ORIGINAL

BEFORE THE ARIZONA CORPORATION COMMI...

COMMISSIONERS

GARY PIERCE, Chairman
PAUL NEWMAN
SANDRA D. KENNEDY
BOB STUMP
BRENDA BURNS

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, AND TO APPROVE RATE SCHEDULES DESIGNED TO DEVELOP SUCH RETURN	DOCKET NO. E-01345A-11-0224 **NOTICE OF FILING TESTIMONY**

AARP hereby files the attached direct testimony of Nancy Brockway in the above-captioned docket.

RESPECTFULLY SUBMITTED on December 2, 2011.

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Original and 13 copies **filed**
on December 2, 2011, with:

Docket Control
Arizona Corporation Commission
1200 West Washington
Phoenix, Arizona 85007

Copies of the foregoing **e-mailed**
on December 2, 2011, to parties of record

By: Craig A. Marks

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DIRECT TESTIMONY
OF
NANCY BROCKWAY
ON BEHALF OF AARP

REGARDING APS' RATE DESIGN

DECEMBER 2, 2011

**DIRECT TESTIMONY
OF
NANCY BROCKWAY
ON NON-REVENUE ISSUES
ON BEHALF OF AARP
DECEMBER 2, 2011**

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EXECUTIVE SUMMARY

AARP would prefer that APS's low-income rates remain the same. However, if the Commission determines that a rate increase is warranted, it should reject the Company's proposed redesign of its low-income rates. APS should not add to the low-income revenue responsibility (PSA, DSMAC and TCA), and then apply a flat 25% discount to the resulting higher bill regardless of usage. The Company also should not increase the underlying base rates for Low Income rates by a percentage any higher than the percentage increases on the corresponding non-low-income rates. Instead, the present structure of the low-income rates should be retained. That is, the tiered discounts and exemptions from PSA and DSMAC riders should be retained. The underlying Low-Income base rates should be increased by the same percentages as those on the corresponding non-low-income base rates. The cap on the discounts should also be increased by the same percentage. To mitigate potential burdens of higher base rates on higher usage lower income customers, special efforts should be made to target efficiency programs to such customers.

The Company's proposed increases to basic service charges should be rejected. These increases fall hardest on low-use customers, many of whom are low-income. Increasing basic service charges is inconsistent with the goal of providing price signals for energy conservation.

I. INTRODUCTION AND PURPOSE

Q. ARE YOU THE SAME NANCY BROCKWAY WHO FILED TESTIMONY IN THIS DOCKET ON NOVEMBER 18, 2011?

A. Yes.

Q. WHICH PARTY IS SPONSORING YOUR TESTIMONY?

A. AARP is sponsoring my testimony in this docket. AARP is a membership organization that represents those 50 years of age and above. Many of AARP's members nationally and in Arizona are on fixed incomes, and many have incomes below the level set to qualify for APS' low-income rates. Many also have relatively low usage levels.

Q. WHAT IS THE PURPOSE OF YOUR RATE DESIGN TESTIMONY?

A. In this testimony, I will present my analysis and recommendations concerning non-revenue issues in this docket. Specifically, I will address the proposed changes to APS' low-income rates, and to residential basic service charges.

II. THE COMMISSION SHOULD REJECT APS' PROPOSED MODIFICATIONS TO ITS LOW-INCOME RATES

Q. WHAT RATES DOES APS OFFER TODAY FOR RESIDENTIAL CUSTOMERS?

A. APS offers 12 rates within the residential category, and nine riders. As identified by Company witness Charles A. Meissner in his direct testimony, these include " a conservation [inclining block] rate; five time-of-use rates...; five rate plans for low income customers; a peak event pricing rate rider; three green power rate riders; two solar rate riders; net billing and net metering rate riders for renewable generation; two rate riders for low income and medical equipment discounts; and optional rates for dusk-to-dawn outdoor lighting." (Meissner Direct at 5, footnotes omitted.) A list of the rates with billing determinants, including the proposed new peak time rebate rider, is attached as Exhibit NB-4. As can be seen from this exhibit, all the underlying rate plans include seasonal differentiation of usage-based rates (e.g. per-kWh energy rates and/or per-kW demand rates, as the case may be).

