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March 16, 2021

By Hand Delivery

Mr. Bernard J. Logan, Clerk
State Corporation Commission
Document Control Center
Post Office Box 2118
Richmond, Virginia 23218

Re: Application of Shenandoah Valley Electric Cooperative For a general increase in electric rates
Case No. PUR-2021-00054

Dear Mr. Logan:

Please find enclosed for filing on behalf of Shenandoah Valley Electric Cooperative, an original and fifteen (15) copies of the above-referenced Application, including direct testimony and exhibits.

Thank you for filing this Application in the appropriate manner, and please do not hesitate to contact me if you have any questions or if you need anything further.

Sincerely,

/s/ Eric M. Page

Eric M. Page

Enclosures
cc: William H. Chambliss, Esquire
Kiva Bland Pierce, Esquire
Kelli J. Cole, Esquire
Ms. Kimberly B. Pate
Mr. William F. Stephens
C. Meade Browder, Jr., Esquire

COMMONWEALTH OF VIRGINIA
STATE CORPORATION COMMISSION

APPLICATION OF	)	
	)	
SHENANDOAH VALLEY ELECTRIC COOPERATIVE	)	**CASE NO. PUR-2021-00054**
	)	
	)	
For a general increase in electric rates	)	

APPLICATION

VOLUME I

Shenandoah Valley Electric Cooperative
Post Office Box 236
Mt. Crawford, Virginia 22841

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Cody T. Murphey (VSB 89437)
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Counsel for the Applicant

Filed March 16, 2021

COMMONWEALTH OF VIRGINIA
STATE CORPORATION COMMISSION

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COMMONWEALTH OF VIRGINIA
STATE CORPORATION COMMISSION

APPLICATION OF	)	
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SHENANDOAH VALLEY ELECTRIC COOPERATIVE	)	**CASE NO. PUR-2021-00054**
	)	
	)	
For a general increase in electric rates	)	

APPLICATION

COMES NOW, Shenandoah Valley Electric Cooperative ("SVEC" or "Cooperative"), and, pursuant to §§ 56-231.33, 56-231.34, 56-236, 56-238, and 56-585.3 ("Rate Case Statutes") of the Code of Virginia and 5 VAC 5-20-80 (A) of the Rules of Practice and Procedure of the State Corporation Commission ("Commission"), by counsel, applies to the Commission for approval of a general increase in electric rates ("Application"). In support of the Application, SVEC respectfully states:

1. SVEC's address is:

   Post Office Box 236
   Mt. Crawford, Virginia 22841

2. SVEC's counsel for this proceeding is:

   Eric M. Page (VSB 18103)
   Cody T. Murphey (VSB 89437)
   Eckert Seamans Cherin & Mellott, LLC
   919 East Main Street, Suite 1300
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   Email: cmurphey@eckertseamans.com

3. SVEC, headquartered in Rockingham County, Virginia, currently provides service to approximately 96,000 meters in the City of Winchester and the Counties of

Augusta, Clarke, Greene, Frederick, Highland, Nelson, Page, Rockbridge, Rockingham, Shenandoah and Warren in Virginia.

4. SVEC filed its most recent general rate application in Case No. PUE-2013-00132 on February 3, 2014 ("2013 Rate Case").[1] On January 26, 2015, the Commission issued a Final Order approving an increase in annual revenues of $13.7 million, effective for bills rendered on and after January 1, 2015.[2] The rates approved by the Commission in the 2013 Rate Case were designed to produce a Times Interest Earned Ration ("TIER") of 2.25x.[3]

5. Pursuant to the Rate Case Statutes and regulations promulgated pursuant thereto, every public utility is required to file with the Commission, and to keep available for public inspection, schedules showing its rates and charges, as well as copies of all rules and regulations that in any manner affect the rates charged or to be charged. The Rate Case Statutes provide that the regulated utility services offered by an electric cooperative such as SVEC shall be reasonably adequate, and the charge for any regulated utility service rendered shall be nondiscriminatory, reasonable, and just. Such charges shall produce sufficient revenue to pay all legal and other necessary expenses incident to the operation of the system, including maintenance costs, operating charges, interest charges, debt liquidation costs, working capital, and reasonable reserves.

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[1] *Application of Shenandoah Valley Electric Cooperative For a general increase in rates,* Case No. PUE-2013-00132, 2015 S.C.C. Ann. Rept. 200, Final Order (January 26, 2015) ("Final Order").

[2] Final Order at 9.

[3] By Board of Directors action as authorized by § 56-585.3.3 of the Code of Virginia, SVEC increased distribution rates by 5% effective with billing in January 2020. At the same time, SVEC rebalanced certain rates pursuant to § 56-585.3.4 of the Code of Virginia.

6. The intent and purpose of the Rate Case Statutes is to allow the Cooperative implement rates that produce revenue sufficient for the Cooperative to a stable financial condition and to maintain its property in sound physical condition. This will allow the Cooperative to render safe, adequate, and efficient service. This includes covering the principal of, and interest on, its debt, as contained in any indenture, mortgage, or other contract with holders of its debt, as approved by the Commission. "Any rate for regulated utility services that is too low to meet the foregoing requirements is unlawful."[4]

7. SVEC is managed and operated conservatively. The Cooperative's Board of Directors and staff work diligently to provide service to SVEC's members at the most reasonable and affordable rates consistent with prudent utility practices. A rate case is needed, in part, because SVEC is planning significant increases in plant investment beginning in 2022 and continuing for several years thereafter. For the benefit of its members, SVEC plans to invest $48.9 million in plant investment per year from 2022 through 2024 compared to an actual average of $30.0 million from 2016 through 2020. An increase in jurisdictional sales revenues of $5.3 million will allow the Cooperative to pay expenses, service debt, fund capital additions, and meet the financial goals established by the Board of Directors. The proposed increase would produce total Rate Year[5] jurisdictional margins of $13.4 million and a 2.35x jurisdictional TIER. The approximately $1.0 million additional revenue produced by a 2.35x TIER compared to a 2.25x TIER will help to offset the cash flow demands of the increased level of capital investment. The

[4] Va. Code § 56-231.33.

[5] The rate year is calendar year 2022 ("Rate Year").

Cooperative requests that its proposed base rates take effect for bills rendered on and after January 1, 2022[6], as interim rates subject to refund with interest if necessary.

8. While the Cooperative's proposed rates produce a TIER of 2.35x based on its Rate Year calculations, SVEC does not request that the Commission set a TIER of 2.35x and then adjust the Cooperative's rates to that specific TIER. Rather, SVEC requests that the Commission approve the rates as proposed, provided that the resulting TIER is within a reasonable range that would normally be recommended for electric distribution cooperatives in Virginia. In recent cooperative rate cases, the Commission has recognized a TIER of 2.00x to 2.50x as a reasonable range. Approval of SVEC's proposed rates will result in a Rate Year TIER that falls in that reasonable range and will allow the Cooperative to meet its financial obligations.

New Proposals

9. SVEC proposes to introduce a minimal demand charge to the distribution service portion of proposed Schedule A-12 and Schedule C-12. Recovering demand costs by applying demand charges is a more cost-based method than recovering demand costs through energy consumption charges. Utilizing demand charges for the recovery of demand-related costs is standard and accepted ratemaking practice. Demand charges are commonly used for non-residential rates and from a cost of service and cost recovery standpoint, the same principles apply to residential and church service.

10. SVEC proposes to introduce seasonal pricing to the Power Supply Services ("PSS") rates in Schedule A-12, Schedule C-12, Schedule B-12, and Schedule LP-12.

[6] As explained in Mr. Gaines' testimony, the Cooperative will implement Schedule AS-1 as of February 2022 billings.

11. SVEC proposes to withdraw Schedule S-7 for seasonal residential service and transfer all affected customers to Schedule A-12.

12. SVEC proposes to close Schedule HPS-2, HPS Light Service, with the intent to provide all new light service under Schedule LED-2, LED Light Service.

13. Similar to other distribution cooperatives served by Old Dominion Electric Cooperative ("ODEC"), SVEC proposes to introduce a new Schedule SSR-1 for community solar subscription service. Under Schedule SSR-1, qualifying consumers can purchase 50 kWh solar blocks of energy at a flat three-year fixed rate of $5.38 per block as developed in Schedule 15G. The proposed Fixed Block Charge is based on the Cooperative's proposed residential supply service rate plus the PCA plus a solar adder based on the loss adjusted difference between the solar resources and the ODEC's standard energy rate, plus a 10% risk premium. The 10% risk premium is to protect all other SVEC consumers from cost shifts should there be increases in capacity costs from ODEC during the fixed rate term.

Summary of Ratemaking Adjustments

14. SVEC proposes standard ratemaking adjustments to revenues, expenses, and rate base to reflect ongoing and pro-forma operations. The Cooperative calculates each adjustment on a jurisdictional basis, either directly or by applying a jurisdictional factor from the jurisdictional separation study. Rate Case Schedule 4A summarizes these adjustments; Rate Case Schedule 4B provides explanations of the adjustments; and the workpapers in Rate Case Schedule 11 provide supporting documentation for each adjustment. The ratemaking adjustments reflecting the proposed Rate Year revenues are Adjustments 8-1 through 8-6.

15. SVEC calculates Rate Year revenues by applying the currently effective rates to the Rate Year billing determinants as adjusted to include consumer growth kilowatt-hour ("kWh") sales and unbilled kWh sales. Schedule 15B provides these calculations by rate class. Purchased power cost includes the effect of the additional kWhs purchased for consumer growth. Per books Rate Base is calculated as of March 31, 2020. Rate year Rate Base is calculated based on balance sheet items as of December 31, 2020 and based on Rate Year Operations and Maintenance for the working capital calculation. The Cooperative applies the Rate Year power cost, which is based on the ODEC, Morgan Stanley, and the Southeastern Power Administration ("SEPA") rates effective January 1, 2021, to Rate Year billing determinants, including consumer growth kWhs. The Cooperative adjusts purchased power expense to remove the test year ODEC margin stabilization credit.

