill based on the analysis of the customer's most recent 12-months usage data."[9] This information was to be accompanied with messages and education to encourage "further awareness, understanding, and cost saving opportunities through customer touchpoints."[10] Further, APS proposed to use customer segmentation analytics to education customers on their "best rate" and how to manage electricity to save on their electric bill. This customer segmentation process would depend on analysis of the customer's historical usage. Overall, APS promised to use customer usage patterns, various levels of engagement, and various communication methods to achieve their objectives.

Initial generic customer communications were scheduled for August 2017, followed by new rate specific education from October 2017 to May 2018, and then transition to "most like" rates beginning February 2018 and concluding in May 2018.

APS stated its "goals" as (1) drive awareness of new rate structures and "best rate" choices; (2) acknowledge customer interest and answer customer questions; (3) educate customers on opportunities to save through the core message of "shift, stagger, and save,"[11] and demand side management programs; (4) encourage customers to "engage" with their electricity usage and learn how usage can affect their total bill; and (5) increase customer adoption of tools and resources to "facilitate their electricity usage awareness and control."[12]

APS committed to educate customers based on their individual historical usage and the "most like" rate during the transition period. APS's Plan stated that if customers selected the "best rate" during this period, they would be put on that rate. If they did not select the "best rate" or any new rate at all, they would be transitioned to the "most like" rate with the option to make another choice later. APS did not submit for approval their customer specific letters and educational messages proposed to be used during this transition phase, but the Final Plan

[9] Ibid., at 6.
[10] Ibid., at 6. A "touchpoint" was described as a contact point.
[11] The "Shift, Stagger, and Save" core message had been implemented in the fall of 2016 to promote and educate customers with the voluntary time of use and demand charge plans.
[12] Ibid., at 4.

included some small print images of bill inserts or bill messages. All of these communications emphasized "save with your new plan."[13] But, of course, there was no actual promise of saving due to the overall rate increase and the elimination of the older rate plans.

Beyond the transition phase, the Final Plan again emphasized the "shift, stagger, and save" message that had previously been developed for customers who had volunteered for a demand charge plan, as well as "save" oriented messages to familiarize customers with their new rate plan, again emphasizing "personalized direct mail," and other touchpoints.

The Final Plan described the "tools for saving" that were being implemented: email and text alerts for bill amounts, usage, and peak usage thresholds, a mobile application, a peak usage demand calculator tool that compares a customer's peak demand data by season compared to other similar used homes in their area, and smart thermostats that would connect to the internet and automatically lower usage during customer predetermined criteria. In addition, APS described a forthcoming rate comparison tool available on aps.com. This tool was not yet actually implemented at the time of the submission of the Plan but was presented "for illustrative purposes only."[14]

A critical aspect of the APS Plan is that the messages focused on "saving" on a plan, but that calculation was not based on promises of saving on lower future electricity rates by reducing peak or demand usage. Nor was it based on comparing a customer's new plan with the customer's old plan, but rather on comparing the customer's usage profile to each of the new plans. As a result of the strict limitations associated with service under the flat rate options due to their annual usage limitations, it was assumed that the vast majority of customers who had not voluntarily selected a time of use or demand charge plan in the past would be moved to a time of use or demand side plan for the first time.

[13] Ibid., at 7.
[14] Ibid, at 10.

## V. THE APS EDUCATION PLAN FAILED TO IDENTIFY AND DISCUSS THE SIGNIFICANT BARRIERS TO A SMOOTH IMPLEMENTATION OF THE INVOLUNTARY MIGRATION OF ALL NON-SOLAR RESIDENTIAL CUSTOMERS TO ONE OF FIVE DIFFERENT RATE PLANS

The following table shows the residential customer enrollment in the legacy rate plans at the time of the 2016 rate case and the enrollment of non-solar residential customers in the new rate plans in December 2018:[15]

| Rate Class | 2015 Test Year | 2018 Actual | % Change (2015 to 2018) |
|---|---|---|---|
| Basic Rate Plans (R-XS, R-Basic, R-Basic Legacy) | 420,207 | 456,301 | 9% |
| Time of Use-Energy (R-TOU-E) | 329,997 | 372,869 | 13% |
| Time of Use-Demand (R-2, R-3, R-TECH) | 263,930 | 192,225 | (27%) |
| Total | 1,046,990 | 1,100,816 | |

As a result, over a period of many years, approximately 56% of APS's non-solar residential customers had changed from a flat rate plan to a time of use plan or a time of use with demand charge feature plan prior to the rate transition ordered in the 2016 rate case. The APS Plan appears to have assumed that this history would enable a relatively smooth transfer of most of the remaining residential customers to a time of use and/or demand rate plan on an involuntary basis. Whatever the objective, APS's projected enrollment in demand rates in particular were not met.[16]

While not identified in APS's Customer Education Plan, there were (and remain) a number of significant barriers to the smooth transition of residential customers to new rate plans that are designed to put the vast majority of customers into plans that vary rates by time of day and/or a peak demand charge. While some of these barriers or concerns were not of APS's own making, the fact that APS's Customer Education Plan did not discuss these potential concerns in any detail is appropriate to consider:

A. The rate design changes were implemented at the same time as an increase in APS's base rates, thus making it more difficult for customers to understand the predicted

[15] Rate Review and Customer Outreach Plan Evaluation (June 4, 2019), Docket No. E-01345A-19-003, at page 32.
[16] Ibid, Table 3.3, at 33.

rate impacts of changing a rate plan compared to their historical bills. In fact, none of APS's bill comparison calculations included this information. Rather, the APS calculations focused specifically on comparing the customer's usage to one of five new rate plans under the newly approved rates. This dichotomy between the educational messages that emphasized "savings" when rates were increasing may explain some of the customer criticisms and confusion that has occurred.

B. Customers, particularly those on the Basic flat rate plans, typically focus on total customer bill amounts and not rate details, thus making it more difficult to educate customers on the new peak and off-peak usage rates and time periods, as well as how demand charges work or how a peak demand charge is calculated. The APS Plan did not discuss in any detail how this educational effort for this subset of customers might be different compared to soliciting customers to voluntarily choose a time of use and/or demand rate plan.

C. Customers pay monthly bills and not annual bills, thus complicating an educational campaign that focuses on annual bill comparisons. The emphasis on the affordability of monthly bills is particularly important to lower income and fixed income households where the ability to offset higher summer bills with lower winter bills is more difficult when the monthly income is barely enough or insufficient to pay for household necessities. None of APS's educational materials discussed how customers could afford higher summer bills in return for lower bills in other months that is a feature of the seasonal time of use and demand rate plans.

D. The APS bill design was not significantly changed as a result of the new rate plan mandates. APS's residential customer bill reflects a good deal of detailed information, particularly listing all its surcharges, thus making it more difficult to focus on the key aspects of the customer's rate plan that depend on usage by time and the trigger for the demand charge component. The APS bill does not currently present in a simple and graphical manner the customer's rate plan or present information to allow the customer to determine how their monthly usage impacted the resulting bill amount.

E. APS did not change the presentation of a customer demand charge on its bills even with the new mandatory demand charge rate plans. As will be discussed later in this Report, the actual per kW charge ($ per kW as set forth in the tariff) and the total dollar amount of the demand charge is not included in the customer's demand rate bill.

F. APS's Plan relies in large part on customer use of internet and or cellular service, including broadband internet required for most transactions on the aps.com web portal and the APS app for smart phones with internet access. These functionalities are required to view a customer's hourly load profile that is essential for educating customers on time of use and demand rates. Therefore, only customers with

internet access on a regular basis can realistically research and find out more information about peak and off-peak hours and/or a demand charge on their bill without calling and speaking to a customer service representative.

G. APS's rate comparison tool predicts a customer's "best rate" based on three months of historical usage when a customer does not have a full 12 months of usage history with which to make a prediction as to the best rate plan. This approach is also being used for the "pro forma" billing presentation to customers starting in early 2020 so that customers with less than 12 months but who have at least 3 months of usage history will be presented with "lowest cost" plan comparison.[17] Furthermore, APS has not analyzed the accuracy of its recommendations based on 3 months of historical usage compared to recommendations based on 12 months of historical usage. [18] As reflected in Appendix B, this approach differs from the California program to move residential customers to a default time of use rate that requires that residential customers without at least 12 months of usage history remain on flat rates.

H. Arizona's mandatory rate design changes for residential customers that do not meet the usage profile for fixed rate service and who, therefore, were required to be moved to a time of use or demand rate plan did not exempt known low income and medical support customers, again, unlike the California policies governing the move to default time of use rates. While APS has bill payment assistance programs for low income customers, the rate transition did not treat these customers differently from all other residential customers and moved these customers into the "best" rate based solely on historical usage calculations.

I. Also, unlike the California move to default time of use rates, the mandatory change in rate plans by APS was not accompanied by a longer transition period with a more extensive and customer research effort to test and ensure customer understanding of the messages and new rate designs prior to its implementation.

[17] APS Response to Staff 4.2. See also the APS customer service representative talking points on this calculation provided as APS Response to Staff 4.10, APS19RC00785.
[18] APS Response to Staff 4.3.

## VI. HOW DID APS TRACK THE IMPLEMENTATION OF ITS CUSTOMER EDUCATION PLAN?

APS's Customer Education Plan did not include any performance metrics or methodology to allow an objective determination of its success or failure in meeting its stated objectives. When later asked how the Company determined the success or value of its Plan, the response primarily took the form of compiling the volume of its various customer communications. There is no doubt that APS undertook to use its $5 million budget to attempt a wide variety of communications through all the obvious channels during this period.[19] On October 26, 2018 APS responded to a letter from Commissioner Boyd Dunn that requested that APS respond to the Formal Complaint of Stacey Champion. In this Response, APS described the volume of communications sent to its customers, including a total of nearly 200 million touchpoints.[20] The Company alleged that it met all the requirements of "great utility customer engagement."[21] The $5 million budget for its Customer Education Plan was documented as having spent $4.8 million based on subcategories of activities undertaken pursuant to its Customer Education Plan.[22] While APS's response touted its success or "effectiveness" based, in part, on the fact that 22.8% of residential customers voluntarily switched to a new service plan during the transition period,[23] the actual Plan itself does not establish any goals or objectives to reflect customer switch rates. As a result, it is not possible to determine if this switch rate was reasonable or not.

APS later presented information about how it internally decided to track the plan's implementation through the number of advertisements it published, the number of social media posts published, the number of web pages visited, the number of meetings with APS personnel as speakers, and the number of bill inserts and customer communications it issued.[24] When asked how APS internally tracked the performance of its Education Plan even though there were no performance or reporting requirements in the Plan itself, the response provided a 2-page document entitled "Where we are—success metrics."[25] This document reflects results through April 2018 and measures the following areas:

- Self-Serve rate change transactions;
- Customer Care Center (call center performance);

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[19] This Report does not include a review the specific expenditures incurred for the $5 million education budget because (1) this analysis was previously done in the Overland Report and (2) none of those expenses were included for cost recovery in the pending rate case. There is no doubt that APS spent the $5 million on customer communications.

[20] APS19RC00424, page 1 of 957; see also another compilation of "one way" customer communications at Pages 17-18.

[21] Ibid., at 2.

[22] Ibid., at 14.

[23] Ibid., at 15.

[24] APS Response to Staff 2.2.

[25] APS Response to Staff 2.5 and APSRC1900524. Some of these performance areas will be discussed later in this Report.

- Billing (delayed bills);
- Meter Shop (backlog for service orders);
- Over the air reprogramming success (meters);
- Employee engagement (impressions);
- Brand reputation (via surveys);
- Media Coverage (customers issues aired);
- Customer Transitions (percent transitioned by 5/1/2018);
- Contingency Plans (develop and implement);
- ACC Substantiated Complaints;
- Safety (OSHA).

None of these internal performance tracking metrics or results were included in the Education Plan and not all of them are related to the Education Plan's implementation. Nor has the Commission approved the "targets" that APS established for itself in these metrics.

The effectiveness of any Education Plan requires that the Plan set forth specific and measurable goals and objectives and report on the results of those performance metrics or results. APS's Education Plan failed to establish any measurable performance metrics or results to enable a determination of the effectiveness of the Plan.

## VII. APS's CUSTOMER EDUCATION PLAN FAILED TO INCLUDE NECESSARY AND REASONABLE CONTENT AND CRITERIA TO ALLOW AN OBJECTIVE EVALUATION OF ITS SUCCESS.

APS's Customer Education Plan failed to include essential components of a reasonable customer education plan or program given the monumental task that the Company stated it could achieve. Among the key defects or omissions:

A. APS did not include performance metrics or other measures of success, that is, how it would measure the achievement of its stated goals and objectives in its Customer Education Plan. The Plan did not measure or set a goal for the number or percentage of customers that would voluntarily select a new rate plan during the transition period, the volume of customer complaints, the performance of its call center, or any measure of customer understanding of its messaging by means of customer research undertaken during the implement of the Plan. As previously documented, this defect was highlighted by consumer organizations during the development of the Plan, but APS's final Plan did not discuss or reflect any remedy to this concern.

B. While APS's Plan specifically identified many "touchpoints" to measure communications or interactions with customers, APS did not identify the volume or type of customer inquiries or complaints as indicia of the Plan's success. However, APS's customer complaints handled internally, and complaints submitted to the Commission increased dramatically during this period. While APS tracked this complaint data there is no evidence that APS actually evaluated or analyzed this data to provide a feedback loop to its customer education activities and messaging. The APS Consumer Advocate Office tracks and responds to complaints received from the Commission, Attorney General's Office, Better Business Bureau, as well as complaints received by APS management.[26] APS's complaint data clearly documents growing complaint levels in 2017 and 2018 for "final bill," (38 to 52) "high bill," (95 to 162) "long hold time," (N/A to 30) "rates" (200 to 124 compared to less that 100 in prior years), and "rate migration." (N/A to 76)[27] It is clear that customer complaints in a number of areas increased in late 2017 and 2018 that appear to be related to the rate increase and rate migration activities.[28] While APS tracks customer complaints that are reflected in various databases, there is no evidence of any actual analysis of complaint trends or actions undertaken in response to such an analysis. Nor is there apparently any analysis or evaluation of the combination of

[26] APS Response to Staff 4.22.

[27] APS Response to SWEEP 1.13, APSRC1900925.

[28] The APS complaint volume trends as reflected in the Corporation Commission's own customer complaint data showed a spike in complaints in 2018 for rates and tariffs and quality of service, as well as complaints reflecting difficulty in reach APS customer service representatives or dissatisfaction with the representative's handling of the call.

these various complaint databases ("executive" complaints; call center complaints, "consumer advocate" complaints, all of which are internal APS units that compile complaint data).[29] The mere compilation of complaint numbers does not allow for the analysis of "red flags" or underlying root causes that is properly done by evaluating complaint trends, their underlying cause, and the resulting actions to correct or reduce the complaints.