Q. HOW ARE LOW-INCOME RATES DESIGNED TODAY FOR APS CUSTOMERS?

A. APS offers three low-income versions of its basic residential rates, the E-12 low-income rate, the ET2 low-income rate, and the ECT2 low-income rate. These rate plans were exempted from the last general rate increase, as provided in Decision No. 71448. The low-income version of E12 has inclining block rates like its non-low-income equivalent, but it has fewer blocks than the non-low-income E12 rate (3 versus 4) and its top block begins at a lower kWh level (800 kWh vs. 2400 kWh).

The Company offers a discount of between 14% and 40% for qualifying low income customers under Rate Rider Schedules E-3 and E-4, for low-income and medical equipment needs respectively. Under these schedules, the discount varies by monthly usage levels. For example, under the E-3 program the discount is 40% for customers using less than 400 kWh per month, while the discount is 26% for usage of 401-800 kWh, 14% for 801-1200 kWh and $13 for usage above 1200 kWh. The E-4 program has similar percent discount levels, but higher qualifying consumption blocks. Also, the higher usage customers' discounts are capped at $26 per month compared to $13 for the E-3 program. (Meissner Direct at 9-10.) In addition, Adjustment Schedules PSA-1 and DSMAC-1 for power supply and the demand side management costs respectively are not applied to E-3 or E-4 customers. A customer who qualifies for both rates can take service under E-3 or E-4, but not both.

Q. HOW DOES APS PROPOSE TO CHANGE ITS LOW-INCOME RATES?

A. APS proposes to continue to offer low income rates and discounts, but to fashion them into a new and different package of savings. APS proposes to re-design the low income and medical equipment discounts in Rate Rider Schedules E-3 and E-4, and to eliminate the low-income exemption for Adjustment Schedules PSA-1 and DSMAC-1. (Meissner Direct at 10.) The Company is proposing a single percentage discount of 25%, with a monthly cap on the discount of $18 for participants in the E-3 Energy Support Program and $36 for the E-4 Medical Care Equipment Support Program. In addition, APS proposes that the discount not apply to the amounts billed under Adjustment Schedule TCA-1, which recovers transmission costs that are not recovered in base rates. (Meissner Direct at 11.)

The Company further proposes to increase the low-income base rates by a higher percentage than it proposes to increase the equivalent non-low income rate. For example, APS proposes to increase Rate Schedule E-12 Low Income by an additional 3.6% over the increase proposed for the non-low-income equivalent (3.37%), making a total proposed increase to the E12 Low-Income rate schedule of 7.01%. The range of increments proposed by APS for low-income rate increases over non-low-income rate increases is 3.0% to 3.6%, depending on the particular low-income rate. (Meissner Direct at 10.)

Q. WHAT REASONS DOES APS GIVE FOR ITS PROPOSED CHANGES TO ITS LOW-INCOME RATES?

A. APS avers that its proposals will simplify the low-income rates. (Meissner Direct at 10.) APS also wishes to narrow the discounts from the non-low-income equivalent rates in order to reduce the burden on non-low-income customers (particularly those who are experiencing financial distress but do not qualify for the discounts). APS further suggests a higher increase for low-income base rates is required to avert what it calls "rate shock" for low-income customers as they move off the low-income rates when their financial situation improves. (Meissner Direct at 11.) APS estimates the differential in base rates between low-income and non-low-income base rates at 13%. (Meissner Direct at 10.)

With respect to the redesign of the E-3 and E-4 discounts, APS suggests that they are now based on an obsolete rate schedule, and further that they are too complicated and difficult to explain to customers. (Meissner Direct at 11.) APS justifies eliminating the applicability of the discount to Adjustment Schedule TCA-1 on the grounds that this tariff recovers APS's costs for transmission, which are set by FERC and represent merely a pass-through of costs by APS. (Meissner Direct at 10-11.)

