IN THE MATTER OF THE APPLICATION OF PUBLIC SERVICE COMPANY OF COLORADO FOR AUTHORIZATION TO IMPLEMENT A REVENUE DECOUPLING ADJUSTMENT MECHANISM AS PART OF ITS COLORADO P.U.C. NO. 7 - ELECTRIC TARIFF

Filing Party: Southwest Energy Efficiency Project

Filing Date: January 16, 2017
BEFORE THE PUBLIC UTILITIES COMMISSION
OF THE STATE OF COLORADO

IN THE MATTER OF THE APPLICATION OF )
PUBLIC SERVICE COMPANY OF COLORADO )
FOR AUTHORIZATION TO IMPLEMENT A )
REVENUE DECOUPLING ADJUSTMENT )
MECHANISM AS PART OF ITS COLORADO )
P.U.C. NO. 7 - ELECTRIC TARIFF )

Docket No. 16A-0546E

Answer Testimony of

Howard Geller

On Behalf Of

Southwest Energy Efficiency Project (SWEEP)

January 16, 2017
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I. Introduction.

Q. Please state your name, occupation and business address.

A. My name is Howard Geller. I am the Executive Director of the Southwest Energy Efficiency Project ("SWEEP"). My business address is 2334 Broadway, Suite A, Boulder, Colorado 80304.

Q. For whom are you testifying?

A. I am testifying on behalf of SWEEP.

Q. Please describe SWEEP.

A. SWEEP is a private not-for-profit organization dedicated to advancing energy efficiency in six states in the Southwest including Colorado. It receives the majority of its funding from charitable foundations and the Federal government.

Q. What are your professional qualifications?

A. I have 35 years of experience working on energy efficiency policy and program design, analysis, evaluation and advocacy. Prior to founding SWEEP in 2001, I served as Executive Director of the American Council for an Energy-Efficient Economy (ACEEE) in Washington, DC. I have authored or co-authored four books on energy efficiency and energy policy, and published dozens of reports and articles on these topics. I have testified before the public utility commissions of Colorado, Illinois, Maryland, Nevada, New Mexico, Utah, Wyoming and the District of Columbia. Hearing Exhibit 200, Attachment HG-1 summarizes my professional qualifications.

Q. What is the purpose of your testimony?
A. In my testimony I will comment on and provide recommendations to the Colorado Public Utilities Commission (the “Commission”) regarding the Revenue Decoupling proposal made by Public Service Company of Colorado (“PSCo” or the “Company”) in its Direct Testimony.

II. SWEEP’s Position on Revenue Decoupling.

Q. Have you reviewed the revenue decoupling proposal made by PSCo in its direct testimony?

A. Yes I have.

Q. What is your position with respect to PSCo’s decoupling proposal?

A. In general, SWEEP supports decoupling for the reasons PSCo has stated and for the reasons I explain below. However, SWEEP recommends a number of modifications to the specific decoupling mechanism proposed by PSCo.

Q. What are the primary reasons why SWEEP supports decoupling?

A. SWEEP supports decoupling of electricity sales and utility fixed cost recovery for a number of reasons. First, SWEEP acknowledges the fundamental problem with current rate design that PSCo’s revenue decoupling is meant to address, namely that a large portion of fixed costs are recovered through the volumetric per kWh energy charge for residential and smaller commercial customers. This means that recovery of fixed costs is reduced as a result of both successful energy efficiency and conservation programs and increased customer adoption of distributed renewable energy systems such as rooftop solar systems. While energy efficiency and distributed
renewable energy provide a number of benefits for customers and society, and are
energy policy goals of the state of Colorado, PSCo’s net revenues decline and
potentially its profits are compromised from pursuit of these goals. Likewise, PSCo
benefits if electricity is wasted and consumption increases in between general rate
cases, a phenomenon known as the “throughput incentive.”

Decoupling breaks the link between the level of electricity consumption by
smaller customers and the utility’s fixed cost recovery in between rate cases. Under
decoupling, PSCo is no longer harmed financially as it implements successful energy
efficiency and distributed renewable energy programs, or if other initiatives outside of
the utility’s control result in more efficient electricity use, energy conservation, or
increased distributed renewable energy generation. These external factors include
state and local building energy codes, appliance and equipment efficiency standards,
and tax credits for renewable energy technologies. Decoupling also removes the
throughput incentive, thus eliminating the financial incentive PSCo otherwise has to
courage wasteful electricity consumption. For these reasons, decoupling is
frequently referred to as a new business model for utilities.