C. APS's Plan did not propose to track the success of its Plan by relying on call center call completion, abandonment rate, or other indicia of customer experience in attempting to communicate with APS's customer call center. However, APS's customer service performance at its call center was below average during the transition period. In 2018 APS only answered 47% of the calls within 30 seconds and had an abandonment rate (percentage of customers who hang up after entering the queue to speak to a representative) of 7.18%. This was a significant deterioration in performance compared to 2017 in terms of the calls answered within 30 seconds (61%), but a slight improvement in 2018 compared to the 2017 abandonment rate (8.6%). The 2019 results do not reflect an improvement—answering 64% of calls within 30 seconds and an abandonment rate of 9.8%. Of significance as well is that performance of the calls directed to Spanish speaking representatives is even worse. In 2017 only 38.6% of calls were answered within 30 seconds and the abandonment rate was 15.2%. The 2018 results for Spanish speaking customers were only slightly better with a call answering rate of 43.6% and an abandonment rate of 7.9%. [30] Whatever APS's internal targets, this call center performance is below acceptable levels where calls, particularly when measured over an annual basis, should strive to answer 80% of calls within 30 seconds and experience an abandonment rate of 5% or less.[31]

D. The APS Plan did not propose to measure the number of customers who actually signed up to receive text messages, enroll with the APS web portal to view their account usage details, or enroll in budget billing (a program emphasized to customers who were questioning the difference in higher summer bills under their rate plan). In fact, as of April 30, 2020, 58% of the non-residential solar customers have enrolled in the APS web portal to view their individual account information and a slightly lower percentage have agreed to email communications from APS. Only 17% of APS's residential customers have enrolled in the budget billing plan.[32]

E. The APS plan did not establish any objectives or goals that actually measured customer behavior as a result of the APS communications, including any

[29] APS Response to SWEEP 1.13 included separate spreadsheets showing complaints captured by these various internal units without any analysis of the meaning of these complaint trends.
[30] APS Response to Staff 8.1 (a)-(c), APS19RC00985.
[31] These performance standards are typical industry standards for call centers and, in some cases, required for regulated utility companies.
[32] APS Response to Staff 11.1.

measurement of switch rates or a measurement of whether customers were actually put on the "best plan" as a result of APS's educational program. The fact that only 22% of its residential customers affirmatively chose a "best" plan during the transition period raises questions about this level of customer response and indicates that lack of any determination as to whether the feedback loop between the Plan itself and the actual customer response to the Plan's messages was reasonable. Other data suggests that APS's communications designed to educate customers about their "best" or "most economical" plan have not been successful. As of the September 2019 mailing to residential customers, 400,008 customers were informed that they were not on the most economical plan, 36% of APS's residential customers.[33] The Saver Choice (TOU) rate plan accounted for almost 250,000 of these customers, suggesting that the majority of customers on this rate plan were not on the most economical rate plan and APS's messaging is promoting the demand rate plans as alternatives for these customers. As a result of mailings to those customers to inform them of the most "economical" rate plan that occurred from late August 2019 through October 2019, 24,869 customers made rate changes (22,704 to the recommended rate plan and 2,165 to a different rate plan).[34] The ongoing disconnect between APS communications and the actions taken by customers to select the "best" rate plan (which is usually promoted to be a demand charge rate plan) should be viewed in part as a failure of the APS Education Plan and/or suggesting a reconsidering of the rate plans themselves.

F. Finally, APS did not conduct any research to determine customer comprehension or understanding of its customer communications and messaging about the new rate plans, their names, or the details of the plan options, after the Settlement Agreement was reached. Nor has APS conducted any customer research concerning how or whether customers actually understand how their rate plan works since the transition was implemented.[35] Rather, APS's research and messaging relies almost entirely on pre-transition research conducted when the time of use and demand feature rate plans were voluntary.

- APS has not evaluated the impact of the seasonal rate differential for the time of use and demand rate plans for fixed or lower income customers since the allocation of revenue was approved in Decision No. 76295;[36]
- APS's concludes that customers understand that the words "choice" and "save" in the rate plan names mean a trade-off between convenience and level of effort and that the current rate plan names were designed for two distinct categories: "premier" rate plans for those who do not want to adjust their usage by time of day and "saver" rate plans for those who want to

[33] APS Response to Staff 4.17.
[34] APS Response to Staff 4.18.
[35] APS Response to Staff 8.14.
[36] APS Response to Staff 4.9.

exercise control of their usage.[37] However, the basis for these conclusions is research that was conducted in May 2017 by a third party marketing firm consisting of customer focus groups that explored the naming of APS's rate plans.[38] According to APS, this research concluded that the preferred options were to group plans by "lite choice," "premier choice," and "saver choice." No subsequent research has been done on customer understanding of the messaging and naming of these rate plans.

- APS's customer research on demand rates occurred in 2016 when those rate options were voluntary. This research was conducted to determine customer satisfaction with demand rate subscribers and additional focus groups to test communications strategies for the new rates that APS proposed in its prior rate case.[39] The same is true of its customer research on the "shift, stagger, and save" messaging that is the focus on APS's current customer education.[40]
- APS has not conducted customer satisfaction studies on residential time of use rates in the last five years.[41]
- While APS may rely on its customer satisfaction survey responses to measure customer feedback, these survey instruments do not measure the performance of the APS Education Plan objectives. Rather, they ask customers if they agree with statements about whether APS offers different rate plan options and whether rate plan options are offered to allow a customer to "control your bill amount by managing your usage."[42] These questions may reflect customer opinion based on the form of the question (both of which are stated in a positive manner), but they are not valid measurements of the Plan's stated objectives.
- APS has not done any research to determine that the variables relied upon by its customer service representatives to recommend a rate plan to new customers are valid. Rather, the Company relies on its long-standing experience with time of use and demand rates, which of course until 2018 were voluntarily selected by customers.[43]

G. The APS Customer Education Plan did not present information on the demographic characteristics for residential customers in its service territory. Customer housing

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[37] How APS concluded that customers understand the term "premier" to refer to those who prefer fixed rates is not documented in the materials provided in response to this data request. Furthermore, labeling a rate plan as "saver" without any guarantee of savings is a questionable business practice.

[38] APS Response to Staff 4.7 and APS19RC00783 (16 pages). This report actually suggests that customers wanted a clearer naming for demand rates that was more intuitive and "signal what it is."

[39] APS Response to Staff 8.15.

[40] APS Response to SWEEP 1.11. The two research documents attached to this response (and referenced in APS Response to Staff 8.15) are labeled "competitively confidential." APSRC1900904 and APSRC1900905.

[41] APS Response to SWEEP 1.12.

[42] APS Response to Staff 2.5.

[43] APS Response to Staff 8.12.

patterns, family size, educational achievement, literacy, income, and employment situations all need to be considered in developing a customer focused educational strategy. APS used the same messages and themes in all its communications.[44] Given the reliance on the use of the internet to enable customer communications and details about the impact of a customer's rate plan choice, the lack of any demographic information about the penetration of broadband internet usage by its customers, the frequency with which their customers have signed up for text messaging, or who use the APS web portal, was particularly of concern. As a result, APS's messaging was primarily the same for all customers and relied entirely and solely on a computerized analysis of the customer's usage history.

H. The Plan did not specifically identify the special needs of low income and fixed income customers in its Education Plan or develop specific communication channels and messaging for these customers.[45] Nor did APS's Plan include any specific coordination with or involvement by local community organizations to educate special needs and/or vulnerable customers about these rate changes in a manner that responds to their specific needs. APS's Plan did not include any funding to local community organizations to implement targeted education and counseling on rate options. While the Settlement Agreement included upgrades for the APS "limited income" program, the Education Plan did not include any proposals for how that program would be implemented and communicated to customers already enrolled or who might be eligible in the future for this program. APS relied on the standard educational messages to all residential customers for those enrolled in the energy support programs for the communications about the rate design changes.[46] Therefore, APS's educational activities with regard to the low income programs have occurred separately and without coordination with the rate design plan option communications.[47] It is important to note that enrollment in APS's limited income programs are relatively low compared to the eligible households. As a result, it is not possible to communicate with APS's low income population with a focus on those enrolled in the limited discount program or medical support program. As of February 2020, 60,596 residential customers were enrolled in the rate discount program (6% of the residential customers served by APS) and 212 enrolled in the safety net program.[48] These enrollment levels are far below the actual percentage of households living in poverty in APS's service territory since 15.6% of the households in the City of Phoenix live below the poverty line (compared to 14% for

[44] The APS communications in Spanish translated the English versions so that the messages were the same.
[45] The lack of any mention or attention to the communication needs for low income customers in APS's Customer Education Plan is a singular defect when compared to the California electric utility ME&O plans referenced earlier in this Report.
[46] APS Response to Staff 2.19.
[47] APS's web portal includes information on its energy support programs and the Company has issued customer education materials concerning these programs. See, APS Response to Staff 2.28, 2.33.
[48] APS Response to Staff 4.12 (h) and (i).

Arizona as a whole).[49] Furthermore, this enrollment level is almost 20,000 less than those enrolled in January 2017, suggesting that there may be a barrier to retaining low income customers in the program through the renewal process or suggest needed reforms in soliciting low income customers to apply.[50]

[49] https://censusreporter.org/profiles/16000US0455000-phoenix-az/ This reference to "poverty level" in this summary is 100% of the federal poverty level and does not, therefore, include the additional customers who qualify for the APS program who are at or below 150% of the federal poverty level.
[50] APS Response to 2.27.

## VIII. HOW HAS APS HANDLED ITS CUSTOMER EDUCATION ON DEMAND RATES?

APS's Education Plan relied primarily on its experience in explaining demand rates and demand rate plans to its customers when these rate options were voluntary to implement the new rate plan mandates and the transition in 2017-2018. That Plan stated that it would rely on the "shift, stagger, and save" messaging that had been in use since 2016. However, the change in the name of these plans to "SAVER" labels was never explained in the Education Plan.

The Plan explained how it would allow customers to enroll in alert messaging if the customer has selected a peak usage level for such an alert. In addition, a customer can download the APS app or view their account in detail on the APS web portal to see their hourly usage compared to the peak hours associated with their rate plan. In addition, "Since the Fall of 2016, for customers exploring a rate plan with a demand component, aps.com has included a peak demand calculator that shows their actual peak demand data, by season, compared to other similar sized homes in their area."[51]

But the Plan did not include specific messages or educational content to explain the demand rate plans or how the rate-specific criteria to move customers into those plans would be explained to affected customers. Instead, demand rate plans were presented as opportunities to "save" by shifting usage and taking "control" of usage on an hourly basis. It should be noted that the change in the peak usage hours from the legacy TOU and demand rate plans compared to the newly adopted plans was not specifically discussed in the Education Plan.

The training provided to the Company's customer service representatives reflects the complexity of explaining the demand charge feature of these rate plans and the manner in which the demand charge dollar amount is calculated and presented on the customer bill.[52] The only manner in which the customer can actually see the daily peak usage and any demand value since the issuance of the last bill is on the APS web portal and on the APS app if downloaded to the customer's smart phone. However, these features only show the customer's demand event up to the prior day.[53] On the customer's bill, there is no presentation of the demand charge rate itself (the dollar amount per kW as stated in the tariff) or when the demand peak was incurred. Furthermore, the total dollar amount of the applicable demand charge does not appear on the customer's bill.[54] The right column on the bill tells the customer the "on peak demand meter reading" and the "on peak demand

[51] APS Education Plan at 10-11.

[52] APS Response to Staff 2.18, APS19RC00563 (Confidential), an 8-page demand charge "test" used as a teaching tool for APS customer service representatives about demand charges.

[53] ASP Response to Staff 8.13.

[54] APS's residential bills showing the new "pro forma" message were provided as APS Response to Staff 4.5, APS19 RC01208 (Rate Schedule R-2, Saver Choice) and APS19RC01211 (Rate Schedule R-3, Saver Choice Max).

in kW." The other column shows a long list of detailed and itemized charges, including two different dollar amounts labeled "generation demand charge" and a "distribution demand charge."[55] The APS demand charge residential bill currently in effect is attached as Appendix C to this Report.

When a customer calls APS to ask about the applicable demand charge calculation, the representative is able to access screens and calculations that do not appear on the customer's bill to inform the customer about how the "on peak demand in kW" results in the total dollar amount of the monthly demand charge.[56] Furthermore, in at least one highly publicized event that occurred in the fall of 2019, APS's customer service representatives were not able to properly or accurately explain demand charges, an episode that resulted in additional training of representatives.[57]

[55] The actual tariff setting the applicable demand charges (See Rate Schedule R2, Saver Choice Plus) identifies an on peak demand charge of $8.40 and then includes "demand charge components" of $4.00 for a "delivery on peak kW charge" and $4.40 per kW for a "generation on-peak kW charge." None of the customer service representative training materials provided by APS explain this distinction or train customer representatives on the bill presentation of these two demand charges.

[56] See, e.g., APS Response to Staff 2.18, APS19RC00560 (Confidential).

[57] APS Response to Staff 2.18, APSRC1900561 (Confidential).

## IX. HOW DOES APS RECOMMEND RATE PLANS FOR NEW OR MOVING CUSTOMERS WITHOUT USAGE HISTORY?

APS did not change its method or approach in dealing with customers calling for new or transferred service that was adopted at the time it implemented voluntary time of use and demand rate options.[58] This approach relies on asking a few basic "lifestyle" questions about the square footage of the home, whether the home is all electric or any gas appliances, or whether there is a pool or spa. The representative is then trained to review the usage history of the home's prior customer and offer the customer a specific rate plan.[59] At the customer's request, all the rate plan options are named and the customer is referred to the APS web portal for more detailed information. New customers are informed about the importance of reviewing their rate plan after 3-6 months of usage and to use the Rate Comparison Tool on the website. The rate plans are referred to by name with descriptions that refer to the peak usage hours but of course the names used for these plans by APS do not explicitly inform customers of the time of use or demand rate structure inherent in the rate plans. It must be emphasized the choosing a rate plan is only one of many requirements for a residential customer to establish service with APS.[60]

APS has not undertaken any specific customer research as to whether the plan recommended to the new or moving customer who are put on a plan without any actual historical usage information has actually resulted in the "best" plan or whether these customers have switched to a cheaper plan and, if so, when. While it is possible that some of the over 400,000 residential customers who were determined not to be on the "best plan" in the fall of 2019 was a reflection of putting new and/or moving customers on the "wrong" rate plan, there is no evidence that APS has researched this potential connection.

[58] APS Response to Staff 8.3.

[59] APS Response to Staff 2.18, APSRC1900566 (Confidential) and APSRC1900553 (Confidential)

[60] Ibid., APSRC1900566 (Confidential), is a four-page dialogue with multiple subparts.

## X. INVOLUNTARY ANNUAL RATE CHANGES

While not discussed in the Education Plan, APS conducts an annual review of those customers who are no longer qualified for the customer's current rate plan and changes that customer's rate plan without explicit customer approval. This feature is unique among any state rate design plan mandates that I am aware of. If a customer is no longer eligible for a rate plan, a reasonable approach would be to notify the customer of this fact several times by personal contact prior to the rate change and, barring any action by the customer to change to another of the optional rate plans, that the customer will be moved to [NAME OF SPECIFIC RATE PLAN] without explicit authorization by a date certain.