Q. WHAT IMPACT DOES APS ESTIMATE THAT ITS LOW-INCOME RATE CHANGE PROPOSALS WILL HAVE ON ITS LOW-INCOME CUSTOMERS?

A. APS argues that on average the new discount structure would provide roughly the same level of savings for low-income participants as the present structure. According to Mr. Meissner, the proposed new discount structures were designed to produce the same total level of discounts for the E-3 and E-4 programs compared with the current discounts. (Meissner Direct at 12.) The specific savings for any particular customer would vary due to the modified rate structure. For example, Mr. Meissner estimates that customers using less than 400 kWh under the E-3 program currently receive a 40% discount, while the proposed structure would provide only a 25% discount. Conversely, Mr. Meissner says, customers on the E-3 program using more than 800 kWh per month would receive a 25% discount capped at $18 per month under the proposed discounts, compared with 14%, capped at $13 per month under the current program. *Id.*

With respect to the elimination of the exemption from paying the PSA-1 and DSMAC-1 Adjustment Schedules, Mr. Meissner states that these adjustments are sometimes negative, in which case low-income customers under the present structure of rates lose the benefit of refunds. (Meissner Direct at 13.)

Q. GIVEN THE CIRCUMSTANCES FACING LOW INCOME CUSTOMERS, WHAT DO YOU RECOMMEND?

A. AARP would prefer that APS' low-income rates remain the same as they are today. However, if the Commission does determine to raise low-income rates, APS' proposed redesign of low-income rates should be rejected. The Company should not add to the low-income revenue responsibility (PSA, DSMAC and TCA), and then apply a flat 25% discount to the resulting higher bill regardless of usage. The Company also should not increase the underlying base rates for low-income rates by a percentage any higher than the percentage increases on the corresponding non-low-income rates.

Q. HOW SHOULD THE COMPANY DESIGN ITS LOW-INCOME RATES?

A. The present structure of the low-income rates should be retained. The tiered discounts and exemptions from PSA and DSMAC riders should be retained. The underlying low-income base rates should be increased by the same percentages as those on the corresponding non-low-income base rates. The cap on the discounts should also be increased by the same percentage.

Q. WHY DO YOU PROPOSE TO RETAIN THE CURRENT STRUCTURE, GIVEN THE COMPANY'S CLAIM THAT THE PRESENT LOW INCOME RATES ARE TOO COMPLICATED?

A. The Company has not shown that low-income customers are confused or discouraged from seeking the low-income rates because of any complexity in calculation of the resulting bills. Nor has the Company shown that other customers misunderstand the low-income rates for the same reason. Indeed, the new rate design proposed by the Company is itself as complex as the present design, and so would not make the calculation more accessible. For example, by including the PSA and DSMAC, the rates would become variable, with reconciliation factors, which themselves can be difficult to explain to customers, and which would result in shifting rates.

Q. WHY SHOULD THE PSA AND DSMAC NOT BE INCLUDED IN THE BILLS OF LOW-INCOME CUSTOMERS?

A. The objective of the low-income rates is to present low-income customers with an affordable rate. If they can afford the rate, they can retain service. The important aspect of the rates is not which component is explicitly included in or excluded from the rates. The important factor is the overall resulting rate.

Further, the PSA and DSMAC are reconciling factors. This means they are subject to volatility from period to period. Stable rates are particularly important to low-income customers, who disproportionately have fixed incomes and do not have flexibility to respond to changing rates. The fact that, as Mr. Meissner points out, these adjustments are sometimes credits does not mean that customers subject to these tariffs are getting any benefit. Indeed, the credits only occur when the affected customers have overpaid in the past. Given the strained financial situation of low-income customers, overcharges in one period can significantly affect affordability, and the prospect of a later credit does not correct for this problem.

