BEFORE THE NEW MEXICO PUBLIC REGULATION COMMISSION

IN THE MATTER OF THE FILING OF ADVICE NOTICE NO. 69 BY SOCORRO ELECTRIC COOPERATIVE, INC.	))))	**Case No. 18-00383-UT**

RECOMMENDED DECISION

August 15, 2019

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Carolyn R. Glick, Hearing Examiner for the New Mexico Public Regulation Commission (Commission), submits this Recommended Decision to the Commission pursuant to 1.2.2.37(B) NMAC. The Hearing Examiner recommends that the Commission adopt this Recommended Decision in its Final Order.

I. STATEMENT OF THE CASE

On December 3, 2018, Socorro Electric Cooperative, Inc. (SEC) filed Advice Notice No. 69 for a proposed rate increase.

After receiving 33 protests to the proposed rate increase, the Commission, on December 19, 2018, suspended the effectiveness of Advice Notice No. 69. The Commission ordered SEC to file any objection to the protests and ordered Staff to file a determination as to the number of valid, timely protests and a recommendation on whether SEC's filing was a complete application for a rate increase.

On January 3, 2019, SEC filed its Objections to Rate Protests.

On January 9, 2019, Staff filed its Determination Regarding Valid, Timely Protests. Staff determined that valid protests were filed by 48 residential customers, one large commercial customer (the New Mexico Institute of Mining and Technology) and one customer expressing concern about the proposed rates for General Service (Residential), Load Management Service and Area Lighting Service (the City of Socorro). Staff also found that SEC's filing was a complete application. Staff recommended that the Commission direct SEC to supplement its filing with data, exhibits, illustrations, prepared testimony or written argument.

On January 23, 2019, the Commission issued its Initial Order Appointing Hearing Examiner which: (i) suspended the effectiveness of Advice Notice No. 69 for nine months from December 19, 2018, or to September 19, 2019; (ii) appointed the Undersigned to preside over this case; (iii) authorized the Undersigned to direct SEC to file data, exhibits, illustrations, prepared testimony or written argument pertinent to the schedule proposing new rates and any

further evidence to assist the Commission; and (iv) ordered the Undersigned to issue a recommended decision regarding the issues for which the protests established just cause, which the Commission identified as:

A. Is there substantial evidence to support the proposed rate increase per class and to support the allocation of the rate increase across customer classes;

B. Has Socorro Electric demonstrated, with substantial evidence, that the proposed increase in rates per class is fair, just and reasonable;

C. Has Socorro Electric demonstrated, with substantial evidence, that its revenue and operating margins require the proposed increase; and

D. Has Socorro Electric demonstrated how it derived the proposed new rates and charges, including but not limited to the proposed increased "customer charges" (not tied to energy use), a new minimum charge and changes to the energy charge per kWh.

Initial Order Appointing Hearing Examiner at 7, ¶ 17.

Following a February 15, 2019 prehearing, the Hearing Examiner issued a Procedural Order that required SEC to file Supplemental Testimony.

SEC filed an Affidavit attesting that the Notice of Proposed Rate Increase to SEC Customers was mailed to customers and published in the *El Defensor Chieftain, Valencia News-Bulletin, Catron Courier, Cibola Citizen* and *Sierra County Sentinel.*

The following persons filed motions for leave to intervene:

- The City of Socorro (the City)
- The New Mexico Institute of Mining and Technology (NM Tech)
- Donald Steinnerd

A public comment hearing was held in Socorro on June 3, 2019.

A public evidentiary hearing was held on June 24, 25 and 26, 2019. The following witnesses testified:

<u>For SEC:</u>

- Joseph Herrera, Chief Executive Officer and General Manager, SEC
- Ronnita Montoya, Accounting Supervisor, SEC
- Justin Proctor, Senior Consultant, C. H. Guernsey & Company

For NM Tech:

- Stephen Gene Wells, President, NM Tech
- Olin Cleve McDaniel, Vice President for Administration and Finance, NM Tech
- Edwin Reyes, Consultant with Enchantment Energy Consulting LLC

For the City:

- Ravi Bhasker, Mayor, City of Socorro
- Polo Pineda, Chief Procurement Officer and IT Director, City of Socorro

For NM Tech and the City:

- Larry Blank, Principal, TAHOEconomics, LLC and Associate Professor of Economics and Associate Director with the Center for Public Utilities, New Mexico State University

Donald Steinnerd, pro se:

- Member/customer, SEC

For Staff:

- Gabriella Dasheno, Utility Economist
- Beverly Eschberger, Utility Economist
- Milo Chavez, Utility Economist and Acting Director of the Utility Division

The following exhibits were admitted into evidence:

SEC Exhibits:

1 Advice Notice No. 69, including proposed rates, Direct Testimony of Joseph Herrera and Direct Testimony of Justin Proctor

2 Supplemental Testimony of Joseph Herrera

3 Rebuttal Testimony of Joseph Herrera

4 Correction to 2017 SEC Annual Report

5 City's Responses to SEC's Fifth Set of Discovery Requests

6 Direct Testimony of Ronnita Montoya

7 Rebuttal Testimony of Ronnita Montoya

8 Supplemental Testimony of Justin Proctor including Cost of Service Study

9 Second Supplemental Testimony of Justin Proctor

10 Rebuttal Testimony of Justin Proctor

11 2017 Capital Credit Allocation

12 NM Tech's Responses in part to SEC's First Set of Discovery Requests

NM Tech Exhibits:

1 Direct Testimony of Stephen Gene Wells

2 Direct Testimony of Olin Cleve McDaniel

3 Direct Testimony of Edwin Reyes

4 Rebuttal Testimony of Edwin Reyes

City Exhibits:

1 Direct Testimony of Mayor Ravi Bhasker

2 SEC's Responses to City's Sixth Set of Discovery Requests

3 SEC's Responses to City's Third Set of Discovery Requests

4 Direct Testimony of Polo Pineda

5 SEC's Line Extension Rule

NM Tech/City Joint Exhibits:

1 Direct Testimony of Larry Blank

2 Rebuttal Testimony of Larry Blank

Donald Steinnerd Exhibits:

1 Corrected Direct Testimony of Donald Steinnerd

2 Rebuttal Testimony of Donald Steinnerd

Staff Exhibits:

1 Direct Testimony of Gabriella Dasheno

2 Direct Testimony of Beverly Eschberger

3 Direct Testimony of Milo Chavez

4 Response to Bench Request

On July 12, 2019, the Hearing Examiner issued a Bench Request to SEC. On July 16, 2019, SEC filed the Affidavit of Ronnita Montoya in response to the Bench Request. No objection to admission into evidence of Ms. Montoya's Affidavit was filed, and it was admitted into evidence as Commission Exhibit 1 as provided in the Bench Request.

Initial Post Hearing Briefs were filed by SEC, the City, NM Tech, Donald Steinnerd and Staff. Posthearing Response Briefs were filed by SEC, the City and NM Tech.

II. SUMMARY OF (1) SEC'S APPLICATION; (2) PARTIES' POSITIONS; AND (3) HEARING EXAMINER'S RECOMMENDATIONS[1]

A. PARTIES IN THE CASE

The parties in this case are Socorro Electric Cooperative, Inc. (SEC), the New Mexico Institute of Mining and Technology (NM Tech), the City of Socorro (the City), Donald Steinnerd — a residential member/customer of SEC who appeared pro se — and Staff. SEC is a rural electric cooperative providing electric service to 8,502 customers in Catron, Cibola, Sierra, Socorro and Valencia Counties in New Mexico. NM Tech receives service under SEC's Small and Large Commercial Service rates. The City receives service under SEC's Irrigation, Small Commercial, Large Commercial and Streetlighting Service Rates. The City and NM Tech each presented witnesses and also presented a joint witness.

[1] This Section summarizes the more thorough discussions in Sections VI through XIV of this Recommended Decision.

B. Calculation of Revenue Requirement for New Mexico Rural Electric Cooperatives

In calculating the cost of service (revenue requirement) to be recovered by *investor-owned electric utilities*, this Commission has used the rate base/rate of return approach, in which the revenue requirement is the sum of (i) operations and maintenance costs; (ii) depreciation; (iii) taxes; and (iv) return on rate base. The Commission has not used this approach when calculating the revenue requirement for rural electric cooperatives because cooperatives have lower levels of equity capital, a condition that undermines the rate base/rate of return approach in which equity capital is a major cost source. Instead, the Commission has used a debt coverage ratio method of calculating cooperatives' revenue requirements. Debt coverage ratios are used to measure a cooperative's financial health and its ability to pay interest expense on long-term debt. The ratio most recently endorsed by this Commission is the Operating Times Interest Earned Ratio (OTIER). OTIER measures how many times a cooperative earns its interest expense. An OTIER of 1.0 essentially means that a cooperative is earning just enough to pay its interest expense. SEC had an OTIER in 2018 of 1.37, which means it had almost 40% on top of the minimum available to pay interest expense. SEC's borrowers, such as the Rural Utilities Service (RUS), require SEC to annually maintain minimum debt coverage ratios. The RUS requires its borrowers to maintain a minimum OTIER of 1.1. This Commission has approved revenue requirements for rural electric cooperatives that produce a particular OTIER.

C. SEC's Application

SEC's proposed revenue requirement is $25,953,616. It requests a $1,250,032 revenue increase over 2017 test year revenues of $24,703,623. Most of the increased revenue would be collected through SEC's proposed increases in fixed monthly Customer Charges, which SEC says

would allow it to recover its fixed costs in a more stable way than through increases in per kilowatt hour (kWh) energy charges.

SEC General Manager Joseph Herrera said that SEC's financial integrity and service to its customers would *not* be jeopardized without the proposed revenue increase. Instead, SEC seeks the revenue increase to advance its Board's goals of growing equity and making capital credit refunds.

SEC calculated its revenue requirement based on the cash margins required to meet the Board's financial goals. SEC's proposed revenue requirement achieves the following Board objectives:

1. Grow equity as a percentage of assets[2] toward a 40% goal, with the result of funding plant additions averaging $3,713,835 annually over the next five years with 37.73% equity or $1,401,230 cash annually
2. Maintain SEC's cash/liquidity position as of the end of the 2017 test year at approximately $3.8 million
3. Fund capital credit retirements to SEC members of about $688,000 annually[3]

In 2018, SEC's OTIER was 1.37. SEC's proposed revenue increase would boost its OTIER to 1.84. However, SEC did not select its proposed revenue requirement to produce a particular OTIER, but to produce sufficient revenues to meet the Board's goals. SEC objects to the Commission selecting a revenue requirement that is designed to produce a particular OTIER, which SEC argues is arbitrary and ignores its Board's goals.

[2] The equity/total assets ratio is equivalent to the proportion of total assets financed by equity capital.
[3] Capital credits are net earnings or margins allocated to members. Most cooperatives, like SEC, have capital credit retirement programs, by which the cooperative gradually returns the value of past allocated capital credits to members.

The following table shows the percentage and dollar base revenue increase that SEC would collect from each customer class under its proposed rates:

Customer Class	Percentage Revenue Increase	Dollar Revenue Increase
Residential	6.66%	$664,285
Small Commercial	5.38%	$177,634
Large Commercial	2.66%	$255,743
Irrigation	10.26%	$6,051
Load Management	3.35%	$38,701
Energy Thermal Storage	7.22%	$1,360
Lighting	9.08%	$33,375
Average	4.80%	

SEC proposes larger percentage revenue increases for the Residential, Irrigation, Energy Thermal Storage (ETS) and Lighting Service Classes because SEC argues that these Classes are being subsidized by the Commercial Service Classes. SEC's cost of service study (COSS) shows that the Residential, Irrigation and Lighting Service Classes are receiving subsidies from the other Service Classes of about $2.9 million, $53,600 and $78,000, respectively. SEC said that this level of rate subsidies is not appropriate. SEC's allocation of the revenue increase among the Classes would slightly reduce these subsidies.

SEC proposes a new $5.00 monthly "Minimum Use Charge" applicable to its Residential, Small Commercial and ETS Service Classes. The purpose of the Minimum Use Charge is to recover a portion of the customer-related costs not recovered through the monthly Customer Charge from zero and minimum-use customers.

For Residential Service customers, SEC proposes to increase the Customer Charge from $15.00 to $22.75, a $7.75 or 51.67% increase. For customers subject to the $5.00 Minimum Charge, the fixed charge component of the Rate would increase from $15.00 to $27.75, a $12.75 or 85% increase. SEC proposes only a .15% increase in the per kWh energy charge for the Residential Service Class.

Because of SEC's proposed increase to the Customer Charge, the percentage bill increase for a Residential Service customer would decrease as kWh consumption increases and would result in a bill decrease for residential customers consuming more than 1,220 kWh per month.

The percentage bill change would range from an 85% increase for a customer consuming zero kWh per month to a 3.57% decrease for a customer consuming 5,000 kWh per month. For an average-use SEC Residential Service customer consuming 494 kWh per month, the monthly bill would increase from $79.98 to $84.59, a $4.61 or 5.76% increase.

SEC proposes to change the rate structure for the Large Commercial Service Class. SEC's existing Large Commercial Service Rate is a three-part rate structure with a Customer Charge, Demand Charge per billing kilowatt (kW) and Energy Charge per kWh. SEC's proposal would move recovery of purchased power capacity-related costs to an "hours-use demand" (HUD) structure that charges a declining per kWh rate as a customer consumes more kWh per kW.

SEC proposes to add a new fixed Customer Charge to its Irrigation Service Rate in the amount of $10.00. The Irrigation Service Rate currently does not have a Customer Charge.

SEC proposes to add LED lighting rates for the first time. As with all lighting rates, the LED rates are a fixed monthly charge per lighting fixture. SEC did not develop LED-specific cost-based rates. Rather, SEC's proposed LED fixture rates are equivalent to comparable non-LED fixture rates. SEC also proposes to consolidate its two existing Lighting Service Classes.

SEC has a Debt Cost Adjustment (DCA) Clause to recover its debt costs. SEC's proposed rates zero out its DCA and reflect full recovery of its debt costs through base rates as of December 31, 2017.

SEC also has a Fuel Cost Adjustment (FCA) Clause to recover its purchased power costs. SEC's proposed rates zero out its FCA and reflect full recovery of its purchased power costs through base rates as of December 31, 2017.

D. POSITIONS OF THE INTERVENORS AND STAFF

1. *New Mexico Tech*

a. *Deny Any Revenue Increase*

NM Tech recommends that the Commission deny SEC any revenue increase. It argues that SEC's current revenues are sufficient.

b. *Reduce Revenues Collected from the Lighting, Large Commercial and Load Management Service Classes*

Even if the Commission denies SEC any revenue increase, NM Tech asks the Commission to reallocate the revenues collected among SEC's customer classes to increase the revenues collected from the Residential and Irrigation Service Classes and decrease the revenues collected from the Large Commercial, Load Management and Lighting Service Classes. NM Tech recommends that, assuming no rate increase, the Residential and Irrigation Service Classes each receive at least a 10% revenue increase, which would generate about $1 million in additional revenue from the Residential Service Class and $6,300 in additional revenue from the Irrigation Service Class. NM Tech recommends that the Large Commercial, Load Management and Lighting Service Classes receive revenue decreases of about $818,000 (8.5%), $110,000 (9.5%) and $95,000 (26%), respectively. The bill for an average-use Residential Service customer is $81.62, and a 10% revenue increase for the Residential Service Class would increase that bill by $8.16.

c. *Offer Economic Development Rate*

NM Tech asks the Commission to order SEC to offer an economic development rate to attract business and job creation and stimulate economic development in Socorro.

2. *City of Socorro*

a. Deny Any Revenue Increase

Like NM Tech, the City recommends that the Commission deny SEC any revenue increase. It too argues that SEC's current revenues are sufficient.

b. Reduce Revenues Collected from the Lighting, Large Commercial and Load Management Service Classes

The City makes the same proposal as NM Tech to reallocate the revenues collected among SEC's customer classes to increase the revenues collected from the Residential and Irrigation Service Classes and decrease the revenues collected from the Large Commercial, Load Management and Lighting Service Classes.

c. Revise SEC's Proposed Lighting Rates

The City proposes lighting rates based on the assumption that SEC is granted no revenue increase and that revenues collected from the Lighting Class are decreased. In support of decreasing revenues collected from the Lighting Class, the City argues that SEC made five errors in developing its existing non-LED lighting rates and proposed new LED rates. The City proposes non-LED lighting rates that are significantly lower than SEC's existing non-LED lighting rates and proposes LED lighting rates that are significantly lower than SEC's proposed new LED lighting rates. The City's proposed LED lighting rates are LED-specific cost-based rates.

3. *Donald Steinnerd*

Mr. Steinnerd recommends that the Commission deny SEC a revenue increase or authorize the minimum increase needed for SEC to meet minimum debt coverage ratios. He argues that the Residential Service Class needs to be substantially subsidized by other Classes

and that SEC's proposal to gradually lower the subsidy received by the Residential Service Class is unfair.

4. Staff

Staff supports SEC's proposed revenue increase and proposed Customer Charge for the Residential Service Class.

Staff opposes two of SEC's rate design proposals. First, Staff opposes SEC's proposed HUD rate structure for the Large Commercial Service Class because it is unnecessarily complicated and difficult to understand. Staff believes that a simpler rate design, such as SEC's existing Large Commercial Class rate design, would better serve customers.

Second, Staff recommends a change to SEC's proposed Energy Thermal Storage (ETS) Rate No. 8 for Residential Customers. The ETS Service Class is available to customers with energy thermal storage heaters, which are electrical heaters that store heat during the evening and release it during the day. The purpose of ETS heaters is to store heat during off-peak periods when electricity is less expensive and release energy during on-peak periods when electricity is more expensive. The ETS Rate contains off-peak and on-peak variable energy charges. Because Rate No. 8 has two variable energy charges, Staff calculated a weighted ETS variable energy charge. Staff found that SEC's proposed Residential weighted ETS variable energy charge would be about 7% higher than its proposed Residential non-ETS variable energy charge. Staff believes that the 7% difference is too high because it provides no incentive to customers to use the ETS rate. Staff recommends that SEC recalculate the Residential ETS variable energy charges so that the weighted ETS variable energy charge is closer to SEC's proposed Residential non-ETS variable energy charge.

E. HEARING EXAMINER'S RECOMMENDATIONS

1. SEC's Proposed Revenue Increase

As the City states, it is "crystal clear" that SEC seeks the revenue increase to meet Board goals. SEC seems to believe that it is entitled to its proposed revenue increase because its Board is entitled to advance or achieve its goals. For example, in response to questions from the Hearing Examiner, a SEC witness discussed SEC's options "if the Commission is going to *dictate* what the overall rate change is . . . ." He opposed debt coverage ratio methods of calculating SEC's revenue requirement because they would compromise the Board's ability to advance its goals. SEC argued in its Initial Posthearing Brief, "If SEC is not allowed to increase its rates soon, it will experience a growing risk of being unable to meet its financial goals set by SEC's Trustees."

Once protests were filed and the Commission found just cause to review SEC's proposed rates, it became the Commission's duty to determine just and reasonable rates for SEC. Whether a rural electric cooperative's proposed rates are just and reasonable is not determined by whether the rates allow the Board to advance or achieve its goals. Rather, "[u]nder the PUA, a rate is 'just and reasonable' when it balances the investor's interest against the ratepayer's interest." Because rural electric cooperatives do not have investors, the interests to be balanced are not between investors and ratepayers but between cooperative management — the Board and the General Manager — and the members/ratepayers. That balancing involves a determination of whether the rates proposed by the cooperative management are in the best interest of members/ratepayers. Rates set to advance or achieve a Board's goals may exceed the rates allowable after considering the interests of the members/ratepayers.

The Commission should deny SEC any revenue increase. SEC's 2017 and 2018 financial results indicate that it is unnecessary to authorize SEC an OTIER higher than its 2018 OTIER of 1.37. SEC's 2017 operating margin was $466,906. Its operating margin is effectively its profit. With this operating margin and a TIER of 1.21, SEC was able to retire $423,406 in capital credits

in 2017. It was also able to add $3,850,194 in plant in 2017. SEC witness Proctor said that in the test year, SEC "is in a pretty good spot here" in terms of its equity/total assets ratio. SEC's operating margin increased by 21.9%, to $569,256, in 2018. SEC's patronage capital balance increased over $1.4 million from 2017 to 2018. From 2017 to 2018, SEC's OTIER increased by 13.2%, from 1.21 to 1.37. An OTIER of 1.37 is 1.25 times the minimum OTIER. Therefore, SEC's existing OTIER allows it to maintain a reasonable equity/total assets ratio and a reasonable cycle of patronage capital retirements.

NM Tech witness Reyes testified that, based on his discussions with cooperative clients, a maximum target OTIER range is 1.3 to 1.5. Therefore, SEC's 1.37 OTIER is within an acceptable range. This is confirmed by evidence of the range of the 2017 OTIERs of SEC's three peer cooperatives, which is 1.32 to 1.46.

Denial of a revenue increase will require SEC's Board to juggle its goals. However, SEC's 2017 and 2018 financial results show that SEC's existing revenue requirement does not leave the SEC Board without cash to advance its goals. It allows SEC to earn margins that the Board can use toward meeting its goals. SEC is not entitled to a revenue requirement that allows the Board to advance or achieve all of its goals.

2. Revenue Collection Among the Customer Classes

The amount of revenue to collect among classes is a judgment call. The New Mexico Supreme Court has said that "traditionally and logically there is a great measure of public policy that enters into the apportionment of rates." Subsidization among rate classes is allowable and "[d]etermining the level of subsidies, if any, is a Commission function."

SEC's Cost of Service Study (COSS) shows that, under SEC's existing rates, each of the Residential, Irrigation and Lighting Service Classes pays significantly less than the cost of serving it, and the Small Commercial Service Class pays slightly less than the cost of serving it.

It shows that each of the Large Commercial and Load Management Service Classes pays significantly more than the cost of serving it.

SEC's COSS shows that, under SEC's existing rates,

- revenues collected from the Residential Service Class would have to increase by $2,958,443, or 29.1%, for that Class to pay its cost of service
- revenues collected from the Irrigation Service Class would have to increase by $53,640, or 89.9%, for that Class to pay its cost of service
- revenues collected from the Lighting Service Classes would have to increase by $78,195, or 21.3%, for those Classes to pay their cost of service
- revenues collected from the Small Commercial Service Class would have to increase by $27,894, or 0.8%, for that Class to pay its cost of service
- revenues collected from the Large Commercial Service Class would have to decrease by $1,672,917, or 17.4%, for that Class to pay its cost of service
- revenues collected from the Load Management Service Class would have to decrease by $195,262, or 16.9%, for that Class to pay its cost of service

While the Hearing Examiner is recommending no revenue increase, it is appropriate to take this opportunity to reallocate revenues collected among the Classes modestly to gradually move toward each Class paying its cost of service.

Increased revenues should be collected from the Residential, ETS and Irrigation Service Classes, which the COSS shows are being significantly subsidized by the Large Commercial and Load Management Service Classes. However, the 10% revenue increases for the Residential, ETS and Irrigation Service Classes recommended by NM Tech and the City are much too steep and sudden, especially given that the Hearing Examiner is recommending no overall revenue increase. The COSS shows that the Residential Service Class, including the ETS Class, is producing a revenue deficiency of 29.105% and the Irrigation Service Class is producing a revenue deficiency of 89.867%. Therefore, it is reasonable to allocate a greater percentage

revenue increase to the Irrigation Service Class than the Residential Service Class. A just and reasonable outcome is to allocate an approximate 2%, or $199,903, base revenue increase to the Residential Service Class, including the ETS Service Classes, and a 3%, or $1769, base revenue increase to the Irrigation Service Class. This results in minimal and gradual movement toward these Classes paying their cost of service. Mr. Steinnerd presented persuasive public policy reasons for not further reducing the subsidy to Residential customers in this case.