This annual rate migration is undertaken based on a review of the customers with at least 12 months of historical usage. The number of customers who were involuntarily migrated to a different service plan as of the December 2019 review totaled 58,984; 30,900 of whom were moved from Lite Choice to Premier Choice or Saver Choice and 24,228 customers on Premier Choice moved to Lite Choice and Saver Choice.[61] This switch was announced to customers via a bill message. However, even APS's own internal training materials informs their representatives that "the reassigned plan is not necessarily the least expensive plan so always perform a service plan comparison for customers who contact us."[62]

The fact that so many customers are being served by plans for which they are no longer qualified based on their historical usage suggests a concern with the efficacy of APS's Education Plan.

[61] APS Response to Staff 8.7.

[62] APS Response to Staff 2.18, APS 19RC00576 (Confidential)

## XI. THERE IS NO FORMAL CUSTOMER EDUCATION PLAN FOR 2020 AND BEYOND

APS has not updated its Education Plan or undertaken to update its Customer Education goals and objectives since the end of the transition period covered by the 2017 Plan. Rather, APS has developed what it refers to as various "plans" for marketing of various approved APS programs (for example, home performance, DSM, energy education, safety net, and other routine customer communications for ongoing initiatives).[63] However, these documents do not include any of the key components of an education plan as set forth in this Report.

To be sure, APS has continued its educational activities via a wide variety of customer communications that are similar to those used during the transition period[64] and has issued Quarterly Reports pursuant to Decision No. 77270 (June 27, 2019) that describe its educational activities in detail. These activities, even though possibly appropriate, occur without the context of a formal Education Plan that contains specific objectives, budgets, performance criteria, or the description of the results of customer research and information that would allow an analysis of the effectiveness of APS's educational activities.

[63] APS Response to Staff 2.3.

[64] APS Response to Staff 2.2 provides samples of customer communications issued from November 2018 through June 2019.

## XII. RECENT POSITIVE DEVELOPMENTS

After the discovery of the errors in its rate analysis tool APS issued a public apology and has pledged to issue refunds to affected customers funded by shareholders. Additional initiatives are worth noting as positive developments.

At the direction of the Commission, APS is implementing a "pro forma" bill in March 2020 that includes information that is customer specific about the monthly and annual total bill implications of the customer's rate plan compared to the "lowest cost" rate plan for which the customer qualifies. This is likely to improve customer understanding of the bill impacts of their own plan compared to other options. This information will be presented with monthly bill calculations so that customers can easily understand the changes in usage and bill impacts where the rates are higher in the summer and demand and peak usage charges are higher. This information comes over two years after the transmittal of information to customers about their rate options and choices in the transition to mandatory rate changes approved in the Settlement Agreement of 2017. This delay contrasts with the California transition to default TOU rates that will accompanied by this rate plan comparison information from the onset of the transition period.

APS is also currently undergoing a process to change the design and presentation of material information on its customer bills. APS has consulted with stakeholders on its bill design options, and, unlike its development of messaging and communications in 2017, customer focus groups were convened to gather additional input. According to APS, its new bill design is not yet finalized but will be implemented as part of the resolution of this pending rate case.[65] However, APS has not submitted a specific bill design for review in this proceeding. While APS's approach to include customer and stakeholder input is a positive step, the lack of any process for Commission review and input for this bill redesign should be remedied.

One aspect of the bill redesign that should be the focus of consumer and Commission attention is the presentation of demand charges, how they are calculated and what specific usage profile triggered the billed demand charge. There is no evidence to date that reflects any significant change from the current bill information on demand charges in the bill design discussions or bill design formats I have reviewed.

[65] APS Response to Staff 4.6.

## XIII. RECOMMENDATIONS

While this Report identifies the shortcomings of APS's Customer Education Plan, it does not recommend that the Commission or the Commission Staff should develop a customer education plan or implement customer education on behalf of APS. Public utilities should be held to account for their investments and policy decisions and rewarded or penalized for conduct that does or does not conform to clearly defined expectations. The utility and its management should be held responsible for basic utility services and service performance. This approach allows the Commission to retain and properly exercise its role as the regulator with judicial powers and enforcement remedies. It would be difficult if not improper for the Commission to evaluate its own actions in educating APS's customers on rate designs and customer service programs.

Rather, the Commission should order APS to create and propose a Customer Education Plan concerning not only rate design options but integrate its rate design education with its limited income programs, demand side management programs, and consumer protection rights and remedies to ensure the retention of essential electricity service. Such a comprehensive plan would allow APS to develop customer educational materials and outreach strategies in a coordinated manner for its residential customers. Most importantly, such a plan should address all the many deficiencies of the Customer Education Plan implemented in 2017-2018 as identified in this Report, particularly including the need for ongoing customer research and feedback mechanisms. As a key requirement, the Commission should require the Plan to include performance standards and reporting mechanisms that will allow a meaningful and regular review of APS's progress in implementing the plan and achieving its goals and objectives.[66] Performance standards should include, at a minimum, measuring and reporting quarterly on:

- Customer initiated changes to their rate plans;
- APS initiated changes to customer rate plans;
- Number of customers not on the "best" or "most economical rate" by rate class;
- frequency and type of complaints;
- Call center performance;
- Results of customer research on messaging and bill presentment;
- Enrollment for limited income programs;
- Achievement of participation objectives for demand side management programs;
- Analysis of the impact of rate design on system benefits, such as peak load reduction and lower generation supply costs; and

[66] APS's response claimed that its 2020 consumer education plans would focus on a wide range of initiatives that the Company claims will "enhance its ability to measure performance in the future." APS Response to Staff 2.6. However, these initiatives, however appropriate, do not reflect integrated plans and do not include specific metrics or performance standards.

- Key indicia of credit and collection activities, such as disconnection notices, disconnections, and payment arrangements.

A future Customer Education Plan should be developed with frequent and substantive interaction with consumer stakeholders and reflect an obligation for ongoing customer research and feedback mechanisms that will encourage an organic and updated Plan. After opportunity for stakeholder input and response to that input by APS, the Plan should be the subject of a more formal review process with opportunity for hearings if substantive disagreements cannot be resolved in a collaborative manner.

Finally, it might be appropriate as well for the Commission to regularly consider whether the number and complexity of the current residential rate plans, particularly those with demand charge features, should be simplified based on customer feedback and measurements of customer understanding and satisfaction. Such an analysis should consider the actual impact of these current plans on reducing peak usage or contributing to the lower cost of generation supply and determine if the policy objectives associated with this move to time based and demand charge rates for the vast majority of residential customers are achieving their intended purposes.

## APPENDIX A: BARBARA ALEXANDER PROFESSIONAL QUALIFICATIONS


**BARBARA R. ALEXANDER**

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**Winthrop, ME 04364**

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# Recent Clients:

The Utility Reform Network (TURN) (California)
Pennsylvania Office of Consumer Advocate
Public Counsel Unit, Attorney General, Washington
Arkansas Attorney General
The Public Utility Project of New York
Ohio Office of Consumer Counsel
District of Columbia Office of People's Counsel
Delaware Division of Public Advocate
Maryland Office of People's Counsel

# Areas of Expertise:

- Default Service, Consumer Protection, Service Quality, and Universal Service policies and programs associated with the alternative rate plans and mergers;
- Consumer Protection and Service Quality policies and programs associated with the regulation of competitive energy and telecommunications providers;
- The regulatory policies associated with the regulation of Credit, Collection, Consumer Protection, Low Income, and Service Quality programs and policies for public utilities;
- Customer Education and Rate design and pricing policies applicable to residential customers; and
- Advanced Metering Infrastructure and Grid Modernization costs and benefits, time-based pricing proposals, and performance standards.

# Prior Employment

DIRECTOR

1986-96

*Consumer Assistance Division*
*Maine Public Utilities Commission*

*Augusta, Maine*

One of five division directors appointed by a three-member regulatory commission and part of commission management team. Direct supervision of 10 employees, oversight of public utility consumer complaint function, appearance as an expert witness on customer services, consumer protection, service quality and low income policy issues before the PUC. Chair, NARUC Staff Subcommittee on Consumer Affairs.

SUPERINTENDENT

1979-83

*Bureau of Consumer Credit Protection*
*Department of Professional and Financial Regulation*

*Augusta, Maine*

Director of an independent regulatory agency charged with the implementation of Maine Consumer Credit Code and Truth in Lending Act. Investigations and audits of financial institutions and retail creditors, enforcement activities, testimony before Maine Legislature and U.S. Congress.

# Education

JURIS DOCTOR

1973-76

*University of Maine School of Law* *Portland, Maine*

Admitted to the Bar of the State of Maine, September 1976. Currently registered as "inactive."

B.A. (WITH DISTINCTION) IN POLITICAL SCIENCE 1964-68

*University of Michigan* *Ann Arbor, Michigan*

# Publications and Testimony

"How to Construct a Service Quality Index in Performance-Based Ratemaking", The Electricity Journal, April, 1996

"The Consumer Protection Agenda in the Electric Restructuring Debate", William A. Spratley & Associates, May, 1996

Direct Testimony on behalf of the Telecommunications Workers Union, Telecom Public Notice 96-8, Price Cap Regulation and Related Issues, Canadian Radio-Television and Telecommunications Commission, September, 1996. [Analysis of and recommendations concerning the need to regulate service quality in move to price cap regulation]

Direct Testimony on behalf of Public Counsel Section, Office of Attorney General, Docket No. UE-960195, Application by Puget Sound Power and Light Co. And Washington Natural Gas Co. For Approval of Merger), Washington Utilities and Transportation Commission, September, 1996 [Need for and design of a Service Quality Index for both electric and gas business units as part of a multi-year rate plan]

Consumer Protection Proposals for Retail Electric Competition: Model Legislation and Regulations", Regulatory Assistance Project, Gardiner, ME, October, 1996

Direct and Rebuttal Testimony on behalf of the Citizens Utility Board (IL), Docket 96-0178, Illinois Commerce Commission, CUB v. Illinois Bell Telephone Co., January 22, 1997; July, 1997. [Analysis of recent service quality performance and recommendations for changes in current service quality performance plan]

Direct and Surrebuttal Testimony on behalf of the Pennsylvania Office of Consumer Advocate, Restructuring Proceedings before the Pennsylvania PUC: PECO Energy; Pennsylvania Power and Light Co.; GPU Energy; Duquesne Light Co.; West Penn Power Co., UGI-Electric, Pennsylvania Power Co., Pike County Light and Power Co. (1997 and 1998). [Specific consumer protection, consumer education and supplier-utility-customer interactions necessary for move to electric restructuring]

"The Transition to Local Telecommunications Competition: A New Challenge for Consumer Protection", Public Counsel Section, Washington Attorney General, October, 1997. [Reprinted in part in NRRI Quarterly Bulletin, Vol. 19, N0.1, Spring, 1998]

Direct and Surrebuttal Testimony on behalf of the New Jersey Division of Ratepayer Advocate, Restructuring Proceedings before the New Jersey Board of Public Utilities: Public Service Electric and Gas, Jersey Central (GPU), Rockland Electric Co., Atlantic Electric Co., March-April, 1998. [Phase-in and customer enrollment, Code of Conduct, consumer protections associated with the provision of Provider of Last Resort service]

Oppenheim, Gerald (NCLC) and Alexander, Barbara, Model Electricity Consumer Protection Disclosures, A Report to the National Council on Competition and the Electric Industry, April 1998.

Direct and Reply Testimony on behalf of the Maryland Office of People's Counsel, Investigation into Certain Unauthorized Practices (Slamming and Cramming), Case. No. 8776, before the Maryland Public Service Commission, 1998 and 1999.

Direct Testimony on behalf of the Maryland Office of People's Counsel, Universal Service Issues, Case No. 8745, before the Maryland Public Service Commission, November 20, 1998.

"Cramming is the Last Straw: A Proposal to Prevent and Discourage the Use of the Local Telephone Bill to Commit Fraud," NRRI Quarterly Bulletin, Fall. 1998.

Alexander, Barbara, Retail Electric Competition: A Blueprint for Consumer Protection, U.S. Department of Energy, Office of Energy and Renewable Energy, Washington, D.C., October 1998.

Alexander, Barbara, "Consumer Protection Issues in Electric Restructuring for Colorado: A Report to the Colorado

Electricity Advisory Panel," on behalf of the Colorado Office of Consumer Counsel, February 1999.

Testimony on Proposed Interim Rules (Consumer Protection, Customer Enrollment, Code of Conduct, Supplier Licensing) on behalf of the New Jersey Division of Ratepayer Advocate before the New Jersey BPU, May 1999.

Direct Testimony on behalf of AARP, West Virginia PUC Investigation into Retail Electric Competition (consumer protection, universal service, Code of Conduct), June 15, 1999.

Direct and Surrebuttal Testimony on behalf of the Pennsylvania OCA, Natural Gas Restructuring proceedings (8 natural gas utilities): consumer protection; consumer education; code of conduct, before the Pennsylvania PUC, October 1999-April 2000.

Comments on Draft Rules addressing Slamming and Cramming (Docket No. RMU-99-7) on behalf of the Iowa Office of Consumer Advocate, before the Iowa Utilities Board, October 1999.

Alexander, Barbara, "Door to Door Sales of Competitive Energy Services," LEAP Letter, January-February 2000 [Wm. A. Spratley & Associates, Columbus, OH]

Direct Testimony on behalf of the Maine Office of Public Advocate, Central Maine Power Company Alternative Regulation Plan [Docket 99-666] on service quality issues, before the Maine PUC, May 2000.

Direct Testimony on behalf of AARP, Universal Service Programs and Funding of low-income programs for electric and natural gas service, before the New Jersey Board of Public Utilities, Docket No. EX000200091, July, 2000.

Comments (on behalf of NASUCA and AARP) on Uniform Business Practices Reports, May and September 2000.

Direct Testimony on behalf of the Pennsylvania OCA, Verizon-Pennsylvania Structural Separation Plan on service quality, customer service and consumer protection issues [Docket No. M-00001353] before the Pennsylvania PUC, October 2000.

Direct and Rebuttal Testimony on behalf of the Maine Office of Public Advocate, Verizon-Maine Alternative Form of Regulation on service quality issues [Docket No. 99-851] before the Maine PUC, January and February 2001.

Direct and Rebuttal Testimony on behalf of the Citizens Utility Board, Nicor Gas Customer Select Pilot Program, on consumer protection and regulation of competitive natural gas suppliers [Docket Nos. 00-0620 and 00-0621] before the Illinois Commerce Commission, December 2000 and February 2001.