Jurisdictional Allocation and Jurisdictional Class Cost of Service Study

16. The Cooperative's Application includes two cost of service studies. First, Rate Case Schedule 13 contains the per books cost of service study used for the jurisdictional allocation. This jurisdictional allocation study is based on per books revenues, expenses, and rate base. Second, Rate Case Schedule 7 contains the class cost of service study ("CCOS") that incorporates the ratemaking adjustments applied in Rate Case Schedule 3.

17. The methodology used in the jurisdictional allocation study and the CCOS is based principally on the general concepts and guidelines in the Electric Utility Cost Allocation Manual prepared by the National Association of Regulatory Utility Commissioners. SVEC prepared the jurisdictional allocation study in Rate Case Schedule

13 and the CCOS in Rate Case Schedule 7 using a spreadsheet model ("CCOS Model") developed primarily for electric cooperatives by JDG Consulting, LLC.

18. The CCOS Model produces both class revenue requirements and unbundled cost and rate components by class and functionalizes plant investment, expenses, and margin requirements into production, transmission, and distribution functions. Further, the CCOS Model allows distribution costs to be sub-functionalized and classified as energy-related, demand-related, consumer-related, revenue-related, or direct assignments. The remainder of the CCOS Model is devoted to the allocation of the classified functional and sub-functional components of cost to each rate class and to the determination of unit costs by class for each component and sub-functional level of the revenue requirement.

19. The allocation process begins with the compilation of class statistical data and ends with the Summation of Allocated Utility Plant and Expenses. Various types of demand and consumer allocation factors are developed for each rate classification using consumer usage and load characteristics from the test year. For instance, kWhs sold, adjusted for distribution losses, are used to allocate wholesale energy charges from ODEC, Morgan Stanley, and SEPA. Likewise, class coincident peak ("CP") demands are used to allocate demand charges. Another set of class demand contributions is used for allocation of distribution-related investment and expenses. Consumer allocators, both weighted and un-weighted, are used for consumer-related costs.

20. The Cooperative uses the following allocation methodology for allocating purchased power cost. SVEC purchases most of its energy requirements from ODEC with smaller amounts purchased from Morgan Stanley and SEPA. Prior to allocating to the other rate classes, power cost for resale under Schedule PC-5 is directly assigned based on

the actual Schedule PC-5 PSS revenues, which reflect a direct pass through of ODEC power cost. All remaining power costs are allocated. ODEC demand charges for RTO Capacity Service ("RTO") and Morgan Stanley flow-through capacity costs are allocated based on class demands coincident with the 2019 PJM High 5. ODEC and Morgan Stanley Demand charges for Transmission Service are allocated based on each class's 50/50 weighted contributions to the 2019 summer and winter zonal peak demands. ODEC's Remaining Owned Capacity demand charges are allocated in Schedule 13 based on each class's monthly demands coincident with the monthly ODEC billing peaks ("12CP") and in Schedule 7 based on kWh usage by class. The energy portion of the power cost consists of base rate energy costs and ECA costs from ODEC, contract energy charges and ancillary services from Morgan Stanley, and SEPA energy charges. The energy charge cost is allocated based on kWh usage by class.

21. SVEC uses load research data to develop demand allocation factors for distribution rate base and expenses. Sub-transmission and substation demand-related costs are allocated based on class contributions to the 12-month average SVEC system peak. Primary system demand-related costs are allocated using the average and excess methodology. This approach allocates a portion of the costs on the class annual peak demand and a portion based upon average usage over the year. The methodology combines a measure for peak load contribution, which affects the capacity of the distribution facilities, with consideration for annual consumption, which reflects utilization. The plant also serves the full range of consumer types so there is a high diversification both within each consumer class as well as between consumer classes. The average and excess is an allocation method that recognizes this diversity. It also serves to allocate costs to a

consumer or group of consumers who might not utilize the plant during peak hours but benefit from having the plant available throughout the year. The Cooperative allocates demand-related secondary distribution system costs based on the class annual non-coincident peak demands. Secondary distribution plant is designed to provide the capacity requirements of a consumer or small group of consumers, so load diversity between consumers is not as significant a factor in design requirements, Accordingly, it is fairer to allocate the costs based on the annual class peak demand rather than using an average and excess methodology. Schedule 14A shows the functional separation of total jurisdictional revenues, expenses, income, and rate base and costs into production, transmission, distribution, and "other" categories per 20 VAC 5-200-21. As ODEC provides transmission service, and the costs and revenues associated with transmission service are bundled into and included in purchased power cost, there are no revenues or costs in the transmission category.

Rate Design and Rate Schedule Revisions

22. SVEC proposes to increase its Rate Year revenues by $5.3 million and to allocate the increase to the various rate classes in a manner that seeks to address parity deficiencies. Accordingly, SVEC proposes to allocate that increase primarily to Schedule A-12, Schedule C-12, and Schedule PC-5 with smaller percentage allocations to Schedule B-12 and Schedule LP-12. The overall jurisdictional rate revenue increase is 2.43%.

Contents of Application

23. SVEC files its Application in accordance with the 20 VAC 5-200-21 of the Commission's Rules, Streamlined Rate Proceedings and General Rate Proceedings for Electric Cooperatives Subject to the Slate Corporation Commission's Rate Jurisdiction

("Rule 21"). The Application includes the pre-filed direct testimony of Cooperative witnesses Gregory S. Rogers, J. Michael Aulgur, and Jack D. Gaines, as well as Rate Case Schedules 1-15. Mr. Rogers sponsors Rate Case Schedules 15H-K. Mr. Aulgur sponsors or cosponsors Rate Case Schedules 1-5B, 8, 9, 11, and 12. Mr. Gaines sponsors or co-sponsors Rate Case Schedules 3-8, 10, 11, and 13-15A-G.

24. SVEC advised the appropriate persons of its intention to file a general rate case in accordance with Rule 21. SVEC notified its member-consumers in the January 2021 issue of Cooperative Living magazine.[7] On January 13, 2021, SVEC filed a letter of intent to file a general rate application with the Commission[8] with a copy to the Virginia Attorney General's Office Division of Consumer Counsel.[9]

25. The Cooperative's Board of Directors issued a Resolution authorizing the filing of this Application.[10]

WHEREFORE, for the foregoing reasons, Shenandoah Valley Electric Cooperative respectfully requests that the rates and charges provided Rate Case Schedule 5A be approved; that the Commission authorize such rates to be put into effect for bills rendered on and after January 1, 2022, as interim rates subject to refund, if necessary, as provided in § 56-238 of the Code of Virginia; and that the Commission grant such other relief as may be appropriate.

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[7] *See* Rate Case Schedule 15 H.

[8] *See* Rate Case Schedule 15 I.

[9] *See* Rate Case Schedule 15 J.

[10] *See* Rate Case Schedule 15 K.

Respectfully Submitted,

SHENANDOAH VALLEY ELECTRIC COOPERATIVE

By: */s/ Eric M. Page*
Counsel

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Counsel for the Applicant

Filed: March 16, 2021

CERTIFICATE OF SERVICE

I hereby certify that on this 16th day of March, 2021, a true copy of the foregoing document was delivered by hand, emailed, or mailed, first class, postage prepaid, to the following:

William H. Chambliss, Esquire
General Counsel
Virginia State Corporation Commission
1300 East Main Street 10th Floor
Richmond, Virginia 23219

C. Meade Browder, Jr., Esquire
Division of Consumer Counsel
Office of the Attorney General
202 North 9th Street, 8th Floor
Richmond, Virginia 23219

/s/ Eric M. Page
Eric M. Page

COMMONWEALTH OF VIRGINIA
STATE CORPORATION COMMISSION

APPLICATION OF	)	
	)	
SHENANDOAH VALLEY ELECTRIC COOPERATIVE	)	CASE NO. PUR-2021-00054
	)	
	)	
For a general increase in electric rates	)	

Direct Testimony of

Gregory S. Rogers

March 16, 2021

Summary of the Direct Testimony of Gregory S. Rogers

1. As President and Chief Executive Officer of Shenandoah Valley Electric Cooperative ("SVEC" or "Cooperative"), I am responsible for overall management of the Cooperative as well as implementing the goals and policies of the Cooperative's Board of Directors.

2. The purpose of my testimony is to provide an overview of SVEC's application for a general revision in rates ("Application").

3. The Commission last approved a rate increase for the Cooperative in its Final Order issued on January 26, 2015, in Case No. PUE-2013-00132. By Board of Directors action as authorized by § 56-585.3.3 of the Code of Virginia, SVEC increased distribution rates by 5% effective with billing in January 2020. At the same time, SVEC rebalanced certain rates pursuant to § 56-585.3.4 of the Code of Virginia.

4. The Cooperative requests the rate revisions so SVEC may adequately and fairly recover costs incurred for providing safe and reliable service while making needed investments in the system. While SVEC's Times Interest Earned Ratio ("TIER") is an important factor in this request for a rate revision, there is also a need to ensure proper capitalization that allows the Cooperative to maintain service reliability, system security and data privacy.

5. SVEC is seeking to adjust jurisdictional sales revenues by $5.3 million. The proposed increase would produce jurisdictional margins of $13.4 million and a 2.35x TIER, while the modified margins (total margins, less accrued capital credits, plus capital credits received) would be $11.5 million and the modified TIER would be 2.16x.

6. The Cooperative notified its members of the Application through an advertisement in the January 2021 issue of *Cooperative Living Magazine* and will continue to ensure its members are aware of the implementation of the proposed rates.

7. The Application includes the following new proposals:
   a. a small demand charge component to the residential and church service tariffs;
   b. a seasonal adjustment to kWh pricing for residential, general, church, and large power service;
   c. a new rider to provide an Alternate Supplier Cost Adjustment to members served under the Coincident Peak—Load Control Schedule as part of the Electric Service Agreement between the Cooperative and Morgan Stanley Capital Group; and
   d. a new rider to provide community solar energy subscriptions to members served under the residential tariff.

8. The Application includes eliminating or closing the following:
   a. Schedule S-7 Seasonal Residential Service tariff and to place members who are currently served under that tariff onto the residential tariff, and
   b. Schedule HPS-2, HPS Light Service and to provide all new light service under Schedule LED-2, LED Light Service.

