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BEFORE THE ARIZONA CORPORATION COMM.

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PAUL NEWMAN
SANDRA D. KENNEDY
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AZ CORP COMMISSION
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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

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

3 RESPECTFULLY SUBMITTED on November 18, 2011.

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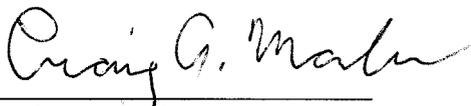
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By: 
Craig A. Marks

BEFORE THE ARIZONA CORPORATION COMMISSION

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**DIRECT TESTIMONY
OF
NANCY BROCKWAY
ON BEHALF OF AARP
REGARDING APS' REVENUE REQUIREMENT
NOVEMBER 18, 2011**

Docket No. E-01345A-11-0224
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**DIRECT TESTIMONY
OF
NANCY BROCKWAY
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NOVEMBER 18, 2011**

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1 **EXECUTIVE SUMMARY**

2 **The Commission should reject APS' proposed ERA and EIA tracking accounts.**

3 1. The ERA generation-addition cost tracker is not needed in order for APS to recover its
4 costs of service and earn a fair return.

5 APS proposes that the present APS Environmental Improvement Surcharge ("EIS") be
6 replaced by what it calls the Environmental and Reliability Account ("ERA"). Between
7 rate cases, APS would book to that account the costs of certain new generation additions
8 and additional pollution controls for existing generation, and then recover these costs in
9 tracker rates reset annually outside a rate case, until the next base rate case. The
10 Company claims it needs to adjust rates whenever a generation addition or environmental
11 compliance investment is made, or else its earnings will be eroded. The Company fails to
12 acknowledge that many changes occur after any given rate case, and increases in revenue
13 requirements in one area (such as generation additions) may be offset by decreases in
14 revenue requirement elsewhere (as in depreciation accounts). Only an updated and
15 comprehensive estimate of revenue requirements can determine whether raising rates to
16 explicitly reflect a given plant investment will create excess earnings. Further, the
17 tracker mechanism will make prudence determinations difficult if not practically
18 impossible. The ERA is not needed, and its institution would shift significant risks from
19 the Company to the consumer, yet APS does not propose to reduce its requested return to
20 acknowledge this fact. The ERA should be rejected.

21 2. The EIA (decoupling mechanism) is not necessary to assure fair and vigorous
22 investments by APS in energy efficiency and unfairly shifts risks, such as economic downturns,
23 to ratepayers.

24 APS presents its EIA as necessary to facilitate its investments in and support for energy
25 usage reduction measures. However, APS proposes a full decoupling mechanism that
26 would protect its revenues as sales erode for any reason, including non-utility efficiency
27 initiatives, economic downturns, or weather. Decoupling, and removal of the direct
28 incentive for APS to sell more electricity does not guarantee that APS will invest in
29 effective energy efficiency measures and demand-side management programs in which
30 all APS customers can benefit. Further, adoption of revenue decoupling is not a
31 necessary or sufficient condition to increase energy efficiency. There are numerous, non-
32 decoupling tools available to public policy-makers to promote energy efficiency
33 objectives. Decoupling will shift significant risks from APS to its consumers, yet APS
34 does not propose to reduce its requested return to reflect this reality. APS is in a better
35 position than consumers to manage weather-related risks. APS should not be made
36 whole for sales reductions caused by service interruptions or outages. The APS
37 mechanism rate design does not promote energy efficiency. The APS EIA proposal
38 should be rejected.

1 **I. INTRODUCTION AND QUALIFICATIONS**

2 **Q. PLEASE STATE YOUR NAME AND ADDRESS.**

3 A. My name is Nancy Brockway. My business address is 10 Allen Street, Boston, MA
4 02131.

5 **Q. WHICH PARTY IS SPONSORING YOUR TESTIMONY?**

6 A. AARP is sponsoring my testimony in this docket.

7 **Q. WHAT IS YOUR PROFESSIONAL EXPERIENCE?**

8 A. I have over 30 years' experience in utility regulation and consumer protection, including
9 five years on the New Hampshire Public Utilities Commission, 16 years in a variety of
10 legal assistance programs, nine years as a staff member of two different U.S. state
11 regulatory commissions and the National Regulatory Research Institute, and seven years
12 as a consultant and expert witness. I have provided expert witness testimony in over 50
13 dockets on low-income rates, utility energy efficiency and demand response, utility
14 consumer protection, mergers and acquisitions and cost of service issues, in litigation
15 before 22 state or provincial regulatory commissions.

16 **Q. WHAT IS YOUR EXPERIENCE IN THE AREAS OF DE-COUPLING AND
17 CAPITAL COST RECOVERY?**

18 A. I have extensive experience related to decoupling and capital cost recovery. I was a
19 member of the staff of the Maine Public Utilities Commission when, in the mid-1980s,
20 then-Commissioner David Moskowitz originally developed the concept of decoupling. I
21 worked directly with Commissioner Moskowitz on utility energy efficiency (then called
22 conservation and load management). Mr. Moskowitz is the author of the seminal paper
23 on decoupling, *Profits and Progress Through Least Cost Planning*,¹ published in 1989 by

¹ www.raonline.org/.../RAP_Moskovitz_LeastCostPlanningProfitAndProgress_1989_11.pdf

1 the Regulatory Assistance Project, which he co-founded. I have advised consumer
2 intervenors on utility and non-utility energy efficiency programs and spending. I have
3 written on utility demand-side-management (DSM) and energy efficiency (EE) program
4 administration, including low-income DSM and EE programs. I was named by the
5 Massachusetts Division of Energy Resources as the so-called Independent Conservation
6 and Load Management Expert, leading a collaborative group to develop EE programs for
7 a major Massachusetts electric utility. Later, while a Commissioner in New Hampshire, I
8 promoted the reintroduction of gas utility energy efficiency programs, development of so-
9 called CORE electric utility EE programs, and the introduction of the first Pay As You
10 SaveTM (PAYSTM) pilot in the nation, a program that continues today on an ongoing basis
11 at Public Service of New Hampshire. For several years I was the Board Chair of PAYS
12 America, Inc., a non-profit organization devoted to disseminating information about the
13 method for making energy efficiency widely available to customers without increasing
14 EE surcharge burdens. I am currently the advisor to the Nova Scotia Consumer Advocate
15 on DSM and EE issues, and provide expert assistance to the Massachusetts Low Income
16 Energy Affordability Network, a major focus of which is the promotion of low-income
17 energy efficiency programming in the state. I have also written and provided testimony
18 extensively on smart-grid implementation and financing, and the relationship between
19 such initiatives and energy efficiency and demand response.

20 In response to the high level of over-market generation costs (largely from over-budget
21 and cancelled nuclear projects), Maine and other states began to explore alternative forms
22 of regulation and industry structure, to realign risks and rewards. Starting with my
23 service for the Maine Public Utilities Commission, I was personally involved in the
24 development of regulatory policy around Integrated Resource Management (variously

1 called Integrated Resource Planning or Least Cost Planning). As part of that effort, I was
2 a chief staff member assigned to implementation of the Public Utility Regulatory Policy
3 Act of 1978 (PURPA), which introduced the concept of non-utility generation purchase
4 requirements. I continued this work as hearing officer and General Counsel at the
5 Massachusetts Department of Public Utilities, as non-utility generation became a larger
6 component of utility portfolios. Later I provided advice and assistance to local low-
7 income advocates during the restructuring of the electric industry, and, in 1994, wrote one
8 of the first papers on the topic. During my tenure at the New Hampshire Public Utilities
9 Commission, we heard the cases arising out of efforts to restructure the electric industry,
10 in large part because of the high cost of large, central-station nuclear investments by our
11 utilities, such as Seabrook Nuclear Unit I. We addressed fundamental questions of the
12 purpose of regulation, and the role of utilities in meeting customer power requirements.
13 A copy of my resume is attached as Exhibit NB-1.

14 **Q. WHAT IS YOUR EDUCATIONAL EXPERIENCE?**

15 A. I earned an A.B. from Smith College and a J.D. from Yale University. I have taken
16 numerous professional courses in regulation and related topics.

17 **Q. WHAT IS THE PURPOSE OF YOUR TESTIMONY?**

18 A. In this testimony filed November 18, 2011, I will present my analysis and
19 recommendations concerning the Environment and Reliability Account and the
20 Efficiency and Infrastructure Account proposed by Arizona Public Service in this docket.
21 In testimony filed on December 2, 2011, I will address non-revenue issues such as rate
22 design.

1 **II. ENVIRONMENT AND RELIABILITY ACCOUNT (PRE-APPROVAL)**

2 **Q. PLEASE BRIEFLY DESCRIBE THE APS "ERA" PROPOSAL.**

3 A. APS proposes that the present APS Environmental Improvement Surcharge ("EIS") be
4 replaced by what it calls the Environmental and Reliability Account ("ERA"). Between
5 rate cases, APS would book to that account the costs of certain new generation additions
6 and additional pollution controls for existing generation, and then recover these costs in
7 tracker rates reset annually outside a rate case. At the time of the next rate case, the ERA
8 would be rolled into base rates.