SWEEP also supports decoupling because rate adjustments are symmetrical; in
some years the decoupling adjustment will result in a small customer surcharge and
other years a small customer refund, depending on whether the PSCo has under-
recovered or over-recovered its approved fixed costs for the relevant rate classes. As
proposed by PSCo, the Company will receive its approved fixed costs per customer—
no more and no less. The policy for addressing the disincentive that utilities have to
promoting energy efficiency improvements by their customers is far superior to the
so-called Lost Revenue Adjustment Mechanism (“LRAM”) approach for addressing
the disincentive, in part because LRAM is not symmetrical and only leads to a utility
collecting a surcharge.¹

Finally, SWEEP supports decoupling because actual experience has demonstrated
that the adjustments are usually relatively small, mostly one percent or less, when
decoupling adjustments are made annually as PSCo has proposed.²

Q. How significant are the reductions in electricity sales that PSCo is experiencing
as a result of energy efficiency programs and distributed renewable energy
generation?

A. The reductions are significant and are increasing over time. PSCo’s response to
Discovery Request CPUC3-12, shown in Hearing Exhibit 200, Attachment HG-2,
shows that residential electricity sales in 2017 are projected to decline by 80 kWh per
month on average, or 960 kWh per year, due to DSM programs and distributed solar
energy systems implemented starting in 2012. The reduction is expected to increase
to 116 kWh per month, or 1,392 kWh per year, by 2020. The latter value is equivalent
to about 19 percent of projected residential electricity use in 2020, which is about
7,200 kWh per year on average. Thus, energy efficiency improvements and adoption

of distributed renewable energy systems are a primary reason why sales per customer are declining, and why the adoption of decoupling is justified.

Q. What is the status of decoupling throughout the country?

A. Decoupling has been successfully implemented by numerous states for either electric or gas utilities, and in some cases both. As of January 2016, fifteen states had adopted decoupling for one or more investor-owned electric utilities and 23 states had adopted decoupling for one or more investor-owned gas utilities. The benefits of decoupling have been widely identified and the experience with decoupling has been well studied. Recently, the Regulatory Assistance Project published a guide for the design of decoupling mechanisms.

Decoupling is more common for gas utilities than for electric utilities because gas sales per customer have been declining for twenty years or more for many gas utilities, thereby leading to reduced revenues and earnings for gas utilities and thus a strong rationale for adopting decoupling. The decline in electricity sales per residential customer is a newer phenomenon for electric utilities and so there has been less need for and approval of decoupling mechanisms for electric utilities. However, as PSCo has pointed out, average electricity usage per residential customer declined during 2009-15 and the decline is expected to accelerate during 2016-20, thereby

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4 See Footnote 2.

making decoupling a more pressing need for PSCo.⁶ In fact one of the states that most recently adopted decoupling for an electric utility was Minnesota, where decoupling was approved for Xcel Energy’s residential and small business rate classes in May 2015.⁷

Q. What is the policy of the state of Colorado with respect to promoting utility energy efficiency efforts and addressing the financial impact of these efforts on utilities?

A. Colorado House Bill 07-1037, signed into law in 2007, declares that:

“The General Assembly hereby finds, determines and declares that cost-effective natural gas and electricity demand-side management programs will save money for consumers and utilities and protect Colorado’s environment.”⁸

The law also states that:

“The Commission shall allow an opportunity for a utility’s investments in cost-effective DSM programs to be more profitable to the utility than any other utility investment that is not already subject to special incentives.”⁹

This indicates that the intent of state policy is for a utility to not be harmed financially when it implements cost-effective energy efficiency programs for its customers. Decoupling is one way to ensure the utility is not harmed financially when it implements cost-effective energy efficiency programs.

Q. What is the relationship between utility energy efficiency efforts and the adoption of decoupling?

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⁶ Hearing Exhibit 101, Direct Testimony of Alice K. Jackson on behalf of PSCo, “Jackson Direct,” Figure AKJ-3, page 33.
⁸ See House Bill 07-1037, Section 40-3.2-101.
⁹ See House Bill 07-1037, Section 40-3.2-104 (5).
A. The Regulatory Assistance Project has succinctly articulated the link between utility
support for energy efficiency and the adoption of decoupling:

“If we accept the premise that energy efficiency benefits society, then it is
important to develop this resource in a manner that does not hinder the
utility’s ability to complete its mission and maintain its financial health.
Moreover, to make energy efficiency as successful as possible, policymakers
have a stake in seeing utilities embrace it wholeheartedly. Decoupling
removes the utility disincentive to engage in making energy efficiency a part
of its portfolio.”