9. I sponsor Schedule 9 and Schedules 15H through 15K of the Application.

Exhibit GSR ____

DIRECT TESTIMONY
OF
GREGORY S. ROGERS
ON BEHALF OF
SHENANDOAH VALLEY ELECTRIC COOPERATIVE
BEFORE THE
STATE CORPORATION COMMISSION OF VIRGINIA
CASE NO. PUR-2021-00054

Q1. PLEASE STATE YOUR NAME AND POSITION.

A. My name is Gregory S. Rogers. I am the President and Chief Executive Officer of Shenandoah Valley Electric Cooperative ("SVEC" or "Cooperative"). I have held this position since July 9, 2020.

Q2. PLEASE DESCRIBE YOUR EDUCATIONAL BACKGROUND AND INDUSTRY EXPERIENCE.

A. I received my Bachelor of Science Degree in Electrical Engineering from Virginia Tech and I am a licensed Professional Engineer in the Commonwealth of Virginia. Overall, I have 32 years of experience in the management of electric utilities with 10 of those years at SVEC. I have served 7 months as President and Chief Executive Officer of the Cooperative.

Q3. PLEASE DESCRIBE YOUR JOB RESPONSIBILITIES AT SVEC.

A. As President and Chief Executive Officer, I am responsible for the day-to-day operations of the Cooperative and for reporting results of operations to SVEC's Board of Directors. I am also charged with implementing policies of the Board of Directors. My responsibilities include instilling a culture of safety in all Cooperative operations while ensuring SVEC meets our goals that include, but are not limited to, providing outstanding member service, maintaining superior electric service and reliability, and prudently controlling costs. I am

responsible for the overall management of SVEC, including the development and implementation of short-term and long-term strategic plans. I serve as a representative of the Cooperative in official capacities at the local, state, and national levels, including serving on the Board of Directors of Old Dominion Electric Cooperative and the Virginia, Maryland & Delaware Association of Electric Cooperatives. I have ultimate responsibility for our regulatory filings with the Commission and other regulatory entities. In addition, I manage the financial condition of the Cooperative, ensuring that approved rates are implemented, that there is proper budgeting and management of cash flows, and that all other accounting processes and procedures are followed. With the guidance of the Cooperative's Board of Directors, I implement the Board's long-range planning goals and policies as well as develop action plans based upon strategic goals.

Q4. PLEASE DESCRIBE THE OPERATIONS OF THE COOPERATIVE.

A. SVEC serves more than 96,000 meters in the Counties of Augusta, Clarke, Frederick, Highland, Page, Rockingham, Shenandoah, and Warren; and the City of Winchester in Virginia. SVEC's operating facility and headquarters are located in Mt. Crawford, Virginia. There are currently 231 employees working for the Cooperative as of February 14, 2021. Outside contractors provide right-of-way maintenance (tree trimming, mowing, and herbicide application), pole inspection and maintenance, and substation herbicide spraying.

Q5. WHAT IS THE PURPOSE OF YOUR TESTIMONY?

A. The purpose of my testimony is to provide the Commission with an overview of the Cooperative's general rate case application ("Application"), including a description of the

Cooperative's operations and the reasons for the Application. I sponsor the information contained in Schedule 9 and Schedules 15H through 15K of this Application.

Q6. WHEN DID THE COMMISSION LAST APPROVE A RATE REVISION FOR THE COOPERATIVE?

A. The last time the Commission approved a rate revision for the Cooperative was in Case No. PUE-2013-00132. The Cooperative filed a general rate application on July 15, 2014, and the Commission issued its Final Order on January 26, 2015.[1]

Q7. WHY IS THE COOPERATIVE SEEKING A RATE REVISION?

A. SVEC operates conservatively and works to be efficient in its operations and management. The Cooperative's Board of Directors and staff work to provide reliable service to the members of the Cooperative at the most reasonable and practical price. The Cooperative needs to adequately recover its costs and expenses, while ensuring proper margins to continue to provide safe and reliable service. While SVEC's Times Interest Earned Ratio ("TIER") is an important factor in this request for a rate revision, there is also a need to ensure proper capitalization that allows the Cooperative to maintain service reliability, system security and data privacy.

Q8. PLEASE DESCRIBE THE REVISION SVEC SEEKS IN THIS APPLICATION.

A. SVEC is seeking to adjust jurisdictional sales revenues by $5.3 million to pay expenses, service debt, fund capital additions, and meet the financial goals established by the Board of Directors. The proposed revision would produce jurisdictional margins of $13.4 million

[1] By Board of Directors action as authorized by § 56-585.3(A)(2) of the Code of Virginia, SVEC increased distribution rates by 5% effective with billing in January 2020. At the same time, SVEC rebalanced certain rates pursuant to § 56-585.3(A)(4) of the Code of Virginia.

and a 2.35x TIER, while the modified margins (total margins, less accrued capital credits, plus capital credits received) would be $11.5 million and the modified TIER would be 2.16x. The Cooperative hopes to achieve a rate design and related pricing that will more accurately reflect the costs driving SVEC's rates. Additionally, the Cooperative hopes to achieve improved class and rate parity to the extent practical by allocating revenue recovery among the customer classes to reflect inter-class and intra-class cost of service more accurately.

Q9. HAS THE COOPERATIVE INFORMED ITS MEMBERS ABOUT THIS APPLICATION?

A. The Cooperative has informed its members of the Cooperative's intent to file this Application. Notice of the Cooperative's intent to file for a rate increase was originally provided in the January 2021 issue of *Cooperative Living Magazine*. A copy of this notice is attached as Schedule 15H. As SVEC moves closer to the effective date of the rate adjustment, it will inform its members through various measures, such as *Cooperative Living Magazine*, SVEC's website, social media, etc. A copy of the January 13, 2021 notice of intent to file a rate case is provided in Schedule 15J and the resolution of SVEC's Board of Directors authorizing the filing of this Application is attached in Schedule 15K.

Q10. DOES SVEC HAVE ANY AFFILIATE TRANSACTIONS TO REPORT?

A. No. The Cooperative does not have an affiliate and therefore does not have any affiliate transactions to report.

Q11. IS THE COOPERATIVE PROPOSING A NEW DISTRIBUTION RATE STRUCTURE FOR ITS RESIDENTIAL MEMBERS?

A. Yes. We are proposing adding a minimal demand charge that will have a negligible effect on the vast majority of members who take residential and church services. The cost of delivering electricity to the SVEC membership includes incurring infrastructure costs to deliver electricity at a member's peak demand. The Cooperative plans to deploy new metering infrastructure technology to replace the existing technology that is obsolete. Once the new meters are deployed, they will allow SVEC to practically and efficiently time differentiate billing demands. At that time, SVEC plans to enhance the demand price structure to include a time of use differential. By separating these costs, members will be able to better control both costs (consumption and demand), whereas before they could only control consumption.

Q12. HOW DOES THE COOPERATIVE INTEND TO IMPLEMENT THE DEMAND CHARGE?

A. SVEC plans to take a gradual approach by introducing a low-level demand charge to its single-phase accounts. The proposed demand charge will have a small impact on these members' rates and is discussed further in witness Gaines' testimony. SVEC is committed to designing rates that improve parity and more accurately reflect the cost of serving its members. Any future adjustments to this demand charge will be gradual, with minimal customer impact, and will allow the Cooperative to more effectively recover its demand-related costs.

Q13. DOES SVEC PLAN TO EDUCATE ITS MEMBERSHIP ON DEMAND BILLING?

A. Yes. It is important for members to understand the difference between demand and consumption. As SVEC educates its members on that topic, the idea and understanding behind demand billing will come with it. The first step for successful education will

involve SVEC engaging its Board of Directors, employees, and local elected officials through presentations, FAQ sheets and talking points so they can be informed of the proposed rate changes when member questions arise. The next step will be initiating member-wide communication through SVEC's bill inserts, Cooperative Living Magazine local pages, and monthly e-newsletter to notify consumers of demand billing and other changes that are being proposed in the Application. SVEC will also use our quarterly teletown hall as a method of communication and education. These conference calls are where SVEC staff and Board of Directors can provide timely updates about cooperative initiatives and programs, such as demand billing, and members can ask questions of cooperative leadership. Education about demand billing and all rate changes will also be ongoing through social media and on the SVEC website.

Q14. DOES THE COOPERATIVE'S APPLICATION INCLUDE ANY OTHER NEW PROPOSALS?

A. Yes. SVEC is proposing (i) to add a seasonal adjustment to kWh pricing for residential, general, church, and large power service; (ii) to add a new rider to provide an Alternate Supplier Cost Adjustment to members served under the Coincident Peak—Load Control Schedule as part of the Electric Service Agreement between the Cooperative and Morgan Stanley Capital Group; and, (iii) to add a new rider to provide community solar energy subscriptions to members served under the residential tariff. SVEC is also proposing (iv) to eliminate Schedule S-7 Seasonal Residential Service tariff with the intent to place members who are currently served under that tariff onto the residential tariff; and, (v) to close Schedule HPS-2, HPS Light Service, with the intent to provide all new light service under Schedule LED-2, LED Light Service.

Q15. DOES THIS CONCLUDE YOUR TESTIMONY?

A. Yes, it does.

21032014[1]

COMMONWEALTH OF VIRGINIA
STATE CORPORATION COMMISSION

APPLICATION OF	)	
	)	
SHENANDOAH VALLEY ELECTRIC COOPERATIVE	)	CASE NO. PUR-2021-00054
	)	
For a general increase in electric rates	)	

Direct Testimony of

J. Michael Aulgur

March 16, 2021

Exhibit JMA - ____

Summary of the Direct Testimony of J. Michael Aulgur

1. My testimony addresses the financial condition of Shenandoah Valley Electric Cooperative ("SVEC") as well as certain ratemaking adjustments.

2. SVEC is committed to operating in a financially responsible manner. In part, that means avoiding an operating loss that might result in a Times Earned Interest Ratio ("TIER") and modified debt service coverage ratio ("MDSC") below what SVEC's lenders require.