As for the DSMAC itself, low-income customers receive insufficient direct benefits from DSM to justify imposing such a charge on them. DSM should be paid for primarily by customers who realistically can benefit directly. In sum, there is no need to add components to the low-income customer tariffs. Instead, the test is whether the end result meets the policy objectives of the rates.

Q. WHY SHOULD APS NOT SUBSTITUTE A FLAT 25% DISCOUNT FOR THE PRESENT TIERED DISCOUNT PERCENTAGES?

A. First one should note that the effective discount is less than 25% given the items moved into the low-income rates. As for using a flat discount percentage rather than the present tiered discount, the Company gives no compelling reason to abandon the longstanding use of tiers. Presently, a 40% discount is applied to the first tier of usage (0-400 kWh), a 26% discount to the next 400 kWh of usage, and a 14% discount to usage over 800 kWh. (See Attachment CAM-3.) These tiered discounts help make service affordable for small users. They also encourage conservation, by allowing the effective rates to increase for higher blocks of usage. The caps protect those low-income customers who cannot reduce their high usage and so would otherwise be subjected to unaffordable bills; for this reason, there is no reason to increase the percentage discount for higher users at the expense of lower usage low-income customers.

Q. WHAT IS THE BREAKDOWN OF LOW-INCOME CUSTOMERS BY USAGE BLOCK?

A. From Schedule H-5, the Company's bill frequency analysis, one can determine the percentage of bills of customers in the various low-income classes at different blocks of usage. My Exhibit NB-5 excerpts the percentage of bills, winter and summer, for the different low-income rates, cumulative for the ranges 0 - 400 kWh, 401-800 kWh, and over 800 kWh. One can see that in the E-12 LI rate, a quarter of the summer bills are in the lowest usage block, and another one third of the bills are in the next usage block. In the winter months, low-usage bills are a lower percentage, and highest usage bills increase as a percent of total E12 LI bills. The 401-800 kWh usage block remains at roughly one third of the E12 LI bills in the winter. For the other LI rate classes, the lower-usage blocks are a small percentage of the summer bills. They increase as a percentage in the winter months. Low income customers on the TOU rates tend to be mainly in the highest usage block, winter and summer.

Q. DO YOU AGREE WITH MR. MEISSNER THAT, BECAUSE OF THE LOW USAGE, THE DIFFERENCE IN THE BILLED AMOUNT BETWEEN THE APS PROPOSAL AND THE CURRENT LI RATE STRUCTURE IS LOW?

A. No. Mr. Meissner estimates that the change in the low-income rate structure will add between about $2.60 and $6.00 per month for customers on the low-income Rate Schedule E-12. (Meissner Direct at 12.) He argues that this incremental level of charges is low, and thus should not be a concern. Mr. Meissner's argument fails to recognize that even seemingly small monthly bill increases can represent significant increases in the burden that electric bills represent for low-use low-income customers. For example, in the case of an elderly widow living alone with monthly income from Supplemental

Security Income of $674, a $6 increase would represent an incremental increase in electricity burden of just under one percent. To put this increased burden in perspective, it would be equivalent to an increased burden of $35 in the monthly bill of a median income[1] customer.

Q. SHOULD THE UNDERLYING LOW-INCOME BASE RATES BE RAISED BY ABOUT TWICE THE PERCENTAGE APS PROPOSES FOR THE NON-LOW-INCOME RATES?

A. No. It is unfair to increase low-income base rates by twice the percentage increase applicable to other residential rates. By definition, low-income customers have insufficient funds to make ends meet and pay all their bills. They are the last group of residential customers whose rate levels should be increased the greatest, because increases on customers at lower-income levels have a disproportionate effect. Many of these customers already find it difficult to afford service at current rates.

Q. DO YOU AGREE WITH MR. MEISNER THAT THE BURDEN ON NON-LOW-INCOME CUSTOMERS SHOULD BE REDUCED?

A. No. However, before discussing changes to the revenue shortfall from low-income rates, it should be noted that if low-income customers can afford their bills, they will pay in a more timely fashion, and the utility will avoid credit and collection costs. For this reason, the so-called "revenue shortfall" from a low-income rate should not be calculated as the product of the low-income billing determinants and the differential between the effective low-income rate and the non-low-income rate. It will be lower than that amount, if not negative.