The additional total $201,672 collected from the Residential, ETS and Irrigation Service Classes should be used to reduce revenues collected from the Large Commercial and Load Management Service Classes, which the COSS shows are significantly subsidizing other Classes. The percentage revenue reductions to the Large Commercial and Load Management Service Classes should be close to the same because the COSS shows that the percentage subsidization by the Classes is close to the same: 17.38% for the Large Commercial Service Class and 16.90% for the Load Management Service Class. A just and reasonable outcome is to allocate an approximate 1.73%, or $20,000, base revenue decrease to the Load Management Service Class, and an approximate 1.9%, or $181,674, base revenue decrease to the Large Commercial Service Class. Again, this results in minimal and gradual movement toward these Classes paying their cost of service.

The Lighting Service Classes should not be granted a revenue decrease as requested by the City. While the City showed that the COSS overstates the subsidization to the Lighting Service Classes, it did not show that this overstatement is sufficient to eliminate the subsidy. However, because the City did show that the subsidy is overstated and because it is in the public interest to encourage energy conservation by converting to LED lighting, it is reasonable to not collect a revenue increase from the Lighting Service Classes. Therefore, revenues collected from the Lighting Service Classes should remain unchanged.

3. *Rates Resulting from Hearing Examiner's Recommendations*

The Hearing Examiner's recommended rates are in Exhibit 2 to this Recommended Decision. The bill changes produced by the Hearing Examiner's recommended rates are in Exhibit 3 to this Recommended Decision.

a. *Zeroing Out of Debt and Fuel Adjustment Clauses*

In 2006, the Commission approved SEC's request for approval of rates to reflect new base costs of purchased power and interest on long-term debt and shift recovery of fuel and purchased power costs and long-term debt interest costs from adjustment clause revenue to base revenue. Case No. 05-00317-UT, Recommended Decision at 4, 9 (4-13-06), adopted by Final Order Approving Recommended Decision (5-2-06). Based on this precedent, SEC's proposal to zero out its DCA Clause to reflect full recovery of its debt costs through base rates as of December 31, 2017 should be approved. SEC's proposal to zero out its FCA Clause to reflect full recovery of its purchased power costs through base rates as of December 31, 2017 should also be approved.

The effect of such zeroing out is that, even if SEC is granted no revenue increase, existing base rates will change because revenue collected from the DCA and FCA Clauses as of December 31, 2017 will instead be recovered through base rates.

b. *Minimum Use Charge*

Approval of SPS's Minimum Use Charge should be denied. It would be punitive to low-use customers and result in rate shock.

c. *Residential Service Rates*

The increased revenue to be collected from the Residential Service Class under the Hearing Examiner's recommendation should be collected by increasing the Customer Charge from $15.00 to $16.50, a $1.50 or 10% increase, and by increasing the variable energy charge by

5.3%. The 10% increase in the Customer Charge gradually moves more fixed cost recovery into the Customer Charge while avoiding rate shock. The monthly bill for an average-use Residential Service Customer would increase from $79.98 to $81.51, a $1.53 or 1.91% increase.

d. ETS Service Rates

The increased revenue to be collected from the ETS Service Classes under the Hearing Examiner's recommendation should be collected by increasing the Customer Charge from $16.00 to $17.50, a $1.50 or 9.4% increase, and by increasing the variable energy charge by 4.9%. The 9.4% increase in the Customer Charge gradually moves more fixed cost recovery into the Customer Charge while avoiding rate shock. Consistent with Staff's recommendation, the resulting residential ETS weighted variable energy charge closely matches the Residential Service non-ETS variable energy charge.

e. Irrigation Service Rates

The increased revenue to be collected from the Irrigation Service Class should be collected by adding a new $5.00 Customer Charge to the Irrigation Rate and by increasing the variable energy charge by 4.21%. SEC's proposed $10.00 Customer Charge would produce rate shock to low-use Irrigation Service customers.

f. Small Commercial Service Rates

Under the Hearing Examiner's recommendation to not change revenues collected from the Small Commercial Service Class, Small Commercial Service Class rates would change only as necessary to zero out the DCA and FCA Clauses.

g. Large Commercial Service Rates

Large Commercial Service rates would decrease slightly under the Hearing Examiner's recommendations. SEC's proposed HUD rate structure should be rejected because Staff

persuasively demonstrated that it is too complicated. SEC's existing Large Commercial Service rate structure should remain unchanged.

h. Load Management Service Rates

Load Management Service rates would decrease slightly under the Hearing Examiner's recommendations.

i. Lighting Service Rates

SEC's proposal to consolidate its two existing Lighting Service Classes should be adopted. Under the Hearing Examiner's recommendation to not change revenues collected from the Lighting Service Classes, existing non-LED lighting rates would change only as necessary to zero out the DCA and FCA Clauses and consolidate the two Lighting Service Classes. The City's proposed LED lighting rates, as modified, should be adopted.

j. Miscellaneous Service Fees

SEC's existing Miscellaneous Service fees should remain in effect.

4. Economic Development Rate

NM Tech has persuasively shown that it would be in the public interest for SEC to offer an economic development rate, and SEC should be ordered to initiate the process of offering an economic development rate.

III. STANDARD OF PROOF

The standard of proof in administrative adjudications is, unless expressly provided otherwise, the preponderance of the evidence. Case No. 12-00131-UT, Recommended Decision at 16 (11-7-12), adopted in relevant part by Final Order (12-11-12). Preponderance of the evidence means the greater weight of the evidence. *Campbell v. Campbell*, 1957-NMSC-001, ¶ 24, 62 N.M. 330. It is evidence that, when weighed with that opposed to it, has more convincing

force. It has superior evidentiary weight that, though not sufficient to free the mind wholly from all reasonable doubt, is still sufficient to incline a fair and impartial mind to one side of the issue rather than the other. *Black's Law Dictionary* at 547 (2nd pocket ed. 2001).

IV. LEGAL STANDARDS FOR RATEMAKING

Under the Public Utility Act (PUA), the Commission has "general and exclusive power and jurisdiction to regulate and supervise every public utility in respect to its rates and service regulation and in respect to its securities . . . ." NMSA 1978, § 62-6-4(A) (2003). The PUA requires that public utility rates be just and reasonable. *Id.*, § 62-8-1 (1953). "Section 62-8-1 offers no guidance to the Commission for achieving this goal, nor does it specify procedures." *Otero County Elec. Coop. v. New Mexico Pub. Serv. Comm'n*, 1989-NMSC-033, ¶ 8, 108 N.M. 462. However, another section of the PUA does establish "very specific" procedures for setting rates, including requiring utilities to bear the burden of proof to show that an increase in rates is just and reasonable. *Id.*

When setting rates, it is the end result reached not the method employed which is controlling. *Attorney General v. New Mexico Pub. Serv. Comm'n*, 1991-NMSC-028, ¶ 26, 111 N.M. 636. Correlative to the "end result" test in determining whether a utility regulatory commission's decision is just and reasonable is the "zone of reasonableness" test adopted by the New Mexico Supreme Court and the federal courts after the announcement of that test in *Federal Power Commission v. Natural Gas Pipeline Co.* 315 U.S. 575, 585 (1942). As stated by the New Mexico Supreme Court, "There is a zone of reasonableness between confiscation and extortion in which the Commission's jurisdiction to make rates should be confined." *State v. Mountain States Tel. & Tel.*, 1950-NMSC-055, ¶ 44, 54 N.M. 315.

V. BACKGROUND ON SEC

SEC is a rural electric distribution cooperative serving 8,502 customers in Catron, Cibola, Sierra, Socorro and Valencia Counties in New Mexico. Herrera Direct at 2-3.

SEC is a member of Tri-State Generation and Transmission Association, Inc. (Tri-State), a generation and transmission cooperative serving rural distribution cooperatives in New Mexico, Colorado, Nebraska and Wyoming. SEC purchases all of its power from Tri-State under an all-requirements contract. *Id.* at 3.

SEC's last general rate increase, which increased revenues by 6.9%, took effect by operation of law in 2011. *Id.* at 4; Tr. at 73 (Herrera).

VI. CALCULATION OF REVENUE REQUIREMENT FOR RURAL ELECTRIC COOPERATIVES

In docketed rural electric cooperative rate cases, the Commission has consistently applied a debt coverage ratio method of calculating a cooperative's revenue requirement. Under this method, the Commission approves revenues necessary for a cooperative to attain a particular debt coverage ratio value. Debt coverage ratios are used to measure a cooperative's financial health and its ability to meet interest expense on long-term debt. Case No. 1736, Order at 1 (5-2-83). The importance of these ratios stems from the use made of these ratios by a cooperative's lenders. Case No. 2356, Recommended Decision at 11 (5-1-91), adopted in relevant part by Final Order (6-3-91). The Rural Utilities Service (RUS)/Federal Financing Bank and CoBank require borrowers, such as SEC, to maintain minimum debt coverage ratios.

The Commission has not required use of a particular debt coverage ratio, but has said that a cooperative must calculate the ratio that it relies on consistently with the way the ratio is calculated by its lenders. Case No. 1736, Order at 2; Case No. 2356, Recommended Decision at 11. Debt coverage ratios include the Times Interest Earned Ratio (TIER), Operating Times Interest Earned Ratio (OTIER), Discounted Cash Flow Ratio (DSC) and Operating Debt Service

Coverage Ratio (ODSC). The Commission determines on a case-by-case basis which debt coverage ratio method most accurately reflects a cooperative's financial strength. Case No. 2356, Recommended Decision at 12.

Federal law requires RUS distribution borrowers "to design and implement rates for utility service to provide sufficient revenue (along with other revenue available to the borrower in the case of TIER and DSC) to pay all fixed and variable expenses, to provide and maintain reasonable working capital and to maintain on an annual basis the coverage ratios required[.]" 7 C.F.R. § 1710.114(d)(1). The average coverage ratios achieved by a borrower in the two best years out of the three most recent calendar years must meet the coverage ratios required. *Id.*, § 1710.114(d)(2).

TIER and OTIER measure how many times a cooperative earns its interest expense. Case No. 2356, Recommended Decision at 8; Tr. at 498 (Reyes). An OTIER of 1.0 essentially means that a cooperative is earning just enough to pay its interest expense. Tr. at 499 (Reyes). SEC had an OTIER in 2017 of 1.21, which means it had about 20% on top of the minimum available to pay interest expense. *Id.*

RUS defines TIER as:

(interest expense on long-term debt + patronage capital or margins) ÷
interest expense on long-term debt

7 C.F.R. § 1710.2(a).

RUS defines OTIER as:

(interest expense on long-term debt + patronage capital and operating margins) ÷
interest expense on long-term debt

Id.

A significant difference between TIER and OTIER is that TIER includes non-cash items, such as accrued capital credits, as a source of revenue, while OTIER excludes non-cash items as a source of revenue. Case No. 15-00375-UT, Recommended Decision at 33 (10-31-16), adopted

by Final Order Adopting Recommended Decision (12-7-16). Under TIER, revenues are defined as the cooperative's "net margin," or "patronage capital," which is the excess of revenue from the sale of electricity and revenue from all other sources of income (including interest income and patronage allocations) over operating expenses (including interest and depreciation expenses). Case No. 2356, Recommended Decision at 7-8. In contrast, under OTIER, revenues are defined as the cooperative's "net operating margin," which is the excess of revenue from the sale of electricity (excluding nonoperating income such as interest income and patronage allocations) over operating expenses (including interest and depreciation expenses). Case No. 1552, Hearing Examiner's Memorandum at 1 (9-22-80). As a result, a cooperative's OTIER is lower than its TIER.

In several cases, the Commission has discussed whether to use TIER or OTIER to calculate a cooperative's revenue requirement. Case No. 1552, Hearing Examiner's Memorandum (9-22-80); Case No. 2356, Recommended Decision at 8-12; Case No. 15-00375-UT, Recommended Decision at 32-35, 78.[4]

In the most previously litigated rural electric cooperative rate case before this Commission, the Commission used the OTIER coverage ratio method to calculate Kit Carson Electric Cooperative, Inc.'s (Kit Carson's) revenue requirement. The Commission relied on testimony of Kit Carson's witness that "the most common metric to determine revenue requirements for cooperatives was OTIER" and that OTIER is the most accurate measure of solvency among the coverage ratios. Case No. 15-00375-UT, Recommended Decision at 32-34. The Commission approved a revenue requirement that produced a 1.64 OTIER, rejecting Kit Carson's and Staff's proposed 1.9 and 1.5 OTIERs. Final Order at 15 n.15. The Commission found that a 1.64 OTIER resembled the OTIERs of other New Mexico cooperatives whose

[4] It appears that in some Commission cases, the Commission has referred to OTIER as Modified TIER. *See* Case No. 2356, Recommended Decision at 10 ("TIER and DSC ratios calculated without capital credits result is what is referred to as Modified TIER and Modified DSC.").

characteristics were known to the Commission. It rejected Kit Carson's argument that the Commission should compare Kit Carson's OTIER to the OTIERs of electric cooperatives nationally, finding that Kit Carson's OTIER should not be based "upon national averages of potentially dissimilar cooperatives." Recommended Decision at 78; Final Order at 16.

In Case No. 12-00258-UT, the Commission approved a stipulated revenue requirement for Jemez Mountains Electric Cooperative, Inc. that was based on an OTIER coverage ratio method. Certification of Stipulation & Recommended Decision at 13 (5-20-13), adopted by Final Order (6-26-13). The Commission observed that a debt coverage ratio-based revenue requirement is typically used in measuring the cost of service for electric cooperatives that are financed primarily with debt capital, supported only by nominal levels of margin capital. The Commission cited to previous cases in which it approved debt coverage ratio-based revenue requirements for rural electric cooperatives. *Id.* at 13-14.

In previously litigated SEC rate cases, SEC's proposed revenue requirement was not a litigated issue. In what appears to be SEC's most recently litigated rate case before this case — in 2005 — SEC sought approval of rates to reflect new base costs of purchased power and interest on long-term debt and shift recovery of fuel and purchased power costs and long-term debt interest costs from adjustment clause revenue to base revenue. SEC's proposed rate change was revenue neutral, producing no change in its TIER or DSC. Case No. 05-00317-UT, Recommended Decision at 4, 9 (4-13-06), adopted by Final Order Approving Recommended Decision (5-2-06). Prior to that — in 1984 and 1983 — the Commission approved stipulated rate increases for SEC. Case No. 1878, Order Approving Stipulation (9-17-84); Case No. 1788, Order Approving Stipulation (6-20-83).

VII. SEC'S PROPOSED REVENUE INCREASE

A. SEC'S CALCULATION OF ITS PROPOSED REVENUE REQUIREMENT

SEC's proposed revenue requirement is $25,953,616. Tr. at 301 (Proctor). It requests a $1,250,032 revenue increase over 2017 test year revenues of $24,703,623. Proctor Supp., Exh. 1 at 7.[5]

In his various testimonies, Mr. Herrera cited almost a dozen reasons why SEC needs a rate increase. He noted a declining population[6], SEC's promotion of energy efficiency products[7], improved construction standards[8], declining kWh sales over the last six years[9], declining consumption[10], the need to improve SEC's financial health[11], the need to ensure the availability of working capital to meet operating cash flow requirements[12], declining margins[13], the need to cover financing costs[14] and the need to cover the costs of proposed capital credit retirements[15]. However, General Manager Herrera said that SEC's financial integrity and its service to its customers would not be jeopardized without the proposed revenue increase. Herrera Direct at 6-7.

SEC's proposed revenue requirement is not a debt coverage ratio-based revenue requirement. Herrera Rebuttal at 13. Rather, SEC calculated a "cash revenue requirement," which is its proposed $4,792,211 cash requirement less $3,542,179 cash produced from existing

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[5] Mr. Proctor said that his references to "test year" and "adjusted test year" correspond, respectively, to "base period" and "historical test year period" in 17.9.530.7 NMAC. Tr. at 299-300.
[6] Herrera Direct at 5.
[7] *Id.*; Herrera Rebuttal at 4.
[8] Herrera Direct at 5.
[9] *Id.*
[10] Herrera Supp. at 2.
[11] *Id.*
[12] Herrera Rebuttal at 4.
[13] *Id.*
[14] *Id.*
[15] *Id.*

operations. The difference of $1,250,032 is "total additional cash required." Herrera Supp. at 7. The following table shows how SEC calculated its cash revenue requirement:

Cash revenue requirement:	
37.73% of average plant additions over 5 years	$1,401,230
Capital credit payments	$688,467
Principal payments on long-term debt	$2,702,514
Total cash revenue requirement	**$4,792,211**
Cash produced from current operations:	
Operating margins	$409,655
Depreciation expense	$2,396,141
Other income including interest income	$736,383
Total cash produced from current operations	**$3,542,179**
Proposed increase in cash required ($4,792,211 – $3,542,179)	**$1,250,032**

Herrera Supp. at 6-7.

SEC calculated its revenue requirement based on the cash margins required to meet the Board's financial goals. Proctor Second Supp. at 2-3; Tr. at 349-50 (Proctor). SEC's proposed revenue requirement achieves the following Board objectives:

1. Grow equity as a percentage of assets[16] toward a 40% goal, with the result of funding plant additions averaging $3,713,835 annually over the next five years with 37.73% equity or $1,401,230 cash annually
2. Maintain SEC's cash/liquidity position as of the end of the test year at approximately $3.8 million, which is 60.09 days of cash or 4.72% of utility plant in service
3. Fund capital credit retirements of about $688,000 annually, which would retire SEC's patronage capital over a 25-year rotation[17]

[16] The equity/total assets ratio is equivalent to the proportion of total assets financed by equity capital.
[17] A cooperative's net earnings or margins are returned to member-owners based on their patronage. The amount of margin allocated to each member is called a capital credit. Capital credits are retained by a cooperative for a period of time. Most cooperatives, like SEC, have capital credit retirement programs, by which the cooperative gradually returns the value of past allocated capital credits to members.

Herrera Supp. at 4-5; Tr. at 287-94 (Proctor).

SEC does not propose to increase its revenue requirement to increase cash general funds. The general fund at the end of the test year was $3,847,316, the equivalent of 60.09 days of cash and 4.72% of plant. SEC believes that this level of operating cash general funds is sufficient. Herrera Supp. at 6.

For the test year, SEC's equity/total assets ratio was 37.53% if non-cash patronage capital allocations from Tri-State are included as a source of equity. Tr. at 291-92 (Proctor).[18] Mr. Proctor said that a 40% equity/total assets ratio is a generally recognized desirable ratio for a rural electric cooperative. *Id.* at 292. Equity as a percentage of assets was 29.58% in 2012. Herrera Supp. at 5. The equity/assets ratio incorporated into the cash revenue requirement is 37.73%. *Id.* at 6.

SEC has a Debt Cost Adjustment (DCA) Clause to recover its debt costs. SEC's proposed rates zero out its DCA and reflect full recovery of its debt costs through base rates as of December 31, 2017. Proctor Direct at 3; Tr. at 300 (Proctor).

SEC has a Fuel Cost Adjustment (FCA) Clause to recover its purchased power costs. SEC's proposed rates zero out its FCA and reflect full recovery of its purchased power costs through base rates as of December 31, 2017. *Id.*

B. Positions of Intervenors and Staff on SEC's Proposed Revenue Increase

1. *City of Socorro*

The City recommends that the Commission deny SEC any revenue increase. Tr. at 191 (Bhasker). The City says that none of the reasons given by Mr. Herrera in support of a rate increase is supported by the evidence and some are contradicted by SEC's annual filings. City's Initial Posthearing Brief at 5.

[18] SEC has not yet received cash patronage capital returns from Tri-State. Tr. at 98 (Herrera).

First, the City says that SEC provided no evidence to support its claim of a declining population. The City points to Mayor Bhasker's testimony confirming that the population in Socorro is not declining and in fact is increasing. Tr. at 138. The City provided Chart I below, which shows the data supplied by SEC in its Annual Reports from 2013-2018, which the City says confirms that SEC's number of customers and kWh sales have remained about the same. City's Initial Posthearing Brief at 5-6, 8.

	2013	2014	2015	2016*	2017*	2018
# of customers	12,855	12,780	12,696	12,729	12,707	12,725
kWh Sales	179,388,000	175,129.000	174,959,000	177,300,000	172,762,000	178,393,700
Avg annual kWh per customer	13,955	13,703	13,780	13,929	13,596	14,019
kWh gross rev	$23,949,503	$23,748,888	$23,962,735	$24,372,343	$24,421,489	$25,001,944
Avg annual bill	$1,863.05	$1,858.29	$1,887.42	$1,914.71	$1,921.89	$1,964.00
Utility plant in service[14]	$78,118,721	$78,870,257	$80,189,408	$79,319,512	$80,502,207	$83,020,643
Avg gross rev per kWh	$0.134	$0.136	$0.137	$0.137	$0.141	$0.14
				*corrected June 4, 2018	*corrected June 4, 2018	

Second, regarding alleged load lost due to energy efficiency measures, again, the City argues that SEC provided no support for that claim. It points to SEC Account Manager Montoya's testimony that she was not aware of any analysis to determine the amount of revenue lost due to energy efficiency programs. Tr. at 203-04. The City points again to Chart I, which it says demonstrates that kWh sales have been relatively flat. City's Initial Posthearing Brief at 6, 8.

Third, regarding alleged declining kWh sales over the last six years, the City says that Chart I demonstrates stable sales with decent increases in 2016 and 2018. *Id.* at 6.

Fourth, the City argues that Mr. Herrera's allegation that the rate increase is needed to ensure the availability of working capital to meet operating cash flow requirements is debunked by the Financial Statements with Accompanying Information for the Years Ended December 31, 2018 and 2017[19] (Audited Financials) submitted by SEC's certified public accountants. The Audited Financials show net margins of $1,939,357 as of December 31, 2017 and $1,818,878 as of December 31, 2018. The Audited Financials also show an over $1.4 million increase in patronage capital from 2017 to 2018. Over the same period, SEC increased plant in service by over $2.5 million. *Id.* at 6-8.

The City then argues that the real reason that SEC seeks a rate increase is to meet Board goals. The City identifies 45 times in which "Board goals" were referred to and relied on by SEC witnesses at the hearing. *Id.* at 10. The City argues that the primary Board goal sought to be met is to retire $688,000 in patronage capital annually. It says that SEC has been able to fund capital credit retirements through operations since 2011 and does not need additional revenue for that purpose. *Id.* at 9-10.

Lastly, the City argues that SEC's current operating margins are producing a debt coverage ratio within an acceptable range. SEC's 2017 TIER was 1.87. The City relies on Mr. Reyes' testimony that a target TIER for establishing revenue requirements is between 1.8 and 2.2. *Id.* at 11.

2. *NM Tech*

NM Tech recommends that the Commission deny SEC any revenue increase because SEC's current revenues are sufficient. Reyes Direct at 2, 8, 14. It points out that SEC's 2017 and 2018 TIERs and OTIERs exceed the minimums, and no lender has required SEC to have a higher TIER or OTIER. It relies on Mr. Reyes' testimony that the 2017 TIER of 1.87 should

[19] The Hearing Examiner took administrative notice of these Financial Statements. Tr. at 53.

remain as a target because it is within an acceptable range. NM Tech's Initial Posthearing Brief at 10.

3. Donald Steinnerd

Mr. Steinnerd recommends that the Commission deny SEC a revenue increase or authorize the minimum increase needed for SEC to meet minimum debt coverage ratios. Steinnerd's Initial Posthearing Brief at 8.

4. Staff

Staff recommends that the Commission allow SEC to increase its operating margin by $1,249,993. Staff also recommends that the Commission require SEC to:

1. Provide proof to the Commission of annual capital credits retired in the amount of $688,476 for a 25-year cycle
2. Provide notice of completed plant additions in accordance with SEC's Growth Rate in Net Plant as detailed in SEC's COSS and its Form CWP-740C

Dasheno Direct at 8-9; Staff's Initial Posthearing Brief at 6.

SEC does not object to the above two recommendations, although it notes that $688,476 is the average over 25 years and "does not mean that SEC can retire $688,467 in capital credits each of the 25 years." SEC's Posthearing Response Brief at 1-2.