3. SVEC's test year TIER and MDSC of 1.98x and 1.86x, respectively, allowed SVEC to meet its financial requirements but are not necessarily indicative of future performance.

4. SVEC must increase its jurisdictional revenues by $5.3 million to achieve a rate year TIER of 2.35x and a rate year MDSC of 2.02x. This increase is needed to adequately cover operating expenses and planned capital expenditures.

5. Another factor contributing to the requested increase is very little load growth in new services since SVEC's rate increase approved in Case No. PUE-2013-00132.

6. I make the following ratemaking adjustments:
   a. Adjustment 6-5 Uncollectible Accounts Expense decrease of $196,834;
   b. Adjustment 6-6 Payroll and Overtime Expense increase of $1,119,243;
   c. Adjustment 6-7 Payroll Tax Expense increase of $83,478
   d. Adjustment 6-8 401k Employer Contribution Expense and Pension Expense decrease of $325,796
   e. Adjustment 6-9 Rate Case Expense increase of $31,920;
   f. Adjustment 6-10 Right of Way Expense increase of $473,461;
   g. Adjustment 6-11 Normalize Major Storm Damage increase of $1,031,081;
   h. Adjustment 6-12 Dues and Subscriptions increase of $12,254;
   i. Adjustment 6-13 Depreciation Expense to reflect plant in service as of 12/31/2020 increase of $1,065,783;
   j. Adjustment 6-14 Property Tax Expense to reflect taxable plant as of 12/31/2020 increase of $62,507;
   k. Adjustment 6-15 Interest on Line of Credit decrease of $319,432;
   l. Adjustment 6-16 Interest Income and G&T Capital Credits decrease of $1,843,582; and
   m. Adjustment 6-17 Reflect Interest Expense on Long-Term Debt Through the Rate Year decrease of $54,103.

Exhibit JMA - ____

DIRECT TESTIMONY
OF
J. MICHAEL AULGUR
ON BEHALF OF
SHENANDOAH VALLEY ELECTRIC COOPERATIVE
BEFORE THE
STATE CORPORATION COMMISSION OF VIRGINIA
CASE NO. PUR-2021-00054

Q1. PLEASE STATE YOUR NAME AND POSITION.

A. My name is J. Michael Aulgur. I am the Vice President and Chief Financial Officer at Shenandoah Valley Electric Cooperative ("SVEC"), a position I have held since June 2020. Prior to that time, I held the position of Vice President and Chief Administrative Officer at SVEC.

Q2. PLEASE DESCRIBE YOUR EDUCATIONAL BACKGROUND AND INDUSTRY EXPERIENCE.

A. I received my Bachelor of Science Degree in Business Management from Guilford College. I received my Master of Business Administration and my Master of Public Administration from Virginia Commonwealth University. I have 13 years of experience with electric cooperatives, including over 10 years in positions of increasing responsibility at SVEC.

Q3. WHAT ARE YOUR CURRENT RESPONSIBILITIES AT SVEC?

A. I am responsible for the oversight of the accounting, finance, member service, external affairs and communications, and human resource departments for SVEC. I am also the Assistant Secretary-Treasurer and registered agent for the Cooperative. I lead a team that administers SVEC's financial and consumer information systems. I oversee all Cooperative financial and accounting functions, including budgeting, cash management,

financial analysis, financial planning, insurance coverage, relationships with financial institutions, and debt management. I review audit recommendations and ensure they are implemented. I am responsible for the overall management of the member experience as it relates to billing, accounting, member service, and member communications to ensure high levels of member satisfaction.

Q4. WHAT IS THE PURPOSE OF YOUR TESTIMONY?

A. My testimony addresses the financial condition of SVEC and ratemaking Adjustment Nos. 6-5 through 6-17. These adjustments are summarized in Schedule 4A and explanations of these adjustments are provided in Schedule 4B. Supporting documentation for each adjustment is found in Schedule 11. In addition, my testimony identifies and describes the exhibits and schedules that I am sponsoring, which were prepared by me or under my direction.

Q5. PLEASE DESCRIBE SVEC'S FINANCIAL CONDITION.

A. As Schedule 1 shows, SVEC had total utility plant-in-service in excess of $576 million for a test year ending March 31, 2020 ("Test Year"). Schedule 2 shows test year net margins amounting to $10.0 million and a TIER of 1.98x. SVEC retired capital credits to its members in the amounts of $5.1 million in 2018, $3.6 million in 2019, and $4.7 million in 2020. SVEC's equity ratio was 36.3% at the end of its Test Year.

SVEC was able to meet its financial requirements by achieving a Test Year TIER and MDSC of 1.98x and 1.86x,[1] and rate revisions are needed in order to allow the Cooperative to continue to meet those financial requirements.

Q6. WHY IS SVEC SEEKING A RATE REVISION AT THIS TIME?

A. There are multiple reasons for the Cooperative seeking rate revisions at this time. SVEC's electric distribution system must be continually maintained and upgraded for safe and reliable operation, while meeting projected member demand and technological compatibility requirements. As previously noted, distribution revenue growth is needed in order to meet future expenses. Further, members are becoming more energy efficient overall, and some are investing in alternative energy sources such as rooftop solar for some or all their electricity needs. These shifts in member behavior necessitate the Cooperative to rethink its cost recovery methodologies. That means moving away from a methodology largely based on energy consumption to one that better reflects demand.

SVEC also has significant capital expenditures planned in the next five years. Many of the dollars in the Cooperative's capital expenditure work plan are multi-year construction projects that require SVEC to demonstrate to its financial partners that SVEC will have the revenue, cash flow and margins in future years to see these projects to completion. Finally, the Cooperative's capital work plan includes creating a fiber optic communications system, as well as a meter replacement project to replace existing meters that are obsolete and no longer compatible with current technology. The work plan is projected to cost $41.5 million in the first year and average $48.9 million from 2022

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[1] Test Year MDSC = Margins + Interest + Depreciation + Capital Credits Received – Capital Credits Accrued ÷ Debt Service ((1.86 = ($10,030,596 + $10,283,642 + $18,975,395 + $539,581 – $3,202,086) ÷ $19,731,257)).

through 2024. These factors, along with the adjustment to reduce Test Year sales, as discussed in the testimony of SVEC witness Gaines, requires the Cooperative to increase its jurisdictional revenues by $5.3 million to increase its TIER to 2.35x and MDSC to 2.02x.[2]

Q7. PLEASE EXPLAIN THE STEPS SVEC TOOK TO MITIGATE AND DELAY THIS RATE APPLICATION.

A. This rate case is necessary to ensure that the Cooperative can continue to meet its financial obligations and to maintain reliable revenues, cash flows, and margins to serve its members safely and effectively. However, before deciding to go forward with the filing of this Application, the Cooperative's Board of Directors and management made every effort to hold down operational expenditures. This included replacing the employee pension plan with a 401k plan, and refinancing debt to take advantage of lower interest rates.

To enhance income, the Cooperative took advantage of the cushion of credit earning opportunity and received a Paycheck Protection Program loan under the Coronavirus Aid, Relief and Economic Security Act. SVEC also used short-term lines of credits to finance operations and drew down on Rural Utility Service loan funds.

Additionally, on January 1, 2020, SVEC utilized the authority granted to the Cooperative by the General Assembly to increase distribution rates by 5%. These actions allowed SVEC to maintain the financial health needed to meet loan covenants and other obligations in the immediate term, but those actions are not enough, on their own, to

[2] Proposed MDSC = Margins + Interest + Depreciation + Capital Credits Received – Capital Credits Accrued + Debt Service ((2.02 = ($13,365,374 + $9,887,130 + $19,410,965 + $520,681 – $2,409,816) ÷ $20,212,917)).

preserve the Cooperative's middle- and long-term financial stability, making this rate case a necessity.

Q8. IN SUMMARY, WHAT FACTORS DRIVING SVEC'S APPLICATION FOR A RATE REVISION?

A. Ultimately, to provide safe and reliable operations, SVEC needs the resources to properly maintain the current system while also making prudent investments and necessary upgrades in the system to meet projected future demand. SVEC must also maintain adequate margins to protect against potential costs related to severe storm damage and other material risks and uncertainties inherent in the operation of an electric utility. Finally, while usage levels have not seen significant growth in recent years, the Cooperative's revenues must keep pace with the rising costs of operation due in part to general economic trends.

Q9. PLEASE DESCRIBE SVEC'S PROPOSED INCREASE.

A. SVEC seeks an increase in rate year revenue of approximately $5.3 million, which will result in a rate year TIER of 2.35x. The additional revenue from the proposed rates will allow SVEC to meet its financial obligations in the future and provide ongoing financial strength.

Q10. WHAT RATE CASE SCHEDULES ARE YOU SPONSORING?

A. I am sponsoring the following schedules as set forth in Appendix A of 20 VAC 5-200-21:

Schedule 1 – Comparative Balance Sheets

Schedule 2 – Comparative Income Statements

Schedule 12 – Revenue and Expense Variance Analysis

I am co-sponsoring, with SVEC witness Jack Gaines, the following:

Schedule 3 – Financial Status Statement

Schedules 4A and B – Detail of Ratemaking Adjustments

Schedules 5A and B – Proposed Rates and Tariffs and Revenue Allocation

Schedule 8 – Capital Structure and Cost of Debt Statement

Schedule 11 – Working Papers for Ratemaking Adjustments

Q11. PLEASE EXPLAIN SVEC'S PROPOSED ADJUSTMENT TO UNCOLLECTIBLE ACCOUNTS EXPENSE (ADJUSTMENT NO. 6-5).

A. SVEC determines its uncollectable accounts expense by calculating the average percentage of net write-offs relative to total sales revenue. Using the net write-off presents a more accurate reflection of the true cost of uncollectable accounts to the Cooperative. In this adjustment, the total net write-offs for the 5 calendar years 2015–2019 are divided into the total sales revenue of that period to calculate the average percentage of revenue that is written off. That percentage is applied to rate year jurisdictional sales revenue. This amount is then compared to the test year's jurisdictional per books uncollectable expense. The result of this adjustment is a jurisdictional decrease of $196,834.