Direct and Surrebuttal Testimony on behalf of the Pennsylvania Office of Consumer Advocate on consumer protection and service quality issues associated with the pending merger between GPU Energy and FirstEnergy, before the Pennsylvania PUC, Docket Nos. A-110300F0095 and A-110400F.0040 (February and March, 2001)

Direct and Surrebuttal Testimony on behalf of the New Jersey Division of Ratepayer Advocate on consumer protection, service quality, and universal service issues associated with the pending merger between GPU Energy and FirstEnergy, before the New Jersey Board of Public Utilities, Docket No. EM00110870 (April 2001).

Alexander, Barbara, "Default Service: What Should be Done When the Experiment Goes Awry?" (April 2001)

Responsive Testimony on behalf of the New Jersey Division of Ratepayer Advocate on service quality issues associated with a Plan for Alternative Regulation by Verizon-New Jersey, before the New Jersey Board of Public Utilities, Docket No. To01020095 (May 2001).

Direct and Surrebuttal Testimony on behalf of the New Jersey Division of Ratepayer Advocate on service quality, consumer protection, and universal service issues associated with the pending merger between Conectiv and

Pepco, before the New Jersey Board of Public Utilities, BPU Docket No. EM101050308 (September and November 2001).

Direct Testimony on behalf of the Public Interest Advocacy Centre (and others) on service quality regulation in the context of price cap rate plans, before the Canadian Radio-Television and Telecommunications Commission, Docket No. CRTC 2001-37 (August 2001).

Alexander, Barbara, "Default Service: What Should be Done when the Experiment Goes Awry?" An Update to the April 2001 paper (October 2001).

Expert Witness Report, Sparks v. AT&T and Lucent Technologies, October 2001 [National class action lawsuit concerning the leasing of residential telephones]

Expert Witness Report, Brown v. Reliant Energy, November 2001 [Claim of negligence in death of elderly resident after disconnection of electric service]

Comments on behalf of the Pennsylvania Office of Consumer Advocate on consumer protection, disclosure, and education program Guidelines applicable to local exchange telephone competition, before the Pennsylvania PUC, January 2002.

Alexander, Barbara, "Default Service for Retail Electric Competition: Can Residential and Low-Income Customers be Protected When the Experiment Goes Awry?" (April 2002) Available at www.ncat.org/liheap/pubs/barbadefault3.doc

Comments on behalf of AARP before the California PUC on CARE (low income program) concerning Rapid Deployment, Rulemaking 01-08-027 (2001 and 2002).

Comments on behalf of Citizens Utility Board before the Illinois Commerce Commission on Proposed Rule to Allow the Use of Credit Scoring to Determine When a Deposit May be Required, ICC Docket No. 01-0644, June 24, 2002.

Comments on behalf of Consumer Groups before the Texas PUC on Rulemaking Proceeding to Amend Requirements for Provider of Last Resort Service, Docket No. 25360, June 28, 2002.

Direct Testimony on behalf of the New Jersey Division of Ratepayer Advocate before the Board of Public Utilities on Joint Petition of New Jersey-American Water Co. and Thames Water Aqua Holding for Approval of a Change in Control of New Jersey-American Water Co., Docket No. WM01120833, July 18, 2002.

Alexander, Barbara, Consumer Education Programs to Accompany the Move to Retail Electric Competition, prepared for the National Association of State Utility Consumer Advocates (NASUCA), July 2002. Available at www.nasuca.org

Direct Testimony on behalf of New Jersey Division of Ratepayer Advocate before the Board of Public Utilities on Petition of NUI Utilities d/b/a Elizabethtown Gas Co. for Approval of Increased Base Tariff Rates and Charges for Gas Service, Docket No. GR02040245, September 6, 2002.

Alexander, Barbara, An Analysis of Residential Energy Markets in Georgia, Massachusetts, Ohio, New York, and Texas, prepared for the National Energy Affordability and Accessibility Project, National Center for Appropriate Technology, September 2002. Available at www.ncat.org/neaap

Direct and Surrebuttal Testimony on behalf of the Pennsylvania Office of Consumer Advocate before the Pennsylvania PUC on Philadelphia Gas Works' Gas Restructuring Filing, Docket No. M-00021612, September 2002 and November 2002.

Direct Testimony on behalf of Consumer Groups before the Texas PUC on Notice and Request of Mutual Energy CPL and Mutual Energy WTU for Approval of Changes in Ownership and Affiliation, Docket No. 25957, October 15, 2002.

Comments on behalf of the Pennsylvania Office of Consumer Advocate before the Pennsylvania PUC, Advanced Notice of Proposed Rulemaking for Revision of Chapter 54 Pertaining to Electric Generation Supplier Licensing, Docket No. L-00020158, March 5, 2003.

Direct and Surrebuttal Testimony on behalf of the New Jersey Division of Ratepayer Advocate before the New Jersey BPU on Jersey Central Power & Light's base rate case proceeding (service quality and reliability of service), Docket No. ER02080506, ERT02080507, and ER02070417, December 2002 and February 2003.

Alexander, Barbara, "Managing Default Service To Provide Consumer Benefits In Restructured States: Avoiding Short-Term Price Volatility" (National Center for Appropriate Technology, June 2003). Available at: http://neaap.ncat.org/experts/defservintro.htm

Comments and Reply Comments on behalf of New Jersey AARP before the New Jersey Board of Public Utilities on Basic Generation Service, Docket No. EO03050394 (August and September 2003).

Direct and Surrebuttal Testimony on behalf of the New Jersey Division of the Ratepayer Advocate before the New Jersey BPU on rate case proceedings for New Jersey-American Water Co., Elizabethtown Water Co., and Mt. Holly Water Co. (service quality and low-income programs and policies), Dockets Nos. WR03070509-WR03070511 (December 2003).

Comments on behalf of the Texas Legal Services Center and other Consumer Groups before the Public Utility Commission of Texas, Proposed Revisions to Chapter 25, Substantive Rules Applicable to Electric Service Providers, Project No. 27084 (December 2003).

Alexander, Barbara, "Natural Gas Price Volatility: Regulatory Policies to Assure Affordable and Stable Gas Supply Prices for Residential Customers," (2004), available at http://www.ncat.org/liheap/news/Feb04/gaspricevol.htm

Alexander, Barbara, "Montana's Universal Systems Benefit Programs and Funding for Low Income Programs: Recommendations for Reform: A Report to AARP" (January 2004).

Comments and Reply Comments on behalf of the Colorado Office of Consumer Counsel before the Public Utilities Commission of Colorado, In the Matter of the Proposed Repeal and Reenactment of all Rules Regulating Gas Utilities (Docket No. 03R-520G) and Electric Utilities (Docket No. 03R-519E) (February and September 2004).

Direct, Rebuttal, and Supplemental Testimony on behalf of the Pennsylvania Office of Consumer Advocate before the Pennsylvania PUC, Petition of Duquesne Light Co. for Approval of Plan for Post-Transition Period POLR Services, Docket No. P-00032071 (February-April 2004).

Comments on behalf of AARP before the California PUC, Order Instituting Rulemaking on the Commission's Own Motion to Establish Consumer Rights and Consumer Protection Rules Applicable to All Telecommunications Utilities, R. 00-02-004 (March 2004).

Comments and Reply Comments on behalf of AARP before the Maine PUC, Inquiry into Standard Offer Supply Procurement for Residential and Small Commercial Customers, Docket No. 2004-147 (April 2004).

Comments on behalf of Wisconsin Citizens' Utility Board before the Wisconsin Public Service Commission's Gas Service Standards, Docket No. 1-AC-210 (July 2004).

Comments on behalf of the Colorado Office of Consumer Counsel before the Public Utilities Commission of Colorado, In the Matter of the Proposed Repeal and Reenactment of all Rules Regulating Telephone Utilities and Providers (Docket No. 03R-524T) (September 2004).

Direct Testimony on behalf of the Pennsylvania Office of Consumer Advocate before the Pennsylvania PUC, Investigation if Metropolitan Edison Co., Pennsylvania Electric Co. and Pennsylvania Power Co. Reliability Performance, Docket no. I-00040102, [customer service and reliability performance] (June 2004).

Direct and Surrebuttal Testimony on behalf of the Vermont Department of Public Service before the Vermont Board of Public Utilities, Investigation into Successor Alternative Regulatory Plan for Verizon Vermont, Docket 6959 [Service Quality] (November 2004 and March 2005).

Alexander, Barbara, "Vermont Energy Programs for Low-Income Electric And Gas Customers: Filling The Gap" (November 2004), Prepared for AARP Vermont.

Direct and Surrebuttal Testimony on behalf of Wisconsin Citizens' Utility Board before the Wisconsin Public Service Commission, Application of Wisconsin Power and Light Co. for Authority to Increase Retail Electric, Natural Gas and Ripon Water Rates, Docket No. 6680-UR-114 [customer service, credit and collection programs and expenses, low income programs, fixed bill program] (April 2005).

Comments on behalf of the Maine Office of Public Advocate before the Maine Public Utilities Commission, Inquiry into Revisions to Chapter 81, Residential Utility Service Standards for Credit and Collection Programs, and Chapter 86, Disconnection and Deposit Regulations for Nonresidential Utility Service, Docket No. 2005-005 (April and May 2005).

Direct and Rebuttal Testimony on behalf of AARP Montana before the Montana Public Service Commission, Northwestern Energy Electric Cost Tracker, Docket No. D2004.6.90 [Default Service cost recovery policies and integration with low income programs] (December 2004 and July 2005).

Direct Testimony on behalf of the Pennsylvania Office of Consumer Advocate before the Pennsylvania Public Utilities Commission, Joint Application of PECO Energy Co. and Public Service Electric and Gas Co. for Approval of the Merger of Public Service Enterprise Group, Inc. with and into Exelon Corporation, Docket No. A-110550F0160 [customer service, reliability of service, low income programs] (June 2005).

Direct Testimony on behalf of Illinois Citizens' Utility Board, City of Chicago, and Community Action for Fair Utility Practice, before the Illinois Commerce Commission, Petition to Initiate Rulemaking with Notice and Comment for Approval of Certain Amendments to Illinois Administrative Code Part 280 Concerning Deposit Requests and Deposit Refunds by Utilities, Docket No. 05-0237 (June 2005).

Direct Testimony on behalf of The Utility Reform Network (TURN) before the California Public Utilities Commission, Order Instituting Rulemaking on the Commission's Own Motion to Establish Consumer Rights and Consumer Protection Rules Applicable to All Telecommunications Utilities, Docket R-00-02-004 (August 2005).

Alexander, Barbara, Red Flags for Consumer Protection Policies Governing Essential Electric and Gas Utility Services: How to Avoid Adverse Impacts on Low-Income Consumers, prepared under contract with Oak Ridge National Laboratory Energy Division (October 2005).

Comments on behalf of Texas Office of Public Utility Counsel, Texas Legal Services Center, Texas Ratepayers' Organization to Save Energy and AARP Texas, before the Texas PUC, Evaluation of Default Service for Residential Customers and Review of Rules Relating to the Price to Beat and Provider of Last Resort, Project No. 31416 (March 2006) [Default service policies]

Rebuttal and Surrebuttal Testimony on behalf of the Pennsylvania Office of Consumer Advocate before the Pennsylvania PUC, In the Matter of the Petition of the Pennsylvania Power Co. for Approval of an Interim Provider of Last Resort Supply Plan, Docket No. P-00052188 [Default Service policies] (December 2005 and January 2006).

Direct and Rebuttal Testimony on behalf of the Maine Office of Public Advocate before the Maine PUC, Investigation into Verizon Maine's Alternative Form of Regulation, Docket No. 2005-155 [Retail Service Quality] (January and May 2006).

Alexander, Barbara, "State Developments Changing for Default/Standard Retail Electric Service," Natural Gas & Electricity, September 2006.

Direct and Rebuttal Testimony on behalf of the Government and Consumer Parties (CUB, Attorney General of Illinois) before the Illinois Commerce Commission, Petition to Initiate Rulemaking with Notice and Comment for Approval of Certain Amendments to Illinois Administrative Code Part 280, Docket No. 06-0379 (May and September 2006). [Consumer Protection rules]

Direct Testimony on behalf of the Pennsylvania Office of Consumer Advocate before the Pennsylvania PUC, In Re Application of UGI Utilities, Inc., UGI Utilities Newco, Inc., and Southern Union Co., Docket Nos. A-120011F2000, A-125146, A-125146F5000 (June 2006). [Customer Service, Service Quality, and Universal Services]

Direct and Rebuttal Testimony on behalf of the Maryland Office of People's Counsel before the Maryland PSC, In The Competitive Selection of Electricity Supplier/Standard Offer or Default Service for Investor-Owned Utility Small Commercial Customers and, Delmarva Power and Light and Potomac Electric Power Residential Customers, Case No. 9064 (August and September 2006). [Default Service policies]

Direct and Rebuttal Testimony on behalf of the Maryland Office of People's Counsel before the Maryland PSC, In The Matter of the Optimal Structure of the Electric Industry of Maryland, Case No. 9063 (October and November 2006). [Default service policies]

Comments on behalf of AARP Maine before the Maine PUC on various dockets and notices concerning the implementation of Standard Offer Service for residential customers, Docket Nos. 2006-314, 2006-557, and 2006-411 (July-November 2006). [Default service policies]

Comments on behalf of AARP District of Columbia before the District of Columbia PSC, In the Matter of the Development and Designation of Standard Offer Service in the District of Columbia, Case No. 1017 (2006). [Default service policies]

Comments on behalf of AARP New Jersey before the New Jersey Board of Public Utilities, In the Matter of the Establishment of a Universal Service Fund Pursuant to Section 12 of the Electric Discount and Energy Competition Act of 1999, Docket No. EX00020091 (August 2006) [Recommendations for USF program changes]

Direct and Rebuttal Testimony on behalf of the Pennsylvania Office of Consumer Advocate before the Pennsylvania PUC, Joint Application of Equitable Resources, Inc. and the People's Natural Gas Co., d/b/a Dominion Peoples, for Approval of the Transfer of All Stock Rights of the Latter to the Former and for the Approval of the Transfer of All Stock of Hope Gas, Inc., d/b/a/ Dominion Hope to Equitable Resources, Inc., Docket No. A-122250F5000 (September and October 2006). [Customer Service, Service Quality, and Universal Service issues)

Direct Testimony on behalf of Pennsylvania Office of Consumer Advocate before the Pennsylvania PUC, Pennsylvania PUC v. Natural Fuel Gas Distribution Corp., Docket No. R-00061493 (September 2006) [Supplier Purchase of Receivables Program]

Direct Testimony on behalf of AARP Montana before the Montana Public Service Commission, Joint Application of NorthWestern Energy and BBI to purchase NorthWestern Energy, Docket No. 2006.6.82 [December 2006] [Conditions for approval of merger; low income and customer service programs]

Rebuttal Testimony on behalf of the Pennsylvania Office of Consumer Advocate before the Pennsylvania PUC, Petition by PPL Electric Utilities Corp. for Approval of a Competitive Bridge Plan, Docket No. P-00062227 (December 2006) [Default Service policies]