C. HEARING EXAMINER'S RECOMMENDATION

The City demonstrates that since 2013:

- SEC's kWh sales have remained largely constant — a .55% decrease
- The average annual consumption per customer has increased by .46%
- The average annual bill has increased by 5.42%
- SEC's kWh gross revenues have increased by 4.39%

City's Initial Posthearing Brief at 8. As the City states, it is "crystal clear" that SEC seeks the proposed revenue increase to meet Board goals. *Id.* at 9.

SEC seems to believe that it is entitled to its proposed revenue increase because its Board is *entitled* to advance or achieve its goals. For example, in response to questions from the Hearing Examiner about how the Commission would calculate a debt coverage ratio-based revenue requirement, Mr. Proctor discussed SEC's options "if the Commission is going to *dictate* what the overall rate change is . . . ." Tr. at 320 (emphasis added). He opposed debt coverage ratio methods of calculating SEC's revenue requirement because they would compromise the Board's ability to advance its goals. *Id.* at 313. In its Initial Posthearing Brief, SEC argues, "If SEC is not allowed to increase its rates soon, it will experience a growing risk of being unable to meet its financial goals set by SEC's Trustees." SEC's Initial Posthearing Brief at 12.

Once protests were filed and the Commission found just cause to review SEC's proposed rates, it became the Commission's duty to determine just and reasonable rates for SEC. Whether a rural electric cooperative's proposed rates are just and reasonable is not determined by whether the rates allow the Board to advance or achieve its goals. Rather, "[u]nder the PUA, a rate is 'just and reasonable' when it balances the investor's interest against the ratepayer's interest." *Attorney General v. New Mexico Pub. Regulation Comm'n*, 2011-NMSC-034, ¶ 13, 150 N.M. 174. Because rural electric cooperatives do not have investors, the interests to be balanced are not between investors and ratepayers but between cooperative management — the Board and the General Manager — and the members/ratepayers. That balancing involves a determination of whether the rates proposed by the cooperative management are in the best interest of members/ratepayers. Rates set to advance or achieve a Board's goals may exceed the rates allowable after considering the interests of the members/ratepayers. A cooperative's self-regulatory method of ownership does not prevent a cooperative board from proposing rates that are higher than necessary.

In the 2015 Kit Carson rate case, the Commission rejected Kit Carson's argument that the Commission could not override the decision of Kit Carson's Board, stating that "if that were true, the members' right to Commission review of a coop's proposed rates upon sufficient protest would be nullified or meaningless." Case No. 15-00375-UT, Final Order, ¶ 26. The Commission explained that once sufficient protests are filed and the Commission finds just cause to review a cooperative's proposed rates, "the coop bears the same burden of proof that is borne by investor-owned utilities that its proposed rates are just and reasonable." *Id.*

SEC witness Proctor said that SEC used its cash requirement method of calculating its revenue requirement because a debt coverage ratio-based method does not consider the specific financial condition of the cooperative nor its financial goals. Mr. Proctor quoted from one article which states, "The TIER allowed for Distribution Coops is usually set at 2.0, but can be higher or lower when warranted by the utility's financial condition." Proctor Second Supp. at 3. He quoted from another article which states that ". . . an optimal TIER is seldom known." *Id.* He concluded, "For this reason, SEC calculated its revenue requirement based on the required cash margins to meet financial goals . . . ." *Id.* He said that "the coverage ratios are just something that we look at as a way to see where we are, but not as a way to establish the revenue requirement." Tr. at 296.

Contrary to Mr. Proctor's assertion, debt coverage ratios are used to measure a cooperative's financial health. Case No. 1736, Order at 1 (5-2-83). And, use of a debt coverage ratio method of calculating a cooperative's revenue requirement does not mean that a cooperative's revenue requirement is set to produce only the minimum debt coverage ratio required by a lender. This Commission has said that the minimum debt coverage ratio required by the RUS is not necessarily sufficient to maintain a rural electric cooperative's financial integrity and ability to provide safe and reliable service. A higher debt coverage ratio may be authorized to, among other things, maintain the ratio of equity to total assets at a proper level and maintain a reasonable cycle of patronage capital retirements. Case No. 06-00367-UT,

Recommended Decision at 6 (2-14-07), adopted in relevant part by Final Order Partially Adopting Recommended Decision (3-13-07).

This Hearing Examiner is unaware of any New Mexico Public Regulation Commission docketed rural electric cooperative rate case in which a cooperative or the Commission has calculated the revenue requirement based on the cash margins required to meet a cooperative board's goals. Mr. Proctor did not justify departing from a debt coverage ratio-based method to calculate SEC's revenue requirement. Therefore, a debt coverage ratio-based method of calculating SEC's revenue requirement should be used in this case.

The following table shows the minimum required coverage ratios, SEC's actual coverage ratios in 2017, its 2017 test year coverage ratios, its December 31, 2018 coverage ratios and its expected coverage ratios under its proposed rates:

Ratio	Minimum Required by RUS[20]	2017 Actuals[21]	2017 Test Year[22]	As of Dec. 31, 2018[23]	Under Proposed Rates[24]
TIER[25]	1.25	1.87	1.87	1.96	2.50
DSC	1.25	1.35	1.30	1.40	1.57
OTIER	1.10	1.21[26]	1.21 or 1.26[27]	1.37[28]	1.84
ODSC	1.1	1.07	Not in evidence	1.13	Not in evidence

[20] 7 C.F.R. § 1710.114(b)(1).
[21] Herrera Supp. at 10; Proctor Supp., Exh. 1 at 7.
[22] Proctor Supp., Exh. 1 at 7.
[23] Herrera Supp. at 9.
[24] Proctor Supp., Exh. 1 at 7.
[25] "Net TIER" on page 7 of SEC's COSS means "TIER" as defined by the RUS. Tr. at 309 (Proctor).
[26] Staff witness Dasheno testified that SEC's 2017 OTIER was 1.25, Dasheno Direct at 8, not 1.21 as reported in SEC's COSS. Ms. Dasheno's 1.25 OTIER calculation appears incorrect because she used a $2,281,969 amount for interest on long-term debt, Exh. GSD-1, while interest on long-term debt reported on SEC's 2017 RUS Form 7 is $2,218,969, Herrera Rebuttal, Exh. 10.
[27] The COSS states that the 2017 Test Year OTIER is 1.21. Proctor Supp., Exh. 1 at 7. Mr. Herrera testified that the 2017 Test Year OTIER is 1.26%. Herrera Rebuttal at 12.
[28] In his Supplemental Testimony, Mr. Herrera said that the 2018 OTIER was 1.28 using unaudited financials. Herrera Supp. at 9. In his Rebuttal Testimony, Mr. Herrera said that the 2018 OTIER was 1.37 using audited financials. Herrera Rebuttal at 12; Tr. at 29-30 (Herrera).

The following table shows the 2017 OTIERs of three peer cooperatives identified by Staff:

Rural Electric Cooperative	**2017 OTIER**
Central New Mexico Electric Cooperative	1.32
Jemez Mountains Electric Cooperative	1.43
Otero Electric Cooperative	1.46
Average	**1.4**

Dasheno Direct at 7-8. Ms. Dasheno selected Jemez Mountains, Central New Mexico and Otero Electric Cooperatives as peer cooperatives to SEC based on their comparable amounts of interest on long-term debt and operating revenue and patronage capital, which are used to compute OTIER. Tr. at 607-08; Dasheno Direct, Exh. GSD-1.

OTIER should be used rather than another debt coverage ratio to calculate SEC's revenue requirement. While SEC opposes using a debt coverage ratio to calculate its revenue requirement, Mr. Proctor recommended that if the Commission does so, it use OTIER rather than TIER. He explained that TIER includes in revenues, non-operating margins which fluctuate from year-to-year and do not produce cash and over which SEC has no control. He said, "So, at a minimum I would look at an operating metric." Tr. at 317.[29] Mr. Proctor's recommendation is consistent with the Commission's decision in the Kit Carson rate case to use OTIER. *See* § VI, *supra.*

A less important reason for using OTIER is that the only ratio in evidence of the peer cooperatives is the OTIER. The Kit Carson rate case indicates that the debt coverage ratios of peer cooperatives are relevant in determining a cooperative's revenue requirement. *See id.* However, the OTIERs of the peer cooperatives should be relied on with caution. NM Tech raises a valid concern "about the use of realized TIER ratios of other cooperatives for comparison purposes rather than TIER ratios actually approved by the PRC." NM Tech's Initial Posthearing

[29] For example, allocations of capital credits represent only a future promise to pay and do not necessarily result in any actual cash to the cooperative in the year they are allocated. Case No. 2356, Recommended Decision at 12.

Brief at 11. An appropriate use of the OTIERs of the peer cooperatives is to provide a check on the reasonableness of the recommended OTIER for SEC.

The minimum OTIER required by the RUS is 1.10. The OTIER resulting from SEC's proposed revenue increase is 1.84. SEC witness Herrera said that "the adjusted test year and actual 2018 end of year financial ratios indicate the financial health of SEC continues to erode." Herrera Rebuttal at 11. The evidence does not support Mr. Herrera's statement, as evidenced by the 13.2% increase in SEC's OTIER from 2017 to 2018. SEC has received no directives from its lenders that it needs a rate increase. Tr. at 24-25 (Herrera). All of SEC's 2018 coverage ratios are above the minimums required by its lenders. *Id.* at 26 (Herrera). In fact, Mr. Herrera said that SEC's financial integrity and service to its customers would not be jeopardized without the proposed revenue increase. Herrera Direct at 6-7. Therefore, no evidence supports the necessity of authorizing a 1.84 OTIER to maintain SEC's financial health and its ability to meet interest expense on long-term debt. The question then is whether SEC should be authorized an OTIER higher than its 2018 OTIER of 1.37 to, among other things, finance plant additions with equity and make capital credit refunds.

SEC's 2017 and 2018 financial results indicate that it is unnecessary to authorize SEC a higher OTIER.[30] SEC's 2017 operating margin was $466,906. Its operating margin is effectively its profit. Tr. at 292 (Proctor).[31] With this operating margin and a TIER of 1.21, SEC was able to retire $423,406 in capital credits in 2017. Proctor Supp., Exh. 1 at 63. It was also able to add $3,850,194 in plant in 2017. *Id.* at 61. Mr. Proctor said that in the test year, SEC "is in a pretty good spot here" in terms of its equity/total assets ratio when patronage capital is included as a

[30] *Mountain States Tel. & Tel. Co. v. New Mexico State Corp. Comm'n*, 1977-NMSC-032, ¶ 84, 90 N.M. 325 ("Common sense requires that the latest available economic information should be utilized in order to insure that the projected figures bear a meaningful relation to future as well as past and present fiscal realities.").

[31] Operating margin means operating revenue (revenue from energy sales and other operating revenue) less the cost directly associated with providing service to members. Proctor Supp. at 4.

source of equity. Tr. at 292.[32] SEC's operating margin increased by 21.9%, to $569,256, in 2018. City's Initial Posthearing Brief, Financial Statements, Exh. B. SEC's patronage capital balance increased over $1.4 million from 2017 to 2018. City's Initial Posthearing Brief at 6. From 2017 to 2018, SEC's OTIER increased by 13.2%, from 1.21 to 1.37. An OTIER of 1.37 is 1.25 times the minimum OTIER. Therefore, SEC's existing OTIER allows it to maintain a reasonable equity/total assets ratio and a reasonable cycle of patronage capital retirements.

Mr. Reyes' testified that, based on his discussions with cooperative clients, a maximum target OTIER range is 1.3 to 1.5. Tr. at 500. Therefore, SEC's 1.37 OTIER is within an acceptable range. This is confirmed by evidence of the range of the 2017 OTIERs of SEC's three peer cooperatives, which is 1.32 to 1.46.

Denial of a revenue increase will require SEC's Board to juggle its goals. However, SEC's 2017 and 2018 financial results show that SEC's existing revenue requirement does not leave the SEC Board without cash to advance its goals. It allows SEC to earn margins that the Board can use toward meeting its goals. Tr. at 499 (Reyes). SEC is not entitled to a revenue requirement that allows the Board to advance or achieve all of its goals.

VIII. ALLOCATION FACTORS

A Cost of Service Study (COSS) distributes revenues, expenses and rate base of a utility among customer classes. To allocate revenues, expenses and rate base, a utility develops allocation factors designed to reflect a causal relationship between the cost and the class or classes responsible for the cost. Case No. 2662, Recommended Decision at 144 (8-28-96), adopted in relevant part by Final Order (2-13-97). For example, because generating units and transmission lines are sized according to the peak demand consumed, the individual contribution to peak demand came to be considered the appropriate factor for the allocation of

[32] The equity/total assets ratio indicates the amount of plant paid for with equity versus debt. The higher the equity ratio, the more of the cost of plant is being paid for by current ratepayers. The lower the equity ratio, the more of the cost of plant is being paid for by future ratepayers. Tr. at 350 (Proctor).

the costs of these facilities. On the other hand, costs incurred to supply energy were rationalized to be allocable by use. Costs that vary by the number of customers and not their consumption are allocated by customer. Allocation factors have become more complicated. For example, there is a "peak and average demand" allocation factor, which allocates demand or capacity-related costs through the arithmetic average of the peak demand and the daily average demand. However, cost allocation factors have generally evolved into three cost classifications: demand, energy and customer. National Ass'n of Regulatory Util. Comm'rs, *Electric Util. Cost Allocation Manual* at 13-14 (1992).

SEC applied numerous allocation factors to allocate revenues, expenses and rate base among customer classes. *See* Proctor Supp., Exh. 1 at 141-43. Mr. Steinnerd questioned SEC's derivation of 11 of the allocation factors. He also questioned SEC's selection of some allocation factors. Mr. Steinnerd's hope in questioning SEC's assumptions was that Commission Staff would study SEC's assumptions and "take the appropriate action that they saw fit." He does not have a specific recommendation arising from the items that he addresses in his Direct Testimony "other than to ask the PRC to do an independent analysis with what I've [shown] as my concerns." Tr. at 604.

The Commission appreciates Mr. Steinnerd's examination of SEC's allocation factors. While Staff did not study SEC's assumptions in more detail as Mr. Steinnerd had hoped, Mr. Steinnerd's testimony does demonstrate "that what is deemed at 'full cost' is very sensitive to the allocation methods selected, and reasonable people can disagree on what those methods should be." Case No. 17-00255-UT, Recommended Decision at 208 (7-2-18), adopted in relevant part by Final Order Adopting Recommended Decision with Modifications (9-5-18).

IX. REVENUE COLLECTION AMONG THE CUSTOMER CLASSES

A. SEC'S PROPOSED REVENUE ALLOCATION

SEC's COSS shows that, under SEC's existing rates, each of the Residential, Irrigation and Lighting Service Classes pays significantly less than the cost of serving it, and the Small Commercial Service Class pays slightly less than the cost of serving it. The COSS shows that each of the Large Commercial and Load Management Service Classes pays significantly more than the cost of serving it. Proctor Supp., Exh. 1 at 132; Tr. at 522 (Blank).

SEC's COSS shows that, under SEC's existing rates,

- revenues collected from the Residential Service Class would have to increase by $2,958,443, or 29.1%, for that Class to pay its cost of service
- revenues collected from the Irrigation Service Class would have to increase by $53,640, or 89.9%, for that Class to pay its cost of service
- revenues collected from the Lighting Service Classes would have to increase by $78,195, or 21.3%, for those Classes to pay their cost of service
- revenues collected from the Small Commercial Service Class would have to increase by $27,894, or 0.8%, for that Class to pay its cost of service
- revenues collected from the Large Commercial Service Class would have to decrease by $1,672,917, or 17.4%, for that Class to pay its cost of service
- revenues collected from the Load Management Service Class would have to decrease by $195,262, or 16.9%, for that Class to pay its cost of service

Proctor Supp., Exh. 1 at 132; Tr. at 303 (Proctor).

Two metrics show subsidization among rate classes: rate of return and relative rate of return. Tr. at 332-33 (Proctor). The rate of return for a class is a class's net operating income divided by its rate base. If a class generates sufficient revenue to recover its cost of service, its

rate of return equals or exceeds the average class rate of return. A rate class with a rate of return equal to the class average rate of return neither provides nor receives a subsidy from other classes. Proctor Supp. at 4.

The relative rate of return for a class is a class's rate of return divided by the class average rate of return. If a class's relative rate of return is negative, it means that the class is paying less than the utility's cost of serving the class. Case No. 10-00379-UT, Final Order Partially Adopting Recommended Decision at 5 (9-20-11). "Unity" or a relative rate of return of 1.0 means that a rate class pays the true cost to serve that rate class as determined by a COSS. Rate classes with a relative rate of return greater than 1.0 subsidize rate classes with a relative rate of return of less than 1.0. Proctor Supp. at 7.

SEC proposes to increase revenues collected from all of its classes. However, it proposes lower percentage revenue increases for the classes which its COSS shows are subsidizing the other classes. The following table shows the percentage and dollar revenue increase by class under SEC's proposed rates:

Customer Class	Percentage Revenue Increase	Dollar Revenue Increase
Residential	6.66%	$664,285
Small Commercial	5.38%	$177,634
Large Commercial	2.66%	$255,743
Irrigation	10.26%	$6,051
Load Management	3.35%	$38,701
Energy Thermal Storage	7.22%	$1,360
Lighting	9.08%	$33,375
Average	4.80%	

Proctor Supp., Exh. 1 at 249.

SEC's proposed rates would result in all classes, except the Irrigation Class, producing a positive rate of return. The following graph compares, by customer class, the rate of return under current rates and SEC's proposed rates:

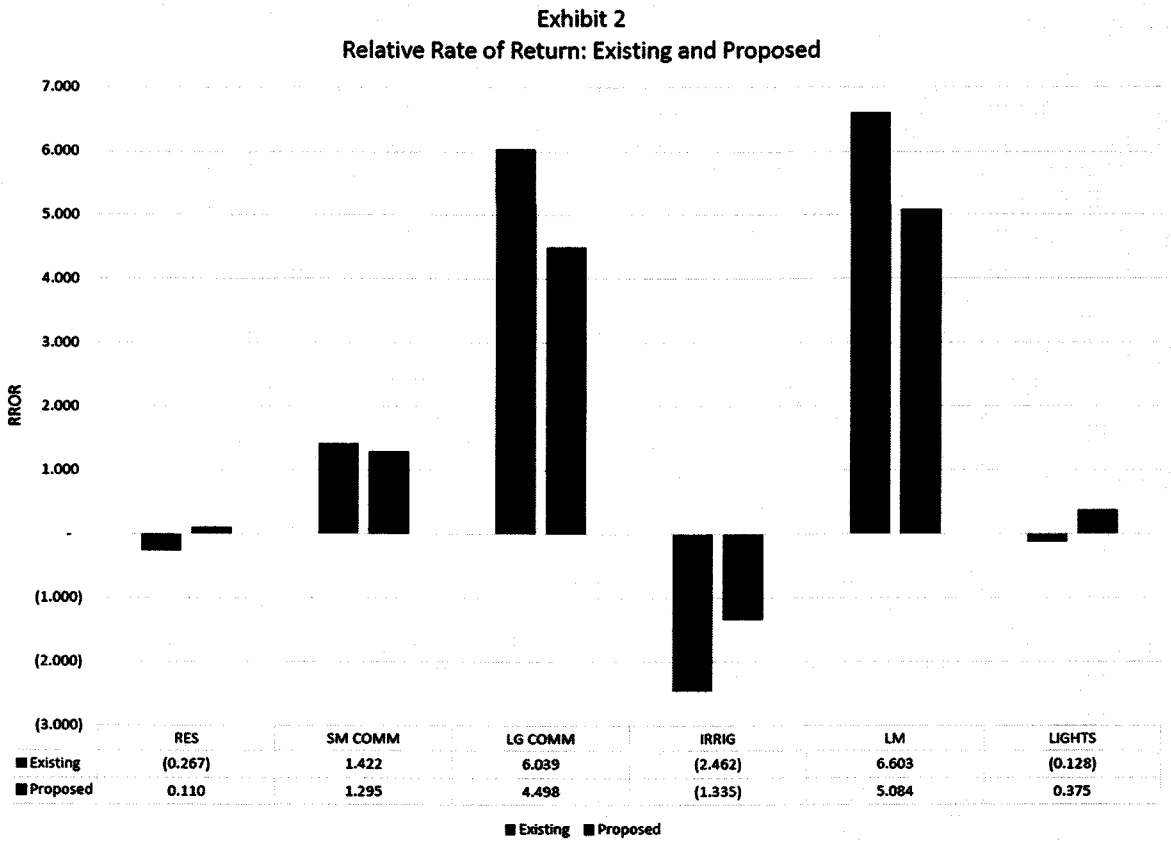
Customer Class	Rate of Return under Current Rates	Rate of Return under Proposed Rates
Residential	-1.288%	0.795%
Small Commercial	6.851%	9.350%
Large Commercial	29.094%	32.476%
Irrigation	-11.864%	-9.635%
Load Management	31.815%	36.705%
Lighting	0.619%	2.706%
Average	4.818%	7.220%

Herrera Direct at 6. The Energy Thermal Storage customers are reported in the Residential Service Class. Tr. at 325 (Proctor).

NM Tech argues that SEC's proposed rates increase the alleged subsidizations by the Large Commercial and Load Management Service Classes because the rate of return for these Classes would increase. NM Tech's argument lacks merit because NM Tech does not take into account that the average class rate of return also increases under SEC's proposed rates. Herrera Rebuttal at 10-11. For example, while the rate of return for the Large Commercial Service Class increases from 29.094% to 32.476% under SEC's proposed rates, the rate of return for the Large Commercial Service Class decreases from 6.04 times the class average to 4.5 times the class average.[33] The same is true for the Load Management Service Class.[34]

[33] 29.094% ÷ 4.818% = 6.04 versus 32.476% ÷ 7.22% = 4.5.
[34] 31.815% ÷ 4.818% = 6.6 versus 36.705% ÷ 7.22% = 5.08.

The following graph compares, by customer class, the relative rate of return under current rates and SEC's proposed rates:



Proctor Supp., Exh. 2. The Energy Thermal Storage customers are reported in the Residential Service Class. Tr. at 325 (Proctor). SEC's proposed rates move all classes closer to a 1.0 relative rate of return, indicating that SEC's proposed rates reduce the alleged interclass subsidies. *Id.* at 333 (Proctor). NM Tech witness Reyes acknowledged that SEC's proposed rates "marginally" reduce the alleged interclass subsidies. Reyes Direct at 9; Tr. at 500. Dr. Blank acknowledged that SEC's proposed rates move all classes closer to a 1.0 relative rate of return. Tr. at 528.

Mr. Proctor said that the Residential, Irrigation and Lighting Service Classes "are not paying their 'fair' share" and are receiving subsidies from other rate classes. In contrast, he said that the Large Commercial and Load Management Service Classes are paying "more than their fair share." Proctor Supp. at 6. He said that the level of rate subsidies that exist under SEC's

existing rates is not appropriate. Proctor Rebuttal at 5. However, he said that allocating a 10% or more revenue increase to the Residential Service Class would be excessive. *Id.* at 5-6. Mr. Proctor said that SEC allocated its proposed revenue increase among classes to reduce alleged interclass subsidies and bring the relative rate of return for each class closer to unity. Proctor Supp. at 6. He said that an appropriate approach to further reducing interclass subsidies would be for the SEC Board to propose more frequent rate changes focused on recovering more fixed costs through fixed charges and reducing interclass subsidies. Proctor Rebuttal at 4-5.

Mr. Herrera acknowledged that interclass subsidies exist, but said "because large commercial accounts have ways of raising revenues to cover increases in expenses, they can more ably subsidize other classes." Herrera Rebuttal at 15.