Q12. PLEASE EXPLAIN SVEC'S ADJUSTMENTS TO PAYROLL AND OVERTIME EXPENSE (ADJUSTMENT NO. 6-6).

A. SVEC has normalized the payroll expense by taking the total number of test year hours and multiplied it by the hourly rate as of November 2020. Additionally, the Cooperative has also included proposed pay increases of 3% in 2021 and 2022. Additional adjustments were then made to account for a portion of payroll and overtime being apportioned to capital expenditures and, accordingly, not to be accounted in this adjustment. The result of this adjustment is a jurisdictional increase of $1,119,243.

Q13. PLEASE EXPLAIN SVEC'S ADJUSTMENT TO PAYROLL TAX (ADJUSTMENT NO. 6-7).

A. This adjustment is the result of additional taxes due for Social Security and Medicare related to the jurisdictional payroll expense increase that I discussed in Adjustment 6-6. The result of this adjustment is a jurisdictional increase of $83,478.

Q14. PLEASE EXPLAIN SVEC'S ADJUSTMENT TO 401K AND R&S PLAN EMPLOYER EXPENSE (ADJUSTMENT NO. 6-8).

A. The Cooperative made a change in its retirement benefit at the beginning of 2020, replacing its pension plan with a 401k plan. This adjustment accounts both for employer contributions due under the previous R&S plan as well as contributions to the 401k plan, based on adjustments to payroll previously noted in my discussion of Adjustment 6-6. The result of this adjustment is a jurisdictional decrease of $325,796.

Q15. PLEASE EXPLAIN SVEC'S ADJUSTMENT TO RATE CASE EXPENSE (ADJUSTMENT NO. 6-9).

A. This adjustment is the result of legal and consulting expenses incurred by the Cooperative in the preparation of this rate case. These expenses are amortized over a three-year period and a further adjusted by removing costs related to the test year rate case. The result of this adjustment is a jurisdictional increase of $31,920.

Q16. PLEASE EXPLAIN SVEC'S ADJUSTMENT TO RIGHT-OF-WAY CLEARING EXPENSE (ADJUSTMENT NO. 6-10).

A. This adjustment is due to factors related to the clearing of rights-of-way ("ROW"). The Cooperative needed to account for increases in contractor labor rates that are incurred as a

part of the ROW clearing program. SVEC also had to factor in expenses related to catching up weed spray deficits. The result of this adjustment is a jurisdictional increase of $473,461.

Q17. PLEASE EXPLAIN SVEC'S ADJUSTMENT TO MAJOR STORM DAMAGE (ADJUSTMENT NO. 6-11).

A. This adjustment is based on a five-year average of major storm expense excluding SVEC labor and overhead expense. The five-year average expense is $262,702, which is an increase of $220,664 over the test year actual expense of $42,039. The adjustment also includes a reversal of an accounting deferral of $840,775 that was booked in December 2019. Thus, the increase in major storm expense versus 2019 is $1,061,438 and the jurisdictional increase is $1,031,081.

Q18. PLEASE EXPLAIN SVEC'S ADJUSTMENT TO DUES AND SUBSCRIPTION EXPENSE (ADJUSTMENT NO. 6-12).

A. This adjustment is the result to changes in dues that SVEC will pay for membership in the Virginia, Maryland & Delaware Association of Electrical Cooperatives and in the National Rural Electric Cooperative Association. The dues paid to each organization was divided by the number of members during the test year to determine a cost of membership on a per customer basis. That cost per customer was then multiplied by the number of members in the rate year to determine the adjustment. The result of this adjustment is a jurisdictional increase of $12,254.

Q19. PLEASE EXPLAIN SVEC'S ADJUSTMENT TO DEPRECIATION EXPENSE (ADJUSTMENT NO. 6-13).

A. This adjustment updates the Cooperative's depreciation expense to project it for the rate year. This was calculated by first annualizing SVEC's depreciation expense by taking the monthly expense for December 2020 and multiplying it by 12 months to determine the rate year depreciation expense. A further adjustment to rate year depreciation expense is made to account for the Cooperative's new Gore substation expected to be completed and added to plant before the rate year. The test year depreciation expense is then subtracted, and a jurisdictional factor is used to calculate the adjustment. The result of this adjustment is a jurisdictional increase of $1,065,783.

Q20. PLEASE EXPLAIN SVEC'S ADJUSTMENT TO PROPERTY TAX (ADJUSTMENT NO. 6-14).

A. This adjustment accounts for anticipated changes to property taxes paid by SVEC. An effective property tax rate was calculated by dividing the test year property tax expense by the test year 13-month average net-utility plant. The net-utility plant as of December 31, 2020 was then multiplied by the previously calculated effective property tax rate to derive the rate year tax expense. The adjustment is the difference between the test year tax expense and the rate year tax expense. The result of this adjustment is a jurisdictional increase of $62,507.

Q21. PLEASE EXPLAIN SVEC'S ADJUSTMENT TO OTHER INTEREST (ADJUSTMENT NO. 6-15).

A. This adjustment accounts for anticipated interest expenses. The Cooperative's short-term debt was retired by refinancing with new long-term debt after the test year. Accordingly, interest paid on notes in the test year does not carry to the rate year. The result of this adjustment is a jurisdictional decrease of $319.432.

Q22. PLEASE EXPLAIN SVEC'S ADJUSTMENT TO OTHER INCOME (ADJUSTMENT NO. 6-16).

A. This adjustment is for two income areas. The first relates to interest income on the Cooperative's cushion of credit. That amount will be reduced to zero at the beginning of the rate year. The second area relates to G&T capital credits due SVEC from Old Dominion Electric Cooperative ("ODEC"). We have received projections on the capital credits from ODEC for 2021 and 2022. We have averaged those projections to calculate a rate year value for G&T capital credits. We then compared that average with the G&T capital credits that SVEC was allocated in the test year. That difference, plus reduction in cushion of credit income I previously mentioned, make up the adjustment. The result of this adjustment is a jurisdictional decrease of $1,843,582.

Q23. PLEASE EXPLAIN SVEC'S ADJUSTMENT TO INTEREST EXPENSE (ADJUSTMENT NO. 6-17).

A. SVEC has calculated the interest expense for the rate year by calculating the interest expense on outstanding long-term debt as well as new debt that is projected to be incurred by the Cooperative. The new interest expense that SVEC is projected is related to $50 million in additional financing that the Cooperative anticipates securing prior to the rate year. The result of this adjustment is a jurisdictional decrease of $54,103.

Q18. DOES THIS CONCLUDE YOUR TESTIMONY?

A. Yes, it does.

COMMONWEALTH OF VIRGINIA
STATE CORPORATION COMMISSION

APPLICATION OF	)	
	)	
SHENANDOAH VALLEY ELECTRIC COOPERATIVE	)	CASE NO. PUR-2021-00054
	)	
	)	
For a general increase in electric rates	)	

Direct Testimony of

Jack D. Gaines

March 16, 2021

Exhibit JDG ___

Summary of the Direct Testimony of Jack D. Gaines

My prefiled direct testimony supports the following Shenandoah Valley Electric Cooperative ("SVEC") proposals:

1. To increase rate year jurisdictional revenues by $5.3 million to pay expenses, service debt, fund capital additions, retire patronage, and gradually increase its equity as a percent of assets which was 36.3% as of March 31, 2020.

2. To produce total rate year jurisdictional margins of $13.4 million, a 2.35x jurisdictional Times Interest Earned Ratio, modified margins (total margins, less accrued capital credits, plus cash capital credits received) of $11.5 million, and a modified TIER of 2.16x.

3. To roll into base Power Supply Service rates the rate year levels of power cost adjustment revenues.

4. To allocate the proposed distribution revenue increase among rate classes to improve rate parity based on the Class Cost of Service Study ("CCOS").

5. To introduce a demand charge to the distribution service portion of proposed Schedule A-12 and Schedule C-12.

6. To introduce seasonal pricing to the Power Supply Service ("PSS") rates in Schedule A-12, Schedule C-12, Schedule B-12, and Schedule LP-12.

7. To rebalance all rates such that the PSS rates of each tariff recover as nearly as practical the rate year allocated purchased power expense.

8. To rename Schedule PC-4, Coincident Peak Load Control Rider as Schedule LCR-1, Coincident Peak Load Control Rider..

9. To introduce a new Schedule AS-1 for allocating to Schedule PC-5 and Schedule LCR-1 a portion of net savings or costs associated with the Morgan Stanley power supply agreement.

10. To introduce a new Schedule SSR-1 for community solar subscription service.

Exhibit JDG __

DIRECT TESTIMONY
OF
JACK D. GAINES
ON BEHALF OF
SHENANDOAH VALLEY ELECTRIC COOPERATIVE
BEFORE THE
STATE CORPORATION COMMISSION OF VIRGINIA
CASE NO. PUE-2021-00054

I. INTRODUCTION

Q1. PLEASE STATE YOUR NAME AND BUSINESS ADDRESS.

A. My name is Jack D. Gaines. My business address is P.O. Box 88039, Dunwoody, Georgia 30356.

Q2. BY WHOM ARE YOU EMPLOYED AND IN WHAT CAPACITY?

A. I am employed by and am president of JDG Consulting, LLC ("JDG Consulting").

Q3. PLEASE DESCRIBE YOUR EDUCATIONAL AND PROFESSIONAL BACKGROUND.

A. I graduated from the Georgia Institute of Technology, receiving a Bachelor of Science Degree in Industrial Management. I was previously employed by Southern Engineering for approximately 27 years as a utility rate and cost of service specialist. From August 1, 2000, until February 1, 2004, I was employed by Clough, Harbour & Associates, LLP, in the same capacity. I have prepared or assisted in the preparation of electric rate and cost of service studies for either cooperative or municipal utility systems in thirteen different states, including Virginia.

Q4. HAVE YOU PREVIOUSLY TESTIFIED AS AN EXPERT WITNESS BEFORE REGULATORY AUTHORITIES?