9 **Q. HOW DOES APS DESCRIBE THE MECHANICS OF ITS ERA PROPOSAL?**

10 A. Company Witness Leland R. Snook describes the mechanics of the APS ERA proposal in
11 his direct testimony, starting at p. 24. According to Mr. Snook, APS would calculate the
12 ERA adjustment annually, updating the Account based on the costs of qualifying
13 investments that were placed in-service during the preceding calendar year. Items APS
14 proposes to include in the ERA are: (1) Return on ERA Qualified Investments, at the
15 Company's Weighted Average Cost of Capital ("WACC") approved by the Commission
16 in the Company's preceding general rate case; (2) Depreciation expense; (3) Income
17 taxes; (4) Property taxes; (5) Deferred taxes and tax credits where appropriate; and (6)
18 Operations and maintenance ("O&M") expenses. The calculated adjustment would be
19 applied on an equal percentage basis to all retail Standard Offer customers, except for
20 customers served under rate schedule E-36 XL.

21 **Q. HOW ARE THE COSTS OF GENERATION ADDITIONS RECOVERED BY APS**
22 **TODAY?**

23 A. APS recovers the costs of generation additions in base rates. Base rates are set by
24 determining a revenue requirement needed to cover the cost of providing utility service,

1 including operation and maintenance costs and a return of and on the fair value of plant
2 dedicated to the APS public utility function. Base rates remain in place until reset,
3 typically upon a general rate filing by the utility.

4 **Q. HOW DOES THE COMPANY PROPOSE TO DEFINE INVESTMENTS**
5 **QUALIFYING FOR RECOVERY UNDER THE "ERA" TRACKER?**

6 A. According to the ERA Plan, Attachment LRS-3 to Mr. Snook's testimony, costs
7 qualifying for ERA tracker treatment would be defined as follows:

8 **ERA Qualified Investments** –Investments in Qualified Environmental Improvement
9 Projects and Qualified Generation Plant. Each ERA Qualified Investments [sic] must: (1)
10 be classified in one or more of the FERC plant accounts as listed in section 3 of this
11 document, or any other successor FERC account, upon going into service, (2) be tracked
12 by a specific project number, and (3) exceed \$500,000 in capital investment.

13
14 **Qualified Environmental Improvement Projects** - Projects designed to comply with
15 current or prospective environmental standards required by federal, state, tribal, or local
16 laws and regulations. These standards and criteria for water, waste, and air include but
17 are not limited to new and expected limits for carbon dioxide (CO₂), sulfur oxide (SO_x),
18 nitrogen oxide (NO_x), particulate matter (PM), volatile organic compounds (VOC), and
19 toxics such as mercury (Hg), coal ash management, and requirements under the clean and
20 safe drinking water acts.

21
22 **Qualified Generation Plant** - Generation plant capacity acquisitions, existing generating
23 plant efficiency projects or the construction of new generating plant.

24 **Q. WHAT IS THE POTENTIAL SCOPE OF COSTS THAT COULD EVENTUALLY**
25 **BE RUN THROUGH THE ERA TRACKER, RATHER THAN RECOVERED VIA**
26 **THE ORDINARY RATESETTING PROCESS?**

27 A. Over time, the proposed ERA would encompass a large portion of the capital investments
28 (and generation-related O&M) of the Company. In estimates provided by APS to LBNL
29 for the laboratory's use in analyzing the impact of decoupling on ratepayers and
30 shareholders for the period 2011 through 2030, APS forecast that its annual non-fuel
31 expenses, inclusive of return on and of capital expenditures and O&M expenses

1 associated with new generation resources, were expected to grow in excess of 5%
2 annually. See RUCO 1.5, Peter Cappers, Chuck Goldman, Andrew Satchwell, Lawrence
3 Berkeley National Laboratory, *Analysis of the Energy Efficiency Standard (EES) and*
4 *Decoupling on Arizona Public Service and Tucson Electric Power Prepared for the*
5 *Arizona Corporation Commission, ACC Open Meeting (UPDATE), June 14, 2010, at 12.*
6 According to the testimony of Mark Schiavoni, APS' share of the generation fleet's total
7 environmentally-driven spend during the 2010 Test Year was roughly \$46 million.
8 Based on the Company's response to Staff 4.22, almost 60% of the dollars spent on
9 environmental compliance in 2010 were for projects sized above \$500,000. Regardless
10 of any adjustments that might otherwise be necessary to such figures, they do provide a
11 sense that the amount of dollars that could flow through the proposed ERA annually
12 could be very large, and a significant portion of the Company's revenue needs.

13 **Q. HOW WOULD THE INSTITUTION OF THE "ERA" TRACKER CHANGE THE**
14 **WAY APS RECOVERS THE COSTS OF GENERATION ADDITIONS?**

15 A. The institution of the ERA tracker would allow APS to increase rates to cover increased
16 generation and anticipated environmental compliance costs in a piecemeal fashion. The
17 costs (both capital and associated O&M expenses in the case of generation additions)
18 would be reflected in rates without consideration of any other and possibly offsetting
19 changes in the overall revenue requirement since the last rate case. This kind of
20 piecemeal rate-setting constitutes a "single-issue" rate case.

21 **Q. WHY SHOULD UTILITIES NOT BE ALLOWED TO RAISE RATES IN A**
22 **SINGLE-ISSUE RATE CASE?**

23 A. Single-issue ratemaking distorts the determination of the revenue requirement needed for
24 the utility to provide its public service. It amounts to adjusting one set of elements of the

1 overall revenue requirement without considering the remaining elements at the same
2 time. Allowing the utility to raise rates when one cost component increases, without
3 considering possible offsetting decreases in revenue requirements, would subject
4 consumers to the risk that the utility will receive revenues in excess of the cost to provide
5 utility service.

Q. IS SINGLE-ISSUE RATEMAKING LEGAL IN ARIZONA?

A. Although I am an attorney, I am not providing a legal opinion in this case. However, I would call the Commission's attention to cases in Arizona that have prohibited single-issue ratemaking or ratemaking that does not include a finding of "fair value," such as *Scates v. Arizona Corp. Comm'n*, 118 Ariz. 531, 533-34, 578 P.2d 612, 614-15 (App.1978) and *Residential Utility Consumer Office v. v. Arizona Corp. Comm'n*, 199 Ariz. 588, 593, ¶¶ 21-22, 20 P.3d 1169, 1174 (App.2001).

6 **Q. WHY DOES APS ARGUE THAT ITS PROPOSED ERA WOULD BE GOOD**
7 **POLICY?**

A. Mr. Snook states that under traditional ratemaking, the "time lag between when a project is placed into service and when the Company begins to recover the cost can be significant and would be detrimental to the Company's financial position by reducing cash flow and increasing external capital requirements without a corresponding increase in revenues. (Snook Direct at 23-24.) He argues that providing what he calls "timely" recovery of environmental improvement projects and generation capacity acquisitions or additions between rate proceedings will better enable APS to secure capital at a reasonable cost to make these capital investments, and allow APS to pass these savings on to customers. *Id.* at 25. He also argues that allowing recovery of purchased-power costs via a reconciling clause (the PSA mechanism) but requiring the Company to "wait" until the next rate case

for recovery of its generation capital additions distorts the Company's decision making in favor of purchased power. *Id.* at 24. Finally, APS argues that increasing rates each year to reflect generation additions would provide for a more gradual increase in rates to cover such than would be the case if the costs of generation additions could be reflected in rates only upon a general rate case. *Id.*

1 **Q. IF GENERATION ADDITIONS HAVE CAUSED THE COSTS OF**
2 **GENERATION AND QUALIFYING ENVIRONMENTAL COMPLIANCE TO**
3 **INCREASE SINCE THE LAST RATE CASE, IS IT APPROPRIATE TO ALLOW**
4 **THE COMPANY TO FLOW THE COSTS THROUGH TO RATES**
5 **IMMEDIATELY, INSTEAD OF WAITING UNTIL THE NEXT RATE CASE?**

6 **A.** No. This question presumes that rates set in the last rate case have not allowed the
7 Company to recover its costs of service, including the incremental costs of generation
8 additions. However, rates set in the last case are actually presumed to be sufficient to
9 allow recovery of all reasonable and prudent costs of service, even if not adjusted to
10 reflect individual changes such as new generation additions since those rates were set.
11 This presumption can only be controverted if the utility demonstrates to the
12 Commission—after a full rate filing—that the overall balance of revenues and costs has
13 been altered, such that the addition of the generation cost has pushed the company's net
14 revenues below a just and reasonable level. Only then should rates be adjusted to correct
15 that imbalance, and that correction should only be applied prospectively.

1 **Q. HOW CAN RATES SET IN A PREVIOUS RATE CASE ALLOW THE**
2 **COMPANY TO RECOVER THE COSTS OF NEW GENERATION ADDITIONS**
3 **AND ENVIRONMENTAL COMPLIANCE INVESTMENTS, GENERATION AND**
4 **INVESTMENTS THAT WERE NOT EVEN COMPLETED AND MAY NOT**
5 **EVEN HAVE BEEN PLANNED WHEN THOSE RATES WERE ESTABLISHED?**

6 A. Rates are set based on an estimated balance between costs and revenues, such that the
7 utility should earn enough revenues at these rates to cover the cost of service, including a
8 return of and on capital devoted to the public service. In the time since the last rate case,
9 most of the elements of the revenue/cost balance will change, in many directions. These
10 changes often offset each other. The result then is that the rate per billing determinant
11 (e.g. \$/kWh) established in the last rate case will produce sufficient revenue to provide
12 the Company a fair opportunity to earn a fair return, even though key elements of the
13 revenue requirement are, taken individually, quite different from the values assumed in
14 the last rate case determination.