B. THE CITY AND NM TECH'S RECOMMENDATION

The City and NM Tech argue that, even if the Commission denies SEC a revenue increase, existing revenues should be reallocated among the classes. Tr. at 520 (Blank). NM Tech argues that "subsidization by the Large Commercial and Load Management Classes is excessive, unjust and unreasonable" under both SEC's current and proposed rates. NM Tech's Initial Posthearing Brief at 1. It asserts that the level of subsidization is not within the zone of reasonableness that the New Mexico Supreme Court has deemed acceptable. *Id.* at 4.

The City and NM Tech recommend that the Residential Service Class receive at least a 10% revenue increase, which would generate $1,016,459 in additional revenue from the Residential Service Class. The proposal by City and NM Tech witness Dr. Blank would eliminate about one-half of the subsidy to the Residential Service Class, which Dr. Blank said is not even generating sufficient revenue to cover its share of interest expense for debt issued to provide service to residential customers. If the Commission grants SEC some revenue increase, Dr. Blank recommended that the Residential Service Class receive a revenue increase

proportionately higher or "somewhat higher" than a 10% revenue increase. He did not provide a specific percentage recommendation. Blank Direct at 5; Tr. at 527.

Dr. Blank further recommended that the Irrigation Service Class receive a 10% revenue increase, which he said is consistent with SEC's proposed rates, and which would generate $6,304 in additional revenue from the Irrigation Service Class. Therefore, he explained that even if the Commission denies SEC a revenue increase, it could approve SEC's proposed Irrigation Service Class rates. Irrigation customers would continue to receive a substantial subsidy, but the subsidy would be mitigated. If the Commission does not deny SEC's proposed revenue increase, Dr. Blank recommended that revenues allocated to the Irrigation Service Class increase proportionally above 10% based on the overall increase approved. Blank Direct at 5.

Lastly, Dr. Blank recommended that the additional $1,016,459 and $6,304 generated from the Residential and Irrigation Service Classes be used to offset the subsidy currently paid by Large Commercial and Load Management Service customers and reduce lighting customer rates to correct for alleged cost of service misallocations. Dr. Blank argued that, contrary to the results of the COSS, the Lighting Classes currently are paying more than their cost of service and therefore are not being subsidized. Tr. at 530.

Specifically, Dr. Blank recommended that the additional revenues generated by the Residential and Irrigation Service Classes be distributed as follows: (1) a $94,837 reduction in Area Lighting Service rates; (2) a $110,000 reduction in Load Management Service rates; and (3) a $817,926 reduction in Large Commercial Service rates. Blank Direct at 6. The proposed $94,837 decrease in Area Lighting Service rates is based on Dr. Blank's recalculation of SEC's lighting rates, described in *infra* Section X(I)(2). The proposed decreases in the Load Management and Large Commercial Service rates would eliminate close to one-half of the current subsidies allegedly paid by those Classes. Tr. at 543 (Blank).

Under Dr. Blank's proposal, the revenues allocated for recovery by each Class would change as follows:

Table 1. Rebuttal Larry Blank
Comparison of Current Revenue to Cost of Service, Proposed Rates, and NM Tech Proposed Rates

Line No.		Total	Residential	Small Comm.	Large Comm.	Irrigation	Load Mgmt
1	Current Annual Revenue*	$ 24,336,237	$ 10,164,593	$ 3,330,848	$ 9,625,765	$ 59,688	$ 1,155,343
2	Current Cost to Serve**	$ 24,336,237	$ 12,520,185	$ 3,204,447	$ 7,587,507	$ 108,122	$ 915,976
3	Current Subsidies Received (Paid)		$ 2,355,592	$ (126,401)	$ (2,038,258)	$ 48,434	$ (239,367)
4	Percent Change to Eliminate Subsidy		23.2%	-3.8%	-21.2%	81.1%	-20.7%
5	SEC Proposed Rates Revenue***	$ 25,552,687	$ 10,891,050	$ 3,519,802	$ 9,881,894	$ 65,991	$ 1,193,950
6	SEC Proposed Percent Change	5.0%	7.1%	5.7%	2.7%	10.6%	3.3%
7	NM Tech Recommended Revenue****	$ 24,431,074	$ 11,181,052	$ 3,330,848	$ 8,807,839	$ 65,992	$ 1,045,343
8	NM Tech Recommend % Change	0.4%	10.0%	0.0%	-8.5%	10.6%	-9.5%
9	Remaining Subsidy Received (Paid) after NM Tech recommendations		$ 1,339,133	$ (126,401)	$ (1,220,332)	$ 42,130	$ (129,367)

*See SEC Exhibit 1, p. 132 of 380, or Schedule H-1.0.
**Based on SEC cost of service study results. Area Lighting is not included because of discrepancies in SEC cost study (see Blank Direct).
***See SEC Exhibit 1, p. 135 of 380, or Schedule H-2.0.
****Includes $94,837 to cover reduction in Area Lighting rates; however, a portion should be removed from SEC revenue (Blank Direct).

Blank Rebuttal at 3.

Dr. Blank said that a 10% revenue increase to the Residential Service Class would not produce rate shock. He said that the monthly bill for an average-use residential customer is $81.62 and a 10% revenue increase would increase that bill by $8.16. Dr. Blank said, "This is a small amount once we recognize that the household continues to receive a nice subsidy paid by other customers." Blank Direct at 6; Tr. at 531.

Dr. Blank argued that it is not necessarily true that Large Commercial Service customers are more able than smaller-size customers to recover an increase in electricity rates. He said

that the City and NM Tech are governmental entities with approved budgets that do not necessarily anticipate increases in utility expenses. They cannot "just create the additional revenue to handle an electric increase." Tr. at 522-23. Dr. Blank said that many jobs are not realized in SEC's service area because government and Large Commercial Service customers overpay for electricity and therefore have less budget to spend on payroll. Blank Rebuttal at 4.

NM Tech points out that it itself contributes nearly one-third of revenues collected from the Large Commercial Service Class. It says that its funding from the State does not fully cover utility costs and that it must pull funds from other parts of its budget to cover these costs. It asserts that its financial position should be considered by the Commission in determining whether the subsidy paid by the Large Commercial Service Class is just and reasonable. NM Tech's Initial Posthearing Brief at 4-5.

NM Tech recommends that increased revenues collected from the Residential and Irrigation Service Classes be recovered through increases to those Classes' Customer Charges. Reyes Direct at 11, 15. NM Tech witness Reyes provided an exhibit which illustrates the changes in revenues collected from the Classes and Customer Charges that would be necessary to bring the Residential and Irrigation Service Classes to a 0% rate of return. NM Tech explained that it provided this exhibit for informational purposes and that its proposal to reallocate revenues collected under existing rates is presented by Dr. Blank. *Id.* at 8.

C. DONALD STEINNERD'S RECOMMENDATION

Mr. Steinnerd argued that the Residential Service Class needs to be substantially subsidized by other Classes and that SEC's proposal to gradually lower the subsidy received by the Residential Service Class is unfair. Steinnerd's Initial Posthearing Brief at 5-6. He further argued that it would be unjust for 20% of Large Commercial Service customers to receive a bill decrease while most Residential Service customers would receive a bill increase. *Id.* at 7. He also questioned the accuracy of the COSS which shows the alleged subsidy to the Residential

Service Class, arguing that it is only an estimate, subject to errors and inaccurate input assumptions. *Id.*

Mr. Steinnerd also disagreed that the alleged subsidy to the Residential Service Class must be decreased. He said that the Large Commercial and Load Management Service Classes do not include significant numbers of remote rural consumers recognized as needing assistance since the inception of rural electric cooperatives. He said that the principle that each class should be self-supporting is "flawed logic" that forgets a principal reason why SEC was formed. He does not view the alleged disparities in cost recovery among the classes as subsidization, "but rather, as being part of a cooperative of members sharing the cost for distributing electricity at a reasonable price to all members." Steinnerd Rebuttal at 6.

D. HEARING EXAMINER'S RECOMMENDATION

The amount of revenue to collect among classes is a judgment call. The New Mexico Supreme Court has said that "traditionally and logically there is a great measure of public policy that enters into the apportionment of rates." *See Mountain States Tel. & Tel. Co. v. New Mexico State Corp. Comm'n*, 1977-NMSC-032, ¶ 27, 90 N.M. 325; *see also id.*, ¶ 32 (stating that sufficient evidence was present from which the Commission "could have promulgated reasonable rates consistent with the Commission's discretion on public policy issues involved with regard to apportionment.") Subsidization among rate classes is allowable and "[d]etermining the level of subsidies, if any, is a Commission function." *Id.*, ¶ 65.

The New Mexico Supreme Court has explicitly discouraged using cost of service as a sole criterion in designing rates. *In re PNM Gas Servs.*, 2000-NMSC-012, ¶ 100, 129 N.M. 1. The Court reversed the Commission when it departed from the principle of gradualism. Particularly, the Court said that by increasing a utility's residential access fee by over 60%, the Commission "improperly overlooked the potential that a dramatic shift in rates for residential consumers would cause rate shock, and the Commission thereby violated the fundamental rate-design

principle of stability in rates." *Id.*, ¶ 102. Another reason for not using a COSS as the sole criterion in allocating revenues among rate classes is that, as Mr. Steinnerd's challenges to SEC's cost allocation factors demonstrate, costs allocated among classes can differ dramatically based on the allocation factors used to allocate costs among the classes. The Supreme Court has observed that the term "cost of service" is an over-simplification, and, at best, the result of a COSS "represents an educated guess as to what the costs may be in the test year." *Mountain States*, 1977-NMSC-032, ¶ 68.

With that caveat, a guiding principle is to set rates which move the relative rate of return of each class closer to unity in a gradual manner that avoids rate shock. Case No. 2662, Final Order at 36 (2-13-97). "Appropriate ratemaking principles . . . require that allocations between customer classes *consider* the cost of serving the different classes of customers." Case No. 05-00317-UT, Recommended Decision at 10 (emphasis added).

While the Hearing Examiner is recommending no revenue increase, it is appropriate to take this opportunity to reallocate revenues among the Classes modestly to gradually move the relative rate of return of each class closer to unity.

Increased revenues should be collected from the Residential, ETS, and Irrigation Classes, which the COSS shows are being significantly subsidized by the Large Commercial and Load Management Service Classes. Proctor Supp., Exh. 1 at 132.[35] However, the 10% revenue increases for the Residential, ETS and Irrigation Classes recommended by Dr. Blank are much too steep and sudden, especially given that the Hearing Examiner is recommending no revenue increase.

The COSS shows that the Residential Service Class, including the ETS Service Class, is producing a revenue deficiency of 29.105% and the Irrigation Service Class is producing a revenue deficiency of 89.867%. *Id.* Therefore, it is reasonable to allocate a greater percentage

[35] The ETS Class is not listed separately on page 132 of the COSS, but apparently is included within the Residential Class. Tr. at 325 (Proctor).

increase to the Irrigation Service Class than the Residential Service Class. A just and reasonable outcome is to allocate an approximate 2%, or $199,903, base revenue increase, to the Residential Service Class, including the ETS Service Classes, and a 3%, or $1769, base revenue increase, to the Irrigation Service Class. *See* Exh. 1 to this Recommended Decision. This results in minimal and gradual movement toward unity. Mr. Steinnerd presented persuasive public policy reasons for not further reducing the alleged subsidy to Residential customers in this case.

The additional total $201,672 collected from the Residential, ETS and Irrigation Service Classes should be used to reduce revenues collected from the Large Commercial and Load Management Service Classes, which the COSS shows are significantly subsidizing other Classes. The percentage revenue reductions to the Large Commercial and Load Management Service Classes should be close to the same because the COSS shows that the percentage subsidization by the Classes is close to the same: 17.38% for the Large Commercial Service Class and 16.90% for the Load Management Service Class. Proctor Supp., Exh. 1 at 132. A just and reasonable outcome is to allocate an approximate 1.73%, or $20,000, base revenue decrease to the Load Management Service Class, and an approximate 1.9%, or $181,674, base revenue decrease to the Large Commercial Service Class. *See* Exh. 1 to this Recommended Decision. Again, this results in minimal and gradual movement toward unity.

The Lighting Service Class should not be granted a revenue decrease as requested by the City. While Dr. Blank showed that the COSS overstates the subsidization to the Lighting Service Class, he did not show that this overstatement is sufficient to eliminate the subsidy. *See infra* § X(I)(3)(b). However, because Dr. Blank did show that the $78,195 subsidy is overstated and because it is in the public interest to encourage energy conservation by converting to LED lighting, it is reasonable to not collect a revenue increase from the Lighting Service Class. Therefore, revenues collected from the Lighting Service Class should remain unchanged.

The Class relative rates of return resulting from the Hearing Examiner's recommendations are in Exhibit 4 to this Recommended Decision.

X. RATE DESIGN

A. SEC'S PROPOSED MINIMUM USE CHARGE

SEC proposes a $5.00 monthly "Minimum Use Charge" applicable to its Residential, Small Commercial and Energy Thermal Storage (ETS) Service Classes. SEC's proposed rates state that the charge would only apply to "accounts whose monthly usage falls below the amount required to support distribution and billing related costs." SEC Exh. 1.

The primary driver of the Minimum Use Charge is SEC's approximately 900 members with zero consumption per month. Tr. at 327 (Proctor). The purpose of the Minimum Use Charge is to recover a portion of the customer-related costs not recovered through the monthly Customer Charge from zero and minimum-use customers and reduce alleged intra-class subsidies. Proctor Supp. at 10.

The minimum consumption required to avoid the Minimum Use Charge, by class, is:

Rate Class	kWh
Residential	40
Residential ETS	37
Small Commercial	38

Id. at 12. However, Mr Proctor said:

> SEC did not select a monthly kWh usage level for the determination of the Minimum Use Charge. Rather, SEC selected the proposed $5.00 charge to recover a portion of the customer-related costs, not recovered by the Customer Charge, from zero and minimum-use customers.

Id. at 12-13.

SEC proposes to only recover the Minimum Use Charge from the Residential, Small Commercial and ETS Service Classes because these are the only SEC rate classes that are not charged an additional fixed cost component. Mr. Proctor said that a "raised minimum billing mechanism" currently applies to the Irrigation, Stand-by Service for Self-Generators, Large Commercial and Load Management Service Classes. *Id.* at 10.

Approval of SPS's Minimum Use Charge should be denied. As shown in Sections X(B), (C) and (G), it would be punitive to low-use customers and result in rate shock.

B. RESIDENTIAL SERVICE CLASS

Currently, SEC provides Residential Service under Rate No. 1, its General Service Rate, which includes separate Customer Charges for Residential and Small Commercial Service customers. SEC proposes a new Original Rate No. 6 to apply only to Residential Service. Montoya Direct at 3-4. As of December 31, 2017, SEC served 10,108 Residential Service customers. Proctor Supp., Exh. 1 at 116.

SEC's proposed Residential Service Rate has two components: (1) a Service Charge; and (2) an Energy Charge.

For Residential Service customers, SEC proposes to increase the monthly Customer Charge from $15.00 to $22.75, a $7.75 or 51.67% increase. Additionally, SEC proposes to add the $5.00 Minimum Use Charge to this Rate. For customers subject to the Minimum Use Charge, the fixed charge component of the Rate would increase from $15.00 to $27.75, a $12.75 or 85% increase. SEC proposes to increase the per kWh energy charge from $0.125000 to $0.125190, a .15% increase. *Id.* at 264.

Mr. Proctor explained that SEC proposes the increase in the Customer Charge to move more fixed cost recovery into the fixed monthly charge. The proposed per kWh charge was then set to recover the revenue targeted in the rate change. Proctor Supp. at 17.

Because of SEC's proposed increase to the Customer Charge, the percentage bill increase for a Residential Service customer would decrease as per kWh consumption increases and would be a bill decrease for customers consuming more than 1,220 kWh per month. *Id.* at 23. The percentage bill change would range from an 85% increase for a customer consuming zero kWh per month to a 3.57% decrease for a customer consuming 5,000 kWh per month. For an

average-use SEC Residential Service customer consuming 494 kWh/month, the monthly bill would increase from $79.98 to $84.59, a $4.61 or 5.76% increase. Proctor Supp., Exh. 1 at 264.

Mr. Steinnerd argued that SEC's proposal would burden the Residential Service Class with an unjust share of the proposed increase in operating margins. He asserted that SEC's proposed increase in the Service Charge is not justified by the COSS and would unjustly harm lower income customers who use less power by raising the fixed component of the bill rather than the variable per kWh rate. Steinnerd Direct at 7.

The following table compares SEC's $22.75 proposed Residential Customer Charge to the fixed residential class customer charges of the other New Mexico rural electric cooperatives:

New Mexico Rural Electric Cooperative	Customer Charge
Jemez Mountains Electric Cooperative	$14.00
Farmers Electric Cooperative	$17.50
Columbus Electric Cooperative	$20.00
Lea County Electric Cooperative	$20.00 (single phase)
Kit Carson Electric Cooperative	$20.50
Central New Mexico Electric Cooperative	$21.75
Socorro Electric Cooperative	**$22.75**
Continental Divide Electric Cooperative	$23.50
Duncan Valley Electric Cooperative	$24.00
Navopache Electric Cooperative	$24.84
Central Valley Electric Cooperative	$25.00
Mora San Miguel Electric Cooperative	$25.00
Roosevelt County Electric Cooperative	$25.00
Sierra Electric Cooperative	$25.00
Otero County Electric Cooperative	$26.00
Northern Rio Arriba Electric Cooperative	$27.00
Springer Electric Cooperative	$28.60
Southwestern Electric Cooperative	$30.00
Lea County Electric Cooperative	$35.00 (three phase)
Rio Grande Electric Cooperative	$35.00
Average (excluding SEC's proposed Customer Charge)	**$24.62**

Dasheno Direct, Exh. GSD-2.

Staff recommends approving SEC's proposed Residential Customer Charge. Staff explained that approval would bring SEC's Customer Charge closer to the customer charges of

two of its three peer cooperatives: Central New Mexico Electric Cooperative and Otero County Electric Cooperative. Dasheno Direct at 8.

Mr. Steinnerd's concern that SEC's proposed increase in the Customer Charge would unduly impact low income customers is valid. This Commission in previous cases has considered the interests of below-average use and low income customers in designing residential rates. In Public Service Company of New Mexico's 2015 rate case, the Commission authorized increases in the Residential Class rates designed to (1) mitigate the bill impact on extremely low use customers and (2) ensure that average-use customers received the smallest bill increase. Case No. 15-00261-UT, Corrected Recommended Decision at 226-28 (8-15-16), adopted in relevant part by Final Order Partially Adopting Corrected Recommended Decision (9-28-16). In El Paso Electric Company's 2015 rate case, the Commission ordered all of a minimal revenue increase to the Residential Class to be recovered only through increases in the energy charges with no change in the $7.00 customer charge. The Commission rejected a recommended increase in the customer charge to $9.00, finding that it would hurt low income and average volume users and discourage conservation. Case No. 15-00127-UT, Final Order Partially Adopting Recommended Decision, ¶¶ 129-30 (6-8-16). In Kit Carson Electric Cooperative's 2010 rate case, the Commission rejected Kit Carson's proposed residential class rate design, which would have produced bill decreases for customers using over 700 kWh per month and bill increases ranging from 17.8% to 105% for customers using 205 kWh or less per month. The Commission criticized Kit Carson's proposed rate design because it would result "in its higher usage, and more affluent customers receiving a rate decrease at the expense of its lower-usage and lower income customers." The Commission found that Kit Carson failed to meet its burden of proof of showing that its proposed rate design was just and reasonable. Case No. 10-00379-UT, Final Order Partially Adopting Recommended Decision, ¶¶ 21-31 (9-20-11).

The increased revenue to be collected from the Residential Service Class under the Hearing Examiner's recommendation should be collected in part through a $1.50 or 10%

increase in the Customer Charge and through a $0.006594 or 5.3% increase in the variable energy charge. The 10% increase in the Customer Charge gradually moves the Residential Service Class toward unity while avoiding rate shock. The monthly bill for an average-use SEC Residential Service Customer would increase from $79.98 to $81.51, a $1.53 or 1.91% increase. Recommended Decision, Exh. 2.

The Hearing Examiner's recommended Residential Service Class rates are in Exhibit 2 to this Recommended Decision. The bill changes produced by the Hearing Examiner's recommended rates are in Exhibit 3 to this Recommended Decision.

Because no party or Staff opposed SEC's single kWh energy rate for all levels of use, it should be approved. However, this approval is not precedent. A residential class flat energy rate for all use levels is contrary to the Commission's policy and the policy in the Efficient Use of Energy Act. Case No. 15-00375-UT, Recommended Decision at 84 (10-31-16). When SEC next proposes new or revised rates, it should propose inclining block rates for its Residential Service Class.

C. General Service/Small Commercial Service Class

SEC's General Service/Small Commercial Rate is Rate No. 1. SEC's Small Commercial Service Rate has two components: (1) a Service Charge; and (2) an Energy Charge. As of December 31, 2017, SEC served 1,956 General Service customers. Proctor Supp., Exh. 1 at 116.

For Small Commercial Service customers, SEC proposes to increase the Customer Charge from $25.00 to $32.50, a $7.50 or 30% increase. Additionally, SEC proposes to add the $5.00 Minimum Use Charge to this Rate. For customers subject to the Minimum Use Charge, the fixed charge component of the Rate would increase from $25.00 to $37.50, a $12.50 or 50% increase. SEC proposes to increase the per kWh energy charge from $0.125000 to $0.130784, a 4.63% increase. *Id.* at 264.

Mr. Proctor explained that SEC proposes the increase in the Customer Charge to move more fixed cost recovery into the fixed monthly charge. The proposed per kWh charge was then set to recover the revenue targeted in the rate change. Proctor Supp. at 17.

Because of SEC's proposed increase to the Customer Charge, the percentage bill increase for a Small Commercial Service customer would decrease as per kWh consumption increases and would be a bill decrease for customers consuming more than 6,700 kWh per month. *Id.* at 23. The percentage bill increase would range from 50% for a customer consuming zero kWh per month to 0.27% for a customer consuming 5,000 kWh per month. For an average-use SEC Small Commercial Service customer consuming 868 kWh/month, the monthly bill would increase from $139.50 to $146.02, a $6.52 or 4.67% increase. Proctor Supp., Exh. 1 at 267.

Under the Hearing Examiner's recommendation that revenues collected under SEC's Small Commercial Service Rate not change, SEC's proposed changes in charges under its Small Commercial Service Rate should be denied. The existing Small Commercial Service rates should remain unchanged except as necessary to zero out the DCA and FCA Clauses.

The Hearing Examiner's recommended Small Commercial Service Class rates are in Exhibit 2 to this Recommended Decision. The bill changes produced by the Hearing Examiner's recommended rates are in Exhibit 3 to this Recommended Decision.

D. LARGE POWER SERVICE/LARGE COMMERCIAL SERVICE CLASS

SEC's Large Power/Large Commercial Service Rate is Rate No. 3. As of December 31, 2017, SEC served 172 Large Commercial customers. Proctor Supp., Exh. 1 at 116.

SEC's existing Large Commercial Service Rate has a three-part rate structure with a Customer Charge, Demand Charge per billing kW and Energy Charge per kWh. Proctor Supp. at 18. SEC proposes to change the rate structure of the Large Commercial Service Class to more closely align cost recovery with cost causation by taking into account a customer's load factor. *Id.* at 13-14.

Currently, the Demand Charge recovers purchased power capacity and distribution wires capacity costs. SEC's proposal would move recovery of purchased power capacity-related costs to an "hours-use" energy block structure that charges a declining per kWh rate as a customer consumes more kWh per kW. The per billing kW rate would decrease from $15.00 to $8.50 to reflect moving recovery of purchased power capacity-related costs from the Demand Rate to the Energy Rate. The Customer Charge would increase from $75.00 to $85.00. *Id.* at 19, 22-23; Proctor Supp., Exh. 1 at 269. SEC says that its proposed hours-use rate design would reduce the rate impact for both low-load factor and high-load factor customers. Proctor Supp. at 19.[36]

Approximately 20% of SEC's Large Commercial Service customers would experience a bill decrease under SEC's proposed rates. Tr. at 61-62 (Herrera). Under SEC's proposed rate design, customers with 70% or higher load factors would experience a bill decrease. Customers with 30% and 50% load factors would experience 12% and 8% bill increases, respectively. A 10% load factor customer would receive an 11% bill decrease. Proctor Supp. at 24; Proctor Supp., Exh. 1 at 269.