A. I have submitted testimony and exhibits before the Indiana Utility Regulatory Commission, the Kentucky Public Service Commission, the Vermont Public Service Board, the Virginia State Corporation Commission ("Commission"), the Georgia Public Service Commission, the Illinois Commerce Commission, the New York Public Service Commission, the West Virginia Public Service Commission, the Public Service Commission of Maryland, the Delaware Public Service Commission and the Federal Energy Regulatory Commission ("FERC").

Q5. WHAT IS THE PURPOSE OF YOUR TESTIMONY IN THIS PROCEEDING?

A. The purpose of my testimony is to support the Application of Shenandoah Valley Electric Cooperative ("SVEC" or the "Cooperative") for revised rate schedules for electric service. I am responsible for the Class Cost of Service Study ("CCOS") and Jurisdictional Allocation prepared on behalf of SVEC. In addition, my testimony identifies and describes the exhibits and schedules that I am sponsoring or co-sponsoring, including those prepared by me or under my direction.

Q6. PLEASE IDENTIFY THE SCHEDULES THAT YOU ARE SPONSORING OR CO-SPONSORING.

A. I am sponsoring the following Schedules as set forth in Appendix A of 20 VAC 5-200-21:

Schedule 6 – Sample Billing

Schedule 7 – Class Cost of Service Study

Schedule 10 – Net Original Cost Rate Base

Schedule 13 – Jurisdictional Allocation

Schedule 14A – System Functional Analysis

Schedule 14B – Jurisdictional Cost Allocation Study

Schedule 14C – Class Functional Analysis

Schedule 15A – Development of Proposed Rates

Schedule 15B – Consumption Analysis Data

Schedule 15C – Revenue and Power Cost Reconciliation

Schedule 15D – Rate Year PCA and Proposed PCA Base

Schedule 15E – Single and Three Phase Customer Costs

Schedule 15F – Schedule AS-1 Rate Calculations

Schedule 15G – Community Solar Rate Calculation

I am co-sponsoring with SVEC witness J. Mike Aulger:

Schedule 3 – Financial Status Statement

Schedules 4A and B – Detail of Ratemaking Adjustments

Schedules 5A and B – Proposed Rates and Tariffs and Revenue Allocation

Schedule 8 – Capital Structure and Cost of Debt Statement

Schedule 11 – Working Papers for Ratemaking Adjustments

Q7. PLEASE SUMMARIZE SVEC'S APPLICATION.

A. In this Application, SVEC is requesting changes in its rate schedules for retail electric service to achieve the following:

1. To increase rate year[1] jurisdictional revenues by $5.3 million to pay expenses, service debt, fund capital additions, retire patronage, and maintain its equity as a percent of assets ("Equity Ratio") at or near the

[1] The rate year begins January 1, 2022, the first month proposed for billing under proposed rates.

prevailing level of approximately 36%.

2. To produce total rate year jurisdictional margins of $13.4 million, a 2.35x jurisdictional Times Interest Earned Ratio ("TIER"), modified margins (total margins, less accrued capital credits, plus cash capital credits received) of $11.5 million, and a modified TIER ("MTIER") of 2.16x.

3. To roll into base Power Supply Service ("PSS") rates the rate year levels of power cost adjustment ("PCA") revenues.

4. To allocate the proposed distribution revenue increase among rate classes to improve rate parity based on the CCOS.

5. To introduce a demand charge to the distribution service portion of proposed Schedule A-12 and Schedule C-12.

6. To introduce seasonal pricing to the PSS rates in Schedule A-12, Schedule C-12, Schedule B-12, and Schedule LP-12.

7. To rebalance all rates such that the PSS rates of each tariff recover as nearly as practical the rate year allocated purchased power expense.

8. To rename Schedule PC-4, Coincident Peak Load Control Rider as Schedule LCR-1, Coincident Peak Load Control Rider.

9. To introduce a new Schedule AS-1 for allocating to Schedule PC-5 and Schedule LCR-1 a portion of net savings or costs associated with the Morgan Stanley power supply agreement.

10. To introduce a new Schedule SSR-1 for community solar subscription service.

Q8. PLEASE DESCRIBE THE STRUCTURE OF THE REMAINDER OF YOUR TESTIMONY.

A. The remainder of my testimony is organized into sections as follows: (II) Revenue Requirements, (III) Ratemaking Adjustments, (IV) Jurisdictional Allocation and Jurisdictional Class Cost of Service Study, and (V) Proposed Rate Design and Class Revenue Distribution.

II. REVENUE REQUIREMENTS

Q9. PLEASE EXPLAIN SCHEDULE 3 – FINANCIAL STATUS STATEMENT.

A. Schedule 3 sets forth revenues, expenses, income, rate base, and financial ratios for the test year[2] per books and as adjusted for Virginia Jurisdictional sales under both present and proposed rates. Total system per books results are shown in column 1. Three adjustments are shown in column 2. Adjustments 2-1 and 2-2 are to reclassify property taxes spread to Operations and Maintenance ("O&M") accounts per Rural Utilities Service ("RUS") accounting guidelines by moving those expenses into Tax Expense-Property. Therefore, Other O&M is reduced by $2,749,427 and property tax expense is increased by $2,749,427. Adjustment 2-3 is to reduce the Allowance for Working Capital by 45/365th of the reduction to Other O&M. Column 5 shows jurisdictional per books amounts after removing the non-jurisdictional amounts shown in column 4. Jurisdictional ratemaking adjustments as described in Schedules 4A and 4B are shown in column 6 and

[2] The test year is the 12 months ending March 31, 2020.

the adjusted test year amounts are shown in column 7. As shown in column 8, SVEC is seeking to increase test year jurisdictional distribution rate revenues by $6,066,200 including $609,189 of non-purchased power costs transferred from the base PSS rates. SVEC is proposing to reduce base PSS revenue by $14,251,322 which is offset by a PCA revenue increase of $13,642,133. The $609,189 difference between the base PSS revenue reduction and the PCA revenue increase is the rate year level of non-purchased power costs that is included in the present base PSS rates. Combined, SVEC is proposing a net increase in sales revenue of $5,457,011. SVEC is proposing to decrease facilities charge revenues booked as Other Electric Revenue by $131,863 resulting in a net overall operating revenue increase of $5,325,148. As shown in column 9, the proposed revenues will produce a rate year TIER of 2.35x, a Debt Service Coverage Ratio ("DSC") of 2.11x and a rate of return on rate base ("ROR") of 5.10%. The rate year MTIER produced by proposed rates is 2.16x.

Q10. PLEASE EXPLAIN HOW THE COOPERATIVE DETERMINED THAT $226,680,999 IS THE APPROPRIATE JURISDICTIONAL REVENUE REQUIREMENT IN THIS CASE.

A. SVEC is seeking approval of rates that produce a 2.35x TIER based on rate year calculations of revenues and expenses. A 2.35x TIER is within the 2.00x to 2.50x range typically recognized as reasonable for Virginia electric cooperatives. Rates based on a 2.35x rate year TIER should provide SVEC with sufficient margins and cash flow to pay expenses, service debt, fund capital additions, retire patronage, and maintain its Equity Ratio to extent practical.

Q11. WHY IS SVEC PROPOSING A 2.35X TARGET TIER RATHER THAN A 2.25X TIER, THE MIDPOINT BETWEEN 2.20 AND 2.50?

A. SVEC is planning significant increases in plant investment beginning in 2022 and continuing for several years thereafter. SVEC plans to invest $146.6 million from 2022 through 2024, an average of $48.9 million per year. By comparison, the average plant investment from 2016 through 2020 was $30.0 million per year. The approximately $1.0 million additional revenue produced by a 2.35x TIER compared to a 2.25x TIER will help to further offset the additional cash flow demands of the increased level of capital investment. It will also help to maintain the Cooperative's Equity Ratio during this period of additional capital investment.

Q12. IF THE COMMISSION FINDS THAT THE PROPOSED RATES PRODUCE A TIER MORE OR LESS THAN 2.35X, IS SVEC REQUESTING THAT THE REVENUE REQUIREMENT BE ADJUSTED SUCH THAT A 2.35X TIER IS PRODUCED?

A. No, SVEC is requesting that the Commission approve the rates as proposed so long as the resulting rate year TIER is within a reasonable range that would normally be recommended for an electric cooperative such as SVEC. Based on recent cooperative rate cases, a TIER range of from 2.0x to 2.5x is a reasonable range.

III. <u>RATEMAKING ADJUSTMENTS</u>

Q13. PLEASE DESCRIBE THE RATEMAKING ADJUSTMENTS INCLUDED BY SVEC IN COLUMN 6 OF SCHEDULE 3.

A. SVEC is proposing standard ratemaking adjustments to revenues, expenses, and rate base

to reflect ongoing and pro-forma operations. Each adjustment is calculated on a jurisdictional basis either directly or by applying a jurisdictional factor from the jurisdictional separation study. The adjustments are summarized in Schedule 4A. Adjustments 6-1 through 6-3 are revenue adjustments. Adjustment 6-4 includes all adjustments to purchased power expense. Adjustments 6-5 through 6-12 are various adjustments to Other O&M expenses. Adjustments 6-13 through 6-17 are the adjustments to depreciation expense, taxes, interest income, and interest expense on long-term debt, respectively. Adjustments 6-18 through 6-20 are to rate base. Explanations of the adjustments are provided in Schedule 4B and supporting documentation for each is found in Schedule 11. The ratemaking adjustments reflecting the proposed rate year revenues are Adjustments 8-1 through 8-6.

Q14. PLEASE DESCRIBE THE COLUMN (6) ADJUSTMENTS TO REVENUES.

A. Adjustment 6-1 is to normalize test year distribution revenues for the distribution rates effective January 1, 2020 and to reflect consumer growth based on the projected numbers of consumers as of March 31, 2021. Adjustment 6-2 is to normalize rate year PSS revenues to reflect customer growth. Adjustment 6-3 is the amount necessary to synchronize PCA revenue plus base PSS revenue with rate year power cost. The rate year PCA factor used to calculate rate year PCA revenues is calculated in Schedule 15D.