15 **Q. DOES REQUIRING A COMPANY TO WAIT UNTIL A NEW RATE CASE HAS**
16 **BEEN COMPLETED MEAN THAT COST RECOVERY FOR GENERATION**
17 **ADDITIONS OR QUALIFYING ENVIRONMENTAL COSTS WILL NOT BE**
18 **TIMELY?**

19 A. No. Again, it is an error to assume that because a cost has increased after a rate case the
20 Company therefore is not receiving cost recovery for that capital investment and
21 associated O&M. When the plant goes into service, the utility places the original cost
22 into its plant-in-service account, and begins recording depreciation (to recover a return on
23 the investment). The utility also records an allowance for funds used during construction
24 (“AFUDC”) in its plant account to compensate the utility for the carrying costs of plant

1 investment. The utility also records the O&M expenses it incurs associated with the
2 plant, as well as the tax effects of the investment and expenses. If the rates then in effect
3 allow these costs to be covered along with all other prudently incurred costs of service,
4 taken as a whole, then the Company experiences no time lag between cost incurrence and
5 cost recovery. Only if and to the extent that the rates are not sufficient to allow the
6 Company a reasonable opportunity to cover the revenue requirement in total as of that
7 time would the Company experience regulatory lag in cost recovery.

8 **Q. HOW CAN A COMMISSION KNOW IF THE RATES SET IN THE LAST RATE**
9 **CASE PROVIDE THE UTILITY A SUFFICIENT OPPORTUNITY TO**
10 **RECOVER PRUDENT COSTS AND EARN A FAIR RETURN ON ITS**
11 **INVESTMENTS GIVEN KNOWN CHANGES IN REVENUE REQUIREMENT**
12 **COMPONENTS SINCE THE LAST RATE CASE?**

13 A. There is no way to know if rates set in the last rate case provide the utility a sufficient
14 opportunity to recover prudent costs and earn a fair return without estimating the entire
15 revenue requirement. This is the only way for a Commission to know if post-rate-case
16 increases in revenue requirement (such as the cost of generation additions) are or are not
17 offset by decreases in revenue requirement (such as reduced costs of capital and
18 increased depreciation reserves).

19 **Q. APS ARGUES THAT ITS COSTS WILL ALWAYS AND INEVITABLY**
20 **INCREASE BETWEEN RATE CASES. DOES THIS JUSTIFY USE OF A**
21 **SINGLE-ISSUE TRACKER AS PROPOSED?**

22 A. No. While generation additions and environmental compliance investments, if prudent,
23 would all else being equal increase revenue requirements above those used to set rates in
24 the last rate case, net plant costs otherwise go down between rate cases as plant is

1 depreciated. Similarly, operations and maintenance expenses may be reduced overall via
2 efficiency even as new O&M expenses are incurred with respect to new generation. In
3 addition, as I mentioned above, costs of capital can go down between rate cases. Again,
4 whether rates are sufficient to provide a reasonable opportunity to recover prudently-
5 incurred costs and earn a fair return is a question of the totality of costs and revenues as
6 of the time of estimation, not the increase in one specific category of costs since the last
7 time revenue requirements and return were estimated. Elements of the revenue
8 requirement may change a great deal without the overall revenue requirement changing
9 significantly.

10 **Q. ARE THERE OTHER REASONS WHY A TRACKER IS NOT A GOOD WAY TO**
11 **RECOVER THE COSTS OF GENERATION AND ENVIRONMENTAL**
12 **COMPLIANCE ADDITIONS?**

13 **A.** Yes. Generation additions are an area where questions of prudence must be considered
14 before a utility is allowed to earn a return on and of its associated investment. Further,
15 the type and scope of needed environmental compliance costs must be subject to
16 prudence review. Prudence of capital investments is best determined after-the-fact, in a
17 rate case, before the investment is explicitly acknowledged as an allowable cost of
18 service. The Company's proposal would effectively eliminate this approach to prudence
19 determination of generation additions.

1 **Q. ARE THERE ANY OTHER REASONS WHY THE COMMISSION MUST**
2 **REVIEW THE PRUDENCE OF QUALIFYING ENVIRONMENTAL**
3 **COMPLIANCE INVESTMENTS BEFORE REFLECTING THEM EXPLICITLY**
4 **IN RATES?**

5 A. Yes. As is shown in the definition of qualifying investments from the ERA Plan,
6 reproduced above, the Company proposes to include in this category of investments not
7 only projects designed to comply with current environmental standards, but also projects
8 designed to comply with *prospective* environmental standards. (Snook Attachment LRS-
9 3.) Allowing special cost recovery when the Company asserts the project is needed to
10 comply with prospective environmental standards could, if not properly supervised,
11 provide wide latitude for the Company to make investments based on its assumptions
12 about what environmental standards might be imposed at some indefinite time in the
13 future. The Commission would be encouraging the Company to throw money at vague,
14 prospective standards, without any customary prudence restraints.

15 The definition of prospective environmental standards is so vague and difficult to
16 administer that, if special treatment of environmental compliance costs is to be
17 considered, the definition of such qualifying investments must be limited to those made
18 in order to comply with standards actually in effect at the time the investment was made.

19 **Q. HOW DOES APS PROPOSE THAT PRUDENCE OF GENERATION**
20 **ADDITIONS BE DETERMINED?**

21 A. According to Mr. Snook, the Commission will have multiple "opportunities" to review
22 the projects included in the ERA. *Id.* at 28. Mr. Snook states that the Commission can
23 review them annually in the ERA filing. In addition, Mr. Snook testifies, the
24 Commission always "has the opportunity" to review all capital expenditures and costs

1 within the context of a rate case to determine prudence. *Id.* at 29. Further, with the
2 adoption of the IRP Rules, the Commission "has to acknowledge the Company's resource
3 plan" every two years, and this IRP filing allows the Commission review of APS's
4 current and proposed resource mix and any external items, such as new environmental
5 rules, that would affect generating resources. *Id.*

6 **Q. WOULD THE THREE APS "OPPORTUNITIES" TO "REVIEW" PRUDENCE**
7 **PROVIDE THE COMMISSION AND CUSTOMERS THE SAME SAFEGUARDS**
8 **AS TRADITIONAL PRUDENCE REVIEWS?**

9 A. No. Once a generation cost is explicitly reflected in rates, as is proposed to occur
10 annually at the resetting of the ERA, it will be awkward if not impossible to return to the
11 investment and review the prudence of the generation cost in the next rate case. This is
12 so because the Company will have been explicitly recovering such costs for many
13 months. As a practical matter, it will be difficult for a Commission to reverse such cost
14 recovery, even if legally it has the authority and indeed responsibility to review prudence
15 of the investment and associated costs. I will next discuss why each of the alleged
16 prudence-review "opportunities" would be inadequate.

17 **Q. WOULD THE COMMISSION HAVE SUFFICIENT OPPORTUNITY TO**
18 **DETERMINE WHETHER A PROPOSED INVESTMENT WILL BE PRUDENT**
19 **DURING ITS REGULAR BIENNIAL REVIEWS OF APS' INTEGRATED**
20 **RESOURCE PLAN?**

21 A. No. Prudence decisions cannot be made in advance of the investment, and before a
22 generation addition has come into service. Integrated Resource Plan review is not
23 intended to substitute the Commission's decision-making on plant addition or
24 construction for that of the utility. Further, the decision to build plant of a certain type

1 and on a certain schedule is just the beginning of the process of generation addition
2 decision-making for the utility. No regulatory commission can have sufficient
3 information or resources to establish the prudence of the thousands of decisions and
4 calculations that a utility must make in deciding to construct or make capital additions to
5 generation plant, continuing with such a plan in the face of changes in circumstances, and
6 implementing the plan prudently. In addition, a Commission must be able to focus
7 resources on likely areas of imprudence. Commissions cannot review the thousands of
8 decisions that were made, but must determine at the outset if there is any reason to
9 investigate any particular decisions. This determination is driven, as a practical matter,
10 by the observation that a particular decision or set of decision has actually led to an
11 adverse outcome. That consumers have suffered higher costs or less reliability, or some
12 other adverse result of a company's generation addition actions, cannot be known in
13 advance of completion of the plant. Thus, the forward-looking IRP process is not
14 sufficient to identify potential imprudence, much less to determine whether the Company
15 was in fact imprudent.

16 **Q. COULD THE COMMISSION EFFECTIVELY REVIEW THE PRUDENCE OF**
17 **NEW GENERATION ADDITIONS DURING THE ANNUAL RESETTING OF**
18 **THE ERA?**

19 A. No. If generation additions are reviewed in the annual ERA proceedings, the
20 Commission would only have a 30-day window to review the reasonableness of costs
21 incurred and decisions made over months if not years before. Thirty days is not enough
22 time to determine if there is a prudence issue requiring further investigation, much less
23 enough time to investigate such an issue.