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[1] Arizona median income in 2010 was $47,279, per Census Table H-8 at http://www.census.gov/hhes/www/income/data/statemedian/

In any case, it would create rate shock to increase the low-income revenue requirements by 7% as proposed by the Company. Even a 3% rate increase would be a hardship. Low-income customers' incomes are not increasing, so already scarce dollars will have to be spread even further if this increase is imposed. For example, Social Security benefits and supplemental security income recipients (many of whom are older people) are only getting their first cost of living adjustment since 2009 this winter, and for many of them, increases in Medicare premiums will absorb all or most of the COLA.

Q. WHAT DO THINK ABOUT THE COMPANY'S ARGUMENT THAT IT WANTS TO PREVENT RATE SHOCK WHEN LOW-INCOME CUSTOMERS LEAVE THE LOW-INCOME RATES AS THEIR FINANCIAL CIRCUMSTANCES IMPROVE?

A. The Company would put the cart before the horse. It proposes to avert a purely hypothetical future rate shock by imposing an actual and immediate rate shock on low-income customers. This would make it even more unlikely that current low-income customers could get ahead enough to ever move off low-income rates.

Further, for retired persons or other customers on permanent fixed incomes, there is little or no prospect that their financial circumstances would ever improve enough to move off low-income rates. The Company's proposals would permanently hurt these customers.

If the Company were genuinely concerned about rate shock for customers moving off low-income rates, it would hold down its rates during the present recession, to help its service area recover, so that more customers had sufficient income to pay their bills in full and in a timely manner.

Q. WHAT ARE THE IMPACTS OF THE COMPANY'S PROPOSALS ON VARIOUS GROUPS OF LOW-INCOME CUSTOMERS?

A. My Exhibit NB-6 shows that under the Company's proposal, customers taking service under the standard rate E12 Low Income would see only about a 2% increase, assuming the Company receives its entire requested increase and the Company's proposed restructuring of the low-income rates is approved. But this result would come at the expense of enormous percentage increases for all the other low-income customers. By contrast, if the present structure were retained and the overall average 3.3% increase were applied to the low-income rate classes, the impacts would be the same for the low-income classes.

Q. HOW MANY CUSTOMERS TAKE SERVICE ON THE LOW-INCOME RATE SCHEDULES?

A. About 62,850 customers take service on a low-income rate schedule. Of these, about 36,500, or half, take service under the E12 Low Income inclining block rate. Another 15,000 - 15,500 low-income customers remain on the ET-1 Low Income rate, now frozen. Between 8,000 and 9,000 customers take service under the more recent ET-2 Low Income rate. About 1,000 customers still take service under the ECT-1R Low Income rate. Finally, about 1,400 customers take service under the ECT-2R Low Income Rate. (See Filing Requirement Schedule H-2.)

Q. UNDER THE COMPANY'S PROPOSALS, WHAT WOULD BE THE PERCENTAGE INCREASES IN REVENUES FROM THE LOW-INCOME RATE CUSTOMERS?

A. As seen in NB-6, half the low-income customers would receive about a 2% increase, but as many as one-quarter of the low-income customers would receive a 17% increase on average. The range of increases for the non-E12 low-income customer classes would be from 16% to as high as 25%.

Q. WHY SHOULD THE AVERAGE INCREASE FOR THE RESIDENTIAL CLASS BE APPLIED TO THE CAP AS WELL AS THE OTHER COMPONENTS OF THE RATE?

A. If the underlying rate is going to increase, the cap on the discount should increase by at least the same proportion, to avert undue increases on the high use low-income customers. As can be seen by my Exhibit NB-6, while most low-income customers are low-use customers, there are some very high use low-income customers. Without an expansion of the cap, these customers will see higher bill increases than the average low-income customer.