Q15. PLEASE EXPLAIN HOW YOU INCLUDED THE EFFECTS OF CONSUMER GROWTH IN RATE YEAR SALES REVENUE.

A. For each rate class, the rate year number of consumers is based on the number of consumers estimated to be billed as of March 31, 2021. It is expected that the Commission Staff will

update the consumer growth adjustment based on more current data at the time of the Staff audit.

Q16. PLEASE EXPLAIN HOW YOU CALCULATED RATE YEAR KILOWATT-HOUR SALES AND DEMAND BILLING DETERMINANTS FOR EACH RATE CLASS.

A. Other than Schedule PC-5, the kWh sales by rate class have been adjusted proportionately by multiplying the average consumption in each month of the test year by the rate year number of consumers (*number of lights for lighting rates*). Demand billing units where applicable are adjusted proportionately. Actual test year kWh sales and distribution billing demands are used for Schedule PC-5. RTO, Zonal, and Remaining Owned Capacity Service ("ROC") billing demands are based on actual 2021 billing determinants as defined in Schedule PC-5.

Q17. HAVE YOU PREPARED SCHEDULES SHOWING THE CALCULATIONS OF TEST YEAR REVENUE PROOFS AND RATE YEAR REVENUES BASED ON THE RATE YEAR CONSUMER, KWH, AND DEMAND BILLING DETERMINANTS?

A. Yes. Those calculations by rate class are shown in Schedule 15B. The amounts by class under present and proposed rates are summarized on page 1 of Schedule 5B. A more detailed summary of revenues by class is provided on pages 2 through 5 of Schedule 5B.

Q18. DO THE RATEMAKING ADJUSTMENTS INCLUDE ADJUSTMENTS TO PURCHASED POWER EXPENSE AND RATE BASE ITEMS CONSISTENT WITH CONSUMER GROWTH THROUGH MARCH 31, 2021?

A. Yes. Rate year purchased power expense includes the effects of the additional kWh

purchased for consumer growth. Rate base, depreciation expense, and property taxes are adjusted to reflect plant in service as of December 31, 2020, the most recent data available when the calculations were made. It is expected that the Commission Staff will update the consumer growth adjustment based on more current data at the time of the Staff audit.

Q19. PLEASE DESCRIBE THE ADJUSTMENTS TO PURCHASED POWER EXPENSE.

A. The calculations and amounts of the adjustments to purchased power expense are shown on page 4 of Schedule 11. The rate year power cost is based on the Old Dominion Electric Cooperative ("ODEC"), Morgan Stanley, and the Southeastern Power Administration ("SEPA") rates effective January 1, 2021 applied to rate year billing determinants including the consumer growth kWh. Purchased power expense is also adjusted to remove the test year ODEC margin stabilization credit. The net adjustment to purchased power expense is a decrease of $19,659,406.

Q20. PLEASE DESCRIBE THE ADJUSTMENTS TO RATE BASE.

A. Per books Rate Base is calculated as of March 31, 2020. Rate year Rate Base is calculated based on balance sheet items as of December 31, 2020 and based on rate year O&M for the working capital calculation. It is expected that the Commission Staff will update the consumer growth adjustment based on more current data at the time of the Staff audit.

Q21. PLEASE DESCRIBE THE PROPOSED REVENUE ADJUSTMENTS SHOWN IN COLUMN 8 OF SCHEDULE 3.

A. Adjustment 8-1 of $6,066,200 is to increase base distribution rate revenue for the proposed rates. Adjustment 8-2 is to decrease bass PSS revenue by $14,251,322 for the proposed base PSS rates. Adjustment 8-3 is to increase PCA revenues by $13,640,670 which reflects a roll-in of PCA revenues to the base PSS rates. Adjustment 6-4 is to reduce facilities charge revenue by $131,863 based on the proposed reduction in the facilities charge rate included in Section VI. E. of the Cooperative's Terms and Conditions of Service. Combined, SVEC is proposing a net increase in operating revenue of $5,325,148.

IV. JURISDICTIONAL ALLOCATION AND JURISDICTIONAL CLASS COST OF SERVICE STUDY

Q22. PLEASE DESCRIBE THE SCHEDULE 13 JURISDICTIONAL ALLOCATION AND THE SCHEDULE 7 CLASS COST OF SERVICE STUDY.

A. The Application includes two cost of service studies. The first is based on per books revenues, expenses, and rate base. It is used for the jurisdictional allocation and is provided as Schedule 13, the Jurisdictional Allocation. The second is the CCOS. It is based on rate year sales, revenues and expenses. The CCOS is provided as Schedule 7.

Q23. PLEASE EXPLAIN HOW THE RESULTS OF THE JURISDICTIONAL ALLOCATION ARE USED.

A. The results of the Jurisdictional Allocation are found on pages 1 and 2 of Schedule 13. The Jurisdictional Allocation Factors for various categories of revenues, expenses, and rate base are shown in column (e) of page 1. Those factors are used where applicable to

determine the jurisdictional portion of ratemaking adjustments applicable to Schedule 3, Schedule 8, and Schedule 10. The Schedule 13 - Jurisdictional Allocation is also used to produce the non-jurisdictional income, expense, and rate base amounts that are shown in column (5) of Schedules 3 and 10.

Q24. DO THE ADJUSTED JURISDICTIONAL EXPENSES AND RATE BASE AMOUNTS FROM SCHEDULE 3 MATCH THE ADJUSTED EXPENSES AND RATE BASE AMOUNTS ALLOCATED TO THE JURISDICTIONAL CLASSES IN SCHEDULE 7?

A. The gross adjustments, the amounts before applying the jurisdictional allocation factors to determine the Schedule 3 jurisdictional adjustments, are included as adjustments to the input amounts of Schedule 7. There are, however, slight differences in the amounts allocated to the jurisdictional classes when Schedule 3 and Schedule 7 are compared. The differences are due to the detailed allocation of certain costs to individual consumer classes in the CCOS compared to the composite ratios used to develop the ratemaking adjustments in Schedule 3. The differences are immaterial in the determination of overall rates of return between the jurisdictional and non-jurisdictional rate classes.

Q25. PLEASE EXPLAIN THE COST OF SERVICE METHODOLOGY.

A. The methodology is principally based on the general concepts and guidelines stated in the *Electric Utility Cost Allocation Manual,* as prepared by the National Association of Regulatory Utility Commissioners ("NARUC"). The Jurisdictional Separation in Schedule 13 and the CCOS in Schedule 7 have been prepared using a spreadsheet model developed by JDG Consulting primarily for use by electric cooperatives. It is designed to

produce both class revenue requirements and unbundled cost and rate components by class. The model is set up to functionalize plant investment, expenses, and margin requirements into the production, transmission, and distribution functions. In addition to functionalizing, the model is designed so that the distribution costs can be sub-functionalized into: 1) sub-transmission; 2) substation; 3) three-phase and single-phase primary distribution; 4) three-phase and-single phase transformation and secondary distribution; 5) meters; 6) metering; 7) billing; 8) three categories of consumer services; 9) security lights; and 10) street lights. Sub-functionalized costs are then classified as energy-related, demand-related, consumer-related, revenue-related or direct assignments. The remainder of the model is devoted to the allocation of the classified functional and sub-functional components of cost to each rate class and to the determination of unit costs by class for each component and sub-functional level of revenue requirement.

Q26. DESCRIBE THE FUNCTIONALIZATION AND SUB-FUNCTIONALIZATION PROCESSES.

A. The first procedure used in both Schedule 13 and Schedule 7 is to functionalize utility plant, labor, and other utility expenses into production, transmission, and distribution functions. For SVEC and most cooperatives, nearly all of the utility plant, labor expense, and other expenses are distribution related. Purchased power from ODEC, Morgan Stanley, and SEPA is classified as Production Related. In addition, investment in load management equipment, load management expenses, certain administrative expenses, and associated uncollectible accounts expense are Production Related. The rate base, labor, and expenses that are functionalized as distribution are sub-functionalized as follows:

- Sub-transmission

- Substation
- Primary
- Transformation
- Secondary and Services
- Meters, Three Phase
- Meters, Single Phase
- Metering
- Billing
- Consumer Services 1
- Outdoor Lights

Sub-functionalizing is based on the same general approach used to functionalize. The first step is to sub-functionalize the rate base from which sub-functional ratios are developed. Labor is then sub-functionalized primarily on the basis of the rate base ratios. Finally, utility expenses are sub-functionalized using both rate base and labor ratios. The end result is that both utility rate base and utility expenses are unbundled and assigned to each major level of distribution service as well as the major categories of distribution service. These unbundled components of costs can then be separately allocated to each consumer class based upon levels of service (*e.g.*, voltage levels); and to the cost of metering, metering and billing, and utility-related consumer services.

Q27. PLEASE DESCRIBE THE CLASSIFICATION PROCESS.

A. Sub-transmission and substation rate base (Accounts 350 through 358 and Accounts 360 through 362) are classified as demand related. Account 369, services, and Account 370, meters, are directly classified as consumer related. All other rate base accounts, 364-368, are classified as both demand and consumer related. The amounts classified as either demand- or consumer-related are determined by using either a hybrid of the minimum-intercept and minimum-size methodologies, or the minimum-size methodology described in the NARUC Cost Allocation Manual. Account 364, Poles, is classified using the

minimum-size methodology because the detail data did not provide enough sample points to develop a reliable linear regression. In this case, the unit cost for the smallest pole size was applied to the number of poles in the system to determine the consumer-related investment. For Accounts 365-368, detailed cost data is obtained from the continuing property records for each account. From this data, a linear regression is performed to develop an equation that determines unit costs based upon the size or capacity rating of equipment (*e.g.*, ampacity for conductors, kVA rating for transformers). Then, the formula is applied to the smallest unit size SVEC effectively uses to provide service. The minimum-size unit cost is applied to the total number of units on the system and the result is defined as the consumer-related plant investment for the account.

Q28. PLEASE DESCRIBE THE MINIMUM-INTERCEPT METHOD AND HOW IT IS COMBINED WITH THE MINIMUM-SIZE METHOD TO PRODUCE A HYBRID METHOD.