1 **Q. COULD THE COMMISSION APPROVE THE ERA RATES IN THE 30-DAY**
2 **WINDOW AND THEN OPEN AN INVESTIGATION INTO THE PRUDENCE OF**
3 **THE COSTS PRESENTED FOR INCLUSION IN THE ERA THAT YEAR?**

4 A. In theory, the Commission could approve an ERA (with or without reflecting the
5 additional generation-related costs presented at that ERA), and defer prudence issues to a
6 proceeding opened just for the purpose of examining this issue. This approach would be
7 impractical from the perspective of effective regulation. The resolution of ERA prudence
8 issues will not necessarily be any more rapid than the historic average period for rate case
9 determinations and indeed, without the pressure to determine the entire rate case, the
10 prudence issues may languish. Deferring resolution of the prudence issues would also
11 defeat one of the main stated reasons for implementation of the ERA - timely recovery of
12 large capital investments.

13 **Q. WHY WOULD PUTTING PRUDENCE ISSUES OVER TO A COMPANION**
14 **INVESTIGATION FOR RESOLUTION DEFEAT THE PURPOSE OF**
15 **PROVIDING TIMELY RECOVERY?**

16 A. Until prudence is established or costs are disallowed, the ultimate level of cost recovery
17 would remain uncertain. There are three ways to handle this uncertainty pending
18 resolution of the prudence questions. One could deny recovery until prudence is
19 established. One could allow full recovery until costs are disallowed. Or one could
20 allow some costs into the ERA and keep others back, until the prudence determination
21 was complete. In any of these cases, there exists the question of the extent to which over-
22 recoveries and under-recoveries will be trued up upon the prudence determination.
23 Further, the true-up adjustments could be done with or without allowing for the time
24 value of the delay on the over- or under-recovered amounts. Even where under-

1 recoveries were later trued-up by increasing the ERA going forward, and even if carrying
2 costs are fully allowed on such under-recovered balances, the cash flow to the utility will
3 be affected under such an ERA in the same way as it is allegedly affected under
4 traditional ratemaking.

5 **Q. WITHOUT AN ERA, WON'T APS NEED TO FILE MORE FREQUENT RATE**
6 **CASES?**

7 A. Not necessarily. First, any regulatory time and expense savings from less frequent rate
8 filings could be more than offset by increased regulatory time and expenses needed for
9 the parties and the Commission to resolve the annual prudence-review proceedings
10 required as part of an ERA annual filings.

11 Second, as I have discussed, it must be understood that many factors change after rates
12 are set based on a particular revenue requirement estimation, so that just because one
13 element of costs goes up it does not mean that other elements have remained the same. It
14 is not accurate to say that the Company does not, by definition, have an opportunity to
15 recover the costs of new investments even under existing rates. Recent experience shows
16 that the nation is not in a perpetual "environment of increasing costs," contrary to Mr.
17 Guldner's assumption. (Guldner Direct at 5.) Costs have moderated in light of the
18 recession and other factors. Further, to the extent a utility has experienced rapidly
19 increasing costs in the past, one useful regulatory response would be to examine the
20 utility's approach to cost containment. This is especially necessary where, as in the case
21 of APS, the Company has gone from a period of extremely rapid growth to an economic
22 downturn situation in its service area. Habits built up during the period of growth may
23 not be corrected soon enough if the downturn is not fully recognized, and so over-
24 spending is a risk in such situations. The Settlement in the last APS rate case included a

1 mandatory annual expense reduction, perhaps reflecting a sense that expenses had been
2 growing faster than necessary. Further, APS forecasts of growth and of related capital
3 investments are based on assumptions that may have been reasonable during the "boom"
4 times in the area, but may no longer be applicable given the sudden and sharp decrease in
5 economic activity recently experienced.

6 **Q. WOULD THE COMMISSION AND APS CUSTOMERS BENEFIT FROM LESS**
7 **FREQUENT RATE CASES?**

8 A. Not necessarily. Contrary to Mr. Guldner's belief, not everyone "agrees on the benefits to
9 APS customers, the Commission, and APS itself of less frequent general rate cases."
10 (Guldner Direct at 5.) Ensuring that rates do not exceed levels needed to provide a fair
11 opportunity to earn a fair return is not only a worthwhile objective of economic
12 regulation, it is arguably the core objective of economic regulation. Further, if a utility
13 keeps its books in order, presents a clean and valid request for increased rates, and
14 operates its business efficiently, a rate case need not be a protracted and overly
15 burdensome process for the utility or for the Commission.

16 **Q. WOULD AN ERA ALLOW THE GRADUAL INCREASE IN RATES NEEDED**
17 **TO SUPPORT INVESTMENTS, AND PREVENT SUDDEN JUMPS IN RATE**
18 **LEVELS THAT OTHERWISE WOULD OCCUR?**

19 A. It might have some effect, but an ERA would not smooth the pattern of rate increases
20 sufficiently to justify separating the consideration of the large dollar investments
21 associated with generation additions and environmental investments from revenue
22 requirement analyses conducted in the context of the entire array of costs and revenues,
23 or eliminating the traditional prudence-review process.

1 **Q. DOES APS EXPECT ITS LOAD TO GROW IN THE NEXT DECADE?**

2 A. Yes. In response to RUCO 1.31, the Company stated that—in its forecasts of energy,
3 loads, and customers for the next ten year—its peak demand is anticipated to slightly
4 increase. Further, while EE and DG are reducing energy usage on a per-customer basis,
5 the Company expects to add over 360,000 retail customers by 2020 (a cumulative annual
6 growth rate of 2.9%), thereby increasing load requirements. Using the figures provided
7 in RUCO 1.31, one can readily calculate that, year to year, the Company expects the
8 number of residential customers to grow 32 % from 2012 through 2020, as follows:

2012	2013	2014	2015	2016	2017	2018	2019	2020
2%	3%	4%	4%	4%	4%	3%	3%	3%

9 **Q. IS THE COMPANY'S FORECAST OF ITS LIKELY GROWTH IN CUSTOMER**
10 **NUMBERS RELIABLE?**

11 A. The Commission should examine the Company's forecast of customer growth rates (and
12 associated demand and energy growth) carefully. The annual growth rate projected by
13 the Company significantly exceeds other projected population growth rates for Arizona.
14 For example, the Economic and Business Research Center at the University of Arizona
15 Eller School of Business Management recently forecast that population growth in
16 Arizona would average only 1.5% per year during the next decade.² By contrast, APS
17 projects cumulative annual customer growth at 2.9%, higher than the compound
18 population compound growth rate for Arizona for the decade ending 2010 (2.1%), as
19 published by the Eller School. The Company should be required to explain its seemingly
20 aggressive forecast of customer (and load and sales) growth in light of the recent Great
21 Recession and associated dampening of forecast growth in the next several years in
22 Arizona.

² See, http://azeconomy.eller.arizona.edu/AZE11q3/expectations_lowered_long_term.asp.

1 **Q. HOW WOULD A LOWER GROWTH RATE AFFECT APS' REQUIRED**
2 **CAPITAL ADDITIONS AND ITS PURPORTED JUSTIFICATIONS FOR AN**
3 **ERA?**

4 A. If it turns out that growth will not be as rapid as projected by the Company, then the need
5 for capital additions may not be as heavy as the Company now projects. The risk of
6 regulatory lag associated with generation additions might then also be lower than APS
7 fears; even if APS' incomplete view of regulatory lag were accepted. These are further
8 reasons that undercut APS' request for an ERA.

9 **Q. IS THERE ANYTHING ELSE THE COMMISSION SHOULD EXAMINE**
10 **BEFORE ACCEPTING THE COMPANY'S ARGUMENT THAT ITS EARNINGS**
11 **SUFFER FROM REGULATORY LAG?**

12 A. Before accepting the argument that APS' earnings suffer from regulatory lag, any asserted
13 earnings shortfalls should be examined to determine if factors other than capital additions
14 and regulatory lag contributed to such shortfalls.

15 **Q. WHAT FACTORS OTHER THAN REGULATORY LAG COULD ACCOUNT**
16 **FOR EARNINGS SHORTFALLS?**

17 A. One major reason utility earnings may fall short is overspending relative to the spending
18 needed to provide safe and adequate service. In other words, inefficient or excessive
19 expenditures will drive down earnings, without contributing to the provision of safe and
20 adequate service.

1 **Q. APS ARGUES THAT ITS COST OF CAPITAL WILL BE REDUCED IF IT CAN**
2 **RECOVER CAPITAL INVESTMENTS VIA A TRACKER SUCH AS THE ERA,**
3 **AND THAT CONSUMERS WILL BENEFIT AS APS PASSES SUCH SAVINGS**
4 **THROUGH. DO YOU AGREE WITH ITS REASONING?**

5 A. No. The Company's own cost of capital witness denies that there is any reduction in cost
6 of capital associated with the ERA tracker. The Company's positions are not internally
7 consistent.

8 **Q. IF THE COMMISSION APPROVES THE COMPANY'S PROPOSED ERA, HOW**
9 **SHOULD SUCH A TRACKER AFFECT THE COMPANY'S COST OF**
10 **CAPITAL?**

11 A. APS' cost of capital should be reduced. Adoption of a tracker for generation additions
12 and environmental improvements would be a major deviation from traditional
13 ratemaking. It would significantly reduce the risk APS would otherwise face that its
14 imprudent investments would be disallowed. [Note that denying the proposed tracker
15 would not increase in any way the risk that prudent investments would be disallowed.]
16 APS is in the best position to shoulder the risks of its own imprudence. Such risks should
17 not be placed on consumers. If they are, the cost of capital should be reduced to reflect
18 this shift in risks.