Q. ARE THERE OTHER STEPS THAT SHOULD BE TAKEN TO HELP KEEP BILLS AFFORDABLE FOR HIGH-USAGE LOW-INCOME CUSTOMERS?

A. Yes. APS should target energy-efficiency services to such customers, to help them reduce their high usage.

III. THE COMMISSION SHOULD REJECT APS' PROPOSAL TO INCREASE BASIC SERVICE CHARGES RELATIVE TO USAGE-BASED CHARGES

Q. WHAT DOES THE COMPANY PROPOSE WITH REGARD TO THE BASIC SERVICE COMPONENT OF RESIDENTIAL RATES?

A. APS proposes to increase the basic service component of residential rates, and lower the usage-based component. The current bundled basic service charge for residential customers varies by rate schedule from $0.285 to $0.556 per day. (Meissner Direct at 8.) Thus, the basic service charge is on average about $8.67 per month for rate E-12 and $16.91 per month for the other residential rates. *Id.* APS proposes to increase the bundled basic service charge for rate E-12 to $0.390 per day and $0.579 for the other residential rates. This would increase average monthly basic service charges to $11.86 and $17.61 respectively. *Id.*

Q. DO YOU AGREE WITH THE COMPANY'S PROPOSED INCREASES TO BASIC SERVICE CHARGES?

A. No. Basic service charges should be increased at no higher than the average percentage increases in revenue requirements for the class. Basic service charges are unavoidable charges that pose greater burdens on lower-usage customers than on higher-usage customers. There is no reason to change the relative portion of revenues collected through basic charges and through usage charges in this docket. This is particularly true given the Company's proposal to decouple revenues from sales (or otherwise make up for the impact of reduced sales from energy efficiency).

Q. THE COMPANY PROPOSES TO REDUCE THE USAGE-BASED CHARGE FOR METER READING TO REFLECT SAVINGS FROM AMI INSTALLATIONS. IS THIS A FAIR TRADE-OFF FOR THE HIGHER BASIC SERVICE CHARGE?

A. No. Reducing the usage-based portion of the rate to reflect lower costs per-customer-per meter is inconsistent with the Company's view that the basic service charge should recover the costs of "meters, meter reading, billing, and other costs that are driven by customer accounts." (Meissner Direct at 8.) In addition, reducing the usage-based portion of the rates and increasing the basic service charge will dampen the incentives for consumers to use power efficiently, which is one of the rationales given for the company's AMI investment.

Q. DOES THIS CONCLUDE YOUR TESTIMONY REGARDING RATE-DESIGN ISSUES?

A. Yes.

AVAILABLE SCHEDULES

E-12, STANDARD RATE
("conservation" rate)

Basic Service Charge per day
Summer energy charge, 4 tiers (0-400, 401-800, 801-2400, > 2400)
Winter energy charge, same all kWh

ET-2, TIME-OF-USE, TIME ADVANTAGE, 7PM-NOON ("demand response" rate) ("2-series" TOU rate)

Basic Service Charge, per day
Summer energy charges, on-peak/off-peak differential
Winter energy charges, on-peak/off-peak differential
On-peak = 12 noon to 7 PM

ECT-2, TIME-OF-USE WITH DEMAND CHARGE, COMBINED ADVANTAGE, 7PM-NOON ("demand response" rate) ("2 series" TOU rate)

Basic Service Charge per day
Summer demand charge per on-peak kW
Winter demand charge per on-peak kW
Summer energy charges, on-peak/off-peak differential
Winter energy charges, on-peak/off-peak differential
On-peak = 12 noon to 7 PM weekdays

ET-SP, TIME-OF-USE, TIME ADVANTAGE SUPER PEAK 7PM-NOON ("demand response" rate) "super-peak" TOU rate)