Direct and Rebuttal Testimony on behalf of the Pennsylvania Office of Consumer Advocate before the Pennsylvania PUC, Application of Duquesne Light Company for a Certificate of Public Convenience Under Section 1102(a)(3) of the Public Utility Code Approving the Acquisition of Duquesne Light Holding, Inc. by Merger, Docket A-110150F0035 (December 2006 and January 2007) [Conditions for approval of merger; low income and customer service programs]

Testimony before the House Least Cost Power Procurement Committee, Illinois General Assembly, on HB 1510, on behalf of AARP [March 22, 2007]

Rebuttal and Surrebuttal Testimony on behalf of Pennsylvania Office of Consumer Advocate before the Pennsylvania PUC, Petition of Duquesne Light Co. for Approval of Default Service Plan for January 1, 2008 to December 31, 2010, Docket No. P-00072247 [April 2007] [Default Service policies]

Comments and Reply Comments on behalf of AARP New Jersey before the Board of Public Utilities BGS Working Group concerning BGS procurement policies and proposed demand response program, (March-May 2007) [Default Service policies]

Comments on behalf of AARP New Jersey to the New Jersey BPU Staff on draft proposed USF regulations (May 2007) [Low income program design and implementation]

Alexander, Barbara, Smart Meters, Real Time Pricing, And Demand Response Programs: Implications For Low Income Electric Customers (May 2007)

Direct and Surrebuttal Testimony on behalf of Maine Office of Public Advocate before the Maine Public Utilities Commission, Re: Joint Application for Approvals Related to Verizon's Transfer of Property and Customer Relations to Company to be Merged with and into FairPoint Communications, Inc., Docket 2007-67 (July and September 2007) [Service Quality and Customer Service Conditions for Merger]

Testimony on behalf of AARP Montana before the Montana Public Service Commission, In the Matter of Montana Dakota Utilities Co., Public Service Commission Investigation and Direction on Electric and Natural Gas Universal System Benefits, Docket No. D2006.1.2 (July 30, 2007) [Design and funding for low income programs]

Direct and Surrebuttal Testimony on behalf of Maine Office of Public Advocate before the Maine Public Utilities Commission, Central Maine Power Co. Chapter 120 Information (Post ARP 2000) Transmission and Distribution Utility Revenue Requirement and Rate Design And Request for Alternative Rate Plan, Docket No. 2007-215 (August 30, 2007 and February 2008) [AMI deployment]

Direct and Reply Testimony on behalf of AARP Maryland before the Maryland Public Service Commission, In the Matter of the Commission's Investigation of Investor-Owned Electric Companies' Standard Offer Service for Residential and Small Commercial Customers in Maryland, Case No. 9117, Phase I and II (September 2007) [Default Service policies]

Testimony on behalf of AARP Maryland before the Maryland Public Service Commission, In the Matter of the Commission's Investigation of Advanced Metering Technical Standards, Demand Side Management Competitive

Neutrality, and Recovery of Costs of Advanced Meters and Demand Side Management Programs, Case 9111 (November 2, 2007) [Default Service policies; AMI deployment]

Comments on behalf of AARP District of Columbia before the D.C. Public Service Commission, In the Matter of The Application Of Potomac Electric Power Co. For Authorization to Establish A Demand Side Management Surcharge and an Advanced Metering Infrastructure Surcharge And to Establish a DSM Collaborative and an AMI Advisory Group, Formal Case No. 1056 (August 10, September 10, November 13, 2007, April 2008) [Default Service policies; AMI deployment]

Comments on behalf of AARP District of Columbia before the D. C. Public Service Commission, Re: The Petition of the Office of the People's Counsel for the District of Columbia for an Investigation into the Structure of the Procurement Process for Standard Offer Service, Formal Case No. 1047 (November 2007) [Default Service policies]

Direct, Rebuttal and Surrebuttal testimony on behalf of the Pennsylvania Office of Consumer Advocate before the Pennsylvania PUC, Petition of the West Penn Power Co. d/b/a Allegheny Power for Approval of its Retail Electric Default Service Program and Competitive Procurement Plan for Service at the Conclusion of the Restructuring Transition Period, Docket No. P-00072342 (February-March 2008) {Default service procurement policies]

Testimony on behalf of AARP before the Virginia Commission on Electric Utility Restructuring in the General Assembly on HB 1523 and SB 311 (January 2007) [Electric Utility Integrated Resource Planning]

Testimony on behalf of AARP before the Ohio House of Representatives on SB 221 (February 2008) [Default Service procurement policies for post-transition period]

Alexander, Barbara, The Federalization Of Energy Prices: How Policies Adopted By The Federal Energy Regulatory Commission Impact Electricity Prices For Residential Customers: A Plain Language Primer (March 2008)

Comments on behalf of AARP before the New Jersey Board of Public Utilities, In the Matter of the Universal Service Fund, Docket Nos. EO07110888 and EX00020091 (April 2008) [low income program; automatic enrollment]

Direct and Surrebuttal testimony on behalf of the Pennsylvania Office of Consumer Advocate before the Pennsylvania Public Utility Commission, PUC v. Columbia Gas of Pennsylvania, Inc., Docket No. R-2008-2011621 (May and June 2008) [rate case: retail gas competition and Purchase of Receivables program]

Direct Testimony on behalf of Public Counsel and the Energy Project before the Washington Utilities and Transportation Commission, WUTC v. Puget Sound Energy, Inc., Docket Nos. UE-072300 and UG-072301 (May 2008) [revisions to Service Quality Index; storm cost recovery; fixed customer charge; low income program funding]

Direct Testimony on behalf of Public Counsel and the Energy Project before the Washington Utilities and Transportation Commission, In the matter of the Application of Puget Holdings LLC and Puget Sound Energy for an Order Authorizing Transaction, Docket No. U-072375 (June 2008) [Conditions for Sale: customer service; low income programs]

Direct Testimony on behalf of Local 223, UWUA before the Michigan Public Service Commission, In the Matter of the application of Detroit Edison Co. for authority to increase its rates, Case No. U-15244 (July 2008) [Customer Service standards; Advanced Metering proposal]

Reply Testimony on behalf of AARP before the Mississippi Public Service Commission, Proceeding to Review Statewide Energy Generation Needs, Docket No. 2008-AD-158 (August 2008) [Integrated Resource Planning]

Comments on behalf of Local 223, UWUA before the Michigan Public Service Commission, In the matter, on the Commission's own Motion, to investigate the development of minimum functionality standards and criteria for advanced metering infrastructure (AMI), Case No. U-15620 (August 2008) [Advanced Metering policies and standards]

Direct and Rebuttal Testimony on behalf of Illinois Citizens Utility Board and AARP before the Illinois Commerce Commission, Citizens Utility Board, Citizens Action/Illinois and AARP vs. Illinois Energy Savings Corp. d/b/a U.S. Energy Savings Corp., Complaint pursuant to 220 ILCS 5/19-110 or 19-115, Docket 08-0175. (August and November 2008) [Investigation of marketing activities and licensing conditions of an alternative gas supplier]

Direct Testimony on behalf of Ohio Partners for Affordable Energy before the Public Utilities Commission of Ohio on filings by electric utilities pursuant to SB 221: Market Rate Option plan filed by FirstEnergy (Case No. 08-936-EL-SSO), Electric Security Plan filed by FirstEnergy (Case No. 08-935-EL-SSO), and Electric Security Plan filed by AEP Ohio (Case No.08-917-EL-SSO & Case No. 08-918-EL-SSO) (September-November 2008) [Default Service procurement policies; energy efficiency and smart meter proposals]

Reply, Surrebuttal, and Supplemental Testimony on behalf of Maryland Office of People's Counsel before the Maryland Public Service Commission, In the Matter of Appropriate Forms of Regulating Telephone Companies, Case No. 9133 (August and October 2008; July 2009) [service quality performance conditions for alternative rate regulation of Verizon-MD]

Comments on behalf of AARP before the Idaho Public Utilities Commission, In the Matter of the Application Of Idaho Power Co. for a Certificate of Public Convenience and Necessity to Install Advanced Metering Infrastructure ("AMI") Technology Throughout its Service Territory, Case No. IPC-E-08-16 (December 2008) [Smart Meter costs and benefits]

Direct and Surrebuttal Testimony on behalf of the Pennsylvania Office of Consumer Advocate before the Pennsylvania Public Utility Commission, Joint Application for the Authority and Necessary Certificates of Public Convenience to Transfer all of the Issued and Outstanding Shares of Capital Stock of the Peoples Natural Gas Co. d/b/a Dominion Peoples, Currently owned by Dominion Resources, Inc. to Peoples Hope Gas Companies LLC, an Indirect Subsidiary of Babcock & Brown Infrastructure Fund North America LP, and to Approve the Resulting Change in Control of the Peoples Natural Gas Co. d/b/a Dominion Peoples, Docket No. A-2008-2063737 (December 2008 and July 2009) [Proposed conditions relating to Service Quality and Universal Service programs]

Rebuttal Testimony on behalf of Pennsylvania Office of Consumer Advocate before the Pennsylvania PUC, Petition of PPL Electric Utilities Corp. for Approval of a Default Service Program and Procurement Plan, Docket No. P-2008-2060309 (January 2009) [Retail Market Programs]

Rebuttal Testimony on behalf of Pennsylvania Office of Consumer Advocate before the Pennsylvania PUC, Petition of PECO Energy Co. for Approval of its Default Service Program and Rate Mitigation Plan, Docket No. P-2008-2062739 (January 2009) [Retail Market Programs]

Comments on behalf of AARP before the Mississippi Public Service Commission, In Re: Order Establishing Docket to Consider standards established by the Energy Independence and Security Act of2007, Docket No. 2008-ad-477 (February 2009) [PURPA Policies; Integrated Resource Planning; Time-Based Pricing]

Co-Author of Comments on behalf of The Utility Reform Network (TURN) before the California Public Utilities Commission, Order Instituting Rulemaking to consider Smart Grid Technologies Pursuant to Federal Legislation and on the Commission's own Motion to Actively Guide Policy in California's Development of a Smart Grid System, Docket R. 08-12-009 (2009 and 2010) [Smart Grid policies]

Direct and Rebuttal Testimony on behalf of the Attorney General of the Commonwealth of Massachusetts before the Department of Public Utilities, Investigation by the Department of Public Utilities on its Own Motion into the

Preparation and Response on Fitchburg Gas & Electric Co. d/b/a Unitil to the December 12, 2008 Winter Storm, D.P.U. 09-01-A (March and April 2009) [Investigation of storm restoration practices]

Testimony on behalf of UWUA Local 132 before the California Public Utilities Commission, Southern California Gas Co. Advanced Metering Infrastructure, Docket No. A.08-09-023 (April 2009) [Advanced metering deployment]

Direct and Rebuttal Testimony on behalf of the Delaware Public Service Commission Staff before the Delaware Public Service Commission, In the Matter of the Investigation into the Business and Marketing Practices of Horizon Power and Light, LLC, Docket No. 355-08 (April and June 2009) [Investigation into marketing and contract practices of licensed electricity supplier]

Testimony on behalf of AARP before the District of Columbia Public Service Commission, In the Matter of the Application of Potomac Electric Power Co. for Authority to Establish a Demand Side Management Surcharge and an Advanced Metering Infrastructure Surcharge and to Establish a DSM Collaborative and an AMI Advisory Group, Formal Case No. 1056 (June 2009) [Advanced Metering proposal]

Rebuttal Testimony on behalf of the Pennsylvania Office of Consumer Advocate before the Pennsylvania Public Utility Commission, Petition of Metropolitan Edison Co. and Pennsylvania Electric Co. for Approval of its Default Service Program, Docket Nos. P-2009-2093053 and P-2009-2093054 (June 2009) [Default Service policies]

Alexander, Barbara, with the Assistance of Mitchell, Cynthia and Court, Gill, Renewable Energy Mandates: An Analysis Of Promises Made And Implications For Low Income Customers, Prepared under contract with Oak Ridge National Laboratory UT-Battelle, LLC, Purchase Order No. 4000091296 (June 2009).

Direct Testimony on behalf of the People of the State of Illinois and AARP before the Illinois Commerce Commission, Petition of Commonwealth Edison Co. to Approve and Advanced Metering Infrastructure Pilot, Docket No. 09-0263 (July 2009). [Advanced Metering pilot design and scope]

Direct Testimony on behalf of the Attorney General of the Commonwealth of Massachusetts before the Massachusetts Department of Public Utilities, Massachusetts Electric Company & Nantucket Electric Company d/b/a
National Grid, Smart Grid Pilot Proposal, Docket No. 09-32 (August 2009) [Advanced Metering pilot design]

Direct Testimony on behalf of the Attorney General of the Commonwealth of Massachusetts before the Massachusetts Department of Public Utilities, Fitchburg Gas and Electric Co., d/b/a/ Unitil, Smart Grid Pilot Proposal, Docket No. 09-31 (August 2009) [Advanced Metering pilot design]

Direct Testimony on behalf of AARP before the Maryland Public Service Commission, In the Matter of Potomac Electric Power Company and Delmarva Power and Light Company Request for the Deployment of Advanced Meter Infrastructure, Case No. 9207 (October 2009) [Advanced Metering deployment costs and benefits; dynamic pricing proposals]

Direct Testimony on behalf of AARP before the Maryland Public Service Commission, Application of Baltimore Gas and Electric Company for Authorization to Deploy A Smart Grid Initiative and to Establish a Tracker Mechanism For the Recovery of Costs, Case No. 9208 (October 2009) [Advanced Metering deployment costs and benefits; dynamic pricing proposals]

Direct Testimony on behalf of the Pennsylvania Office of Consumer Advocate before the Pennsylvania PUC, Petition of PPL Electric Utilities Corporation Requesting Approval of a Voluntary Purchase of Accounts Receivables Program and Merchant Function Charge, Docket No.P-2009-2129502 (October 2009) [Retail competition policies: purchase of receivables programs]

Direct and Cross Reply Testimony on behalf of The Energy Project (Washington) before the Washington Utilities and Transportation Commission, In the Matter of the Petition of Avista Corporation, D/B/A Avista Utilities, For an Order Authorizing Implementation of a Natural Gas Decoupling Mechanism and to Record Accounting Entries Associated With the Mechanism. Docket No. UG-060518 (*consolidated)* (August and September 2009) [Natural gas decoupling proposal; impact on low income customers]

Direct Testimony on behalf of the Attorney General of the Commonwealth of Massachusetts before the Massachusetts Department of Public Utilities, NSTAR Electric Co. Smart Grid Pilot Proposal, Docket No. 09-33 (November 2009) [Advanced Metering pilot design]

Direct Testimony on behalf of Public Counsel Section, Attorney General of Washington, before the Washington Utilities and Transportation Commission, In the Matter of the Joint Application of Verizon Communications Inc. and Frontier Communications Corporation For an Order Declining to Assert Jurisdiction Over, or, in the Alternative, Approving the Indirect Transfer of Control of Verizon Northwest Inc., Docket No. UT-090842 (November 2009) [Service Quality Conditions]