19 **Q. THROUGHOUT THIS DISCUSSION OF THE ERA, YOU HAVE FOCUSED ON**
20 **THE TOPIC OF GENERATION ADDITIONS. DO YOUR OBSERVATIONS**
21 **APPLY AS WELL TO INVESTMENTS MADE FOR COMPLIANCE WITH**
22 **ENVIRONMENTAL REGULATIONS?**

23 A. Yes. It is a mistake to see the cost of complying with environmental regulations as
24 somehow a unique and burdensome responsibility for a utility. All utility functions must

1 be carried out against various standards of quality. Environmental standards are simply a
2 particular set of quality requirements. Further, all businesses face environmental
3 requirements, but APS is assured it prudently incurred costs will be recovered in rates.

4 **III. EFFICIENCY AND INFRASTRUCTURE ACCOUNT (DECOUPLING)**

5 **Q. PLEASE DESCRIBE THE COMPANY'S PROPOSED EFFICIENCY AND**
6 **INFRASTRUCTURE ACCOUNT.**

7 A. APS proposes to implement a tracking mechanism it calls the Efficiency and
8 Infrastructure Account (EIA). As outlined in Mr. Snook's testimony, the EIA is a full
9 revenue-per-customer decoupling mechanism, under which all changes in revenues per
10 customer since the last rate case will be tracked, excess revenues refunded and shortfalls
11 recovered up to an annual 3% cap. Unrecovered shortfalls over the cap would be
12 deferred for later recovery with carrying costs. The Company proposes to make
13 adjustments annually.

14 **Q. WOULD APS' PROPOSED DECOUPLING MECHANISM BE LEGAL IN**
15 **ARIZONA?**

16 A. Again, I am not providing any legal opinions, but the Commission should determine
17 whether revenue decoupling would even be legal in Arizona, given that Arizona courts
18 have interpreted the State Constitution to require that the Commission find the "fair
19 value" of a utility's property as part of calculating just and reasonable rates. Ariz. Const.
20 art. 15, §§ 3, 14. This requirement may be hard to reconcile with APS's proposed
21 decoupling mechanism. I note that Administrative Law Judge Dwight Nodes has
22 required the parties in Southwest Gas Corporation's current rate case (Docket No. G-
01551A-10-0458) to brief the constitutionality of that company's proposed decoupling
mechanism.

1 **Q. WHY DOES APS SAY IT NEEDS THE EIA?**

2 A. According to Mr. Snook, APS is recommending a non-fuel revenue per customer
3 decoupling mechanism be implemented "to help address the financial disincentives that
4 occur due to reduced sales" resulting from energy efficiency (EE) and distributed
5 generation (DG). (Snook Direct at 14.) In response to data requests, APS states that the
6 goal of a decoupling mechanism is "to allow the utility to invest in energy efficiency
7 resources on a comparable basis to supply side resources," and "to actively promote and
8 market energy efficiency..." (RUCO 1.12.)

9 **Q. WHY DOES APS SAY THAT REVENUE-PER-CUSTOMER DECOUPLING IS**
10 **THE BEST WAY TO ADDRESS FINANCIAL DISINCENTIVES TO EE AND**
11 **DG?**

12 A. Mr. Snook testifies that the revenue-per-customer mechanism (1) modernizes the rate
13 structure and aligns the Company's and customers' interests by updating customer billing
14 determinants annually in a simple and straightforward manner; (2) is the most commonly
15 applied form of decoupling within the electric and gas utility industries; (3) properly
16 removes the link between volumetric sales and revenue collection, thus eliminating the
17 disincentive associated with implementing EE programs and instead allowing a utility to
18 willingly engage in and promote EE programs; and (4) allows a utility to collect a greater
19 portion of its authorized fixed cost of service (as determined within a rate case)
20 associated with both existing and future customers regardless of sales levels. (Snook
21 Direct at 14.)

1 **Q. APS ARGUES THAT MOVING TO A STRAIGHT FIXED-VARIABLE RATE**
2 **DESIGN WOULD NOT BE DESIRABLE AS A METHOD FOR DECOUPLING**
3 **SALES AND FIXED COST RECOVERY. DO YOU AGREE?**

4 A. Yes. I agree with Mr. Snook's statement that increasing basic monthly charges to recover
5 fixed costs would require very high basic service charges. (Snook Direct at 8.) Mr.
6 Snook estimates that the basic service charges for residential service would need to be
7 raised to over \$90 per month per customer to cover 100% of allocated fixed costs, and
8 even higher for general service customers. *Id.* As Mr. Snook testifies, this "would be
9 particularly burdensome for many residential and smaller commercial customers." *Id.*
10 Further, as Mr. Snook states, inherent in the SFV approach "there is a much lower
11 incentive to participate in EE programs." The cost and effort of making usage more
12 efficient would be rewarded with lower bill reductions, since the usage charges avoided
13 by the customer would be much reduced.

14 **Q. DO YOU AGREE THAT REVENUE AND SALES MUST BE DECOUPLED IN**
15 **ORDER FOR ENERGY EFFICIENCY TO BE PROMOTED IN ARIZONA?**

16 A. No. Revenue decoupling is neither a necessary nor a sufficient condition to increase
17 energy efficiency in Arizona. There are numerous, non-decoupling tools available to
18 public policy-makers to promote energy efficiency objectives. Non-decoupling tools and
19 incentives include but are not limited to

- 20 • Adoption of enhanced appliance efficiency standards, building code standards, and
21 vehicle fuel efficiency standards;
- 22 • Utility efficiency mandates coupled with direct cost-recovery and incentives for
23 utility investment in cost-effective programs and measures;

- 1 • Establishment of public or quasi-public “energy efficiency utilities” that administer
- 2 efficiency programs but do not distribute energy supplies to consumers; and
- 3 • Adoption of tax or other financial incentives to promote direct consumer investment
- 4 in energy efficiency or renewable energy measures.

5 **Q. ARIZONA HAS A ROBUST ENERGY EFFICIENCY STANDARD, BUT APS**
6 **ARGUES IT MUST HAVE DECOUPLING IN ORDER TO MEET THE**
7 **STANDARD. DO YOU AGREE?**

8 A. No. APS claims that it will not reach its EES goals without decoupling. (RUCO 1.16.)
9 Indeed, APS asserts that it "would not aggressively pursue energy efficiency
10 programming" absent decoupling. (RUCO 1.20(4).) However, APS' EES obligations are
11 not dependent on its receipt of decoupling. APS itself acknowledges that there is no
12 correlation between the implementation of decoupling and the amount, types and
13 varieties of energy efficiency programs offered to customers. (RUCO 1.15.) In exchange
14 for decoupling, then, APS customers will receive a more enthusiastic marketing of
15 efficiency programs, rather than a qualitatively superior efficiency offering. (RUCO
16 1.12.)

17 **Q. IS THERE EMPIRICAL EVIDENCE FOR REVENUE DECOUPLING AS A**
18 **NECESSARY CONDITION FOR AGGRESSIVE ENERGY EFFICIENCY?**

19 A. While energy efficiency undoubtedly has a downward effect on a utility's revenues, there
20 is actually little empirical evidence that the presence or absence of revenue decoupling as
21 proposed by APS makes a difference in the level of energy efficiency in a state. The
22 American Council for an Energy Efficient Economy recently issued its annual scorecard
23 ranking states according to their policies towards energy efficiency. Considerable points
24 were awarded for revenue decoupling, with revenue-per-customer decoupling getting the

1 largest number of such points. The points for energy efficiency were also heavily
2 weighted in favor of higher efficiency spending (measured as a percent of utility
3 revenues). As can be seen from Exhibit NB-2, of the 20 top states in the 2011 scorecard,
4 eight had no revenue-per-customer decoupling in place (even where in some cases such
5 decoupling was authorized by legislation). Conversely, seven of the bottom ten states
6 provide lost base revenues or similar incentives to utilities, with the stated objective of
7 removing the financial disincentive to support energy efficiency. Decoupling, and
8 removal of the direct incentive for APS to sell more electricity, does not guarantee that
9 APS will vigorously pursue effective energy efficiency and demand-side management
10 programs.

11 **Q. LBNL ESTIMATED THAT APS CUSTOMERS WOULD SAVE \$8.9 BILLION AS**
12 **A RESULT OF ENERGY EFFICIENCY BEYOND BUSINESS AS USUAL.**
13 **GIVEN THE LARGE RESOURCE COST SAVINGS THAT A VIGOROUS**
14 **ENERGY EFFICIENCY INVESTMENT WILL PROVIDE FOR APS'**
15 **RATEPAYERS. DOES THIS JUSTIFY REVENUE DECOUPLING?**

16 **A.** No. One key problem in energy efficiency programming remains the situation of the
17 non-participant (or the lesser participant). Unless the utility costs of efficiency are less
18 than the difference between average and marginal costs, rates will go up as efficiency
19 drives sales lower. Those customers who cannot participate in efficiency, or not to the
20 same extent as others, will pay the utility costs of the efficiency but see their bills rise.
21 Average bills for all customers may well go down, but some customers will not share in
22 these reductions. LBNL did not attempt to split the \$8.9 billion savings between
23 participants and non-participants, or among participants according to their relative ability
24 to lower their usage. Until these issues of equity are resolved, non-essential policies such

1 as decoupling, which shift risks to consumers regardless of their inability to share in
2 efficiency savings, should not be prescribed.