Staff witness Eschberger explained that an hours-use demand rate or hours-use of demand (HUD) rate charges per kWh rates, but uses demand to assign energy to the blocks. She explained that the HUD is a calculated number that represents the hours that a customer uses its maximum billing demand. It is used to determine a customer's load factor:

HUD = kWh/kW

Load factor = HUD/hours in billing cycle

Eschberger Direct at 3.

[36] Load factor expresses how much energy was used in a time period versus how much energy would have been used if the power had been left on during a peak demand period. If all electric loads are turned on fully and never turned off, the load factor is 1.0 or 100%. A higher/"good" load factor (a higher percentage) implies a more constant rate of electrical use because kW/demand is held to a minimum relative to overall use. Case No. 15-00261-UT, Corrected Recommended Decision at 231. High load factor customers use their maximum kW demand more efficiently by using more kWh per kW. A customer whose use increases the system load factor allows the overall cost of purchased power to be less. *Proposed Tariff Filing by City of Newberry*, Docket No. 910354-EM, 1991 WL 11686799 (Fla. P.S.C. 8-21-91).

Ms. Eschberger said that SEC witness Proctor "took NMPRC staff through the process of how the Large Commercial Service rate was developed, where the numbers came from, and what calculations were involved." She said that Staff is satisfied that Mr. Proctor's calculations used to develop the rate design are correct and that the HUD rate schedule is not a declining block energy rate schedule. However, she said that the HUD rate schedule is extremely complex, even to senior Staff members. In fact, she said that because of the complexity of the method that SEC used to develop the Large Commercial Service rate, she did not attempt to summarize it in her prefiled testimony. She surmised that the average Large Commercial Service customer would not have the resources to understand the proposed rate structure and therefore would not be able to adjust its energy consumption and peak demand sufficiently to respond to it. *Id.* at 9-10.

Ms. Eschberger said that Staff considers SEC's proposed HUD rate design to be "unnecessarily complicated and difficult to understand." She quoted the first of eight criteria for a sound rate design stated in Bonbright's *Principles of Public Utility Rates*, which is "[t]he related 'practical' attributes of simplicity, understandability, public acceptability, and feasibility of application." *Id.* at 10-11. She concluded that "Staff believes that Bonbright's criterion of simplicity would better serve customers." *Id.* at 11. She believes that Large Commercial Service customers would more easily understand and respond to SEC's existing Large Commercial Service rate design. Tr. at 612-13.

Mr. Proctor responded that while some education would be required to explain how billing determinants are calculated under the proposed HUD rate, its Large Commercial Service customers are unlikely to want to understand the details of purchased power capacity versus distribution capacity cost recovery. Proctor Rebuttal at 34-35. He declined to confirm that SEC's customers understand how SEC proposes to bill them under the HUD rate. Tr. at 255. Moreover, Mr. Proctor appeared to agree that, absent a capital investment of a customer to replace motors and the like, customers would not be able to adjust operations to minimize electricity costs under the HUD rate. *Id.* at 261-62.

Mr. Proctor said that the following New Mexico rural electric cooperatives have HUD rates: Central Valley Electric Cooperative, Inc.; Farmers Electric Cooperative, Inc.; and Roosevelt County Electric Cooperative, Inc. Proctor Rebuttal at 34.

NM Tech supports the proposed HUD rate design, but recommends decreasing the energy rates in the first two blocks to produce its proposed revenue decrease for the Large Commercial Service Class. Reyes Rebuttal at 5.

SEC's proposed HUD rate design should be rejected. Staff persuasively demonstrates that the proposed rate design is unnecessarily complicated and difficult to understand. SEC should continue to use its current Large Commercial Service rate design. Other cooperatives' use of a HUD rate design is not precedent because SEC did not show that those HUD rate designs were affirmatively approved by the Commission. Rural electric cooperative rates which become effective by operation of law shall not be construed to bear Commission approval. 17.9.540.9(E) NMAC.

To effectuate the Hearing Examiner's recommendation to decrease revenues collected from the Large Commercial Service Class, the charges in SEC's existing Large Commercial Service rate structure should be changed in a manner that, to the extent possible, produces equivalent bill decreases for all Large Commercial Service customers.

The Hearing Examiner's recommended Large Commercial Service Class rates are in Exhibit 2 to this Recommended Decision. The bill changes produced by the Hearing Examiner's recommended rates are in Exhibit 3 to this Recommended Decision.

E. IRRIGATION SERVICE CLASS

SEC's Irrigation Service Rate is Rate No. 2. As of December 31, 2017, SEC served 43 Irrigation Service customers. Proctor Supp., Exh. 1 at 116.

The current Irrigation Service Rate has two components: a Horsepower Charge and an Energy Charge. It has no customer charge. SEC proposes to add a $10.00 monthly Customer

Charge to recover some customer-related costs through a fixed monthly charge. SEC proposes two changes to the Horsepower Charge: (1) to increase the Charge; and (2) to change from an annual to a monthly Horsepower Charge. SEC proposes no change to the Energy Charge. Proctor Supp. at 19-20; Proctor Supp., Exh. 1 at 270.

The existing annual Horsepower Charge, charged only in January, can be quite large. SEC proposes to break down that single annual charge into 12 monthly charges to reduce the impact. Tr. at 331 (Proctor).

Under SEC's proposed rates, low-load factor Irrigation Service customers would experience high bill increases because of the addition of the Customer Charge and the increase in the Horsepower Charge. *Id.* at 332 (Proctor). For example, 10% load factor customers would experience bill increases from 23.36% to 86.89% depending on a customer's billing horsepower and kWh. In comparison, 45% load factor customers would experience bill increases from 6.49% to 33.39% depending on a customer's billing horsepower and kWh. Proctor Supp., Exh. 1 at 270-71. Mr. Proctor acknowledged that the proposed bill increase for low-load factor Irrigation Service customers is "on the border" of just and reasonable. Tr. at 332.

SEC's proposals to add a Customer Charge for the Irrigation Service Class and to break down the single annual Horsepower Charge into 12 monthly charges are reasonable and should be approved.

The increased revenue to be collected from the Irrigation Service Class under the Hearing Examiner's recommendation should be collected by adding a new $5.00 Customer Charge to the Irrigation Service Rate and by increasing the variable energy charge by 4.21%.

The Hearing Examiner's recommended Irrigation Service Class rates are in Exhibit 2 to this Recommended Decision. The bill changes produced by the Hearing Examiner's recommended rates are in Exhibit 3 to this Recommended Decision.

F. LOAD MANAGEMENT SERVICE CLASS

SEC's Load Management Service Rate is Rate No. 19. As of December 31, 2017, SEC served one Load Management Service Customer. Proctor Supp., Exh. 1 at 116.

The current Load Management Service Rate has three components: a Service Charge; a Demand Charge; and an Energy Charge. SEC proposes to increase the Service Charge from $500.00 to $600.00, a $100 or 20% increase. SEC proposes to increase the Demand Charge from $15.00 to $17.50, a $2.50 or 16.67% increase. SEC proposes to increase the Energy Charge from $0.073000 to $0.079202, a $0.006202 or 8.5% increase. *Id.* at 272-73.

The charges in SEC's existing Load Management Service Rate should be changed to effectuate the Hearing Examiner's recommendation to decrease revenues collected from the Load Management Service Class.

The Hearing Examiner's recommended Load Management Service Class rates are in Exhibit 2 to this Recommended Decision. The bill changes produced by the Hearing Examiner's recommended rates are in Exhibit 3 to this Recommended Decision.

G. ENERGY THERMAL STORAGE SERVICE CLASS

SEC currently has one Energy Thermal Storage (ETS) Rate, which is Rate No. 15. SEC proposes to cancel Rate No. 15 and replace it with two new Rates: (1) Original Rate No. 8, Residential Service with ETS; and (2) Original Rate No. 9, General Service with ETS. As of December 31, 2017, SEC served 164 residential ETS customers and 11 or 12 small commercial ETS customers. Proctor Supp., Exh. 1 at 116; Eschberger Direct at 13.

An ETS heater is an electrical heater that stores heat during the evening and releases it during the day. Its purpose is to store heat during off-peak periods when electricity is less expensive and release energy during on-peak periods when electricity is more expensive. Eschberger Direct at 11.

The current ETS Rate has a $16.00 Customer Charge, a $0.155/kWh on-peak Energy Charge and a $0.08/kWh off-peak Energy Charge.

SPS's proposed rates would increase all three components of the current ETS Service Rate. For both Residential Service and General Service ETS customers, (i) the Customer Charge would increase from $16.00 to $22.75, a $6.75 or 42.2% increase; (ii) the On-Peak Energy Charge would increase from $0.155000 per kWh to $0.173600 per kWh, a $0.018600 or 12% increase; and (iii) the Off-Peak Energy Charge would decrease from $0.080000 per kWh to $0.075035 per kWh, a $0.004965 or 6.21% decrease. Additionally, SEC proposes to add the $5.00 Minimum Use Charge to this Rate. Proctor Supp., Exh. 1 at 265, 273. For customers subject to the Minimum Use Charge, the fixed charge component of the Rate would increase from $16.00 to $27.75, an $11.75 or 73.4% increase.

Staff compared, for residential and small commercial customers, SEC's proposed ETS variable energy charges and SEC's proposed non-ETS variable energy charge. Because the ETS rate has two variable energy charges (on-peak and off-peak), Staff calculated a weighted ETS variable energy charge, using 60% on-peak use and 40% off-peak use, which is the average residential and small commercial ETS customer use according to SEC. For residential customers, SEC's proposed residential ETS weighted variable energy charge would be about 7% higher than its proposed residential non-ETS variable energy charge. For small commercial customers, SEC's proposed small commercial ETS weighted variable energy charge would be about 3% higher than its proposed small commercial non-ETS variable energy charge. Eschberger Direct at 14-15; Exh. 1 to Eschberger Direct.

Residential ETS customers consume significantly more energy than residential non-ETS customers: the average monthly use for a residential ETS customer is 828 kWh versus 494 kWh for a residential non-ETS customer. Under SEC's proposed rates, residential ETS customers would experience average monthly bills 57.9% higher than the monthly bills of residential non-ETS customers ($133.57 compared to $84.59) because of ETS customers' greater energy use and

the higher weighted variable energy charge that would apply to ETS customers. Eschberger Direct at 15-16.

Staff believes that the 7% difference between SEC's proposed residential ETS weighted variable energy charge and its proposed residential non-ETS variable energy charge is too high because it provides no incentive for customers to choose the ETS rate. Tr. at 613 (Eschberger). Staff recommends that SEC recalculate the proposed residential ETS variable energy charges so that the weighted ETS variable energy charge is closer to SEC's proposed residential non-ETS variable energy charge. Eschberger Direct at 15-16.

In Rebuttal Testimony, Mr. Proctor said, "Members choosing to be served on the ETS rate should not have an equivalent or lower rate without modifying behavior and shifting energy from on peak to off peak periods." Proctor Rebuttal at 36. However, in its Posthearing Response Brief, SEC said that it can recalculate the residential ETS energy rates using the weighted average provided by Ms. Eschberger. SEC's Posthearing Response Brief at 2.

SEC's proposal to cancel Rate No. 15 and replace it with Original Rate Nos. 8 and 9 should be approved. The increased revenue to be collected from the ETS Service Classes under the Hearing Examiner's recommendation should be collected by increasing the Customer Charge from $16.00 to $17.50, a $1.50 or 9.4% increase, and by increasing the variable energy charge by $0.007650 or 4.9%. The 9.4% increase in the Customer Charge gradually moves the ETS Classes toward unity while avoiding rate shock. Consistent with Staff's recommendation, the residential ETS weighted variable energy charge — $0.13265 per kWh— closely matches the $0.131594 per kWh Residential Service non-ETS variable energy charge.

The Hearing Examiner's recommended ETS Service Class rates are in Exhibit 2 to this Recommended Decision. The bill changes produced by the Hearing Examiner's recommended rates are in Exhibit 3 to this Recommended Decision.

H. STANDBY SERVICE FOR SELF-GENERATORS SERVICE CLASS

SEC's Standby Service for Self-Generators Service Rate is Rate No. 14. This Rate is available to consumers who have their own generation and use SEC's standard service to provide them stand-by service for general power, lighting or water and sewage pumping service and require more than 1,000 kW per month of stand-by service. Proctor Supp., Exh. 1 at 350.

SEC apparently proposes to change the rate structure of this Rate. *See* Proctor Supp., Exh. 1 at 262. However, SEC provided no prefiled testimony to support its proposed change, and no testimony at the hearing addressed this Rate. Accordingly, SEC has not met its burden of proof to change this Rate and, consistent with the Hearing Examiner's recommendation to grant SEC no revenue increase, the existing Rate No. 14 charges should not be changed.

I. LIGHTING SERVICE CLASSES

1. SEC's Proposed Rates

SEC currently has two lighting rates: Rate Nos. 4 and 5. Rate No. 4 is SEC's Private Area Lighting Service Rate. Rate No. 5 is SEC's Street and Interstate Freeway Lighting Service Rate. SEC proposes to consolidate Rate Nos. 4 and 5 into a revised Rate No. 4 called the "Area Lighting Service" Rate. SEC determined that two separate tariffs for lighting are not necessary. City Exh. 3. SEC's proposed consolidation is not opposed. As of December 31, 2017, SEC served 79 Rate No. 4 customers and 85 Rate No. 5 customers. Proctor Supp., Exh. 1 at 116.

Rate Nos. 4 and 5 charge a monthly per-fixture charge for various High Pressure Sodium (HPS) and Mercury Vapor (MV) lights. A monthly per fixture charge is necessary for lights that are not metered. SEC proposes to increase the existing per fixture charges, prohibit new installations of MV lights and add rates for Light Emitting Diode (LED) lights.

2. *The City's Arguments*

The City proposes lighting rates based on the assumption that SEC is granted no revenue increase. Adopting the City's proposed lighting rates would produce a $94,837 decrease in revenues collected from the Lighting Service Classes. Blank Rebuttal at 3, Table 1. SEC's COSS shows that, under SEC's existing rates, the Lighting Service Classes are being subsidized in the amount of $78,195. Proctor Supp., Exh. 1 at 132. The City disagrees and argues that based on Dr. Blank's challenges to SEC's lighting rates, the Lighting Service Classes are not being subsidized. Tr. at 530-31. Dr. Blank proposes that the reduction in revenue collected from the Lighting Service Classes be offset by increasing revenues collected from the Residential and Irrigation Service Classes. In support of his proposed lighting rates, Dr. Blank argues that Mr. Proctor made five errors in developing SEC's proposed lighting rates.

The table below compares the City's and SEC's proposed Area Lighting Service rates.

Table 6.

Summary of City Recommendations for Area Lighting Service Rates

Line No.	LED:	31 Watt LED	50 Watt LED	115 Watt LED	199 Watt LED
1					
2	SEC Proposed Rates	$ 13.70	$ 13.99	$ 17.84	$ 24.84
3	City Recommended Rates	$ 3.94	$ 5.31	$ 8.95	$ 13.34
4	Difference	$ (9.76)	$ (8.68)	$ (8.89)	$ (11.50)
5	Non-LED:		150 Watt HPS	250 Watt HPS	400 Watt HPS
6	Current SEC Streetlight Rates		$ 12.25	$ 15.50	$ 24.25
7	SEC Proposed Rates		$ 13.99	$ 17.84	$ 24.84
8	City Recommended Rates		$ 8.77	$ 11.85	$ 16.85
9	Difference		$ (5.22)	$ (5.99)	$ (7.99)
10	Non-LED:		175 Watt MV	250 Watt MV	400 Watt MV
11	Current SEC Streetlight Rates		$ 14.00	$ 16.00	$ 23.25
12	SEC Proposed Rates		$ 15.99	$ 18.42	$ 27.69
13	City Recommended Rates		$ 10.75	$ 12.43	$ 19.70
14	Difference		$ (5.24)	$ (5.99)	$ (7.99)

Blank Direct at 17.

a. LED-Specific Lighting Rates

Mr. Proctor used an embedded COSS to calculate SEC's proposed rates. An embedded COSS divides recorded historical investments and current operating expenses among customer classes. Because Mr. Proctor used an embedded COSS, his proposed new LED rates are not LED-specific cost-based rates. Mr. Proctor studied the cost of providing service to lighting fixtures using historic data and assumed that the cost of providing service to new LED fixtures is comparable to the cost of providing service to non-LED fixtures. Tr. at 334 (Proctor). SEC's proposed LED rates "are equivalent rates to the comparable non-LED fixture." Proctor Rebuttal

at 13.[37] Mr. Proctor said, "This is a common approach for establishing LED offerings in lieu [of] existing non-LED." *Id.*

Mr. Proctor admitted that SEC's LED rates are not cost-based. *Id.* at 17 ("If the City's position is for the Lighting rate to be cost-based, I recommend . . . ."). He said that it is not necessary to create an LED rate based on higher LED fixture costs and lower LED energy consumption. *Id.* at 15. He said that, when previously designing LED lighting rates, the lower consumption associated with LED lights and the higher cost of LED lights have resulted in a wash. Tr. at 341.

In response to a City discovery request, Mr. Proctor provided an exhibit (Exhibit 6) in which he calculated LED-specific cost-based rates. City Exh. 3. SEC does not recommend the rates in Exhibit 6, and Mr. Proctor said that LED-specific cost-based rates are inconsistent with his embedded COSS. Proctor Rebuttal at 15. Mr. Proctor's proposed LED rates were not developed using the method in Exhibit 6. Tr. at 339 (Proctor).

In his Direct Testimony, Dr. Blank stated that Mr. Proctor used a "bottoms up approach" to develop LED-specific cost-based rates. Blank Direct at 12. At the hearing, Dr. Blank explained that he mistakenly thought that Exhibit 6 was a workpaper in support of SEC's proposed LED rates. Therefore, Dr. Blank used Mr. Proctor's Exhibit 6 as a starting point to develop his revised LED lighting rates. Tr. at 544 (Blank).

The New Mexico Supreme Court has made clear that public utility rates must be cost-based. In *Attorney General v. New Mexico Public Regulation Commission*, the Court held that the Commission's adoption of adder rates created under the Efficient Use of Energy Act (EUEA) was arbitrary and unlawful in that they were not evidence-based, cost-based, nor utility specific. 2011-NMSC-034, ¶ 18, 150 N.M. 174. In doing so, the Court found that the balancing test to determine just and reasonable rates is the same for rates created under the EUEA and the Public

[37] "Comparable" means comparable in terms of illumination. Tr. at 555 (Blank).

Utility Act (PUA) and that rates created under the EUEA cannot "ignore the cost-based requirement of rates created under the PUA." *Id.*, ¶ 12.

Mr. Proctor's argument that Area Lighting is a service and should be treated differently than cost-based rates lacks merit. All rates are costs for a utility providing service. Most of SEC's rates have the word "service" in their titles: *e.g.*, the "General Service" rate; the "Irrigation Service" rate; the "Private Area Lighting Service" rate; and the "Commercial Service" rate. Mr. Proctor does not argue that these latter rates do not have to be cost-based because they are costs of service.

Mr. Proctor's Exhibit 6 shows that it is possible to develop LED-specific cost-based rates even though the remainder of SPS's proposed rates are based on an embedded COSS. LED lighting technology is sufficiently different from HPS and MV lighting technologies to justify a separate COSS. It is common knowledge that residential LED lights — especially ENERGY STAR rated products — use at least 75% less energy, and last 25 times longer, than incandescent lighting while providing the same brightness of the incandescent lights they replace. City's Initial Posthearing Brief at 19. Mr. Proctor's Exhibit 6 should be the starting point for development of a separate COSS for LED lighting.

b. Estimated kWhs

SEC uses a Debt Adjustment Clause (DCA) and a Fuel and Purchased Power Cost Adjustment Clause (FCA). SEC's DCA flows through to consumers increases or decreases in SEC's cost of debt on a monthly basis by multiplying a per kWh DCA factor by a customer's monthly kWh use. SEC's FCA flows through to consumers increases or decreases in SEC's cost of purchased power on a monthly basis by multiplying a per kWh FCA factor by a customer's monthly kWh use. Proposed Rate No. 4 states assumed monthly kWhs of consumption for each lighting fixture. If lights are not metered, kWhs must be estimated based on the wattage and expected hours used for each light. The estimated or assumed kWhs per fixture are multiplied

by the DCA factor and the FCA factor monthly to determine the increases or decreases in SEC's costs of debt and purchased power to be passed on to its lighting customers. Tr. at 549 (Blank). The assumed kWhs are also used to calculate the power cost component assigned to lighting customers that is embedded in the rate design. Blank Direct at 10; Tr. at 335 (Proctor); 549 (Blank).

The assumed kWhs per fixture in SEC's proposed Rate No. 4 are the same as in its existing Rate Nos. 4 and 5. These kWh amounts predate SEC's existing management, and Mr. Proctor said it is unclear whether they are estimated amounts or based on actual metered results. Proctor Rebuttal at 10-11.

The City argues that the kWhs assumed by SEC are inconsistent with official daily and average annual duration of darkness as determined by the Astronomical Applications Department of the U.S. Naval Observatory. Blank Direct at 7. SEC's proposed lighting rates assume that street lights in Socorro operate 12 hours per day. Pineda Direct at 2. Dr. Blank downloaded the duration of darkness in Socorro, New Mexico for each day of the year from the Astronomical Applications Department and converted the data into hours of darkness per day. The daily average for the year is 11.82 hours or 354.6 hours per month. Applying these averages to the wattage of each fixture produces estimated kWhs per month. Blank Direct at 9.

The table below compares SEC's and the City's assumed kWhs per fixture.

Table 1.	Average Billing Period Consumptions per Fixture			
Line No.	Fixture	SEC Proposed Monthly kWh	City Corrected Monthly kWh	Difference Monthly kWh
1	Non-LED			
2	150-watt HPS	70	53.2	(16.8)
3	250-watt HPS	110	88.7	(21.3)
4	400-watt HPS	176	141.8	(34.2)
5	175-watt MV	78	62.1	(15.9)
6	250-watt MV	110	88.7	(21.3)
7	400-watt MV	180	141.8	(38.2)
8	LED			
9	31-watt LED	11	11.0	(0.0)
10	50-watt LED	18	17.7	(0.3)
11	115-watt LED	41	40.8	(0.2)
12	199-watt LED	72	70.6	(1.4)

Id.

The City argues that the results in the above table show that SEC overestimated the monthly kWh consumption for each fixture except one. Dr. Blank contends that SEC's overestimations cause excessive amounts of debt and power costs to be collected from lighting customers and that his corrected monthly kWhs must be used in Rate No. 4. *Id.* at 9-10.

Mr. Proctor responded that use of Astronomical Applications Department data to estimate consumption for fixtures is common when actual data is unavailable. Proctor Rebuttal at 10-11. In fact, Mr. Proctor said that his consulting firm has used that data. Tr. at 237. However, SEC opposes Dr. Blank's proposed kWhs because the current kWh amounts appear to be within reason compared to amounts used by other New Mexico utilities. Mr. Proctor attached to his Rebuttal Testimony the assumed kWhs in tariffs of other New Mexico utilities. Proctor Rebuttal, Exh. 17. Mr. Proctor did not know whether the kWhs in these tariffs are based on actual metered data or are estimates. Tr. at 337.