Rebuttal Testimony on behalf of the Pennsylvania Office of Consumer Advocate, before the Pennsylvania PUC, Petition of Duquesne Light Company for Approval of Default Service Plan for the Period January 1, 2011 through May 31, 201, Docket No. P-2009-2135500 (January 2010) [Retail Competition policies]

Direct, Rebuttal, and Surrebuttal Testimony on behalf of The Citizens Utility Board (CUB), The City Of Chicago, and The People Of The State Of Illinois (Attorney General), before the Illinois Commerce Commission, Revision of 83 Ill. Adm. Code 280, Docket No. 06-0703 (January 2010, October 2010, February 2011) [Consumer Protection policies governing electric, natural gas, and water utility service]

Direct and Surrebuttal Testimony on behalf of Maine Office of Consumer Advocate, before the Maine PUC, Central Maine Power Co., Petition Requesting That the Commission Issue an Order to Modify CMP's Service Quality Indicators by Eliminating Or Changing the Current MPUC Complaint Ratio and to Waive Penalties, Docket No. 2009-217 (February and July 2010) [Evaluation of Request for Waiver of Penalty]

Direct, Rebuttal and Surrebuttal Testimony on behalf of the Pennsylvania Office of Consumer Advocate, before the Pennsylvania PUC, Petition of UGI Utilities, Inc.—Gas Division for Approval to Voluntarily Implement a Purchase of Receivables Program and Merchant Function Charge And Of a Potential Affiliated Interest Agreement Between UGI Utilities, Inc.—Gas Division And Affiliated Entities, Docket No. P-2009-2145498 (April and May 2010) [Purchase of Receivables Program Conditions]

Direct Testimony on behalf of the Massachusetts Attorney General, before the Massachusetts Department of Public Utilities, Western Massachusetts Electric Co. Smart Grid Pilot Proposal, Docket D.P.U. 09-34 (May 2010) [Smart Meter and Pricing Pilot evaluation and conditions]

Direct, Rebuttal and Surrebuttal Testimony on behalf of the Pennsylvania Office of Consumer Advocate, before the Pennsylvania PUC, Petition of PECO Energy Company for Approval of its Natural Gas Supplier Purchase of Receivables Program, Docket No. P-2009-2143588 (March, April, and May 2010) [Purchase of Receivables Program Conditions]

Direct and Rebuttal Testimony on behalf of the Pennsylvania Office of Consumer Advocate, before the Pennsylvania PUC, Petition of Columbia Gas of Pennsylvania, Inc. for Approval to Voluntarily Implement a Modified Purchase of Receivables Program Pursuant to SEARCH Filing Requirement and Interim Purchase of Receivables Guidelines, Docket No. P-2009-2099333 (February and March 2010) [Purchase of Receivables Program Conditions]

Direct, Rebuttal and Surrebuttal Testimony on behalf of the Pennsylvania Office of Consumer Advocate, before the Pennsylvania PUC, Petition of PECO Energy Company for Approval of its Revised Electric Purchase of Receivables Program, Docket No. P-2009-2143607 (February and March 2010) [Purchase of Receivables Program Conditions]

Alexander, Barbara, "Dynamic Pricing? Not So Fast. A Residential Consumer Perspective," The Electricity Journal (July 2010) (http://dx.doi.org/10.1016/j.tej.2010.05.014) [Opposition to Mandatory Time-Based Pricing for residential customers]

Direct, Rebuttal, and Surrebuttal Testimony on behalf of the Pennsylvania Office of Consumer Advocate, before the Pennsylvania PUC, Joint Application of West Penn Power Company doing business as Allegheny Power Company, Trans-Allegheny Interstate Line Company and FirstEnergy Corporation for a Certificate of Public Convenience Under Section 1102(A)(3) of the Public Utility Code Approving a Change of Control of West Penn Power Company and Trans-Allegheny Interstate Line Company, Docket Nos.A-2010-2176520 and A-2010-2176732 (August, September and October 2010) [Service Quality, Customer Service, and Universal Service Program Conditions]

Direct Testimony on behalf of the Pennsylvania Office of Consumer Advocate, before the Pennsylvania PUC, Petition of T.W. Phillips Gas and Oil Co. for Approval of Purchase of Receivables Program, Docket No. P-2009-2099192 (August 2010) [Purchase of Receivables Program Conditions]

Direct Testimony on behalf of AARP, before the Maryland PSC, Application of Baltimore Gas and Electric Company for Authorization to Deploy a Smart Grid Initiative and to Establish a Tracker Mechanism and For the Recovery of Costs, [Petition for Rehearing] Case No. 9208 (August 2010) [Smart Meter Costs and Benefits; Consumer Protections]

Alexander, Barbara, Who Owns And Can Monetize The Greenhouse Gas Emission Reductions That Result From the DOE Low-Income Weatherization Assistance Program? Prepared under contract with Oak Ridge National Laboratory UT-Battelle, LLC, Purchase Order No. 4000091296 (September 2010)

Direct Testimony on behalf of Consumer Advocate Division before the Public Service Commission of West Virginia, Monongahela Power Co. and the Potomac Edison Co., both doing business as Allegheny Power Co., and FirstEnergy Corp. and Trans-Allegheny Interstate Line, Case No. 10-0713-E-PC (October 14, 2010) [Merger: Service Quality, Customer Service, and Universal Service Program Conditions]

Rebuttal Testimony on behalf of the Office of People's Counsel, before the Maryland Public Service Commission, In the Matter of the Merger of FirstEnergy Corp. and Allegheny Energy, Case No. 9233 (October 22, 2010) [Default Service Policies]

Direct Testimony on behalf of Consumer Advocate Division before the Public Service Commission of West Virginia, Appalachian Power co. and Wheeling Power Co., Case No. 10-0699-E-42T (November 10, 2010) [Base Rate Case: reforms to ameliorate rate impacts on low income customers; remote disconnection tariff proposal]

Direct and Rebuttal Testimony on behalf of AARP, before the Illinois Commerce Commission, Commonwealth Edison Co. Petition for Approval of an Alternative Rate Regulation Plan, Docket No. 10-0257 (November and December 2010) [Analysis of consumer protections and risks in alternative rate plan]

Rebuttal Testimony on behalf of the Office of Consumer Advocate before the Pennsylvania Public Utility Commission, Pennsylvania PUC v. Peoples Natural Gas Co., LLC 2010 Base Rate Proceeding, Docket No. R-20102201702 (February 23, 2011) [Purchase of Receivables program]

Expert Report of Barbara Alexander on Behalf of Plaintiffs, Benjamin Berger, individually and on behalf of all other similarly situated and the general public, vs. The Home Depot USA, Inc, U.S. District Court, Central District of California, Western Division, Case SACV 10-678 SJO (PLAX), March 1, 2011 (Negative Option Sales Method for "tool rental protection")

Direct Testimony on behalf of the Office of Consumer Advocate before the Pennsylvania Public Utility Commission, Joint Application for all the Authority and the Necessary Certificates of Public Convenience to Transfer All of the Issued and Outstanding Shares of Capital Stock of T.W. Phillips Gas and Oil Co., currently owned by TWP, Inc., to LDC Holdings II LLC, an indirect Subsidiary of SteelRiver Infrastructure Fund North America LP, and to Approve the Resulting Change in Control of T.W. Phillips Gas and Oil Co., Docket No. A-2010-2210326 (March 31, 2011) [Service Quality, Customer Service, and Universal Service Program Conditions]

Comments on behalf of AARP before the Public Service Commission of the District of Columbia, Pepco's Proposed AMI Consumer Education Plan, Formal Case No. 1056 (March 30, 2011)

Comments on behalf of AARP before the Public Service Commission of the District of Columbia, Notice of Proposed Rulemaking, Reliability of Service, Formal Case No. 766, 982, 991, and 1002 (April 11, 2011) [Restoration of Service for Major Outage Events]

Direct and Rebuttal testimony on behalf of the Attorney General of Arkansas before the Arkansas Public Service Commission, In The Matter Of The Application Of Oklahoma Gas And Electric Company For Approval Of The Deployment Of Smart Grid Technology In Arkansas And Authorization Of A Recovery Rider And Regulatory Asset, Docket No. 10-109-U (May and June 2011) (Smart Grid costs and benefits; cost recovery; conditions)

Alexander, Barbara, "Retail Electric Competition: Default Service Policies and Residential Customer Migration," Report to AARP (May 2011).

Direct Testimony on behalf of AARP before the Maryland Public Service Commission, In the Matter of Potomac Electric Power Co and Delmarva Power and Light Co. Request for the Deployment of Advanced Meter Infrastructure, Case No. 9207 (June 16, 2011) (Analysis of amended AMI business case; costs and benefits; conditions)

Direct and Reply Comments on behalf of Citizens Utility Board of Oregon before the Public Utility Commission of Oregon, Docket No. UM 1415 (September and October 2011) (Rate Design; time-varying rates)

Alexander Barbara, "The Status of AMI and Dynamic Pricing Programs In Georgia, Alabama, Arkansas, Florida, Louisiana, And Mississippi," Report for AARP (October 2011).

Direct Testimony on behalf of AARP before the Oklahoma Corporation Commission, In The Matter Of The Application of Oklahoma Gas And Electric Company, For An Order Of The Commission Authorizing Applicant To Modify Its Rates, Charges, And Tariffs For Retail Electric Service In Oklahoma, Cause No. PUD 201100087 (November 9, 2011 and November 16, 2011) (revenue requirement and rate design)

Comments on behalf of AARP before the Maryland Public Service Commission, Proposed Revisions to Reliability and Customer Service Regulations, RM 43 (November 16, 2011) (reliability performance standards and customer call center standards)

Direct Testimony on behalf of AARP before the Public Service Commission of the District of Columbia, In the Matter of
The Application for Potomac Electric Power Co. for Authority to Increase Existing Retail Rates and Charges for Electric
Distribution Service, Formal Case No. 1087 (December 14, 2011) (AMI cost recovery, Reliability Infrastructure Mechanism surcharge, customer care costs)

Direct Testimony on behalf of AARP and the People of the State of Illinois before the Illinois Commerce Commission, Commonwealth Edison Company, Approval of Multi-Year Performance Metrics Pursuant to Section 16-108(f) and (f-5) of the Public Utilities Act, Docket No. 11-0772 (January 30, 2012) (Performance Metrics relating to AMI deployment; remote disconnection of service)

Direct, Rebuttal, and Surrebuttal Testimony on behalf of Pennsylvania Office of Consumer Advocate before the Pennsylvania Public Utility Commission, Joint Petition of Metropolitan Edison Company, Pennsylvania Electric Company, Pennsylvania Power Company, West Penn Power Company, Approval of Default Service Programs, Docket Nos. P-2011-2273650, et al. (February, March and April 2012) (Retail Opt-in Auction, Customer Referral Programs)

Direct Testimony on behalf of the Massachusetts Office of the Attorney General before the Massachusetts Department of Public Utilities, Western Massachusetts Electric Co. 2011 Winter Storm Investigation, Docket No. D.P.U. 11-119-C (March 9, 2012) (Analysis of communications with customers and state and local officials in storm restoration)

Direct Testimony on behalf of AARP and the People of the State of Illinois before the Illinois Commerce Commission, Ameren Utilities, Approval of Multi-Year Performance Metrics Pursuant to Section 16-108(f) and (f-5) of the Public Utilities Act, Docket No. 12-0089 (March 19, 2012) (Performance Metrics for AMI Deployment; remote disconnection of service)

Direct and Rebuttal Testimony on behalf of the Massachusetts Office of the Attorney General before the Massachusetts Department of Public Utilities, National Grid 2012 Smart Grid Pilot Proposal, Docket No. D.P.U. 11-129 (April and May 2012) [Analysis of proposed smart meter and dynamic pricing pilot proposal]

Comments on behalf of AARP before the Maryland Public Service Commission, Dynamic Pricing Implementation Working Group Report, Case Nos. 9207 and 9208 (May 14, 2012) [Design and implementation of Peak Time Rebate programs for Pepco and BGE]

Comments on behalf of AARP before the Public Service Commission of the District of Columbia, Notice of Proposed Rulemaking, Major Event Outage Restoration Plans, Formal Case No. 766, 982, 991, and 1002 (May 29, 2012) [Regulatory reporting requirements for major event outage restoration plans]

Direct Testimony on behalf of The Utility Reform Network (TURN) before the Public Utilities Commission of the State of California, In the Matter of the Application of Pacific Gas and Electric Company Smart Grid Pilot Deployment Project, Application 11-11-017 (May 16, 2012) [Analysis of proposed customer education pilot]

Direct, Rebuttal, and Surrebuttal Testimony on behalf of the Pennsylvania Office of Consumer Advocate before the Pennsylvania Public Utility Commission, Petition of PECO Energy Co. for Approval of its Default Service Program, Docket No. P-2012-2283641 (April and May 2012) [Retail Opt-In Auction and Customer Referral Programs]

Direct and Rebuttal Testimony on behalf of the Pennsylvania Office of Consumer Advocate before the Pennsylvania Public Utility Commission, Equitable Gas Co. Request for Approval of Tariffs, Docket Nos. R-2012-2304727, R-2012-2304731, and R-2012-2304735 (July 25, 2012) [Purchase of Receivables Program]

Direct, Rebuttal, and Surrebuttal Testimony on behalf of the Pennsylvania Office of Consumer Advocate before the Pennsylvania Public Utility Commission, Petition of PPL Electric Utilities, Inc. for Approval of a Default Service Program and Procurement Plan for the Period June 1, 2013 through May 31, 2015, Docket No. P-2012-2302074 (July and August 2012) [Retail Opt-In Auction and Customer Referral Programs]

Direct, Rebuttal, and Surrebuttal Testimony on behalf of the Pennsylvania Office of Consumer Advocate before the Pennsylvania Public Utility Commission, Petition of Duquesne Light Co. for Approval of Default Service Plan for the Period June 1, 2013 through May 31, 2015, Docket No. P-2012-2301664 (July, August, and September 2012) [Retail Opt-In Auction and Customer Referral Programs]

Affidavit and Expert Report on behalf of Plaintiffs, Bellermann v. Fitchburg Gas & Electric Co., Commonwealth of Massachusetts, Civil Action No. 09-00023 (August 23, 2012) [Analysis of utility storm restoration response]

Direct Testimony on behalf of the Public Utility Law Project (New York) before the New York State Public Service Commission, Proceeding on Motion of the Commission as to the Rates, Charges, Rules and Regulations of Niagara Mohawk Power Corporation For Electric and Gas Service, Case No. 12-E-0201 and 12-G-0202 (August 31, 2012) [Rate case: low income programs, credit and collection policies, service quality]

Comments on behalf of AARP before the Maryland Public Service Commission, In the Matter of the Electric Service Interruptions in the State of Maryland due to the June 29, 2012 Derecho Storm, Case No. 9298 (September 10, 2012) [Analysis of customer communications in major storm restoration for Pepco and BGE]