3 **Q. DOES APS PROPOSE TO LIMIT ITS DECOUPLING TO SALES REDUCTIONS**
4 **CAUSED BY ITS ENERGY EFFICIENCY EFFORTS?**

5 A. No, and this is a fundamental flaw. APS proposes that it be made whole for sales
6 reductions whatever the reason for the reduction. APS presents its EIA as necessary to
7 facilitate its investments in and support for energy-usage reduction measures. However,
8 APS proposes a complete decoupling of sales and revenues. The proposed mechanism
9 would protect APS's revenues if sales erode for any reason, including economic
10 conditions, non-utility efficiency initiatives, outages, service interruptions, and weather.

11 **Q. HOW DOES APS JUSTIFY ITS REQUEST TO BE MADE WHOLE FOR SALES**
12 **REDUCTIONS DUE TO ECONOMIC CONDITIONS AND NON-UTILITY**
13 **EFFICIENCY INITIATIVES?**

14 A. Mr. Snook does not address the reasons for relieving APS of the risk of sales reductions
15 resulting from economic conditions or non-utility efficiency initiatives.

16 **Q. ACCORDING TO APS, WHY SHOULD REVENUES BE DECOUPLED FROM**
17 **SALES THAT VARY AS A RESULT OF THE WEATHER?**

18 A. With regard to sales changes caused by the normal variation in weather conditions, Mr.
19 Snook testifies that the EIA will "encourage rate stability by mitigating the impact of
20 weather for customers." (Snook Direct at 13.) In response to RUCO data request 1.14,
21 APS stated that decoupling "removes the risk of weather fluctuation from customers,"
22 and "also eliminates that risk to the Company Shareholders."

1 **Q. WHAT IS THE RISK OF WEATHER FLUCTUATION THAT CUSTOMERS**
2 **BEAR ABSENT REVENUE DECOUPLING ASSOCIATED WITH WEATHER?**

3 A. Absent weather decoupling, customers bear only the risk of foregoing rate reductions
4 they otherwise might have received in the event weather conditions created a higher-than-
5 anticipated demand for electricity. Of course, eliminating that risk by decoupling will
6 subject customers to the corresponding burden that rates will go up when sales go down
7 in periods of milder-than-expected weather. On net, there is no elimination of risk.
8 Instead, with weather-related decoupling the risks and opportunities created by weather-
9 related sales fluctuations are just reversed, or shifted, between consumers and
10 shareholders.

11 **Q. WHY DOES THE COMPANY STATE THAT IT IS REASONABLE TO SHIFT**
12 **ITS RISK OF MILDER WEATHER TO CUSTOMERS?**

13 A. In response to RUCO 1.14, APS stated that the proposed shift in weather-related risk is
14 reasonable "because weather is an event over which neither customers nor Shareholder
15 [sic] can exercise any control."

16 **Q. IS THE COMPANY'S REASONING FOR SHIFTING ITS RISK OF MILDER**
17 **WEATHER TO CUSTOMERS PERSUASIVE?**

18 A. No. It is true that neither customers nor shareholders can exercise any control over the
19 weather. In such a situation, the question for ratemaking policy is which entity is better
20 able to bear the downside risk of conditions adverse to its interests, and to forego the
21 upside benefits of conditions favorable to their interests. Utilities have the resources
22 (and, even with decoupling, the business need) to keep abreast of the most recent and best
23 forecasts of weather trends. Individual consumers and businesses have neither the
24 resources nor the incentive to maintain such expertise and knowledge. While neither can

1 control the weather, the utility can better prepare for and adjust to it, given its superior
2 awareness of likely developments. The downside risks of forecast errors should remain
3 with the utility.

4 **Q. WOULD THE APS DECOUPLING MECHANISM ALLOW THE COMPANY TO**
5 **RECEIVE SURCHARGES IF SALES ARE REDUCED BECAUSE OF OUTAGES**
6 **AND SERVICE INTERRUPTIONS?**

7 A. Yes. The APS mechanism would make no distinction as to the reason for reduced sales,
8 and APS would receive surcharges in the event that outages or service interruptions
9 lowered sales below levels assumed in setting rates. This result unfairly shifts the risk of
10 such outages and interruptions onto customers, who have no control over the level of
11 outages and service interruptions. This shift in risk would also remove one of the utility's
12 incentives to reduce the extent of outages and service interruptions. Without decoupling,
13 the utility loses more money as outages increase in number or duration. It stands to gain
14 revenues if it can improve (lower) the frequency and duration of outages. This incentive
15 for better service quality is removed with the full decoupling proposed by APS. If
16 decoupling is approved, the impact of outages and service interruptions should be
17 excluded from the mechanism.

18 **Q. WILL THE APS DECOUPLING MECHANISM AS PROPOSED BE**
19 **IMPLEMENTED IN A MANNER THAT ENCOURAGES CUSTOMERS'**
20 **ENERGY EFFICIENCY?**

21 A. No. APS proposes to apply surcharges and sur-credits on an equal cents/kWh basis to all
22 kWh sales, regardless of customer class and regardless of usage within the customer
23 class. However, residential customers whose usage remains in the lowest block of the
24 tiered summer E12 rate (up to 400 kWh) as a practical matter have few opportunities to

1 lower their bills through efficiency, and far fewer than those whose usage tops out in the
2 highest block (over 800 kWh). As noted above, those who are likely to be unable to
3 participate may see bill increases simply as a result of the cost of the energy-efficiency
4 programs. Improvements could be made in the manner in which the proposed decoupling
5 mechanism affects customer incentives towards efficiency. To address this equity
6 problem, and to promote greater efficiency, sur-credits should be applied to the initial
7 block of the E12 rate, and surcharges to the tail block.

8 **Q. WHAT WOULD BE THE IMPACT OF DECOUPLING ON APS' COSTS OF**
9 **CAPITAL, AND HOW SHOULD THAT IMPACT BE REFLECTED IN APS'**
10 **REVENUE REQUIREMENT?**

11 A. By APS' own assertions, decoupling reduces its risk of non-recovery of fixed costs. If
12 this risk is reduced, investors would require smaller risk premiums and APS' required
13 return on equity would also drop. Such reduced costs should be reflected in rates.

14 **Q. WHY DOES APS SAY THAT ITS COST OF CAPITAL SHOULD NOT BE**
15 **LOWERED TO REFLECT THE IMPACT OF ITS PROPOSED DECOUPLING**
16 **MECHANISM?**

17 A. APS says that decoupling does not reduce "all or even most of its risk," and further
18 argues that lowering the authorized ROE "simply because a decoupling mechanism is
19 adopted to compensate the utility for what would otherwise be unrecovered cost merely
20 exchanges one financial disincentive for another." (Snook Direct at 22.)

1 **Q. DO YOU AGREE WITH MR. SNOOK THAT RISK WOULD NOT BE**
2 **REDUCED AND THE REQUIRED ROE ALSO NOT REDUCED IF**
3 **DECOUPLING WERE APPROVED?**

4 A. No. APS's cost of capital should be reduced to reflect reality. To the extent decoupling
5 reduces risk for APS, its cost of capital will be lower (presuming a rational market for
6 capital). It is not necessary for a factor to reduce "all or even most of" a utility's risk for
7 it to reduce some of the utility's risk. With respect to APS' claim that reflecting this
8 reduced risk in its cost of capital "merely exchanges one financial disincentive for
9 another," this assertion is illogical. The reduction in the cost of capital is not a
10 punishment or a disincentive, but rather a mere reflection of reality. Further, once the
11 cost of capital is adjusted, the utility's incentives will not further be affected by that
12 decision, although if the Company is correct the decoupling will continue to remove its
13 disincentive to pursue efficiency with vigor.