Various empirical studies have shown that utilities spend more money on energy
efficiency programs and achieve more energy savings for their customers in states
that have adopted decoupling, compared to states that have not adopted decoupling.
For example, the American Council for an Energy-Efficient Economy (ACEEE)
found that utilities in states with decoupling had much higher energy efficiency
spending and savings than those in states without decoupling. The ratios are on the
order of three to one favoring decoupling, for both expenditures and savings. ACEEE
found that as of 2013, utilities in states with decoupling were saving 1.4% of total
electricity sales through their energy efficiency programs, while states without
decoupling were saving only 0.5% of sales.

Another recent study considered five utilities in western states that adopted
decoupling; in particular examining the change in spending and energy savings from
energy efficiency programs before and after decoupling was adopted. All five utilities
significantly increased energy efficiency program spending and energy savings in the

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10 See Footnote 5, p. 38.
11 M. Molina and M. Kushler, “Policies Matters: Creating a Foundation for an Energy-Efficient Utility of
years following adoption of decoupling. Energy efficiency program spending increased by at least 100% for all five utilities. And for the five utilities combined, energy savings increased by 80% following the adoption of decoupling. This is not proof that decoupling caused the increase in energy efficiency spending or savings; other important policies such as the adoption of energy efficiency resource standards influenced some of these utilities. But it does show a correlation between adoption of decoupling and growth in utility energy efficiency program activity and achievement, which is a logical outcome given that decoupling removes the financial disincentive that utilities face when they spend money to help their residential and smaller commercial customers consume less electricity.

Q. Are there any elements of PSCo’s decoupling proposal that shed light on the relationship between utility energy efficiency efforts and the adoption of decoupling?

A. Yes. The Company has proposed implementing Integrated Volt Var Optimization (“IVVO”) as part of its Advanced Grid Intelligence and Security initiative. PSCo estimates that the voltage optimization achieved through IVVO will lower the electricity consumption of residential and small commercial customers by 141 million kWh per year, or 1.4%. This level of energy savings corresponds to utility bill savings of about $14 million per year for these customers, or about $100 million over the first seven years after IVVO is deployed. Furthermore, PSCo has proposed to implement IVVO and provide its customers with this energy and economic savings if

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13 Jackson Direct, page 34, lines 18-21.
decoupling is adopted. If the Company’s decoupling proposal is denied by the
Commission, PSCo indicates it will withdraw its IVVO proposal. This demonstrates a
very concrete link between the adoption of decoupling and PSCo’s willingness to
help its customers reduce their electricity consumption.

III. Comments on PSCo’s Specific Revenue Decoupling Proposal.

Q. Which aspects of PSCo’s specific revenue decoupling proposal does SWEEP
support?

A. SWEEP supports a number of the features included in PSCo’s proposed revenue
decoupling mechanism. First, SWEEP supports including the entire residential class
(not just the Residential R class) as well as the Commercial C class under the
proposed Revenue Decoupling Adjustment (“RDA”) mechanism. As explained by
PSCo witness Wishart, including all residential customers makes sense considering
that a significant number of residential customers could migrate to the RE-TOU or
RD-TDR tariffs during the proposed time frame for the decoupling proposal, which is
2017-21.

Second, SWEEP supports implementing revenue per customer decoupling within
individual customer classes, as PSCo has proposed. This is the most commonly
adopted approach to decoupling, and revenue per customer decoupling within
individual customer classes was the approach approved by the Minnesota
Commission for Xcel Energy. One of the benefits of this approach is that customers

14 See Footnote 7, pp. 70-81.
do not end up compensating the utility for revenue loss when customers leave the
system.

Third, SWEEP supports annual decoupling adjustments. Although some states
make the adjustments monthly, annual adjustments are more common and will tend to
smooth out variations that can occur from month-to-month.¹⁵

Fourth, SWEEP supports the five year timeframe for the proposed RDA, starting
in 2017. This is a period during which PSCo is likely to implement robust energy
efficiency programs given the energy savings goals previously adopted by the
Commission,¹⁶ along with the Company’s proposed IVVO initiative. In addition,
distributed renewable energy systems are expected to significantly expand during this
period. While rate design for residential customers could change during this period, it
is not certain if and when it will change. The five year timeframe will provide
sufficient experience regarding how decoupling is working, and thus will allow the
Commission to make an informed decision about whether or not decoupling should
continue, in the context of modifications to rate design and other developments over
the next five years.