Comments on behalf of the Ohio Partners for Affordable Energy before the Ohio Public Utility Commission, In the Matter of the Commission's Review of its Rules for Competitive Retail Natural gas Service, Case No. 12-925-GA-ORD, and In the Matter of the Commission's Review of its Rules for Competitive Retail Electric Service, Case No. 12-1924-EL-ORD (January 2013) [retail market regulations, consumer protections, licensing, disclosures]

Direct and Cross Rebuttal Testimony on behalf of Texas Legal Services Center and Texas Ratepayers' Organization to Save Energy before the Public Utility Commission of Texas, Petition by Homeowners United for Rate Fairness to Review Austin Rate Ordinance No. 20120607-055, PUC Docket No. 40627 (February 2013) [low income programs]

Testimony on behalf of AARP before the Connecticut Senate Finance Revenue and Bonding Committee in opposition to proposal for auction of electric customers to retail suppliers, SB 843 (March 4, 2013)

Comments and Reply Comments on behalf of AARP before the Ohio Public Utility Commission, In the Matter of the Commission's Investigation of the Retail Electric Service Market, Case No. 12-3151-EL-COI (March and April 2013) [retail market reforms, default service, and consumer protections]

Direct Testimony on behalf of the Pennsylvania Office of Consumer Advocate before the Pennsylvania Public Utility Commission, Petition of UGI Utilities, Inc.—Electric Division for Approval of a Default Service Plan and Retail Market Enhancement Programs for 2014-2017, Docket Nos. P-2013-235703 (June 2013) [Retail Market Enhancement programs; referral program]

Direct Testimony on behalf of the Government of the District of Columbia before the District of Columbia Public Service Commission, In the Matter of the Application of the Potomac Electric Power Co. for Authority to Increase Existing Retail Rates and Charges for Electric Distribution Service, Formal Case No. 1103 (August 2013) [low income discount program]

Comments and Reply Comments on behalf of AARP before the Arizona Corporation Commission, Generic, In The Matter of The Commission's Inquiry Into Retail Electric Competition, Docket No. E-00000W-13-0135 (July and August 2013) [implementation of retail electric competition]

Comments on behalf of AARP before the Delaware Public Service Commission, Rulemaking for Retail Electric Competition, PSC Regulation Docket No. 49 (September 2013) [consumer protection regulations for retail electric competition]

Direct Testimony on behalf of AARP before the New Jersey Board of Public Service, In the Matter of the Petition of Public Service Electric and Gas Co. for Approval of the Energy Strong Program, Docket No. EO13020155 and GO13020156 (October 2013) [reliability programs; cost recovery mechanism]

Direct Testimony on behalf of Canadian Office and Professional Employee's Union, Local 378, before the British Columbia Utilities Commission, Re: Fortis BC Energy, Inc. Application for Approval of a Multi-Year Performance Based Ratemaking Plan for 2014 through 2018, Project No. 3698719 (December 2013) [Service Quality Index]

Direct Testimony on behalf of Pennsylvania Office of Consumer Advocate before the Pennsylvania Public Utility Commission, Petition of PPL Electric Corp. for Approval of a New Pilot Time-of-Use Program, Docket No. P-2013-2389572 (January 2014) [Design of pilot TOU program; bid out to competitive energy supplier]

Direct, Rebuttal, and Surrebuttal Testimony on behalf of the Pennsylvania Office of Consumer Advocate before the Pennsylvania Public Utility Commission, Petition of FirstEnergy Companies (Met-Ed, Penelec, Penn Power, and West Penn) for Approval of a Default Service Programs, Docket Nos. P-2013-2391368, et al. (January-March 2014) [Retail market enhancement programs, referral program]

Direct, Rebuttal, and Surrebuttal Testimony on behalf of the Pennsylvania Office of Consumer Advocate before the Pennsylvania Public Utility Commission, Petition of PPL Electric Utilities for Approval of a Default Service Program and Procurement Plan for June 2013-May 2015, Docket No. P-2013-2389572 (January-May 2014) [Retail market enhancement programs, referral program]

Direct and Rebuttal Testimony on behalf of AARP before the Corporation Commission of Oklahoma, Application of Public Service Company of Oklahoma for Adjustment to Rates and Charges and Terms and Conditions of Service for Electric Service in the State of Oklahoma, Cause No. PUD-201300217 (March and May 2014) [AMI cost/benefit analysis and cost recovery; riders and surcharges; customer charge; low income program]

Direct and Reply Testimony on behalf of the District of Columbia Government through its Department of Environment before the Public Service Commission of the District of Columbia, In the Matter into the Investigation into the Issues Regarding the Implementation of Dynamic Pricing in the District of Columbia, Formal Case No. 1114 (April and May 2014) [Dynamic pricing policies and programs for residential customers]

Comments on behalf of AARP before the Delaware Public Service Commission, Rulemaking for Retail Electric Competition, PSC Regulation Docket No. 49 (Revised) (June 2, 2014) [consumer protection regulations for retail electric competition]

Direct and Rebuttal Testimony on behalf of the Pennsylvania Office of Consumer Advocate before the Pennsylvania Public Utility Commission, Petition of Duquesne Light Company for Approval of Default Service Plan For the Period June 1, 2015 through May 31, 2017, Docket No. P-2014-2418242 (July and August 2014) [retail market enhancement programs, referral program]

Direct and Rebuttal Testimony on behalf of the Pennsylvania Office of Consumer Advocate before the Pennsylvania Public Utility Commission, Petition of PECO Energy Co. for Approval of its Default Service Plan for the Period June 1, 2015 through May 31, 2017, Docket No. P-2014-2409362 (June 2014) [retail market enhancement programs, referral program]

Alexander, Barbara, "An Analysis of State Renewable Energy and Distributed Generation Mandates on Low Income Consumers: Recommendations for Reform" (Oak Ridge National Laboratory, DOE, September 2014)

Direct and Surrebuttal Testimony on behalf of the Pennsylvania Office of Consumer Advocate before the Pennsylvania Public Utility Commission, Pennsylvania PUC v. West Penn Power, Metropolitan Edison, Penn Power, and Penelec, Dockets Nos. R-2014-2428742-24287245 (November 2014 and January 2015) [FirstEnergy rate cases: customer service; reliability of service; estimated billing protocols; proposed Storm Damage Expense Rider; tariff revisions]

Comments on behalf of Delaware Division of the Public Advocate before the Delaware Public Service Commission, Rulemaking for Retail Electric Competition, PSC Regulation Docket No. 49 (Revised) (January 2015) [consumer protection regulations for retail electric competition]

Reply Testimony of Barbara Alexander before the Public Service Commission of Maryland, In the Matter of the Investigation into the Marketing, Advertising and Trade Practices of Major Energy Electric Services, LLC and Major

Energy Services, LLC, Case No. 9346(b) (March 2015) [unfair and deceptive practices; compliance with MD statutes and regulations for electric generation supplier]

Reply Testimony of Barbara Alexander before the Public Service Commission of Maryland, In the Matter of the Investigation into the Marketing, Advertising and Trade Practices of XOOM Energy Maryland LLC, Case No. 9346(a) (March 2015) [unfair and deceptive practices; compliance with MD statutes and regulations for electric generation supplier]

Direct, Surrebuttal and Supplemental Surrebutal Testimony on behalf of the Pennsylvania Office of Consumer Advocate before the Pennsylvania Public Utility Commission, Commonwealth of Pennsylvania by Attorney General Kathleen Kate, through the Bureau of Consumer Protection and Tanya McCloskey, Acting Consumer Advocate v. Respond Power, Docket No. C-2014-2427659 (May-October 2015) [unfair and deceptive practices; compliance with PA statutes and regulations for electric generation supplier]

Direct Testimony of Barbara Alexander before the Pennsylvania Public Utility Commission, on behalf of the Pennsylvania Office of Consumer Advocate and Bureau of Consumer Protection, Attorney General, Commonwealth of Pennsylvania by Attorney General Kathleen Kate, through the Bureau of Consumer Protection and Tanya McCloskey, Acting Consumer Advocate v. IDT Energy, Inc., Docket No. C-2014-2427657 (April 2015) [unfair and deceptive practices; compliance with PA statutes and regulations for electric generation supplier]

Affidavit of Barbara Alexander before the Pennsylvania Public Utility Commission, on behalf of the Pennsylvania Office of Consumer Advocate and Bureau of Consumer Protection, Attorney General, Commonwealth of Pennsylvania by Attorney General Kathleen Kate, through the Bureau of Consumer Protection and Tanya McCloskey, Acting Consumer Advocate v. Blue Pilot Energy, LLC, Docket No. C-2014- 2427655 (June 2015) [unfair and deceptive practices; compliance with PA statutes and regulations for electric generation supplier]

Direct Testimony of Barbara Alexander before the Pennsylvania Public Utility Commission, on behalf of the Pennsylvania Office of Consumer Advocate and Bureau of Consumer Protection, Attorney General, Commonwealth of Pennsylvania by Attorney General Kathleen Kate, through the Bureau of Consumer Protection and Tanya McCloskey, Acting Consumer Advocate v. Blue Pilot Energy, LLC, Docket No. C-2014- 2427655 (September 2015) [unfair and deceptive practices; compliance with PA statutes and regulations for electric generation supplier]

Reply Testimony of Barbara Alexander before the Public Service Commission of Maryland, In the Matter of the Investigation into the Marketing, Advertising and Trade Practices of Blue Pilot Energy, Case No. 9346(c) (July 31, 2015) [unfair and deceptive practices; compliance with MD statutes and regulations for electric generation supplier]

Direct Testimony of Barbara Alexander before the Washington Utilities and Transportation Commission, on behalf of Public Counsel and the Energy Project, WUTC v. Avista Utilities, Dockets UE-150204 and UG-150205, (July 2015) [Analysis of request for smart meter (AMI) deployment and business case.]

Direct, Rebuttal, and Surrebuttal Testimony of Barbara Alexander before the Pennsylvania Public Utility Commission on behalf of the Office of Consumer Advocate, Joint Petition of Metropolitan Edison Company, Pennsylvania Electric Co., Pennsylvania Power Co., and West Penn Power Co. [FirstEnergy] for Approval of their Default Service Program and Procurement Plan for the Period June 1,2017 through May 31, 2019, Docket Nos. P-2015-2511333, et. al. (January-February 2016) [Retail Market Enhancement Programs: standard offer program and shopping for low income customers]

Alexander, Barbara and Briesemeister, Janee, Solar Power on the Roof and in the Neighborhood: Recommendations for Consumer Protection Policies (March 2016).

Direct, Rebuttal, and Surrebuttal Testimony of Barbara Alexander before the Pennsylvania Public Utility Commission on behalf of the Office of Consumer Advocate, Petition of PPL Electric Utilities Corp. for Approval of a

Default Service Program and Procurement Plan for the Period June 1, 2017 through May 31, 2021, Docket No. P-2015-2526627 (April-May 2016) [Retail Market Enhancement Programs: standard offer program and shopping for low income customers]

Direct, Rebuttal, and Surrebuttal Testimony of Barbara Alexander before the Pennsylvania Public Utility Commission on behalf of the Office of Consumer Advocate, Petition of PECO Energy Co. for Approval of its Default Service Program for the Period from June 1, 2017 through May 31, 2019, Docket No. P-2016-2534980 (June-July 2016) [Retail Market Enhancement Programs: standard offer program and shopping for low income customers]

Direct, Rebuttal Testimony of Barbara Alexander before the Pennsylvania Public Utility Commission on behalf of the Office of Consumer Advocate, Petition of Duquesne Light Co. for Approval of Default Service Plan for the Period June 1, 2017 through May 31, 2021, Docket No. P-2016-2543140 (July-August 2016) [Retail Market Enhancement Programs: standard offer program and shopping for low income customers]

Briesemeister, Janee and Alexander, Barbara, Residential Consumers and the Electric Utility of the Future, American Public Power Association (June 2016)

Direct Testimony of Barbara Alexander before the Washington Utilities and Transportation Commission on behalf of the Public Counsel and The Energy Project, Washington UTC v. Avista Corp. d/b/a Avista Utilities, Dockets UE-160228 and UG-160229 (August 2016) [Base Rate Case and AMI Project analysis of costs and benefits]

Alexander, Barbara, *Analysis of Public Service Co. of Colorado's "Our Energy Future" Initiative: Consumer Concerns and Recommendations,* AARP White Paper (December 2016), attached to the Direct Testimony of Corey Skluzak on behalf of the Colorado Office of Consumer Counsel, Docket No. 16A-0588E (Exhibit CWS-35).

Direct Testimony of Barbara Alexander before the Public Utilities Commission of Ohio on behalf of the Office of Consumer Counsel, In the Matter of the Application of Ohio Power Co. for Authority to Establish a Standard Service Offer Pursuant to R.C. 4928.143, in the Form of an Electric Security Plan, Case No. 16-1852-EL-SSO (May 2017) [Response to proposal for new surcharge for certain distribution grid investments]

Alexander, Barbara, Analysis and Evaluation of PEPCO's Root-Cause Analysis Report: District of Columbia Customer Satisfaction, prepared for the District of Columbia Office of People's Counsel and submitted to the D.C. Public Service Commission in Formal Case No. 1119 (May 2017)

Direct Testimony of Barbara Alexander before the Arkansas Public Service Commission on behalf of the Attorney General of Arkansas, Application of Entergy Arkansas, Inc. for an Order to find Advanced Metering Infrastructure to be in the Public Interest, Docket No. 16-06-U (June 2017) [Analysis of AMI business case; consumer protection policies]

Rebuttal Testimony of Barbara Alexander before the Pennsylvania Public Utilities Commission on behalf of the Office of Consumer Advocate, Pennsylvania PUC, et al., v. Philadelphia Gas Works, Docket No. R-2017-2586783 (June 2017) [Purchase of Receivables Program, customer shopping issues]

Direct and Surrebuttal Testimony of Barbara Alexander before the Maryland Public Service Commission on behalf of the Office of People's Counsel, In the Matter of the Application of Potomac Electric Power Co. for Adjustments to its Retail Rates for the Distribution of Electric Energy, Case No. 9443 (June and August 2017) [Service Quality and Reliability of Service]

Direct Testimony of Barbara Alexander before the Washington Utilities and Transportation Commission, on behalf of the Washington State Office of Attorney General, Public Counsel Unit, W.U.T.C. v. Puget Sound Energy, Dockets UE-170033 and UG_170034 (June 2017) [Base Rate Case: Service Quality Index; customer services]

Direct and Surrebuttal Testimony of Barbara Alexander before the Maryland Public Service Commission on behalf of the Office of Peoples Counsel, In the Matter of the Merger of AltaGas Ltd. And WGL Holdings, Inc., Case No. 9449 (August and September 2017) [Merger: conditions for service quality and reliability of service]