14 **Q. DOES THIS CONCLUDE YOUR TESTIMONY?**

15 A. Yes.

Docket No. E-01345A-11-0224

AARP

Direct Testimony of Nancy Brockway

November 18, 2011

Exhibit NB-1

Nancy Brockway
NBrockway & Associates
10 Allen Street, Boston, MA 02131
nbrockway@aol.com
617-645-4018

Experience

Principal, NBrockway & Associates, utility consulting, 2003 to present
Director of Multi-Utility Research and Policy, NRRI, 2/08 – 10/08
Commissioner, New Hampshire Public Utilities Commission (1998-2003)
Utilities consultant and attorney, National Consumer Law Center (1991-1998)
General Counsel, Massachusetts Public Utilities Commission (1989-1991)
Staff Attorney, Assistant General Counsel, Massachusetts Commission (1986-1989)
Hearings Officer, Senior Staff Attorney, Maine Public Utilities Commission (1983-1986)
Executive Director, Maine Legal Services for the Elderly, Inc. (1981-1983)
Staff Attorney, Directing Attorney, Pine Tree Legal Assistance, Inc. (1979-1981)
Staff Attorney, UMass Student Legal Services (1977-1979)
Staff Attorney, Western Massachusetts Legal Assistance, Inc. (1976-1977)
Staff Attorney, Legal Aid Society of New York (1974-1976)

NARUC Committee Memberships and Public Service

NARUC Energy Resources and Environment Committee
NARUC Consumer Affairs Committee (Vice-Chair)
Consumer Affairs Committee, New England Conference of Public Utility
Commissioners (Chair)
Steering Committee, National Council on Competition in the Electric Industry
ISO-NE Advisory Committee
NEPOOL Review Board Advisory Committee
NARUC Ad Hoc Committee on Competition in the Electric Industry
NARUC Committee on Communications
FCC Joint Conference on Accounting
North American Numbering Council
NBANC Board of Directors

Other Public Service

Board Chair, PAYSAmerica, Inc., 2004-2008
Member, New Hampshire Site Evaluation Committee, 1998-2003
Independent Conservation & Load Management Expert, MA Energy Office, 1991-1993.
Member, Massachusetts Energy Facility Siting Board
Member, Massachusetts Board of Registration of Allied Mental Health and Human
Services Professional

Docket No. E-01345A-11-0224

AARP

Direct Testimony of Nancy Brockway

November 18, 2011

Exhibit NB-1

Member, Energy and Transportation Task Force, President's Council on Sustainable Development

Bar Memberships

Massachusetts

New York State and Maine (inactive)

Education

B.A. with honors, 1970, Smith College, Northampton, MA

J.D., 1973, Yale Law School, New Haven, CT

Coursework in statistics, Northeastern University, Boston, MA

Selected Publications

O Papel do Consumidor na Regulação do Setor de Eletricidade nos Estados Unidos ("On the Role of the Consumer in the Regulation of the Electricity Industry in the United States"), proceedings of the conference Melhoria da Regulação no Brasil: o papel da participação e do controle social, Programa de Fortalecimento de Capacidade Institucional para Gestão em Regulação, Casa Civil da Presidência da República, Brasília, December 2010.

Advanced Metering Infrastructure: What Regulators Need to Know About Its Value to Residential Customers, NRRI Report 08-03. Describes AMI, provides an overview of a cost-benefit analysis for approval of AMI cost recovery, describes operational benefits of AMI (such as remote meter-reading), and describes and evaluates the results of three major pilots of dynamic pricing for residential customers, with particular attention to whether low-use and low-income customers can avoid high-cost peak pricing and take advantage of lower-cost off-peak pricing. Available at http://nrri.org/pubs/multiutility/advanced_metering_08-03.pdf.

Delaware's Electricity Future: Re-Regulation Options and Impacts, A Report Pursuant to SS1 of SJR3 of the 143rd General Assembly, Presented to the Office of Management and Budget and the Controller General of the State of Delaware, recommending a portfolio approach to future electricity resources, with a public process to determine risk preferences, and the establishment of a Delaware Energy Authority to keep the wholesale power marketers honest. It has two appendices, one showing initiatives states had taken to re-regulate their power markets and the other showing proposals not enacted as of the date of the study (May 22, 2007). Download study (420K pdf); Appendix A (154K pdf) and Appendix B (103K pdf).

Electricity Competition: What Lies Ahead, a presentation to the Harvard Electricity Policy Group, January 2003.

http://www.ksg.harvard.edu/hepg/Papers/Brockway_HEPGFuture_of%20Electricity_Competition_1-30-03.pdf

Docket No. E-01345A-11-0224

AARP

Direct Testimony of Nancy Brockway

November 18, 2011

Exhibit NB-1

Stranded Benefits in Electric Utilities Restructuring, with Michael Sherman. The National Council on Competition and the Electric Industry: The Electric Industry Restructuring Series, October 1996. Uses the economic concepts of public vs. private goods to identify benefits of the existing regulatory regime that will be lost with privatization, and suggests policies for retaining the benefits while migrating the industry to a competitive model.

<http://www.ncsl.org/programs/energy/stranded.htm>

Approaches to Electric Utility Energy Efficiency for Low-Income Customers in a Changing Regulatory Environment, with Blair Hamilton et al, Oak Ridge National Laboratory, June 1998, 75 pages. An overview and analyses of the approaches selected states take with restructuring regulatory orders or legislation to funding, administering and implementing low-income energy efficiency. Geared toward Weatherization Assistance Program grantees to help them identify where their state is positioned vis a vis restructuring, to understand issues in their state, and to structure the best possible package of low-income energy efficiency services. Includes an overview of the status of restructuring in all states as of the summer of 1998. Contact: National Technical Information Service www.ntis.gov/ordering.htm or Office of Scientific and Technical Information www.osti.gov/products/sources.html, to order. (Order # ORNL/CON-466)

Statewide Administration of Low-Income Programs Under Energy Utility Restructuring: Opportunities and Pitfalls, National Consumer Law Center, February 1998. Describes the opportunities and pitfalls of statewide administration versus utility-by-utility administration of low-income programs under energy utility restructuring. Summarizes status of this issue to date in states with restructuring legislation or regulatory authorization, noting that five states, (CA, IL, NH, NY and WI, the latter through PSC recommendation,) have moved strongly in the direction of statewide administration and two (ME and MA) have recognized the value of statewide programs.

<http://www.liheap.ncat.org/pubs/brock.htm>

A Low-Income Advocate's Introduction to Electric Industry Restructuring and Retail Wheeling, National Consumer Law Center, June 1994, 32 pages. Summarizes different positions within the restructuring debate, discusses the impact of proposed retail competition on low-income residential customers, and reviews some options available to low-income customers in response to industry restructuring proposals. Contact: NCLC, 7 Winthrop Square, Boston, MA 02110; Phone: 617/542-8010; Fax: 617/542-8028

Access to Utility Services, treatise on utility customer protection law, with others. National Consumer Law Center, 1994. Since updated. Contact: NCLC, 7 Winthrop Square, Boston, MA 02110; Phone: 617/542-8010; Fax: 617/542-8028

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NANCY BROCKWAY: TESTIMONIES

Case name	Client Name	Topic	Jurisdiction & Docket No.	Date(s) Filed
In the Matter of the Merger of Exelon Corporation and Constellation Energy Group, Inc.	Maryland Office of the People's Counsel	Impact of proposed merger on ability of MPSC to regulate BGE effectively	Maryland PSC Case No. 9271	9/16/11 10/12/11 10/26/11
IMO Rocky Mountain Power Company Rate Case	AARP	Rate design, risk and reward	Wyoming PSC Docket No. 20000-384-ER-10	4/11/11
Amended Project Development of Duke Energy Carolinas, LLC for Approval of Decision to Incur Nuclear Generation Pre-Construction Costs	South Carolina Coastal Conservation League	Prudence of further investment in Summer nuclear plan	South Carolina PSC Docket No. 2011-20-E	4/6/11
Petition of PECO Energy Company for approval of its smart meter technology procurement and installation plan: petition for approval of PECO Energy Company's initial dynamic pricing and customer acceptance Plan	Pennsylvania Consumer Advocate	Implementation of Smart Grid plan and preparation for dynamic pricing introduction.	Pennsylvania PUC Docket No. M-2009-2123944	12/23/10; 1/12/11
In the Matter of: An investigation of natural gas retail competition programs	AARP Kentucky	Introduction of retail gas competition.	Kentucky PSC Case No. 2010-00146	6/21/10; 9/21/10
Alberta Smart Grid Inquiry	Office of the Utilities Consumer Advocate	Status of Smart Grid Developments in North America	Alberta Utilities Commission Application No. 1606102 Proceeding ID. 598	6/12/10 [report]
In the Matter of WMECO Smart Grid Pilot Program, filed per Section 85 of the Green Communities Act	Low Income Weatherization and Fuel Assistance Program Network, Massachusetts Energy Directors' Association	Smart Grid pilot design	Massachusetts DPU Docket No. 09-34	5/5/10

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Nevada Power and Sierra Pacific Power Integrated Resource Plans	Attorney General, Bureau of Consumer Protection	AMI security, privacy and customer acceptance	Nevada PSC Docket Nos. 10-02009 10-03023	4/26/10
Application of Louisville Gas & Electric Co. for an Adjustment of its Electric and Gas Base Rates	AARP	Cost allocation and rate design	Kentucky Public Service Commission Case No. 2009-00549	4/22/10
In the Matter of NSPI Application to Approve Nova Scotia's Electricity Demand Side Management Plan for 2011	Consumer Advocate appointed by the Utilities and Review Board	DSM program design and evaluation	Nova Scotia UARB Docket No. P-884(3)	4/9/10
In the Matter of the NSTAR Smart Grid Pilot Program, filed per Section 85 of the Green Communities Act	Low Income Weatherization and Fuel Assistance Program Network, Massachusetts Energy Directors' Association	Smart Grid pilot design	Massachusetts DPU Docket No. 09-33	11/6/09
Joint Petition of Metropolitan Edison Company, Pennsylvania Electric Company and Pennsylvania Power Company for Approval of Smart Meter Technology Procurement and Installation Plan	Pennsylvania Office of Consumer Advocate	Smart grid deployment; demand response and energy efficiency.	Pennsylvania PUC Docket No. M-2009-2123950	10/21/09
IMO Potomac Electric Company and Delmarva Power & Light Company Request for the Deployment of an Advanced Metering Infrastructure and Establishment of Regulatory Assets	Maryland Office of Public Advocate	Smart grid deployment; demand response and energy efficiency.	Maryland PSC Case No. 9207	10/20/09
Petition of West Penn Power Company d/b/a Allegheny Power for Expedited Approval of its Smart Meter Technology Procurement and Installation Plan	Pennsylvania Office of Consumer Advocate	Smart grid deployment; demand response and energy efficiency.	Pennsylvania PUC Docket No. M-2009-2123951	10/16/09