Basic Service Charge per day
Super Peak Summer energy charge, super-peak, on-peak, off-peak differential
Summer energy charge, peak/off-peak differential
Winter energy charge, peak/off-peak differential
Summer Super-peak (June through August)
- Super-peak = 3 p.m. to 6 p.m. weekdays
- On-Peak = 12 noon to 3 p.m. and 6 p.m. to 7 p.m., weekdays
- Off-peak = all other hours, plus holidays

Summer and winter (September - May):
- Peak = 12 noon to 7 p.m weekdays
- Off-peak = all other hours, plus holidays

LOW-INCOME RATES AND RIDERS

E-12 LOW-INCOME, STANDARD RATE ("conservation" rate)

Basic Service Charge per day
Summer energy charge, 3 tiers (0-400, 401-800, > 800)
Winter energy charge, same all kWh

ET-2 LOW INCOME, TIME-OF-USE TIME ADVANTAGE, 7PM TO NOON ("demand response" rate) ("2-series" TOU rate)

Basic Service Charge, per day
Summer energy charges, on-peak/off-peak differential
Winter energy charges, on-peak/off-peak differential
On-peak = 12 noon to 7 PM weekdays

ECT-2 LOW-INCOME, TIME-OF-USE WITH DEMAND CHARGE, COMBINED ADVANTAGE, 7PM-NOON ("demand response" rate) ("2-series TOU rate)

Basic Service Charge per day
Summer demand charge per on-peak kW
Winter demand charge per on-peak kW
Summer energy charges, on-peak/off-peak differential
Winter energy charges, on-peak/off-peak differential
On-peak = 12 noon to 7 PM weekdays

E-3, ENERGY SUPPORT PROGRAM

E-4, MEDICAL CARE EQUIPMENT SUPPORT PROGRAM

FROZEN RESIDENTIAL RATE SCHEDULES:

ET-1	**TIME-OF-USE - TIME ADVANTAGE RATE**
ECT-1R	**TIME-OF-USE WITH DEMAND CHARGE - COMBINED ADVANTAGE RATE**
ET-1	**LOW-INCOME, TIME-OF-USE - TIME ADVANTAGE RATE**
ECT-1R	**LOW-INCOME, TIME-OF-USE WITH DEMAND CHARGE - COMBINED ADVANTAGE RATE**

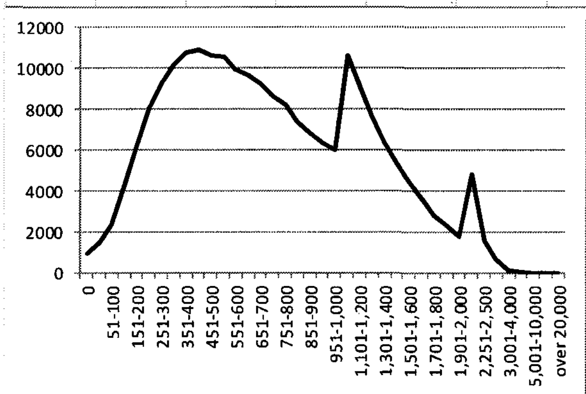
GENERAL RESIDENTIAL RATE RIDERS

CPP-RES - CRITICAL PEAK PRICING
PTR-RES, PEAK TIME REBATE EXPERIMENT PROGRAM [PROPOSED]

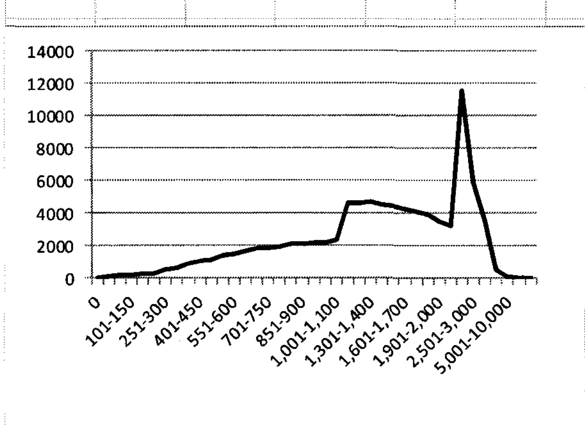
Docket No. E-01345A-11-0224
AARP
Direct Testimony of Nancy Brockway (Rate Design)
December 2, 2011
Exhibit NB-5