Supplemental Testimony in Opposition to Joint Stipulation and Recommendations of Barbara Alexander before the Public Utilities Commission of Ohio on behalf of the Office of Consumer Counsel, In the Matter of the Application of Ohio Power Co. for Authority to Establish a Standard Service Offer Pursuant to R.C. 4928.143, in the Form of an Electric Security Plan, Case No. 16-1852-EL-SSO (October 11, 2017) [Response to Stipulation approving new surcharge for certain distribution grid investments]

Direct and Rebuttal Testimony of Barbara Alexander on behalf of The Public Utility Project of New York, before the New York Public Service Commission, Case 15-M-0127 In the Matter of Eligibility Criteria for Energy Service Companies, Case 12-M-0476 Proceeding on Motion of the Commission to Assess Certain Aspects of the Residential and Small Non-residential Retail Energy Markets in New York State, and Case 98-M-1343 In the Matter of Retail Access Business Rules (November and December 2017) [Analysis of New York retail energy market for residential customers; recommendations for reform]

Comments of Barbara Alexander before the Delaware Public Service Commission, on behalf of the Delaware Division f the Public Advocate, In the Matter of the Review of Customer Choice in the State of Delaware, Docket No. 15-1693 (December 22, 2017) [Proposals for retail market enhancement programs]

Alexander, Barbara, Analysis and Evaluation of PEPCO's Supplemental Root-Cause Analysis Report: District of Columbia Customer Satisfaction prepared for the District of Columbia Office of People's Counsel and submitted to the D.C. Public Service Commission in Formal Case No. 1119 (January 2018)

Direct, Rebuttal, and Surrebuttal Testimony of Barbara Alexander on behalf of the Office of Consumer Advocate, before the Pennsylvania Utility Commission, Joint Petition of Metropolitan Edison Company Pennsylvania Electric Company, Pennsylvania Power Company, and West Penn Power Company For Approval of their Default Service Program and Procurement Plan for the Period June 1, 2019 Through May 31, 2023, Docket Nos. P-2017-2637855, et seq. (February, March, and April 2018) [Retail Market Enhancement Programs in a default service proceeding]

Direct Testimony of Barbara Alexander on behalf of the Arizona Corporation Commission Staff, before the Arizona Corporation Commission, In the Matter of the Application of Brooke Water, LCC for increase in water rates, Docket No. W-03039A-17-0295 (May 15, 2018) [Analysis of customer service, call center performance, and compliance with prior Commission orders]

Alexander, Barbara, "Residential Demand Charges: A Consumer Perspective," EUCI Conference, Nashville, TN (May 2018)

Direct Testimony of Barbara Alexander in Opposition to the Joint Stipulation and Recommendation on behalf of the Office of the Ohio Consumers' Counsel, before the Public Utility Commission of Ohio, Case No. 17-0032-EL-AIR et seq. (June 15, 2018) [Analysis of the prudence of Duke Energy Ohio's Advanced Metering Infrastructure Deployment and request for inclusion of costs in rate base]

Alexander, Barbara, "Time to End the Retail Energy Market Experiment for Residential Customers," Harvard Electricity Policy Group (June 2018)

Rebuttal Testimony of Barbara Alexander on behalf of the Office of Consumer Advocate, before the Pennsylvania Public Utility Commission, PUC v. Columbia Gas of Pennsylvania, Inc., Docket No. R-2018-2647577 (July 3, 2018) [Analysis of gas utility billing policies for non-commodity services and retail natural gas suppliers]

Direct Testimony of Barbara Alexander on behalf of TURN and Center for Accessible Technology before the California Public Utility Commission, 2018 Rate Design Window, Docket No. A.17-12-011, et al. (October 26, 2018)

[Consumer Protections to Accompany the Transition to Default Time of Use Rates for residential customers; analysis of customer education and messaging]

Direct and Surrebuttal Testimony of Barbara Alexander on behalf of the Pennsylvania Office of Consumer Advocate before the Pennsylvania Utility Commission, PUC vs. Pittsburgh Water and Sewer Authority, Docket Nos. R-2018-3002645, R-2018-3002647 (September and October 2018) [Analysis of compliance with Pennsylvania consumer protection and service quality performance of a large water and sewer utility; base rate case]

Direct Testimony of Barbara Alexander on behalf of TURN before the California Public Utility Commission, Southern California Edison Charge Ready 2 Infrastructure and Market Education Programs, Docket No. A.18-06-015 (November 30, 2018) [Analysis of proposed mass market customer education proposal]

Direct, Surrebuttal and Supplemental Surrebuttal Testimony of Barbara Alexander on behalf of the Pennsylvania Office of Consumer Advocate before the Pennsylvania Public Utility Commission, Implementation of Chapter 32 of The Public Utility Code Regarding Pittsburgh Water and Sewer Authority – Stage 1, Docket Nos. M-2018-2640802 and M-2018-2640803 (April, May and August 2019) [Analysis of consumer protection, customer service, and customer education programs of large water and wastewater utility]

Direct, Rebuttal, and Surrebuttal Testimony of Barbara Alexander on behalf of the Pennsylvania Office of Consumer Advocate before the Pennsylvania Public Utility Commission, Application of Aqua America, Inc., Aqua Pennsylvania, Inc., Aqua Pennsylvania Wastewater, Inc., Peoples Natural Gas Company, LLC and Peoples Gas Company, LLC for all of the Authority and the Necessary Certificates of Public Convenience to Approve a Change in Control of Peoples Natural Gas Company, LLC and Peoples Gas Company LLC by Way of the Purchase of All of LDC Funding, LLC's Membership Interests by Aqua America, Inc., Docket Nos. A-2018-3006061, A-2018-3006062, and A-2018-3006063 (April and May 2019) [Customer Service, Consumer Protection, and Universal Service conditions for merger]

Testimony in Opposition to Settlement on behalf of The Office of the Ohio Consumers' Council, before the Ohio Public Utilities Commission, In the Matter of the Commission's Investigation of PALMco Power OH, LLC dba Indra Energy and PALMco Energy OH, LLC dba Indra Energy, Case No. 19-957-GE-COI (September 4, 2019) [Analysis of proposed settlement for consumer protections and customer remedies]

Testimony in Opposition to Settlement on behalf of The Office of the Ohio Consumers' Council, before the Ohio Public Utilities Commission, In the Matter of the Commission's Investigation of Verde Energy USA Ohio LLC, Case No. 19-0958-GE-COI (October 2, 2019) [Analysis of proposed settlement for consumer protections and customer remedies]

Direct Testimony on behalf of the Pennsylvania Office of Consumer Advocate before the Pennsylvania Public Utility Commission, Joint Petition of Metropolitan Edison Co., Pennsylvania Electric Co., Pennsylvania Power Co. and West Penn Power Co. for Approval of Their Involuntary Remote Disconnect Procedures, Docket No. P-2019-3013979 et al. (March 20, 2020) [Criteria for remote disconnection of service with AMI]

## Presentations and Training Programs:

- Presentation on Consumer Protection Policies for Solar Providers, New Mexico Public Regulatory Commission, Santa Fe, NM, January 2017
- Presentation on Residential Rate Design Policies, National Energy Affordability and Energy Conference, Denver, CO., June 2016
- Presentation on "Regulatory-Market Arbitrage: From Rate Base to Market and Back Again," before the Harvard Electricity Policy Group, Washington, D.C., March 2016.
- Presentation on Residential Rate Design and Demand Charges, NASUCA, November 2015.

- Alexander, Barbara, "Residential Demand Charges: A Consumer Perspective," presentation for Harvard Electricity Policy Group, Washington, D.C., June 2015.
- Presentation on "Future Utility Models: A Consumer Perspective," for Kleinman Center for Energy Policy, U. of Pennsylvania, August 2015.
- Presentation. EUCI Workshop on Demand Rates for Residential Customers. Denver. CO [May 2015]
- Presentation. Smart Grid Future. Brookings Institute. Washington. DC [July 2010]
- Participant. Fair Pricing Conference. Rutgers Business School. New Jersey [April 2010]
- Presentation on Smart Metering. National Regulatory Conference. Williamsburg. VA [May 2010]
- Presentation on Smart Metering. Energy Bar Association Annual Meeting. Washington. DC [November 2009]
- Presentation at Workshop on Smart Grid policies. California PUC [July 2009]
- National Energy Affordability and Energy Conference (NEAUC) Annual Conference
- NARUC annual and regional meetings
- NASUCA annual and regional meetings
- National Community Action Foundation's Annual Energy and Community Economic Development Partnerships Conference
- Testimony and Presentations to State Legislatures: Virginia. New Jersey. Texas. Kentucky. Illinois. and Maine
- Training Programs for State Regulatory Commissions: Pennsylvania. Georgia. Kentucky. Illinois. New Jersey
- DOE-NARUC National Electricity Forum
- AIC Conference on Reliability of Electric Service
- Institute of Public Utilities, MSU (Camp NARUC) [Instructor 1996-2006]
- Training Programs on customer service and service quality regulation for international regulators (India and Brazil) on behalf of Regulatory Assistance Project
- Georgia Natural Gas Deregulation Task Force [December 2001]
- Mid Atlantic Assoc. of Regulatory Utility Commissioners [July 2003]
- Illinois Commerce Commission's Post 2006 Initiative [April 2004]
- Delaware Public Service Commission's Workshop on Standard Offer Service [August 2004]

# APPENDIX B: CALIFORNIA CONSUMER PROTECTIONS GOVERNING THE MOVE TO TIME BASED RATES

The California Public Utilities Code Section 745(c) sets for the criteria that govern a residential customer's move to a time-based rate plan:

1. Section 745(c)(1) requires that customers enrolled in the Medical Baseline program, customers who have enrolled to receive third party notifications of disconnection and non-pay notices, and customers who cannot be disconnected without the mandated premise visit, cannot be defaulted to a TOU rate "without their affirmative consent."

2. Section 745(c)(2) required the Commission to "ensure that any time-of-use rate schedule does not cause unreasonable hardship for senior citizens or economically vulnerable customers in hot climate zones"; and in Decisions 16-09-016 and 17-09-036 the Commission determined that all CARE and FERA-eligible customers in hot climate zones should be excluded from default TOU.

3. 745(c)(4) requires that residential customers be provided with at least one year of "bill protection" in which the total amount paid by the customer must not be greater than the amount the customer would have paid on "that customer's previous rate schedule."

4. Section 745(c)(6) requires that all customers "have the option to not receive service pursuant to a time-of-use rate schedule and incur no additional charges as a result of the exercise of that option." Complying with this directive requires that customers be informed of their rate options and be provided with adequate means of choosing an alternative optional rate that is not time-differentiated.

5. Section 745(c)(5) requires the utilities to provide each customer a summary of available tariff options with a calculation of expected annual bill impacts under each available tariff not less than once per year and using a reasonable delivery method of the customer's choosing.

Pursuant to Public Utilities ("P.U.") Code Section 745(c)(1) and (4), several customer groups are excluded from the transition to default TOU rates. In Decision 16-09-016 the Commission addressed several foundational definitional issues related to the implementation of these Section 745 requirements, and found that customers who must be excluded from the transition to default TOU include:

(1) Customers enrolled in the Medical Baseline program;

(2) Customers who have enrolled to receive third party notifications of disconnection and non-pay notices;

(3) Customers who cannot be disconnected without the mandated premise visit;[67]

(4) Existing customers with less than one-year of interval usage data;

[67] P.U. Code Section 745 (c) (1) states that "customers who the commission has ordered cannot be disconnected from service without an in-person visit from a utility representative (Decision 12-03-054 (March 22, 2012), Decision on Phase II Issues: Adoption of Practices to Reduce the Number of Gas and Electric Service Disconnections, Order 2 (b) at page 55)" along with several other customer categories, "shall not be subject to default time-of-use rates without their affirmative consent." See also Decision 16-09-016 (September 19, 2016) for a summary of the applicable consumer protections:
http://docs.cpuc.ca.gov/PublishedDocs/Published/G000/M167/K246/167246364.PDF

# APPENDIX C: CURRENT APS RESIDENTIAL BILL ON DEMAND CHARGE RATE

## Charges for electricity services

### Cost of electricity you used

| | |
|---|---|
| Customer account charge | $2.12 |
| Delivery service charge | $5.27 |
| Demand charge on-peak - delivery | $13.20 |
| Environmental benefits surcharge | $2.75 |
| Federal environmental improvement surcharge | $0.12 |
| System benefits charge | $1.32 |
| Power supply adjustment* | -$0.22 |
| Metering* | $5.83 |
| Meter reading* | $2.09 |
| Billing* | $2.35 |
| Generation of electricity on-peak* | $3.00 |
| Generation of electricity off-peak* | $11.01 |
| Demand charge on-peak - generation* | $27.19 |
| Federal transmission and ancillary services* | $5.23 |
| Federal transmission cost adjustment* | $1.20 |
| LFCR adjustor | $1.69 |
| Tax Expense Adjustor | -$4.01 |
| Cost of electricity you used | $80.14 |

### Taxes and fees

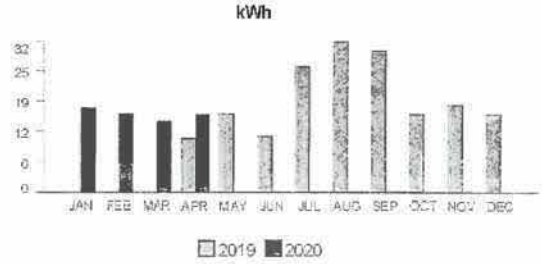
| | |
|---|---|
| Regulatory assessment | $0.19 |
| State sales tax | $4.59 |
| County sales tax | $0.61 |
| City sales tax | $2.25 |
| Franchise fee | $1.61 |
| Cost of electricity with taxes and fees | $89.39 |
| **Total charges for electricity services** | **$89.39** |

** These services are currently provided by APS but may be provided by a competitive supplier.*

## Amount of electricity you used

| | |
|---|---|
| Meter reading on Apr 8 | 28994 |
| Meter reading on Mar 10 | 28517 |
| **Total electricity you used, in kWh** | **477** |
| On-peak meter reading on Apr 8 | 6290 |
| On-peak meter reading on Mar 10 | 6213 |
| **On-peak electricity you used, in kWh** (3 pm - 8 pm Monday - Friday) | **77** |
| **Off-peak electricity you used, in kWh** (8 pm - 3 pm Monday - Friday and all day on weekends and 10 holidays) | **400** |
| On-peak demand meter reading | 3.39 |
| **Your billed on-peak demand in kW** | **3.3** |

### Average daily electricity use per month




### Comparing your monthly use

| | This month | Last month | This month last year |
|---|---|---|---|
| Billing days | 29 | 29 | 32 |
| Average outdoor temperature | 47° | 44° | 48° |
| Your total use in kWh | 477 | 437 | 362 |
| Percentage of on-peak use | 17% | 16% | 19% |
| Your billed demand in kW | 3.3 | 4.1 | 3.1 |
| Your average daily cost | $3.08 | $3.40 | $2.65 |