Fifth, SWEEP supports PSCo’s proposal to reimburse ratepayers for any DSM
disincentive offset in the calculation of the decoupling adjustment. This provision
makes sense since decoupling removes any financial disincentive that PSCo
experiences as a result of its energy efficiency and other DSM programs, meaning the
current fixed disincentive offset for residential and small commercial customers

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¹⁵ See Footnote 2, pp. 8-11.
would no longer be needed. The current disincentive offset is $5 million per year for all customer classes, or about $2.4 million per year for the residential and small commercial classes. In addition, SWEEP supports PSCo’s proposal to maintain a shareholder incentive if PSCo demonstrates adequate DSM program performance. Decoupling does not serve as a substitute for the shareholder incentive, and maintaining the incentive opportunity is consistent with the state law cited above.

Sixth, SWEEP supports PSCo’s proposal to account for potential over-recovery or under-recovery of approved fixed costs due to the RE-TOU trial rate and RD-TDR pilot within the RDA mechanism. The time-of-use rate increases uncertainty as to the actual level of revenue that PSCo will collect from customers that opt into the trial rate. In addition, the trial RE-TOU rate could be converted to the default residential tariff during the timeframe for the proposed decoupling policy. Thus, it is reasonable to protect both customers and PSCo from variations in revenue recovery in conjunction with moving towards TOU rates for residential customers.

Q. What is SWEEP’s position on the issue of modifying PSCo’s Return on Equity (ROE) if decoupling is adopted?

A. SWEEP supports the Company’s position that its ROE should not be modified at this time in conjunction with adoption of decoupling. Decoupling protects PSCo from under-recovering its authorized revenue per customer from residential and small commercial customers. But decoupling is also symmetrical in that it protects customers from PSCo over-recovering its authorized revenues per customer due to various factors including economic growth, increased electrification, and hotter than
normal summers (under SWEEP’s recommendation to not include weather
normalization in the RDA, as explained below). Given this symmetry, SWEEP does
not believe it is appropriate to modify the Company’s ROE solely as a result of
adopting decoupling.

As noted by PSCo witness Jackson in her Direct Testimony, most PUC decisions
throughout the country that have adopted decoupling have done so without modifying
the utility’s ROE.\(^{17}\) In addition, an empirical study by the Brattle Group found no
statistically significant evidence that an electric utility’s cost of capital declines after
the adoption of decoupling.\(^{18}\) This suggests that lenders do not perceive that
decoupling reduces the risk they take on when lending money to investor-owned
electric utilities for capital projects. This is further justification for not modifying the
company’s ROE in conjunction with adoption of decoupling.

Q. What is SWEEP’s position on including or excluding the impact of weather on
the RDA?

A. SWEEP does not support PSCo’s proposal to exclude the impact of weather from the
decoupling adjustment through the approach known as weather normalization.
Weather variations will affect a utility’s sales and revenue collection, both variations
in winter and summer weather. A hotter-than-normal summer will increase electricity
consumption for air conditioning; a colder-than-normal winter will increase
electricity consumption for space heating. A few PUCs have removed the weather

\(^{17}\) See Footnote 2, pp. 14-16.
https://www.nmlegis.gov/lcs/handouts/WNR%20072715%20Item%206%20Effect%20of%20Electric
%20Decoupling%20on%20the%20Cost%20of%20Capital.pdf
adjustment from the decoupling mechanism through a procedure known as weather
normalization, which is what PSCo has proposed. This approach is also referred to as
partial decoupling. Full decoupling includes the weather variation in the RDA; i.e.,
weather normalization is not done.

SWEEP recommends adoption of full decoupling for a number of reasons. First,
full decoupling is simpler as it does not require weather normalization and an
adjustment to the sales by customer class. Full decoupling uses actual electricity sales
in calculating the RDA. Partial decoupling uses a calculated value, and it is possible
for PSCo to skew the complicated weather normalization calculation in a manner that
favors the utility.