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IMO BG&E Authorization to Deploy a Smart Grid Initiative and to Establish a Surcharge Mechanism for the Recovery of Cost.	Maryland Office of Public Advocate	Smart grid deployment; demand response and energy efficiency.	Maryland PSC Case No. 9208	10/13/09
IMO DTA of FortisAlberta, Phase I/II, 2010-2011	Utilities Consumer Advocate of Alberta	Smart grid deployment	Alberta Utilities Comm'n App. No. 1605170	10/9/09
IMO Unifil and National Grid Smart Grid Plans per Section 85 of the Green Communities Act	Low Income Weatherization and Fuel Assistance Program Network, Massachusetts Energy Directors' Association	Smart Grid pilot design	Massachusetts Department of Public Utilities Docket Nos. 09-32 and 09-31	8/31/09
Columbia Gas Rate Case	AARP	SFV rate design, miscellaneous fees, recovery of uncollectibles via rider	Kentucky PSC Case No. 2009-00141	7/29/09
Appalachian Power Company, etc. ENEC proceeding	Covenant House and West Virginia CAG	Impact of proposed rate increase on low-income customers and means to improve collection procedures.	West Virginia PSC Case No. 09-0177-E-GI	5/26/09
In Re Combined Application of South Carolina Electric and Gas	Friends of the Earth	Need for and cost of proposed Summer nuclear power plant; alternatives including energy efficiency and renewables.	South Carolina Public Service Commission, Docket No. 2008-196- E.	Direct: 10/17/08 Surrebuttal: 11/17/08
Nova Scotia Power, Inc.	NS UARB Consumer Advocate	Proposed general rate increase, rate design.	Nova Scotia Utility and Review Board, P-886	12/07
Pike County Commissioners v. PCL&P	Pennsylvania Office of the Consumer Advocate	Options to address rate shock in transition to uncapped competitive POLR rates	Pennsylvania Public Utilities Commission, Docket No. C- 20065942	11/06 (hearing in January 07)
Nova Scotia Power, Inc.	NS UARB Consumer Advocate	Extra Large Industrial Interruptible Rates	Nova Scotia Utility and Review Board, P-883	8/06
UGI/Southern Union, Proposed Merger	Pennsylvania Office of the Consumer Advocate	Impacts of the Proposed Merger on Ratepayers and Rates, Risks and Benefits of Proposed Merger, Synergies, Reliability	Pennsylvania Public Utilities Commission, Docket Nos. A- 120011F2000, etc.	5/06
SEMCO Energy Services Gas Cost Recovery Plan	PAYS America, Inc.	Relationship Between DSM and Gas Costs	Michigan Public Service Commission, Docket No. U-14718	5/06 (not admitted)
Re: Electric Service Reliability and Quality Standards	Delaware Public Service Commission	Application of Proposed Rules to Competitive Suppliers and Cooperatives	Delaware Public Service Board, Docket No. 50	1/06

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Exelon/Public Service Electric & Gas, Joint Petitioners	New Jersey Division of the Ratepayer Advocate	Impacts of Proposed Merger on Service Quality, Reliability, and Gas Safety, and Options to Maintain Historic Standards.	New Jersey Board of Public Utilities, BPU Docket No. EM05020106 OAL Docket No. PUC-1874-05	11/05-12/05
Exelon/Public Service Electric & Gas, Joint Petitioners	New Jersey Division of the Ratepayer Advocate	Risks and Benefits of Proposed Merger of Exelon and PSE&G, Options for Assuring Benefits and Mitigating Risk	New Jersey Board of Public Utilities, BPU Docket No. EM05020106 OAL Docket No. PUC-1874-05	11/05-12/05
Nova Scotia Power, Inc.	NS UARB Consumer Advocate	Economic Development Rates	Nova Scotia Utility and Review Board, P-882	10/05
Nova Scotia Power, Inc.	NS UARB Consumer Advocate	Revenue Requirements, Cost Allocation, Rate Design, Demand Side Management, Economic Development Rates	Nova Scotia Utility and Review Board, P-882	10/05 – 11/05
Bay State Gas Company	Local 273	Customer Service, Reliability, Low-Income Protections, Revenue Requirements	Massachusetts DTE, Docket No. 05-27	7/05
Nova Scotia Power, Inc.	Nova Scotia Utility and Review Board	Domestic Consumer Perspective on Proposed Rate Case Settlement Agreement	Nova Scotia Utility and Review Board, P-881	1/05
Cincinnati Bell Alternative Regulation	Communities United for Action	Universal Service and alternative regulation of telephone service	PUCO, Case No. 96-899-TP-ALT	12/97
UGI-Electric Utilities, Inc.	Pennsylvania OCC	Universal Service issues in electric restructuring plans; including efficiency funding	PA PUC, No. R-00973975	1997
West Penn Power Co.	“	“	PA PUC, No. R-00973981	1997
Duquesne Light Co.	“	“	PA PUC, No. R-00974101	1997
PECO, Inc.,	“	“	PA PUC, No. R-00973953	1997
PP&L	“	“	PA PUC, No. R-00973954	1997
Met Ed.	“	“	PA PUC, No. R-00974008	9/97
Penelec	“	“	PA PUC, No. R-00974009	9/97
In the Matter of the Electric Industry Restructuring Plan	New Hampshire Legal Services	Low-income rates and DSM, impacts of restructuring on low-income consumers	New Hampshire Public Utilities Commission, D.R. 96-150	Nov., Dec. 1996

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Notice of Inquiry/ Rulemaking. Establishing the procedures to be followed in electric industry restructuring.	Mass. CAP Directors Association, Mass. Energy Directors Association, named Low-Income Intervenors	Electric industry restructuring	Massachusetts Department of Public Utilities, D.P.U. 96- 100.	to 10/98
Telecon Universal Service Docket	Pennsylvania Office of Consumer Advocate	Rate rebalancing, universal service, telephone penetration.	Pennsylvania Public Utilities Commission Docket No. I-00940035	1996
In Re: Complaint of Kenneth D. Williams v. Houston Lighting and Power Co.	Named Low- Income Consumers	Customer service, rate design, demand-side management, revenue requirements	Texas Public Utilities Docket No. 12065	1994-5
Open Access Non- Discriminatory Transmission Services ... and Recovery of Stranded Costs	Direct Action for Rates and Equality, Providence, Rhode Island	Open transmission access in interstate commerce, and stranded costs recovery.	FERC, Nos. RM95-8- 000, RM94-7-000.	1994-5
Bath Water District, Proposed Increase in Rates	Maine Office of Public Advocate	Water district cost allocation, rate design, low- income water affordability	Maine Public Utilities Commission, Docket. No. 94-034	12/94, 3/95
Application of Ohio Bell Telephone Co. for Approval of Alternative Form of Regulation	Legal Aid Society of Cleveland and Dayton	Definition of universal telecommunications service, proposal for Universal Service Access program (USA).	Public Utilities Commission of Ohio, Case No. 93-487-TP- ALT	5/4/94
Pennsylvania PUC vs. Bell Telephone of Pennsylvania	Pennsylvania Public Utility Law Project	Definition of "universal telecommunications service"	Pennsylvania PUC No. P-930715	filed 12/93
Joint Application for Approval of Demand- Side Management Programs, etc.	LG&E; Legal Aid Society of Louisville, other Joint Applicants	Cost-effective DSM programs for low-income customers; collaborative process to design DSM programs; cost allocation and cost recovery.	Kentucky PSC No. 93-150	11/8/93
Texas Utilities Electric Company	Texas Legal Services Center	Costs and benefits of DSM targeted to low-income customers	Texas PUC No. 11735	1993
Texas Utilities Electric Company	Texas Legal Services Center	Proposed Maintenance of Effort Rate for low-income customers	Texas PUC No. 11735	1993
Philadelphia Water Department	Philadelphia Public Advocate	Costs of Unrepaired System Leaks	Philadelphia Water Comm'r.	1992
New England Telephone	Rhode Island Legal Services	DNP for non-basic service	Rhode Island PUC, No. 1997	1991
Kentucky Power Co.	Kentucky Legal Services	Low Income Rate	Kentucky PSC No. 91-066	1991

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Investigation into Modernization	Invited by Commission	Impact of modernization costs on low income telephone users	New York PSC	1991
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American Council for an Energy Efficient Economy Annual Scorecard

ACEEE Rank	State	Rev/Cust In Place
1	MA	Y
2	CA	Y
3	NY	Y
4	OR	Y
5	WA	N
5	RI	Y
5	VT	Y
8	CT	Y
8	MN	N
10	MD	Y
11	IA	N
12	CO	N
12	ME	N
12	HI	Y
15	NJ	N
16	WI	Y
17	UT	Y
17	IL	Y
17	MI	N
17	AR	N

Of the top 20 states, 8 did not have revenue/customer decoupling in place, even if authorized by statute.