Dr. Blank's assumed kWhs should be used in Rate No. 4. Because actual metered data is not available, use of Astronomical Applications Department data is appropriate, as acknowledged by Mr. Proctor, and is more accurate than the assumed kWhs in the tariffs of other New Mexico utilities. However, as explained in *infra* Section X(I)(3)(b), Dr. Blank's assumed kWhs should only be used to determine the increases or decreases in SEC's cost of debt and purchased power to be passed on to its lighting customers through the DCA and FCA Clauses. Dr. Blank's assumed kWhs should not be used to recalculate the power cost component that is embedded in the rate design.

c. Installation Cost

In a discovery response, SEC said that it applies Section IV of its Line Extension Rule — Second Revised Rule No. 12 — to the cost of new lighting installations. City Exh. 2. Section IV states:

> IV. Service to Security Lights:
>
> A. The Cooperative will install security lights on the following terms:
>
> 1. At no cost to the applicant if the Cooperative investment does not exceed the cost of a wooden pole, security light fixture, and 125 feet of service wire.
>
> 2. With the Applicant making a Contribution-In-Aid-to Construction of all investment required in excess of the costs defined in Section IV.A.1. above.

City Exh. 5.

Mr. Herrera said that under Rule No. 12, when a *new* lighting fixture is installed, SEC pays the costs of a wooden pole, security light fixture and 125 feet of service wire, and the customer pays costs exceeding that investment, including labor and truck costs. Tr. at 105-06. Mr. Herrera indicated that SEC applies Section IV to all new lighting installations including lights that might not be "security" lights. *Id.* at 105 (Herrera).

Replacement of an existing light is an "upgrade," not a line extension, so Rule No. 12 does not apply to replacements of existing lights. *Id.* at 127-28, 381 (Herrera). The evidence

relating to cost responsibility for replacement of an existing light was confusing. In response to a discovery request, when asked to state SEC's policy regarding cost responsibility when a lighting customer requests replacement of an existing light with a different wattage light, Ms. Montoya responded, "The cost of the replacement light and install labor would be invoiced to the customer and treated as CIAC [Contributions in Aid of Construction] on the Work Order." City Exh. 2. However, at the hearing, Mr. Herrera said that SEC would pay to replace a 100 watt HPS light with a 200 watt HPS light. Tr. at 107.

With respect to replacing existing lights with LED lights, Mr. Herrera said that a customer would not be charged for the replacement cost if the existing light is at the end of its useful life and needs to be replaced. If the existing light is not at the end of its useful life, Mr. Herrera said that SEC would replace the existing light if the customer pays for labor and truck costs and the cost of the LED fixture. *Id.* at 107-09.

Mr. Proctor said that cooperatives generally, on an annual basis, calculate a line extension allowance amount, and customers pay any cost exceeding that amount. *Id.* at 251-52. When asked whether SEC has calculated such an allowance, Mr. Herrera said that the allowance for installation of lights to a residential customer is $600. *Id.* at 365. However, he did not quantify an allowance for installation of lights to a commercial customer such as the City. *See id.* at 380-81.

SEC's alleged application of its Line Extension Rule to new lighting installations seems inconsistent with its existing Rate No. 5, titled "Street and Interstate Freeway Lighting Service." Rate No. 5 says that it is applicable to "city and town street lighting under agreement with the governmental body[.]" Proctor Supp., Exh. 1 at 317. Rate No. 5 states:

> Installation of all lamps, poles and fixtures shall be at the expense of the Utility, provided however, that service to any location where more than one pole and service is required, the governmental body shall pay to the Utility the cost in place of the additional required facilities. All such facilities shall be and remain the property of the Utility.

Id. at 320. This provision indicates that SEC will pay the entire cost of a lighting installation unless more than one pole and service is required.

The City entered into contracts with SEC under Rate No. 5. The City produced several invoices that it received from SEC for new lights. One such invoice, dated March 23, 2017, itemizes charges for "Labor," "Service Truck," and "Bucket Truck[38]" and "L10.400," which apparently is a type of security light. The other invoices are for four new security lights on Chaparral Drive. For each of the four lights, the City received an invoice with itemized charges for "Labor," "Service Truck," and "Bucket Truck." Blank Direct, Exh. LB-2. Also produced by the City with the invoices are four documents titled "Private Security Light Contract," which apparently are for the four security lights on Chaparral Drive. Each Contract contains the following language:

> Socorro Electric Cooperative shall provide a One Security Light Fixture, 120 feet of wire and one pole (if needed), all of which shall remain the property of the Cooperative. All labor and Trucks install cost will be billed to the members.

Id. The language in the Contract that requires the customer to pay the costs of labor and trucks seems inconsistent with the language in Rate No. 5 that indicates that SEC will pay the entire cost of installation. Also, charging the City for the cost of a lighting fixture in the March 23, 2017 invoice is inconsistent both with Rate No. 5 and the Line Extension Rule.

Dr. Blank said that SEC's exclusion from the allowance of costs of labor and trucks is inconsistent with how line extension rules are typically designed and Rate No. 5. He interprets the language in Rule No. 12 that states that SEC will install security lights *"at no cost"* (emphasis added) to mean that the customer pays none of the installed cost, including the costs of labor and trucks. Tr. at 561-64.

In his Rebuttal Testimony, Mr. Proctor said that when a SEC member pays for material such as a lighting fixture, SEC records the fixture in its accounting records as an asset owned by

[38] A bucket truck is a truck equipped with an extendable, hydraulic boom carrying a large bucket for raising workers to elevated areas.

SEC with the member contribution offsetting all or some portion of the cost. Proctor Rebuttal at 11. At the hearing, Mr. Proctor said that this is his understanding based on conversations with SEC and that he could not verify that. Tr. at 241, 336, 355.

SEC does not book Contributions in Aid of Construction (CIAC) in a separate account. City Exh. 2. In response to a discovery request, Ms. Montoya said that, in accordance with the Rural Utilities Service (RUS) Uniform System of Accounts (USoA), CIAC that is received by SEC is applied to the cost of the work order, which reduces the cost that is booked to plant. *Id.*

As a RUS borrower, SEC is required to comply with the RUS USoA — Electric. Section 1767.16 of the USoA is titled "Electric Plant Instructions." Subsection 1767.16(b)(4) states:

> The electric plant accounts shall not include the cost of other value of electric plant contributed to the company. Contributions in the form of money or its equivalent toward the construction of electric plant shall be credited to accounts charged with the cost of such construction. Plant constructed from contributions of cash or its equivalent shall be shown as a reduction to gross plant constructed when assembling cost data in work orders for posting to plant ledgers of accounts. The accumulated gross costs of plant accumulated in the work order shall be recorded as a debit in the plant ledger of accounts along with the related amount of contributions concurrently be recorded as a credit.

7 C.F.R. § 1767.16(b)(4). This Section apparently does not require a RUS borrower to record contributions in a CIAC account, although it does require contributions to be recorded as a credit in the plant ledger.

Dr. Blank said that it is unclear whether SEC has been offsetting the cost of lighting plant by CIAC. He has seen no evidence of such an offset because, in response to a discovery request, SEC provided no ledger or accounting entries to show that it has followed the RUS Rule. Tr. at 547. He said that if SEC has not been offsetting the cost of lighting plant by CIAC, then SEC has been double-recovering for the cost of lighting because SEC recovers depreciation and interest expense for the installation portion of the lighting investment through its lighting rates. Blank Direct at 7. To address his concern, Dr. Blank recommends approval of a separate installation charge in Rate No. 4 to be recovered from customers at the time of installation and removal of the cost of installation from the lighting rates. *Id.* at 10.

Dr. Blank recommends a $219 per fixture installation charge to apply to the installation of all lights, both LED and non-LED. In his Exhibit 6 to SEC's discovery response, Mr. Proctor incorporated a $234.87 per fixture installation cost in the LED lighting rates. City Exh. 3. Dr. Blank's recommended $219 per fixture installation charge is a $3.22 decrease from Mr. Proctor's $234.87 per fixture installation cost. Blank Direct at 11.

Dr. Blank's recommendation would require removing the installation cost from the lighting rates. To accomplish this for the non-LED lighting rates, he reduced those rates by $3.22. He calculated the $3.22 reduction by multiplying a $200 assumed installation cost invoiced to customers in the past by 19.31%, which is the ratio of expenses allocated to the Lighting Service Classes to plant allocated to the Lighting Service Classes, used in SEC's COSS. *Id.* at 11. To remove the installation cost from the LED lighting rates, Dr.Blank removed the $234.87 installation cost incorporated in the LED lighting rates in Mr. Proctor's Exhibit 6. *Id.* at 12.

Dr. Blank further recommends that the Commission order SEC to disclose how it has accounted for lighting installation payments by customers including how the amounts have been booked, the amounts booked to plant and whether the amounts have been booked as CIAC. He additionally recommends that the Commission order SEC on a going forward basis to book customer payments for lighting installations as CIAC. *Id.*

Mr. Proctor objected to Dr. Blank's recommendation to include in Rate No. 4 an installation fee applicable to all installations because he said the cost of installation can vary greatly from location to location even within the City because of factors such as access and traffic control. Proctor Rebuttal at 14.

Among New Mexico's three investor-owned electric utilities (IOUs), there is no consistent method of recovering lighting installation costs. Under Public Service Company's Rate No. 20 (Integrated Customer Streetlighting and Floodlighting Service), customers pay installation costs that exceed allowances set forth in Rate No. 20. Under Southwestern Public

Service Company's Rule No. 16 — its Line Extension Rule — customers pay installation costs that exceed an allowance equal to the expected revenue for the requested streetlight type multiplied by a factor of 3.0. Under El Paso Electric Company's Rate No. 11 (Street Lighting Service Rate), customers pay installation costs for service to a location that exceeds 150 feet. What is consistent among the three IOUs, however, is that the installation cost is not the same for each installation. "Every installation is different, so the costs are different." Staff Exh. 4.

Dr. Blank's request for approval of an installation charge that would apply to all installations should be rejected because installation costs vary by location. However, the City's concern that SEC has been double-counting for the cost of lighting installations is valid in light of SEC's inability to provide evidence substantiating its representation that CIAC is applied to offset the cost of lighting plant. This concern can best be addressed in two ways. First, SEC's Line Extension Rule should be clarified to state that SEC will install lights at no cost to the customer, including but not limited to no labor and truck costs, if SEC's investment does not exceed the cost of a wooden pole, security light fixture and 125 feet of service wire. Second, SEC should be required to file in this docket semiannually, beginning on January 1, 2020 and through January 1, 2022, its plant ledgers of accounts for lighting for the preceding six months, showing the recording of any contributions in excess of the line extension allowance as credits to the cost of plant.

City Procurement Officer and IT Director Pineda said that the apparent fear that the City will want all non-metered lights converted to LED lights "is probably not true." The City has identified areas where it would initially seek to convert non-LED lights to LEDs, but a conversion would be gradual. Tr. at 582 (Pineda).

SEC should revise Section IV of its Line Extension Rule to state:

IV. Installation of New Lights:

A. The Cooperative will install new lights on the following terms:

1. At no cost to the applicant if the Cooperative investment does not exceed the cost of labor, trucks, a wooden pole, security light fixture and 125 feet of service wire.

2. With the Applicant making a Contribution-In-Aid-of Construction of all investment required in excess of the costs defined in Section IV.A.1. above.

SEC should revise its Proposed Rate No. 4 to include the following language:

SEC shall install new lights at no cost to the Customer if the Cooperative investment does not exceed the cost of labor, trucks, a wooden pole, security light fixture, and 125 feet of service wire. Any contribution in aid of construction (CIAC) paid by the Customer in excess of this allowance shall be credited by SEC in its plant ledger of accounts.

If an existing light needs to be replaced, SEC shall pay for the cost of installing a replacement light.

If a customer seeks to replace an existing light and the light does not need to be replaced, Customer shall pay the cost for installing a replacement light as CIAC. The replacement light may be a LED light. SEC shall credit the CIAC in its plant ledger of accounts. The cost for replacing an existing light to be paid by the customer is labor and truck costs and the cost of the new light fixture.

d. Contribution to Peak Demand

SEC's COSS recognizes that lighting customers do not contribute to the Tristate system peak during the following five months: May, June, July, August and September. Blank Direct at 13. Dr. Blank argues that SEC's lighting customers also do not contribute to the Tristate system peak during February and October. His argument is based on his comparison, for 2017, of Tristate system monthly peak dates and times and billing to SEC to sunset times on the same days, as shown in the following table:

Table 3.

2017 Test Year Peak Times and Sunset Times

Date of System Peak*	Time of System Peak*	SEC Peak Demand (kW)*	Time of Sunset**	Lights On?
Jan 26 17	1930	28,987	1831	Yes
Feb 13 17	1830	27,253	1849	No
Mar 1 17	2100	24,937	1903	Yes
Apr 19 17	2030	23,781	1941	Yes
May25 17	1700	25,235	2009	No
Jun 19 17	1800	33,261	2021	No
Jul 6 17	1700	33,211	2023	No
Aug 9 17	1600	31,668	2002	No
Sep 11 17	1600	29,654	1921	No
Oct 4 17	1630	24,954	1849	No
Nov 28 17	1830	23,256	1759	Yes
Dec 11 17	2000	28,126	1759	Yes

*Source: Tristate 2017 invoices to SEC.

**Source: http://www.timebie.com/sun/socorronm.php

Id.

Dr. Blank says that the table above shows that there were seven monthly peak times when it was still daylight and, therefore, area lighting did not contribute toward the power demand charges paid by SEC. *Id.* at 8.

To incorporate into the lighting rates the addition of two months in which lighting customers do not contribute to the Tristate system peak, Dr. Blank recommends reducing the capacity component of purchased power costs applied to lighting customers — which is $0.037749 per kWh — by 29.4%, to $0.026651 per kWh. *Id.* at 14. Dr. Blank incorporated this approximately $8,000 reduction in costs assigned to the Lighting Service Classes into his proposed revenue allocations among the classes, thus keeping SEC whole. Tr. at 549-50.

In his Rebuttal Testimony, Mr. Proctor agreed that demand allocated to the Lighting Service Classes is overstated because SEC included February and October as on-peak months. He said that the result of correcting the demand allocation is insignificant to the non-Lighting Service Classes because of the small size of the Lighting Service Classes. Proctor Rebuttal at 11. Mr. Proctor said that the lighting rates should "not necessarily" be changed to reflect the corrected allocation of purchased power capacity because SEC does not propose to increase the revenue allocation to the Lighting Service Classes to the level necessary (12.291%) for those Classes to pay their cost of service and because its lighting rates "are not out of line with those charged by other utilities." *Id.* at 19; Tr. at 342.

Dr. Blank makes a persuasive argument in favor of reducing the capacity component of purchased power costs applied to lighting customers. However, as explained in *infra* Section X(I)(3)(b), because the Hearing Examiner is recommending no decrease in revenues collected from the Lighting Class, it is unnecessary to change the allocation of purchased power capacity costs in the COSS.

e. Cost of LED Lighting Fixtures

Dr. Blank asserts that Mr. Proctor's Exhibit 6 uses LED fixture costs that seem excessive. As expected, SEC's assumed fixture costs decline as the wattage increases from 31 watt to 115 watt. However, the cost of a 199 watt LED is $0.92 per watt higher than the cost of a 115 watt LED. Dr. Blank said, "This calls into question all of the assumed fixture costs and especially this one." Blank Direct at 8. While Dr. Blank believes that all of SEC's LED fixture costs may be excessive, he only adjusted the cost of the 199 watt LED by reducing the cost per watt by 20.7% relative to the 115 watt LED.[39] This adjustment reduces the 199 watt fixture cost from $827.87 to $510.55. *Id.* at 14.

[39] The 20.7% is the difference between the cost per watt of the 115 watt fixture and the 199 watt fixture. Tr. at 550 (Blank).

Mr. Proctor responded that the source of the LED fixture costs is a supplier quote to SEC. Proctor Rebuttal at 12-13. Mr. Proctor attached to his Rebuttal Testimony an updated supplier quote with fixture costs that are lower than the fixture costs that he used in Exhibit 6. Proctor Rebuttal, Exh. 16.

In its Posthearing Response Brief, the City says that it accepts the updated fixture costs attached to Mr. Proctor's Rebuttal Testimony. City's Posthearing Response Brief at 6. These most recent fixture costs should be used to calculate the LED lighting rates. *See Mountain States Tel. & Tel. Co. v. New Mexico State Corp. Comm'n*, 1977-NMSC-032, ¶ 84, 90 N.M. 325 ("Common sense requires that the latest available economic information should be utilized in order to insure that the projected figures bear a meaningful relation to future as well as past and present fiscal realities.").

f. Allocation of Expenses

In his Exhibit 6, Mr. Proctor used two methods to allocate two different sources of operations and maintenance (O&M) expenses to LED lights. The first method allocates transmission and distribution O&M expenses to the anticipated cost of installed LED lighting plant using a 12.03% ratio from the COSS of transmission and distribution expenses to rate base allocated to the Lighting Service Classes. The transmission and distribution expenses recovered under the first method include depreciation, labor and O&M. The second method allocates distribution customer-related costs, which include a large amount of depreciation expense, by applying a fixed amount of $9.47 to each LED fixture. This method assumes that the per fixture O&M cost will remain constant. Blank Direct at 8, 15.

Dr. Blank argues that the mix of methods for allocating expenses "is questionable and possibly results in double counting in the estimation of O&M for the new LED fixtures." Blank Direct at 8. Dr. Blank says that one problem with the fixed $9.47 amount is that it recovers installation costs which have been invoiced to the City. Furthermore, he suspects that SEC's

mixed methods may double count some expenses when a portion is applied as a ratio to the LED investment and a portion is applied as a fixed per installation amount based on embedded costs. *Id.* at 15.

To avoid potential problems, Dr. Blank recommends eliminating the $9.47 fixed cost allocation to each LED fixture and using a ratio method to allocate all O&M costs to the Lighting Service Classes. He added all of the O&M expenses allocated to the Lighting Service Classes by the COSS and divided by existing lighting plant, which produces a 19.31% ratio. Dr. Blank then applied the 19.31% ratio to the anticipated installed cost of LED lighting plant. *Id.* at 15-16; Tr. at 552-53 (Blank).

In response, Mr. Proctor said that Dr. Blank's approach is inconsistent with how SEC allocated those costs, lacks merit and simply produces more favorable results for Dr. Blank's client. Mr. Proctor said that Dr. Blank's approach understates O&M costs because it does not consider costs that exceed the embedded costs for the Classes because of the higher cost of the LED fixtures. Proctor Rebuttal at 15-16. Mr. Proctor said that the O&M costs assigned to the Lighting Classes "are most certainly understated" because often no work order is associated with maintenance of a light. Generally, SEC service crews identify a failed light when in route to other jobs and repair the failed light in route to another job. Therefore, costs to repair that failed light are charged to other work orders. *Id.* at 16.

Dr. Blank has not offered evidence persuasive to counter Mr. Proctor's approach in Exhibit 6. Therefore, Dr. Blank's recommendation should be rejected.

3. Hearing Examiner's Recommended Lighting Service Rates

a. LED Lighting Rates

Mr. Proctor's Exhibit 6 should be the starting point for development of LED lighting rates. Dr. Blank's proposed LED lighting rates, which were developed using Exhibit 6 as a starting point, should be modified to reflect:

- Adding back in the installation cost for LED lighting
- Using the updated fixture costs in Exhibit 16 to Mr. Proctor's Rebuttal Testimony
- Using Mr. Proctor's method of allocating O&M expenses to LED fixtures

The following table shows the LED lighting rates that result from these revisions, which should be adopted:

LED Lighting Fixture	LED Rate
31 watt LED	$10.98
50 watt LED	$11.56
115 watt LED	$13.44
199 watt LED	$16.38

b. Non-LED Lighting Rates

Two of Dr. Blank's arguments relating to SEC's proposed non-LED lighting rates have merit: (1) the assumed kWhs per fixture in proposed Rate No. 4 are overestimated; and (2) purchased power capacity costs allocated to lighting customers should be reduced because lighting customers do not contribute to the Tristate system peak in February and October.

Insofar as the assumed kWhs are used to calculate the purchased power energy cost component that is embedded in the rate design, the evidence does not indicate in what amount changing the assumed kWhs in the COSS would change revenues allocated to the Lighting Service Classes. Reducing the capacity component of purchased power costs allocated to the Lighting Service Classes would reduce revenues collected from those Classes by about $8,000. Tr. at 549 (Blank). The evidence then supports an $8,000 reduction in revenues recovered from the Lighting Service Classes. Applying this reduction, SEC's COSS would show that the Lighting Service Classes are still being subsidized, in the amount of $70,195. Therefore, the evidence does not support a decrease in the non-LED lighting rates, which should remain unchanged except as required to zero-out the DCA and FCA Clauses and consolidate Rate Nos. 4 and 5.

c. *Consolidation of Rate Nos. 4 and 5*

SEC's unopposed proposal to consolidate Rate Nos. 4 and 5 should be granted. Because the existing Rates have different monthly charges for the same fixtures, consolidating the Rates while not changing total revenues collected from lighting customers, results in a $530 or 0.28% base revenue increase to current Rate No. 4 customers and a $740 or 0.42% base revenue decrease to current Rate No. 5 customers. Exh. 1 to this Recommended Decision.

The Hearing Examiner's recommended lighting rates are in Exhibit 2 to this Recommended Decision. The bill changes produced by the Hearing Examiner's recommended rates are in Exhibit 3 to this Recommended Decision.

d. *Assumed/Estimated kWhs in the Area Lighting Service Tariff*

Dr. Blank's recommended changes to the assumed/estimated kWhs per fixture stated in proposed Rate No. 4 should be adopted and stated in the Tariff for the purpose of determining the increases or decreases in SEC's costs of debt and cost of purchased power to be passed on to SEC's lighting customers. The Hearing Examiner's recommended assumed kWhs per fixture are in Exhibit 2 to this Recommended Decision.

J. NET METERING OPTION CUSTOMERS

Under SEC's current rates, Net Metering Option customers in all customer classes pay an additional $5.00 monthly charge under Rate No. 13. Otherwise, their rates are the same as the rates of non-Net Metering Option customers. Rates for Net Metering Option customers would not change under SEC's proposed rates except that they would be subject to the $5.00 Minimum Use Charge if their minimum consumption falls below the level required to avoid the Minimum Use Charge. Eschberger Direct at 16-17. As of December 31, 2017, SEC served 87 Net Metering Customers in the Residential, Small Commercial and Large Commercial Service Classes. Proctor Supp., Exh. 1 at 116.

K. MISCELLANEOUS SERVICE FEES

SEC's Rate No. 7 is titled "Schedule of Fees." It lists fees for various actions or services including collection, reconnection, tampering, meter change and meter replacement. SEC proposes to increase most of the fees in Rate No. 7 and to add fees, which would generate an additional $72,845. Blank Direct at 18.

The City and NM Tech recommend that the Commission deny all of SEC's proposed increases in the fees in Rate No. 7 because SEC provided no cost support for the increases. Blank Direct at 18-19; Tr. at 557 (Blank).

Mr. Proctor admitted that he provided no cost justification for the proposed fees. Tr. at 252. However, he argued that SEC's proposed charges are reasonable because they are comparable to the charges of other public utilities. Proctor Rebuttal at 20; Exh. 18. When asked what evidence supports the proposed fees, Mr. Proctor said that in every instance in which his firm performed analyses of the costs of the activities subject to the fees, it was found that the costs exceeded the fees. He believed that this conclusion would apply to SEC as well. Tr. at 357.

The New Mexico Supreme Court has made clear that public utility rates must be cost-based. In *Attorney General v. New Mexico Public Regulation Commission*, the Court held that the Commission's adoption of adder rates created under the Efficient Use of Energy Act (EUEA) was arbitrary and unlawful in that they were not evidence-based, cost-based, nor utility specific. 2011-NMSC-034, ¶ 18, 150 N.M. 174. In doing so, the Court found that the balancing test to determine just and reasonable rates is the same for rates created under the EUEA and the PUA and that rates created under the EUEA cannot "ignore the cost-based requirement of rates created under the PUA." *Id.*, ¶ 12.

SEC's proposed miscellaneous service fees are not cost-based and should be rejected. SEC's existing Rate No. 7 should remain unchanged.