Second, actual electricity sales have tended to be higher than weather-normalized
electricity sales in recent years. As shown in Hearing Exhibit 200, Attachment HG-3,
this was the case four of six years for residential sales and five of six years for
commercial C class sales, over the period 2010-15. It is logical that actual sales will
tend to be higher than weather-normalized sales as summers in general are getting
hotter due to human-induced climate change, which more than offsets the effect of
warmer winters in terms of influencing PSCo’s overall electricity sales. The use of
the higher (on average) actual sales rather the lower (on average) weather-normalized
sales will tend to reduce the amount of any surcharge under decoupling, or increase
the amount of any refund to customers under decoupling. Thus, adopting full
decoupling will tend to favor customers, while partial decoupling (which PSCo has
proposed) will tend to favor PSCo in terms of the amount of the RDA. This is a
strong justification for approving full decoupling (i.e., no weather normalization)

rather than partial decoupling.

In addition, many more states and PUCs have adopted full decoupling compared
to partial decoupling according to the 2013 decoupling policy review completed by
Pamela Morgan. For electric utilities, she found 21 examples of decoupling without
weather normalization and only two examples with weather normalization.  

Furthermore, in 2014 the Minnesota PUC approved full decoupling for Xcel
Energy, not partial decoupling with weather normalization as Xcel had initially
proposed, for the reasons explained above. The Minnesota PUC’s Order included the
following statement:

“Indeed, full revenue decoupling is simpler and more transparent than partial
decoupling because the annual rate adjustments can be calculated without the
need for complicated weather-normalization adjustments.”

Q. What is SWEEP’s position on including caps on the annual rate increase or
decrease as a result of revenue decoupling?

A. Some states and PUCs have adopted caps on the size of the decoupling rate
adjustment each year, whether it’s a surcharge or refund. This cap can be a soft cap
which means any amount above the cap carries over to the next decoupling period. Or
the cap can be a hard cap, in which case the amount above the cap does not carry
over. PSCo did not include either a soft or hard cap in its revenue decoupling
proposal.

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19 See Footnote 2, pp. 12-13.
20 See Footnote 7, pp. 76-77.
SWEEP supports including a cap as it will protect against a decoupling surcharge or refund that is excessive in any particular year. The rationale for including a cap is stronger if full decoupling is approved rather than partial decoupling as the weather variation effect could potentially increase the revenue adjustment amount in any particular year.

In Minnesota where full decoupling was approved for Xcel Energy in 2015, the PUC adopted a 3% cap on decoupling adjustments but applied this cap to base revenues from a customer class excluding the revenues from the fuel cost pass-through and other riders. Thus, Xcel’s cap in Minnesota is less than a 3% cap considering all revenues in a customer class. The Minnesota PUC decision adopted the cap as a soft cap, but stated that Xcel Energy must demonstrate that “its conservation efforts were a primary factor in reducing its energy sales” in order for any amount above the cap to be carried over to the following year.21

SWEEP proposes adopting either the Minnesota policy of a soft cap of 3% of base revenues or a soft cap of 2% applied to all revenues in a customer class, given that nationwide experience has shown that annual adjustments are typically in the range of -2% (i.e., a refund) to +2% (i.e., a surcharge).22 These two options are likely to be similar in magnitude given that base revenues are about 60% of total revenues for PSCo’s residential customer class. Regarding the two options, SWEEP prefers the use of the option that results in a higher soft cap although either one is acceptable in our view.

21 See Footnote 7, pp. 79-80.
22 See Footnote 2, p. 11.
In addition, SWEEP proposes to include the language in the Minnesota
decoupling decision that would require PSCo to demonstrate that its energy efficiency
and other DSM efforts were a primary factor in reducing its energy sales in order for
any amount above the cap to be carried over to the following year. If PSCo cannot
adequately demonstrate this to the Commission, than the cap would in effect be a
hard cap on the upside. This would not apply on the downside; i.e., any refund
amount greater than the cap would automatically carry over to the following year.

Considering that PSCO’s total residential revenues in 2015 were $1.05 billion and
that these revenues might reach $1.1-1.2 billion in the next few years, a 2% cap on
total revenues means a maximum decoupling surcharge or refund of about $23
million per year for residential customers. PSCo’s revised analysis indicates that the
net residential surcharge could exceed this amount particularly in 2020 and 2021.
However, this is based on PSCo’s partial decoupling proposal with weather
normalization. Adopting full decoupling without weather normalization could lead to
lower surcharges, as explained above. In addition, under SWEEP’s proposal, PSCo
would have the ability to carry over any unrecovered RDA amounts as long as it can
demonstrate that its energy efficiency programs were a primary factor contributing to
reduced electricity sales.