Charts of bill frequency of low-income customers: numbers of bills at increasing usage intervals

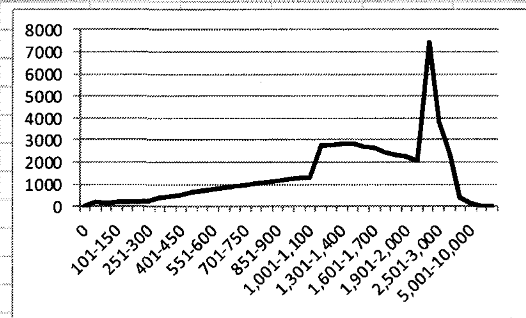
E12 Low Income 36,500 customers



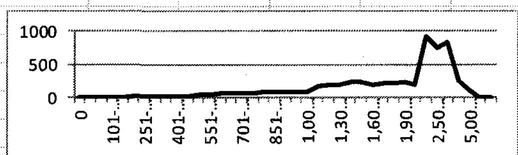
ET1 Low Income 15 - 15,500 customers



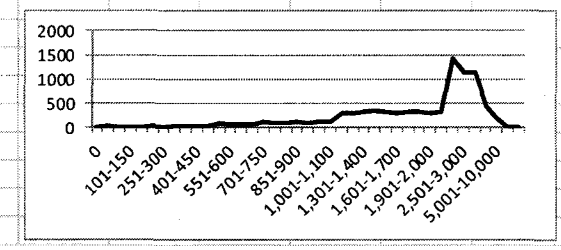
ET 2 Low Income 8 - 9,000 customers



ECT-1R Low Income 1,000 customers



ECT-2 Low Income 1,400 customers



Docket No. E-01345A-11-0224
AARP
Direct Testimony of Nancy Brockway (Rate Design)
December 2, 2011
Exhibit NB-6

	Comparison of revenue increases for low-income classes						
	APS proposal vs. across the board average increase						
Test Year December 2010							
Comparison of E-3 and E-4 Annual Discount Amounts							
Current vs. Proposed Discount Structure							
E-3, E-4 DISCOUNTS (from base rates)							
Source: CAM_WP2 and Schedule H-2. ***Added calculations in italics***							
		E-12	ET-1	ET-2	ECT-1R	ECT-2	Total
	Current Discount Structure						
	Current Base Rates [1]	$ 6,025,467	$ 2,720,604	$ 1,518,547	$ 161,170	$ 248,533	$ 10,674,321
	Proposed Base Rates [2]	$ 6,473,706	$ 2,881,945	$ 1,602,986	$ 179,880	$ 259,876	$ 11,398,392
		7.4%	*5.9%*	*5.6%*	*11.6%*	*4.6%*	*6.8%*
	Proposd Discount Structure						
	Proposed Base Rates [3]	$ 6,141,506	$ 3,183,015	$ 1,818,179	$ 186,644	$ 309,822	$ 11,639,166
		1.9%	*17.0%*	*19.7%*	*15.8%*	*24.7%*	*9.0%*
	Change in annual discounts						240,774
	3.33% increase over current	*$ 6,224,307*	*$ 2,810,384*	*$ 1,568,659*	*$ 166,489*	*$ 256,735*	*$ 11,026,574*
	Difference from APS proposed	*$ 82,801*	*$ (372,631)*	*$ (249,520)*	*$ (20,155)*	*$ (53,087)*	*$ (612,592)*

notes
1. Test year actual discount amounts for E-3 and E-4
2. Calculated discounts w/ proposed 7.02% base rate increase appld to customers not subject to $13 monthly discount cap
3. Calculated discounts from proposed discount structure and proposed base rates, from proofs of revenue

	LI Customers	*36,500*	*15,500*	*8500*	*1000*	*1400*	*62,900*