L. RURAL AND URBAN CLASSES

Mr. Steinnerd asks the Commission to consider requiring SEC to split the Residential Service Class into two separate classes: Rural and Urban. Steinnerd's Initial Posthearing Brief at 8. He states that the costs to serve rural and urban customers differ, and SEC's failure to recognize this difference in its COSS is a "serious flaw." *Id.* at 6-7. Mayor Bhasker similarly observed that it is generally less expensive to serve customers in urban than rural areas. He did not ask that SEC be required to split customers into rural and urban classes, but did indicate that SEC's rates are unfair because the City subsidizes customers living outside the City. Bhasker Direct at 2; Tr. at 189-90.

The evidence is insufficient to justify requiring SEC to create urban and rural classes. And, to the extent that adoption of Mr. Steinnerd's proposal would result in higher rates for rural customers, it seems inconsistent with his rationale for continuing the alleged subsidy to the Residential Service Class in general. *See* Steinnerd's Initial Posthearing Brief at 4-5.

XI. ECONOMIC DEVELOPMENT RATE

NM Tech asks the Commission to order SEC to offer an economic development rate to attract business and job creation and stimulate economic development in Socorro. Reyes Direct at 15; Wells Direct at 1, 16. Socorro Mayor Bhasker said that SEC's rates "are stifling development and are a detriment to attracting businesses in the area." He said that SEC's rates are multiples above rates charged in nearby Los Lunas and cities of similar size such as Grants and Espanola. Bhasker Direct at 2-6.

NM Tech President Wells said that NM Tech is working to create a pipeline of companies built upon NM Tech technologies. For example, scientists and engineers from NM Tech's Petroleum Recovery Research Center created water purification technology for produced water in oil fields, allowing unusable water to be recycled into usable water. NM Tech is working with a company in Arizona to evaluate manufacturing the technology in Socorro. Because of NM

Tech's location in Socorro, the lack of academic and economic opportunities in much of rural America is not true for Socorro, provided local conditions such as the cost of electricity do not inhibit growth. Wells Direct at 11-12. NM Tech argues that an economic development rate "would terrifically enhance STEM entrepreneurial opportunities in Socorro that Tech is working on many fronts to secure." NM Tech's Initial Posthearing Brief at 11.

SEC opposes being ordered to offer an economic development rate. SEC's Posthearing Response Brief at 4. SEC witness Herrera identified businesses that have recently located to Socorro and therefore were not deterred by the cost of electricity: Solaro; Tractor Supply; and Grefco Minerals, Inc. He said that neither the City nor NM Tech has contacted SEC to discuss or collaborate on economic development activities. Herrera Rebuttal at 5-7, 18. Mr. Herrera said that no large industrial load has requested that SEC offer an economic development rate, and the SEC Board has not discussed the merits of offering such a rate absent a request.

The PUA authorizes the Commission to approve filings by cooperative utilities for special rates or tariffs to (1) prevent the loss of customers; (2) encourage customers to expand present facilities and operations in New Mexico; and (3) attract new customers where necessary or appropriate to promote economic development in New Mexico. Any such special rates or tariffs shall be designed so as to recover at least the incremental cost of providing service to such customers. NMSA 1978, § 62-6-26(A) (2015). The PUA also authorizes the Commission to approve filings by cooperative utilities for economic development rates and rates designed to retain load for electric utility customers. Such rates are set at a level lower than the corresponding service rate for which a customer would otherwise qualify. *Id.*, § 62-6-26(B).

Generally, the Commission can approve economic development rates only when a utility or the substantially full requirements supplier of a utility has excess capacity. *Id.*, § 62-6-26(C). However, this requirement does not apply if (1) the economic development rates are not lower than the incremental cost of providing service to the economic development rate customer; and (2) the economic development rate lasts no longer than four years except that the Commission

may approve the rate for up to 12 additional months if it finds that the additional period is necessary to attract a particular economic development rate customer to New Mexico. *Id.*, § 62-6-26(D).

SEC previously offered an Economic Development Rate, which was approved in 1994. Case No. 2605, Final Order (10-3-94). It was cancelled by operation of law effective August 1, 2002.

NM Tech has persuasively shown that it would be in the public interest for SEC to offer an economic development rate, and SEC should be ordered to initiate, under 17.9.540.13 NMAC, the process of offering an economic development rate.

SEC is reminded that it must develop an economic development rate consistent with Section 62-6-26.

XII. MR. STEINNERD'S RECOMMENDATION FOR A FEASIBILITY STUDY

Mr. Steinnerd recommends that the Commission conduct a feasibility study to determine if legislation is needed to require electric cooperatives in New Mexico to track investments and expenses by customer class, obviating the need to use calculated or estimated methods of allocating revenues, expenses and rate base among classes. He asks, "Why not track expenses by class, and possibly avoid many future rate hearings?" Steinnerd's Initial Posthearing Brief at 8; Steinnerd Direct at 21.

If it were possible to accurately direct-allocate revenues, expenses and rate base to customer classes, some issues in rate cases probably would be eliminated. However, because a utility operates its system as a whole, not by customer class, it is mostly not possible to accurately direct-allocate revenues, expenses and rate base by customer class. It is necessary to use calculated or estimated methods to allocate common or joint costs among customer classes.

Recording data in regulatory books by class would not remove this need. Thus, Mr. Steinnerd's recommendation should be rejected.

XIII. PROMOTION OF ENERGY EFFICIENCY AND DISTRIBUTED GENERATION

A. STAFF'S RECOMMENDATION

As of May 2019, SEC had 88 Residential Net Metering Service customers and 12 Small Commercial Net Metering Service customers, equal to 0.8% of all SEC customers, which Staff described as "an extremely small proportion." Eschberger Direct at 23, 25. Staff recommends that SEC continue to promote distributed generation and investigate opportunities to increase its investments in renewables to achieve the targets for carbon-free power in the Energy Transition Act (ETA). *Id.* at 27. Staff also recommends that SEC collect the Renewable Energy and Conservation Fee authorized under 17.9.572.23(G) NMAC. *Id.* at 29. This Rule allows a rural electric distribution cooperative to collect from customers a Renewable Energy and Conservation Fee of no more than 1% of a customer's bill. Money collected through the Fee shall be expended only on programs or projects to promote the use of renewable energy, load management or energy efficiency. Staff asserts that collecting this Fee would help to offset the amount that SEC invests in renewable energy and would help SEC reach the targets in the ETA. Eschberger Direct at 29.

SEC agrees with Staff's recommendations and says it will continue to promote distributed generation and its Renewable Resource Power Rider to its members. It further agrees to recommend that its Board immediately implement and collect the Renewable Energy and Conservation Fee. SEC's Posthearing Response Brief at 2-3.

B. ENERGY EFFICIENCY MEASURES FOR COMMERCIAL CUSTOMERS

In his Direct Testimony, City Procurement Officer and IT Director Pineda complained that SEC had not offered the City energy efficiency measures for streetlighting. Pineda Direct at 3. At the hearing, SEC witness Montoya said that SEC offers energy efficiency measures to commercial customers, but does not advertise those measures. Only energy efficiency measures offered to residential customers appear on SEC's website. Commercial customers have to affirmatively reach out to SEC to receive information about energy efficiency measures available to them. Tr. at 203-06, 213 (Montoya). Ms. Montoya said that if the City approached SEC about developing a LED energy efficiency measure, such as a rebate for retrofitting a building with LED lights, SEC would discuss that with the City. *Id.* at 213-14. In response, Mr. Pineda said that, at the Mayor's direction, the City is willing to meet with SEC to discuss energy efficiency measures for LED lighting. *Id.* at 593.

SEC should post on its website a statement that commercial customers should contact SEC at an appropriate phone number to receive information about energy efficiency measures available to commercial customers.

XIV. CITY'S REQUEST FOR AN INVESTIGATION

The City urges the Commission to open two investigations.

The City advocates that the Commission open one investigation into the SEC Board's alleged practice of under-representing the City. SEC's Board is comprised of seven trustees. Socorro Mayor Bhasker said that only three of the trustees reside in Socorro even though the majority of SEC's residential and small and large commercial customers are located in Socorro. Because of this alleged under-representation, Mayor Bhasker said that the SEC Board structures SEC's rates so that the City subsidizes the rates paid by customers located outside the City. He further said that the City's alleged under-representation on the Board is unlikely to change

because changing SEC's bylaws requires four votes. He asserted, "This makes it all but impossible to effectuate any real change with SEC." Bhasker Direct at 2, 11-12.

The City's request that the Commission open an investigation into the SEC Board's alleged practice of under-representing the City should be denied. Ultimately, the remedy for a cooperative's alleged mismanagement is in the hands of the cooperative members. Electric cooperatives are democratically controlled through an elected board of directors. In essence, the ratepayers are the shareholders. Case No. 2695, Final Order at 6 (10-7-96). As this Commission stated in a case involving Jemez Mountains Electric Cooperative:

> In the end, of course, how a cooperative is run is up to its members. This Commission only regulates cooperatives; it does not govern them. Ultimately, the policies and the direction of a cooperative are in the hands of an informed, active and vigilant membership.

Case No. 2397, Recommended Decision at 46 (2-22-94), adopted by Final Order (4-15-94).

The City advocates that the Commission open a second investigation into "cooperative rates and practices in general." In support of this recommendation, Mayor Bhasker asserted, "There is no doubt in my mind that the cooperative business model is outdated, over-priced and designed to maintain the status quo." Bhasker Direct at 12.

The City's request that the Commission open an investigation into cooperative rates and practices should also be denied. While Mayor Bhasker believes that the cooperative business model is outdated, it is authorized by state statute in the Rural Electric Cooperative Act. NMSA 1978, §§ 62-15-1 – 62-15-37. The City's remedy is with the State Legislature, not the Commission.

XV. FINDINGS OF FACT AND CONCLUSIONS OF LAW

The Hearing Examiner recommends that the Commission **FIND AND CONCLUDE** as follows:

1. All findings of fact and conclusions of law contained in all Sections of this Recommended Decision are adopted as findings of fact and conclusions of law of the Commission.

2. Reasonable, proper and adequate notice of SEC's Application has been provided.

3. SEC's existing Service Rates, except for its Stand-by Service for Self-Generators Service Rate, are not just and reasonable.

4. Advice Notice No. 69 should be cancelled.

5. The Rates in Exhibit 2 to this Recommended Decision are just and reasonable and should be approved.

XVI. DECRETAL PARAGRAPHS

The Hearing Examiner recommends that the Commission order as follows:

A. The findings, conclusions and rulings contained in this Recommended Decision are adopted and approved as findings, conclusions and rulings of the Commission.

B. Advice Notice No. 69 is cancelled.

C. SEC shall file, under a new Advice Notice, the rates in Exhibit 2 to this Recommended Decision. Such rates shall be effective for service upon Staff's approval as to form and compliance, within seven days of the filing of the Advice Notice.

D. Under the same Advice Notice, SEC shall cancel Rate No. 5, Street and Interstate Freeway Lighting Service.

E. Under the same Advice Notice, SEC shall cancel Rate No. 15, Energy Thermal Storage.

F. Under the same Advice Notice, and pursuant to 17.1.210.11(A) and (B), SEC shall revise Section IV of its Line Extension Rule to state:

> IV. Installation of New Lights:
>
> A. The Cooperative will install new lights on the following terms:
>
> 1. At no cost to the applicant if the Cooperative investment does not exceed the cost of labor, trucks, a wooden pole, security light fixture and 125 feet of service wire.
>
> 2. With the Applicant making a Contribution-In-Aid-of Construction of all investment required in excess of the costs defined in Section IV.A.1. above.

G. SEC shall revise its Proposed Rate No. 4 to include the following language:

> SEC shall install new lights at no cost to the Customer if the Cooperative investment does not exceed the cost of labor, trucks, a wooden pole, security light fixture, and 125 feet of service wire. Any contribution in aid of construction (CIAC) paid by the Customer in excess of this allowance shall be credited by SEC in its plant ledger of accounts.
>
> If an existing light needs to be replaced, SEC shall pay for the cost of installing a replacement light.
>
> If a customer seeks to replace an existing light and the light does not need to be replaced, Customer shall pay the cost for installing a replacement light as CIAC. The replacement light may be a LED light. SEC shall credit the CIAC in its plant ledger of accounts. The cost for replacing an existing light to be paid by Customer is labor and truck costs and the cost of the new light fixture.

H. SEC shall file in this docket semiannually, beginning on January 1, 2020 and through January 1, 2022, its plant ledger of accounts for lighting for the preceding six months, showing the recording of any contributions in excess of the line extension allowance as credits to the cost of plant.

I. When SEC next proposes new or revised rates, it shall propose inclining block rates for its Residential Service Class.

J. Within 10 days of issuance of a final order in this case, SEC shall post on its website the following statement: "Commercial customers should contact SEC at [insert phone

number] to receive information about energy efficiency measures available to commercial customers."

K. Within 30 days of issuance of a final order in this case, SEC shall initiate, under 17.9.540.13 NMAC, the process of offering an economic development rate.

L. Any matter not specifically ruled on during the hearing or in this Final Order is disposed of consistently with this Final Order.

M. This Order is effective immediately.

ISSUED at Santa Fe, New Mexico on August 15, 2019.

NEW MEXICO PUBLIC REGULATION COMMISSION

Carolyn R. Glick

Carolyn R. Glick
Hearing Examiner

Exhibit 1

SOCORRO ELECTRIC COOPERATIVE, INC.

SUMMARY OF RATE CHANGE
FOR THE TWELVE MONTHS ENDING DECEMBER 31, 2017

	Consumers	kWh	Existing Rates	Hearing Examiner Recommended	Change $	Change %
Residential Class	10,342	61,728,934	9,978,842	10,178,407	199,565	2.00%
Small Commercial Class	1,971	20,521,537	3,298,811	3,298,820	9	0.00%
Large Commercial Class	177	77,055,693	9,622,258	9,440,584	(181,674)	-1.89%
Irrigation	44	386,568	58,973	60,742	1,769	3.00%
Load Management	1	10,971,000	1,155,228	1,135,226	(20,002)	-1.73%
Energy Thermal Storage	11	126,212	18,821	19,159	338	1.79%
Private Area Lighting	79	1,086,680	192,333	192,863	530	0.28%
Street Lighting	82	1,122,657	175,035	174,295	(740)	-0.42%
Lighting Class	161	2,209,337	367,368	367,158	(210)	-0.06%
Subtotal	12,707	172,999,281	24,500,301	24,500,096	(206)	0.00%
Other Revenue			203,138	203,138		0.00%
Total Revenue			24,703,439	24,703,234	(206)	0.00%

Exhibit 2

SOCORRO ELECTRIC COOPERATIVE, INC.

SUMMARY OF RATES

	Existing Rates	Hearing Examiner Recommended Rates	Change
Power Cost, per kWh Sold	$0.083242	$0.083242	$0.000000
FCA/PCA Base Cost, per kWh Sold	$0.074183	$0.083242	$0.009059
FCA/PCA Factor, per kWh	$0.009059	$0.000000	($0.009059)
Residential DCA Factor, per kWh	($0.002516)	$0.000000	$0.002516
Commercial DCA Factor, per kWh	($0.002152)	$0.000000	$0.002152
Residential			
Customer Charge	$15.00	$16.50	$1.50
Energy Charge, per kWh	$0.125000	$0.131594	$0.006594
Additional Minimum	$0.00	$0.00	$0.00
Residential Energy Thermal Storage (ETS)			
Customer Charge	$16.00	$17.50	$1.50
On Peak Energy Charge, per kWh	$0.155000	$0.162650	$0.007650
Off Peak Energy Charge, per kWh	$0.080000	$0.087650	$0.01
Additional Minimum	$0.00	$0.00	$0.00
Residential Net Metering			
Customer Charge	$15.00	$16.50	$1.50
Net Metering Option - Fee	$5.00	$5.00	$0.00
Energy Charge, per kWh	$0.125000	$0.131594	$0.006594
Excess Energy per kWh - Determined Annually	$0.000000	$0.000000	$0.000000
Additional Minimum	$0.00	$0.00	$0.00
Small Commercial			
Customer Charge	$25.00	$25.00	$0.00
Energy Charge, per kWh	$0.125000	$0.131927	$0.006927
Additional Minimum	$0.00	$0.00	$0.00
Small Commercial Net Metering			
Customer Charge	$25.00	$25.00	$0.00
Net Metering Option - Fee	$5.00	$5.00	$0.00
Energy Charge, per kWh	$0.125000	$0.131927	$0.006927
Excess Energy per kWh - Determined Annually	$0.000000	$0.000000	$0.000000
Additional Minimum	$0.00	$0.00	$0.00

SOCORRO ELECTRIC COOPERATIVE, INC.

SUMMARY OF RATES

	Existing Rates	Hearing Examiner Recommended Rates	Change
Power Cost, per kWh Sold	$0.083242	$0.083242	$0.000000
FCA/PCA Base Cost, per kWh Sold	$0.074183	$0.083242	$0.009059
FCA/PCA Factor, per kWh	$0.009059	$0.000000	($0.009059)
Residential DCA Factor, per kWh	($0.002516)	$0.000000	$0.002516
Commercial DCA Factor, per kWh	($0.002152)	$0.000000	$0.002152
Large Commercial			
Customer Charge	$75.00	$73.59	($1.41)
Demand Charge, per Billing kW	$15.00	$14.98	($0.02)
Energy Charge, per kWh	$0.077500		
First 200 kWh per kW		$0.082214	$0.004714
Next 200 kWh per kW		$0.082214	$0.004714
Over 400 kWh per kW		$0.082214	$0.004714
Large Commercial Net Metering			
Customer Charge	$75.00	$73.59	($1.41)
Net Metering Option - Fee	$5.00	$5.00	$0.00
NCP Demand Charge, per NCP Billing kW	$15.00	$14.98	($0.02)
Energy Charge, per kWh	$0.077500		
First 200 kWh per kW		$0.082214	$0.004714
Next 200 kWh per kW		$0.082214	$0.004714
Over 400 kWh per kW		$0.082214	$0.004714
Excess Energy per kWh - Determined Annually	$0.000000	$0.000000	$0.000000
Irrigation			
Customer Charge	$0.00	$5.00	$5.00
Horsepower Charge, per Billing HP (January Only)	$10.00	$0.00	($10.00)
Horsepower Charge, per Billing HP (Monthly)	$0.00	$0.84	$0.84
Energy Charge, per kWh	$0.110000	$0.114630	$0.004630

SOCORRO ELECTRIC COOPERATIVE, INC.

SUMMARY OF RATES

	Existing Rates	Hearing Examiner Recommended Rates	Change
Power Cost, per kWh Sold	$0.083242	$0.083242	$0.000000
FCA/PCA Base Cost, per kWh Sold	$0.074183	$0.083242	$0.009059
FCA/PCA Factor, per kWh	$0.009059	$0.000000	($0.009059)
Residential DCA Factor, per kWh	($0.002516)	$0.000000	$0.002516
Commercial DCA Factor, per kWh	($0.002152)	$0.000000	$0.002152
Load Management			
Customer Charge	$500.00	$600.00	$100.00
Energy Charge, per kWh	$0.073000	$0.072196	($0.000804)
Demand Charge, per Billing kW	$15.00	$18.50	$3.50
Commercial Energy Thermal Storage (ETS)			
Customer Charge	$16.00	$17.50	$1.50
On Peak Energy Charge, per kWh	$0.155000	$0.162650	$0.007650
Off Peak Energy Charge, per kWh	$0.080000	$0.087650	$0.007650
Additional Minimum	$0.00	$0.00	$0.00
Stand-by Service for Self-Generators			
Customer Charge	$209.00	$209.00	$0.00
NCP Demand Charge, per NCP Billing kW	$5.50	$5.50	
Distribution Secondary			
Distribution Primary			
Substation			
Transmission			
Energy Charge, per kWh	$0.031500	$0.031500	
CP Demand Charge, per CP Billing kW	$21.28	$21.28	$0.00

SOCORRO ELECTRIC COOPERATIVE, INC.

SUMMARY OF RATES

		Existing Rates	Hearing Examiner Recommended Rates		Change
Power Cost, per kWh Sold		$0.083242	$0.083242		$0.000000
FCA/PCA Base Cost, per kWh Sold		$0.074183	$0.083242		$0.009059
FCA/PCA Factor, per kWh		$0.009059	$0.000000		($0.009059)
Residential DCA Factor, per kWh		($0.002516)	$0.000000		$0.002516
Commercial DCA Factor, per kWh		($0.002152)	$0.000000		$0.002152
Private Area Lighting					
400 Watt HPS	176 kWh/Mo	$21.75	$22.66	142 kWh/Mo	$0.91
100 Watt HPS	56 kWh/Mo	$12.00	$10.50	35 kWh/Mo	($1.50)
150 Watt HPS	70 kWh/Mo	$12.25	$12.76	53 kWh/Mo	$0.51
31 Watt LED	11 kWh/Mo		$10.98	11 kWh/Mo	
50 Watt LED	18 kWh/Mo		$11.56	18 kWh/Mo	
199 Watt LED	72 kWh/Mo		$16.38	71 kWh/Mo	
175 Watt MV	78 kWh/Mo	$14.00	$14.59	62 kWh/Mo	$0.59
400 Watt MV	180 kWh/Mo	$24.25	$25.27	142 kWh/Mo	$1.02
175 Watt MV Metered	78 kWh/Mo	$9.50	$9.90	62 kWh/Mo	$0.40
175 Watt MV Shared 6	7 kWh/Mo	$1.32			
175 Watt MV Shared 7	11 kWh/Mo	$2.00			
Street Lighting					
250 Watt HPS	110 kWh/Mo	$15.50	$16.15	89 kWh/Mo	$0.65
400 Watt HPS	176 kWh/Mo	$21.75	$22.66	142 kWh/Mo	$0.91
100 Watt HPS	47 kWh/Mo	$10.00	$10.50	35 kWh/Mo	$0.50
150 Watt HPS	70 kWh/Mo	$12.25	$12.76	53 kWh/Mo	$0.51
115 Watt LED	41 kWh/Mo		$13.44	41 kWh/Mo	
199 Watt LED	72 kWh/Mo		$16.38	71 kWh/Mo	
175 Watt MV	78 kWh/Mo	$14.00	$14.59	62 kWh/Mo	$0.59
400 Watt MV	180 kWh/Mo	$23.25	$25.27	142 kWh/Mo	$2.02
250 Watt MV	110 kWh/Mo	$16.00	$16.67	89 kWh/Mo	$0.67
400 Watt SV Interstate	180 kWh/Mo	$23.25	$24.23	142 kWh/Mo	$0.98

SOCORRO ELECTRIC COOPERATIVE, INC.

SUMMARY OF RATES - CONSOLIDATED LIGHTING

		Hearing Examiner Recommended Consolidated Lighting Rates
Power Cost, per kWh Sold		$0.083242
FCA/PCA Base Cost, per kWh Sold		$0.083242
FCA/PCA Factor, per kWh		$0.000000
Residential DCA Factor, per kWh		$0.000000
Private Area Lighting		
100 Watt HPS	35 Kwh/Mo	$10.50
150 Watt HPS	53 kWh/Mo	$12.76
250 Watt HPS	89 kWh/Mo	$16.15
400 Watt HPS	142 kWh/Mo	$22.66
175 Watt MV	62 kWh/Mo	$14.59
250 Watt MV	89 kWh/Mo	$16.67
400 Watt MV	142 kWh/Mo	$25.27
31 Watt LED	11 kWh/Mo	$10.98
50 Watt LED	18 kWh/Mo	$11.56
115 Watt LED	41 kWh/Mo	$13.44
199 Watt LED	71 kWh/Mo	$16.38
400 Watt SV Interstate	142 kWh/Mo	$24.23
175 Watt MV Metered		$9.90

Exhibit 3

SOCORRO ELECTRIC COOPERATIVE, INC.