Q. What is SWEEP’s response to the form of the revenue adjustment that PSCo has
proposed?

A. The RDA as proposed by PSCo is an amount per kWh that would be collected (or
refunded) on all kWhs consumed within the rate class over a 12 month period. For
example, if the residential RDA for 2017 is $12 million, $1 million per month would
be added to residential rates for 12 months starting June 1, 2018.

SWEEP supports annual adjustments that are collected over 12 months, and
adjustments in the form of dollar amounts per kWh of electricity consumption.
However, SWEEP has some suggestions for modifying how the adjustments are
calculated and applied.

Our first proposed modification is for customers on the standard residential R
tariff. For this rate class, we propose applying the RDA as PSCo has proposed in non-
summer months. But in the summer months where rates include two tiers based on
monthly electricity consumption, we propose that any refund be applied to electricity
consumption in the first tier only and that any surcharge be applied to electricity
consumption in the second tier only. This approach would benefit lower consumption
households that tend to be lower income households with smaller homes, fewer
appliances, and less use of central air conditioning compared to wealthier households.
These households, on average, have relatively little or no consumption in the second
tier in the summer and thus would see or little or no effect from a decoupling
surcharge in the summer months. This approach was suggested in recent decoupling
design guide published by the Regulatory Assistance Project.23

SWEEP’s second proposed modification is for residential customers that opt into
the new RE-TOU pilot tariff or who are placed on the tariff if it becomes the default
residential tariff. In this case, we recommend that any refund be applied to off-peak

23 See Footnote 5, p. 8.
electricity consumption while any surcharge is applied to on-peak consumption. In this manner, decoupling surcharges and credits would support one of the key objectives of TOU rates which are to discourage on-peak consumption and encourage a greater fraction of total consumption during off-peak hours. This approach was also suggested in RAP’s decoupling design guide.24

Q. What is SWEEP’s response to PSCo’s forecast of the RDA adjustments?

A. PSCo has forecast the RDA amounts for both residential and small commercial customers during 2017-21. The forecasts were updated and revised in the Supplemental Direct Testimony of Mr. Wishart. The forecast shows projected net surcharges of about $101 million in total over the five-year period for the residential class, or about $20 million per year on average.25 For the small commercial class the projected net surcharge is about $535,000 over five years, or about $107,000 per year on average.26

SWEEP has a number of comments on these forecasts. First, they are only forecasts and the actual amounts of the decoupling adjustments could be higher or lower. With full decoupling as proposed by SWEEP, there is reason to believe they will be lower given that actual sales are tending to be higher than weather-normalized sales. Second, the largest net positive adjustments forecast by PSCo are in 2020 and 2021. These larger adjustments can be avoided if Phase 1 rate cases occur more frequently than is assumed by PSCo.

24 Ibid., p. 24.
25 See Supplemental Direct Testimony and Attachments of Steven W. Wishart. Figure SWW-S-3. p. 20.
26 Ibid., Figure SWW-S-4, p. 24.
Third, the amount of the decoupling adjustments as forecast by PSCo should be placed in the context of other efforts that will be enabled or encouraged if decoupling is approved by the Commission. One such effort is PSCo’s IVVO proposal, which PSCO has indicated it will withdraw if decoupling is not approved. As I noted previously, implementing IVVO as contemplated by PSCo will result in residential and small commercial customers saving about $14 million per year through reduced electricity consumption.

Another factor is PSCo’s willingness to “go the extra mile” with their energy efficiency programs. It is reasonable to expect that the Company will be more willing to implement strong, highly effective energy efficiency programs if the financial disincentive to do so is removed through the adoption of decoupling. This in turn should result in increased energy savings and net economic benefits for consumers. The net economic benefits from DSM programs implemented in 2015 were $105 million (subtracting the performance incentive that PSCo received).27 About half the energy savings and presumably at least half the economic benefits accrue to residential and small commercial customers, meaning net benefits of at least $50 million per year from one year of DSM program activity.28 If adoption of decoupling stimulates stronger efficiency programs and incremental energy savings for consumers, it is plausible that the net economic benefits could grow by $5-10 million per year if not more. Thus, the combination of the economic benefits from IVVO and

28 PSCo’s residential DSM programs have a higher benefit-cost ratio than business programs.
from stronger, more effective energy efficiency programs could more than offset the average decoupling adjustment that PSCo has forecast during 2017-21. This outcome is more likely if the Commission continues to support energy savings goals for PSCo; goals that are set at the maximum levels deemed to be cost effective and achievable, which is something SWEEP recommends be done in future DSM Strategic Issues dockets especially if decoupling is approved.