COMPARISON OF EXISTING AND HEARING EXAMINER RECOMMENDED RATES
RESIDENTIAL

kWh Usage	Additional Minimum	Existing Rate	Hearing Examiner Recommended Rates	Change $	Change %
Customer Charge		$15.00	$16.50	$1.50	10.00%
Energy Charge, per kWh		$0.125000	$0.131594	$0.006594	5.28%
Minimum Bill		$0.00	$0.00	$0.00	0.00%
FCA/PCA Factor, per kWh		$0.009059	$0.000000	($0.009059)	-100.00%
Residential DCA Factor, per k		($0.002516)	$0.000000	$0.002516	-100.00%
Total Energy, per kWh		$0.131543	$0.131594	$0.000051	0.04%
0		$15.00	$16.50	$1.50	10.00%
50		$21.58	$23.08	$1.50	6.95%
250		$47.89	$49.40	$1.51	3.15%
500		$80.77	$82.30	$1.53	1.89%
750		$113.66	$115.20	$1.54	1.35%
1,000		$146.54	$148.09	$1.55	1.06%
3,000		$409.63	$411.28	$1.65	0.40%
5,000		$672.72	$674.47	$1.75	0.26%
494	**Average**	**$79.98**	**$81.51**	**$1.53**	**1.91%**

SOCORRO ELECTRIC COOPERATIVE, INC.

COMPARISON OF EXISTING AND HEARING EXAMINER RECOMMENDED RATES
RESIDENTIAL ENERGY THERMAL STORAGE (ETS)

kWh Usage	On Peak kWh	Off Peak kWh	Existing Rate	Hearing Examiner Recommended Rates	Change $	Change %
	59.67%					
Customer Charge			$16.00	$17.50	$1.50	9.38%
On Peak Energy Charge, per kWh			$0.155000	$0.162650	$0.007650	4.94%
Off Peak Energy Charge, per kWh			$0.080000	$0.087650	$0.007650	9.56%
Minimum Charge			$0.00	$0.00	$0.00	0.00%
FCA/PCA Factor, per kWh			$0.009059	$0.000000	($0.009059)	-100.00%
Residential DCA Factor, per kWh			($0.002516)	$0.000000	$0.002516	-100.00%
0	0	0	$16.00	$17.50	$1.50	9.38%
100	60	40	$29.15	$30.77	$1.62	5.56%
250	149	101	$48.81	$50.59	$1.78	3.65%
500	298	202	$81.62	$83.68	$2.06	2.52%
750	448	302	$114.51	$116.84	$2.33	2.03%
1,000	597	403	$147.32	$149.93	$2.61	1.77%
3,000	1,790	1,210	$409.88	$414.70	$4.82	1.18%
5,000	2,984	2,016	$672.52	$679.55	$7.03	1.05%

SOCORRO ELECTRIC COOPERATIVE, INC.

COMPARISON OF EXISTING AND HEARING EXAMINER RECOMMENDED RATES
RESIDENTIAL ENERGY THERMAL STORAGE (ETS)

kWh Usage	On Peak kWh	Off Peak kWh	Existing Rate	Hearing Examiner Recommended Rates	Change $	Change %
	59.67%					
Customer Charge			$16.00	$17.50	$1.50	9.38%
On Peak Energy Charge, per kWh			$0.155000	$0.162650	$0.007650	4.94%
Off Peak Energy Charge, per kWh			$0.080000	$0.087650	$0.007650	9.56%
Minimum Charge			$0.00	$0.00	$0.00	0.00%
FCA/PCA Factor, per kWh			$0.009059	$0.000000	($0.009059)	-100.00%
Residential DCA Factor, per kWh			($0.002516)	$0.000000	$0.002516	-100.00%
			40.00% On Peak Consumption			
500	200	300	$74.27	$76.33	$2.06	2.77%
828	**331**	**497**	$112.48	$114.90	$2.42	2.15%
1,000	400	600	$132.54	$135.15	$2.61	1.97%
			Average 828 kWh per month - 59.67 % On Peak Consumption			
500	298	202	$81.62	$83.68	$2.06	2.52%
828	**494**	**334**	$124.71	$127.12	$2.41	1.93%
1,000	597	403	$147.32	$149.93	$2.61	1.77%
			75.00% On Peak Consumption			
500	375	125	$87.40	$89.45	$2.05	2.35%
828	**621**	**207**	$134.23	$136.65	$2.42	1.80%
1,000	750	250	$158.79	$161.40	$2.61	1.64%

SOCORRO ELECTRIC COOPERATIVE, INC.

COMPARISON OF EXISTING AND HEARING EXAMINER RECOMMENDED RATES
SMALL COMMERCIAL

kWh Usage	Additional Minimum	Existing Rate	Hearing Examiner Recommended Rates	Change $	Change %
Customer Charge		$25.00	$25.00	$0.00	0.00%
Energy Charge, per kWh		$0.125000	$0.131927	$0.006927	5.54%
Minimum Charge		$0.00	$0.00	$0.00	0.00%
FCA/PCA Factor, per kWh		$0.009059	$0.000000	($0.009059)	-100.00%
Commercial DCA Factor, per kWh		($0.002152)	$0.000000	$0.002152	-100.00%
Total Energy, per kWh		$0.131907	$0.131927	$0.000020	0.01%
0		$25.00	$25.00	$0.00	0.00%
60		$32.91	$32.92	$0.01	0.03%
250		$57.98	$57.98	$0.00	0.00%
500		$90.95	$90.96	$0.01	0.01%
750		$123.93	$123.95	$0.02	0.02%
1,000		$156.91	$156.93	$0.02	0.01%
1,500		$222.86	$222.89	$0.03	0.01%
2,000		$288.81	$288.85	$0.04	0.01%
3,000		$420.72	$420.78	$0.06	0.01%
5,000		$684.54	$684.64	$0.10	0.01%
868	**Average**	**$139.50**	**$139.51**	**$0.01**	**0.01%**

SOCORRO ELECTRIC COOPERATIVE, INC.

COMPARISON OF EXISTING AND HEARING EXAMINER RECOMMENDED RATES
LARGE COMMERCIAL

Load Factor	kW	kWh	Existing Rate	Hearing Examiner Recommended Rates	Change $	Change %
Customer Charge			$75.00	$73.59	($1.41)	-1.88%
Demand Charge, per Billing kW			$15.00	$14.98	($0.02)	-0.13%
Energy Charge, per kWh			$0.077500			
First 200 kWh per kW				$0.082214	$0.004714	6.08%
Next 200 kWh per kW				$0.082214	$0.082214	0.00%
Over 400 kWh per kW				$0.082214	$0.082214	0.00%
FCA/PCA Factor, per kWh			$0.009059	$0.000000	($0.009059)	-100.00%
Commercial DCA Factor, per kWh			($0.002152)	$0.000000	$0.002152	-100.00%
Total Energy, per kWh			$0.084407		($0.084407)	-100.00%
10.00%	50	3,650	$1,133.09	$1,122.67	($10.42)	-0.92%
30.00%	50	10,950	$1,749.26	$1,722.83	($26.43)	-1.51%
50.00%	50	18,250	$2,365.43	$2,323.00	($42.43)	-1.79%
70.00%	50	25,550	$2,981.61	$2,923.16	($58.45)	-1.96%
90.00%	50	32,850	$3,597.78	$3,523.32	($74.46)	-2.07%
10.00%	100	7,300	$2,191.17	$2,171.75	($19.42)	-0.89%
30.00%	100	21,900	$3,423.52	$3,372.08	($51.44)	-1.50%
50.00%	100	36,500	$4,655.87	$4,572.40	($83.47)	-1.79%
70.00%	100	51,100	$5,888.21	$5,772.73	($115.48)	-1.96%
90.00%	100	65,700	$7,120.56	$6,973.05	($147.51)	-2.07%

SOCORRO ELECTRIC COOPERATIVE, INC.

COMPARISON OF EXISTING AND HEARING EXAMINER RECOMMENDED RATES
LARGE COMMERCIAL

Load Factor	kW	kWh	Existing Rate	Hearing Examiner Recommended Rates	Change $	Change %
Customer Charge			$75.00	$73.59	($1.41)	-1.88%
Demand Charge, per Billing kW			$15.00	$14.98	($0.02)	-0.13%
Energy Charge, per kWh			$0.077500			
First 200 kWh per kW				$0.082214	$0.004714	6.08%
Next 200 kWh per kW				$0.082214	$0.082214	0.00%
Over 400 kWh per kW				$0.082214	$0.082214	0.00%
FCA/PCA Factor, per kWh			$0.009059	$0.000000	($0.009059)	-100.00%
Commercial DCA Factor, per kWh			($0.002152)	$0.000000	$0.002152	-100.00%
Total Energy, per kWh			$0.084407		($0.084407)	-100.00%
10.00%	250	18,250	$5,365.43	$5,319.00	($46.43)	-0.87%
30.00%	250	54,750	$8,446.30	$8,319.81	($126.49)	-1.50%
50.00%	250	91,250	$11,527.17	$11,320.62	($206.55)	-1.79%
70.00%	250	127,750	$14,608.03	$14,321.43	($286.60)	-1.96%
90.00%	250	164,250	$17,688.90	$17,322.24	($366.66)	-2.07%
10.00%	500	36,500	$10,655.87	$10,564.40	($91.47)	-0.86%
30.00%	500	109,500	$16,817.60	$16,566.02	($251.58)	-1.50%
50.00%	500	182,500	$22,979.33	$22,567.65	($411.68)	-1.79%
70.00%	500	255,500	$29,141.07	$28,569.27	($571.80)	-1.96%
90.00%	500	328,500	$35,302.80	$34,570.89	($731.91)	-2.07%
Average	**92**	**36,296**	**$4,518.39**	**$4,435.53**	**($82.86)**	**-1.83%**

SOCORRO ELECTRIC COOPERATIVE, INC.

COMPARISON OF EXISTING AND HEARING EXAMINER RECOMMENDED RATES
IRRIGATION

Load Factor	HP	kWh	Existing Rate	Hearing Examiner Recommended Rates	Change $	Change %
Customer Charge			$0.00	$5.00	$5.00	0.00%
Horsepower Charge, per Billing HP (January On			$10.00	$0.00	($10.00)	-100.00%
Horsepower Charge, per Billing HP (Monthly)			$0.00	$0.84	$0.84	0.00%
Energy Charge, per kWh			$0.110000	$0.114630	$0.004630	4.21%
FCA/PCA Factor, per kWh			$0.009059	$0.000000	($0.009059)	-100.00%
Commercial DCA Factor, per kWh			($0.002152)	$0.000000	$0.002152	-100.00%
Total Energy, per kWh			$0.116907	$0.114630	($0.002277)	-1.95%
10.00%	10.00	545	$163.71	$223.27	$59.56	36.38%
15.00%	10.00	817	$195.51	$254.45	$58.94	30.15%
25.00%	10.00	1,361	$259.11	$316.81	$57.70	22.27%
35.00%	10.00	1,906	$322.83	$379.28	$56.45	17.49%
45.00%	10.00	2,451	$386.54	$441.76	$55.22	14.29%
10.00%	25.00	1,361	$409.11	$468.01	$58.90	14.40%
15.00%	25.00	2,042	$488.72	$546.07	$57.35	11.73%
25.00%	25.00	3,404	$647.95	$702.20	$54.25	8.37%
35.00%	25.00	4,765	$807.06	$858.21	$51.15	6.34%
45.00%	25.00	6,127	$966.29	$1,014.34	$48.05	4.97%

SOCORRO ELECTRIC COOPERATIVE, INC.

COMPARISON OF EXISTING AND HEARING EXAMINER RECOMMENDED RATES
IRRIGATION

Load Factor	HP	kWh	Existing Rate	Hearing Examiner Recommended Rates	Change $	Change %
Customer Charge			$0.00	$5.00	$5.00	0.00%
Horsepower Charge, per Billing HP (January On			$10.00	$0.00	($10.00)	-100.00%
Horsepower Charge, per Billing HP (Monthly)			$0.00	$0.84	$0.84	0.00%
Energy Charge, per kWh			$0.110000	$0.114630	$0.004630	4.21%
FCA/PCA Factor, per kWh			$0.009059	$0.000000	($0.009059)	-100.00%
Commercial DCA Factor, per kWh			($0.002152)	$0.000000	$0.002152	-100.00%
Total Energy, per kWh			$0.116907	$0.114630	($0.002277)	-1.95%
10.00%	50.00	2,723	$818.34	$876.14	$57.80	7.06%
15.00%	50.00	4,084	$977.45	$1,032.15	$54.70	5.60%
25.00%	50.00	6,807	$1,295.79	$1,344.29	$48.50	3.74%
35.00%	50.00	9,530	$1,614.13	$1,656.42	$42.29	2.62%
45.00%	50.00	12,253	$1,932.47	$1,968.56	$36.09	1.87%
10.00%	75.00	4,084	$1,227.45	$1,284.15	$56.70	4.62%
15.00%	75.00	6,127	$1,466.29	$1,518.34	$52.05	3.55%
25.00%	75.00	10,211	$1,943.74	$1,986.49	$42.75	2.20%
35.00%	75.00	14,295	$2,421.19	$2,454.64	$33.45	1.38%
45.00%	75.00	18,380	$2,898.76	$2,922.90	$24.14	0.83%
Average	**31**	**15,604**	**$2,134.22**	**$2,161.17**	**$26.95**	**1.26%**

SOCORRO ELECTRIC COOPERATIVE, INC.

COMPARISON OF EXISTING AND HEARING EXAMINER RECOMMENDED RATES
LOAD MANAGEMENT

Load Factor	kW	kWh	Existing Rate	Hearing Examiner Recommended Rates	Change $	Change %
Customer Charge			$500.00	$600.00	$100.00	20.00%
Energy Charge, per kWh			$0.073000	$0.072196	($0.000804)	-1.10%
Demand Charge, per Billing kW			$15.00	$18.50	$3.50	23.33%
FCA/PCA Factor, per kWh			$0.009059	$0.000000	($0.009059)	-100.00%
Commercial DCA Factor, per kWh			($0.002152)	$0.000000	$0.002152	-100.00%
Total Energy, per kWh			$0.079907	$0.072196	($0.007711)	-9.65%
10.00%	500	36,500	$10,916.62	$12,485.15	$1,568.53	14.37%
30.00%	500	109,500	$16,749.85	$17,755.46	$1,005.61	6.00%
50.00%	500	182,500	$22,583.08	$23,025.77	$442.69	1.96%
70.00%	500	255,500	$28,416.32	$28,296.08	($120.24)	-0.42%
90.00%	500	328,500	$34,249.55	$33,566.39	($683.16)	-1.99%
10.00%	1,000	73,000	$21,333.23	$24,370.31	$3,037.08	14.24%
30.00%	1,000	219,000	$32,999.70	$34,910.92	$1,911.22	5.79%
50.00%	1,000	365,000	$44,666.16	$45,451.54	$785.38	1.76%
70.00%	1,000	511,000	$56,332.63	$55,992.16	($340.47)	-0.60%
90.00%	1,000	657,000	$67,999.10	$66,532.77	($1,466.33)	-2.16%
			Individual Customer Data			
82.76%	18,160	10,971,000	$1,155,062.99	$1,135,222.32	($19,840.67)	-1.72%

SOCORRO ELECTRIC COOPERATIVE, INC.

COMPARISON OF EXISTING AND HEARING EXAMINER RECOMMENDED RATES
COMMERCIAL ENERGY THERMAL STORAGE (ETS)

kWh Usage	On Peak kWh	Off Peak kWh	Existing Rate	Hearing Examiner Recommended Rates	Change $	Change %
Customer Charge			$16.00	$17.50	$1.50	9.38%
On Peak Energy Charge, per kWh			$0.155000	$0.162650	$0.007650	4.94%
Off Peak Energy Charge, per kWh			$0.080000	$0.087650	$0.007650	9.56%
Additional Minimum			$0.00	$0.00	$0.00	0.00%
FCA/PCA Factor, per kWh			$0.009059	$0.000000	($0.009059)	-100.00%
Residential DCA Factor, per kWh			($0.002516)	$0.000000	$0.002516	-100.00%
50	27	23	$22.35	$23.91	$1.56	6.98%
100	55	45	$28.78	$30.39	$1.61	5.59%
250	137	113	$47.91	$49.69	$1.78	3.72%
500	273	227	$79.75	$81.80	$2.05	2.57%
750	410	340	$111.66	$113.99	$2.33	2.09%
1,000	546	454	$143.49	$146.10	$2.61	1.82%
3,000	1,638	1,362	$398.48	$403.30	$4.82	1.21%
5,000	2,731	2,269	$653.54	$660.58	$7.04	1.08%
			Average			
928	**560**	**368**	**$138.34**	**$140.87**	**$2.53**	**1.83%**

SOCORRO ELECTRIC COOPERATIVE, INC.

COMPARISON OF EXISTING AND HEARING EXAMINER RECOMMENDED RATES
PRIVATE AREA LIGHTING

		Existing Rate	Hearing Examiner Recommended Rates		Change $	Change %
400 Watt HPS	176 kWh/Mo	$21.75	$22.66	142 kWh/Mo	$0.91	4.18%
100 Watt HPS	56 kWh/Mo	$12.00	$10.50	35 kWh/Mo	($1.50)	-12.50%
150 Watt HPS	70 kWh/Mo	$12.25	$12.76	53 kWh/Mo	$0.51	4.16%
31 Watt LED	11 kWh/Mo		$10.98	11 kWh/Mo	$10.98	0.00%
50 Watt LED	18 kWh/Mo		$11.56	18 kWh/Mo	$11.56	0.00%
199 Watt LED	72 kWh/Mo		$16.38	71 kWh/Mo	$16.38	0.00%
175 Watt MV	78 kWh/Mo	$14.00	$14.59	62 kWh/Mo	$0.59	4.21%
400 Watt MV	180 kWh/Mo	$24.25	$25.27	142 kWh/Mo	$1.02	4.21%
175 Watt MV Metered	78 kWh/Mo	$9.50	$9.90	62 kWh/Mo	$0.40	4.21%
175 Watt MV Shared 6	7 kWh/Mo	$1.32	$0.00			
FCA/PCA Factor, per kWh		$0.009059	$0.000000		($0.009059)	-100.00%
Residential DCA Factor, per kWh		($0.002516)	$0.000000		$0.002516	-100.00%
Total Energy, per kWh		$0.006543	$0.000000		($0.006543)	-100.00%

400 Watt HPS	$22.90	$22.66	($0.24)	-1.05%	
100 Watt HPS	$12.37	$10.50	($1.87)	-15.12%	
150 Watt HPS	$12.71	$12.76	$0.05	0.39%	
31 Watt LED		$10.98	$10.98	0.00%	
50 Watt LED		$11.56	$11.56	0.00%	
199 Watt LED		$16.38	$16.38	0.00%	
175 Watt MV	$14.51	$14.59	$0.08	0.55%	
400 Watt MV	$25.43	$25.27	($0.16)	-0.63%	
175 Watt MV Metered	$10.01	$9.90	($0.11)	-1.10%	
175 Watt MV Shared 6	$1.37	$0.00			

SOCORRO ELECTRIC COOPERATIVE, INC.

COMPARISON OF EXISTING AND HEARING EXAMINER RECOMMENDED RATES
STREET LIGHTING

			Existing Rate	Hearing Examiner Recommended Rates		Change $	Change %
250	Watt HPS	110 kWh/Mo	$15.50	$16.15	89 kWh/Mo	$0.65	4.19%
400	Watt HPS	176 kWh/Mo	$21.75	$22.66	142 kWh/Mo	$0.91	4.18%
100	Watt HPS	47 kWh/Mo	$10.00	$10.50	35 kWh/Mo	$0.50	5.00%
150	Watt HPS	70 kWh/Mo	$12.25	$12.76	53 kWh/Mo	$0.51	4.16%
115	Watt LED	41 kWh/Mo	$0.00	$13.44	41 kWh/Mo	$13.44	0.00%
199	Watt LED	72 kWh/Mo	$0.00	$16.38	71 kWh/Mo	$16.38	0.00%
175	Watt MV	78 kWh/Mo	$14.00	$14.59	62 kWh/Mo	$0.59	4.21%
400	Watt MV	180 kWh/Mo	$23.25	$25.27	142 kWh/Mo	$2.02	8.69%
250	Watt MV	110 kWh/Mo	$16.00	$16.67	89 kWh/Mo	$0.67	4.19%
400	Watt SV Interstate	180 kWh/Mo	$23.25	$24.23	142 kWh/Mo	$0.98	4.22%
FCA/PCA Factor, per kWh			$0.009059	$0.000000		($0.009059)	-100.00%
Commercial DCA Factor, per kWh			($0.002152)	$0.000000		$0.002152	-100.00%
Total Energy, per kWh			$0.006907	$0.000000		($0.006907)	-100.00%

250	Watt HPS	$16.26	$16.15		($0.11)	-0.68%
400	Watt HPS	$22.97	$22.66		($0.31)	-1.35%
100	Watt HPS	$10.32	$10.50		$0.18	1.74%
150	Watt HPS	$12.73	$12.76		$0.03	0.24%
115	Watt LED		$13.44		$13.44	0.00%
199	Watt LED		$16.38		$16.38	0.00%
175	Watt MV	$14.54	$14.59		$0.05	0.34%
400	Watt MV	$24.49	$25.27		$0.78	3.18%
250	Watt MV	$16.76	$16.67		($0.09)	-0.54%
400	Watt SV Interstate	$24.49	$24.23		($0.26)	-1.06%

Exhibit 4

SOCORRO ELECTRIC COOPERATIVE, INC.
HEARING EXAMINER RECOMMENDED RATES
ADJUSTED TEST YEAR ENDING DECEMBER 31, 2017
Cost Allocation Summary

Account	Total	RESIDENTIAL	SM COMM	LG COMM	Irrigation	Load Mgmt	LIGHTS
Rate Base	52,043,502	34,810,533	7,559,665	7,647,864	281,074	793,870	950,492
Operating Revenues	24,703,623	10,365,358	3,330,785	9,443,599	61,455	1,135,260	367,163
Operating Expenses	22,196,056	10,637,771	2,820,456	7,398,353	93,057	902,508	343,909
Return	2,507,567	-272,413	510,329	2,045,246	-31,601	232,752	23,253
Rate of Return	4.818 %	-0.783 %	6.751 %	26.743 %	-11.243 %	29.319 %	2.447 %
Relative ROR	1.000	-0.163	1.401	5.551	-2.333	6.085	0.508
Interest	2,097,912	1,410,796	305,170	300,566	11,302	31,147	38,928
Operating Margins	409,655	-1,683,210	205,159	1,744,680	-42,903	201,604	-15,674
Margin as % Revenue	1.658 %	-16.239 %	6.159 %	18.475 %	-69.813 %	17.758 %	-4.269 %
Operating TIER	1.195	-0.193	1.672	6.805	-2.796	7.473	0.597
Revenue Deficiencies							
Uniform ROR = 4.818213	0	1,949,659	-146,088	-1,676,756	45,144	-194,501	22,542
Deficiency % Rev	0.000 %	18.809 %	-4.386 %	-17.755 %	73.459 %	-17.133 %	6.140 %
Uniform % Mar = 1.658280	0	1,886,378	-152,453	-1,614,857	44,663	-185,861	22,130
Deficiency % Rev	0.000 %	18.199 %	-4.577 %	-17.100 %	72.676 %	-16.372 %	6.027 %

BEFORE THE NEW MEXICO PUBLIC REGULATION COMMISSION

IN THE MATTER OF THE FILING OF ADVICE NOTICE NO. 69 BY SOCORRO ELECTRIC COOPERATIVE, INC.	)	**Case No. 18-00383-UT**
SOCORRO ELECTRIC COOPERATIVE, INC., APPLICANT	)	

CERTIFICATE OF SERVICE

I CERTIFY that on this date I sent to the parties listed here, via email only, a true and correct copy of the **Recommended Decision** of the Hearing Examiner.

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DATED August 15, 2019.

NEW MEXICO PUBLIC REGULATION COMMISSION

Ana C. Kippenbrock

Ana C. Kippenbrock, Law Clerk