IV. Summary

Q. Please summarize your testimony.

A. 1) SWEEP recommends that the Commission adopt revenue decoupling for the residential and small commercial classes in order to remove the financial disincentive that PSCo has for promoting greater energy efficiency as well as distributed renewable energy generation by customers in these classes. Decoupling is a symmetrical policy that will lead to small rate surcharges in some years and small refunds in other years. Experience with decoupling for electric utilities in other states has been positive and has demonstrated that annual rate adjustment are generally within the range of -2% to +2%. Moreover, it is the intent of Colorado state policy that a utility not be harmed financially when it implements cost-effective energy efficiency programs for its customers.

2) Studies have shown that utilities spend more money on energy efficiency programs and achieve more energy savings for their customers in states that have adopted decoupling, compared to states that have not adopted decoupling. The
Company’s position on improved voltage control (IVVO) is strong evidence of the link between the adoption of decoupling at PSCo’s willingness to support greater energy efficiency and energy conservation by its customers. PSCo has made it clear that without approval of decoupling, it will not move forward with IVVO which the company estimates would save residential and small commercial customers 140 million kWh per year. While customers would benefit, the company would experience a net financial loss without decoupling in effect.

3) SWEEP supports a number of the features of PSCo’s decoupling proposal including adopting separate annual adjustments within the residential and small commercial classes, adopting the revenue per customer approach, a five year timeframe for decoupling at least initially, and reimbursing ratepayers for any DSM disincentive offset in the calculation of the decoupling adjustment.

4) SWEEP supports the Company’s position that its ROE should not be modified at this time in conjunction with adoption of decoupling. Decoupling protects PSCo from under-recovering its authorized revenue per customer but decoupling also protects customers from PSCo over-recovering its authorized revenues per customer due to factors such as economic growth, increased electrification, or hotter than normal summers (under SWEEP’s recommendation to not include weather normalization in the RDA).

5) SWEEP does not support PSCo’s proposal to exclude the impact of weather from the decoupling adjustment through the approach known as weather normalization (i.e., the partial decoupling approach). Full decoupling is simpler as it does not
require weather normalization and an adjustment in sales by customer class. Full
decoupling is also likely to result in smaller RDA surcharges because actual
electricity sales have tended to be higher than weather-normalized sales in recent
years because of human-induced global climate change. In addition, many more
states and PUCs have adopted full decoupling compared to partial decoupling
including Minnesota which recently adopted full decoupling for Xcel Energy.

6) SWEEP supports including a cap on the RDA to protect against a decoupling
surcharge or refund that is excessive in any particular year. In particular, SWEEP
proposes a soft cap of either 2% of total revenues within the customer class or 3%
of base revenues only. Any calculated RDA amount greater than this amount
(either positive or negative) would be carried over to the next year with one
caveat, namely that PSCo would need to demonstrate that its energy efficiency
programs were a primary factor in reducing its energy sales in order for any
amount above the cap to be carried over to the following year.

7) For the residential R class where rates include two tiers based on monthly
electricity consumption in the summer, SWEEP proposes that any refund in
summer months be applied to electricity consumption in the first tier only and that
any surcharge be applied to electricity consumption in the second tier only. This
approach would benefit lower consumption households that tend to be lower
income households.

8) For customers served under the RE-TOU tariff, SWEEP recommends that any
refund be applied to off-peak electricity consumption while any surcharge be
applied to on-peak consumption. In this manner, decoupling would help to
discourage on-peak consumption and encourage a greater fraction of total
consumption during off-peak hours.

9) SWEEP recommends that the Commission view the decoupling adjustments
forecast by PSCo in the broader context of the customer benefits that could result
should decoupling be adopted. These benefits include the energy and utility bill
savings that customers will experience if IVVO is implemented and also the
benefits that could result from stronger, more effective DSM programs. And if
decoupling is approved in this docket, SWEEP urges the Commission to adopt
strong energy efficiency goals for PSCo in future DSM Strategic Issues dockets
so that customer utility bill savings are maximized at the same time PSCo is
protected from a net revenue loss.

Q. Does this conclude your testimony?

A. Yes.