A. The minimum intercept is determined by calculating a linear regression that determines unit costs based upon the size or capacity rating of equipment (*e.g.*, ampacity for conductors, kilovolt-ampere rating for transformers). Specifically, the linear regression produces an x-variable (*i.e., slope*) and a constant (*i.e., intercept*). To calculate a standard minimum cost, the x-variable and constant are applied to the smallest unit size (*i.e., minimum size*) that is or could reasonably be used to provide service at standard distribution voltages. The standard minimum cost per unit is multiplied by the total number of units on the system to determine the consumer-related plant investment for the specific account.

Q29. DOES THE COOPERATIVE HAVE SUFFICIENT HISTORICAL DATA TO PROVIDE ACCEPTABLE RESULTS USING THE MINIMUM-INTERCEPT METHOD?

A. As stated previously, the data was not sufficient for Account 364 which is why the minimum-size method was used. For Accounts 365 and 367, the data was sufficient with one modification to the methodology. To calculate a regression that more closely fits the data and does not result in a negative intercept, the regression was performed using the squared value of the rating of the plant item (ampacity for both Account 365 and Account 367). The regressions using this method produced acceptable results for both accounts. A standard linear methodology was used to calculate a regression for Account 368.

Q30. PLEASE SUMMARIZE THE RESULTS OF THE PLANT CLASSIFICATIONS USING THE PROPOSED METHODOLOGY?

A. The SVEC consumer related classification percentages are as follows:

	SVEC
Account 364 –	46.84%
Account 365 –	16.24%
Account 366 –	34.42%
Account 367 –	34.42%
Weighted Avg.	28.37%

These SVEC consumer-related percentages are comparable to the percentages accepted by the Commission in past cooperative rate cases.

Q31. HOW ARE EXPENSES CLASSIFIED?

A. Generally, expenses are classified using ratios calculated from comparable plant

investments. For example, operation and maintenance expenses for overhead conductors are related to plant investment in overhead conductors. Both labor and utility expenses booked in Accounts 583 and 593 are classified into demand and consumer components on the basis of the demand and consumer ratios derived from the classification of the plant investment in Account 365.

Q32. WHAT ABOUT DIRECT LABOR, TAXES, AND DEPRECIATION?

A. Direct labor is functionalized and classified primarily on the basis of functionalized and classified utility plant. This classification of labor is then used to create a labor ratio, which is used to classify labor-related expenses such as fringe benefits, and payroll taxes booked in the administrative and general expenses. Taxes, other than those that are payroll or revenue related, are classified on total utility plant. Depreciation is classified on the basis of plant.

Q33. PLEASE DESCRIBE THE ALLOCATION PROCESS.

A. The allocation process begins on page 104 of Schedule 7 and page 101 of Schedule 13. It begins with the compilation of class statistical data and ends with the Summation of Allocated Utility Plant and Expenses. Various types of demand and consumer allocation factors are developed for each rate classification using consumer usage and load characteristics from the test year. For instance, kilowatt-hours sold, adjusted for distribution losses, are used to allocate wholesale energy charges from ODEC, Morgan Stanley, and SEPA. Likewise, class coincident peak ("CP") demands are used to allocate demand charges. Another set of class demands contributions is used for allocation of distribution-related investment and expenses. Consumer allocators, both weighted and

un-weighted, are used for consumer-related costs.

Q34. PLEASE DESCRIBE THE ALLOCATION METHODOLOGY USED FOR PURCHASED POWER COSTS.

A. SVEC purchases most of its energy requirements from ODEC with smaller amounts purchased from Morgan Stanley and SEPA. Prior to allocating to the other rate classes, power cost for resale under Schedule PC-5 is directly assigned based on the actual Schedule PC-5 PSS revenues which reflect a direct pass through of ODEC power cost. All remaining power costs are allocated. ODEC demand charges for RTO Capacity Service ("RTO") and Morgan Stanley flow through capacity costs are allocated-based class demands coincident with the 2019 PJM High 5. ODEC and Morgan Stanley Demand charges for Transmission Service are allocated based on each class's 50/50 weighted contributions to the 2019 summer and winter Dominion zonal peak demands. ODEC's ROC demand charges are allocated in Schedule 13 based on each class's monthly demands coincident with the monthly ODEC billing peaks ("12CP") and in Schedule 7 based on kWh usage by class. The energy portion of the power cost consists of base rate energy costs and ECA costs from ODEC, contract energy charges and ancillary services from Morgan Stanley, and SEPA energy charges. The energy charge cost is allocated based on kWh usage by class.

Q35. PLEASE EXPLAIN WHY 12CP IS USED IN SCHEDULE 13 AND NOT USED IN SCHEDULE 7 FOR ALLOCATING ROC COSTS.

A. The ODEC billing demand used to recover ROC costs during the test year was based on the 12CP. Hence, class contributions to the 12CP were used for the Schedule 13

jurisdictional separation. ODEC replaced 12CP with average demand for ROC billing beginning January 1, 2021. Average demand is the sum of the demands in each hour of a year divided by the hours in the year. Said another way, it is the annual kWh usage divided by the number of hours in the year. Hence, it is essentially a restatement of an energy usage on a kW per hour basis. As a result, ROC costs will be effectively allocated by ODEC based on energy sales. Correspondingly, the Schedule 7 rate year methodology for allocating ROC costs should be based on kWh usage by class.

Q36. HOW WILL ODEC'S CHANGE IN ROC COST RECOVERY METHODOLOGY AFFECT RETAIL RATE DESIGN AND COST ALLOCATION?

A. Generally, the change will result in the shifting of more allocation of ROC costs to higher load factor customer classes and away from lower load factor customer classes. Retail rates with time of use features will need to have off-peak energy rates increased to reflect how ROC costs will be related directly to energy consumption without regard to time of use. In addition, rates with ESS demand charges may have to be adjusted by shifting costs from the demand charges to the energy charges.

Q37. PLEASE EXPLAIN THE METHODOLOGY USED TO DETERMINE CLASS DEMAND ALLOCATION FACTORS FOR THE DEMAND-RELATED DISTRIBUTION SYSTEM PLANT AND EXPENSES.

A. Load research data was also used to develop demand allocation factors for distribution rate base and expenses. Sub-transmission and substation demand-related costs are allocated based on class contributions to the 12-month average SVEC system peak. Primary system demand-related costs are allocated using the average and excess

methodology. This approach allocates a portion of the costs on the class annual peak demand and a portion based upon average usage over the year. The methodology combines a measure for peak load contribution, which affects the capacity of the distribution facilities, with consideration for annual consumption, which reflects utilization. The plant also serves the full range of consumer types so there is a high diversification both within each consumer class as well as between consumer classes. The average and excess is a fairer allocation method because it recognizes this diversity. It also serves to allocate costs to a consumer or group of consumers who might not utilize the plant during peak hours but benefit from having the plant available throughout the year.

Q38. WHAT ABOUT DEMAND RELATED COSTS OF THE SECONDARY DISTRIBUTION SYSTEM?

A. Demand-related costs of the secondary distribution system are allocated on the basis of the class annual non-coincident peak demands. Secondary distribution plant is designed to provide the capacity requirements of a consumer or small group of consumers; therefore, load diversity between consumers is not as significant a factor in design requirements. Accordingly, it is fairer to allocate the costs on the basis of the annual class peak demand rather than an average and excess methodology.

Q39. PLEASE DESCRIBE THE CONSUMER ALLOCATION FACTORS.

A. Different consumer allocation factors are calculated for different purposes. Certain factors are based simply on the number of consumers billed. Weighting factors for primary and secondary consumer costs are developed to reflect the additional investment

necessary to provide three-phase service. For primary service, a single-phase service requires a hot wire and a neutral wire. Three-phase service requires three hot wires and a neutral wire. The three-phase weighting factor used is 2.0 (four wires divided by two wires). For secondary service, the weighting factors are determined in a similar manner. Single-phase consumers require three wires (two hot, one neutral) and three-phase consumers require four wires (three hot, one neutral). Billing and meter reading costs are also allocated using weighted consumer allocation factors.

Q40. PLEASE DESCRIBE THE RATE BASE AND EXPENSE ALLOCATIONS.

A. The allocation process is handled in sequence starting with production rate base and continues through each sub-functional category of plant and expenses. The allocations are shown on pages 111 through 165 of Schedule 7 and pages 107 through 152 of Schedule 13. The basis for each allocation is indicated by a number in column (c). The number in column (c) references the corresponding allocation factor from the summary table.

Q41. PLEASE PROVIDE A SUMMARY OF THE RESULTS OF THE CCOS IN SCHEDULE 7.

A. The results are summarized for present and proposed rates on page 1 of Schedule 7. Each consolidated jurisdictional class rate of return and relative rate of return under present rates are as follows:

Table 1

Class	Present ROR	Pres. ROR RATIOS	Proposed ROR	Prop. ROR RATIOS
Lighting	8.55%	2.28	8.31%	1.64
Schedule A-12	2.15%	0.58	3.93%	0.77
Schedule S-7	3.97%	1.06	3.77%	0.74
Schedule C-12	(5.06)%	(1.35)	(1.84)%	(0.36)

Schedule B-12	7.64%	2.04	7.95%	1.57
Schedule LP-12	7.12%	1.90	7.56%	1.49
Schedule PC-5	3.38%	0.90	5.09%	1.00
Total	3.74%	1.00	5.08%	1.00

Q42. BASED ON THE CCOS, DO THE PROPOSED RATES IMPROVE PARITY BETWEEN AND WITHIN RATE CLASSES?

A. As shown by Table 1, the Rate of Return Ratios for all rate classes except Schedule S-7 move closer to a 1.00 ratio indicating that parity is improved. As will be further addressed in following testimony, SVEC is proposing to withdraw Schedule S-7 for seasonal residential service and transfer all affected customers to Schedule A-12. As shown in Table 1, the proposed Schedule S-7 rate of return ratio is 0.74 which places it very close to the Schedule A-12 ratio of 0.78.

Q43. PLEASE DESCRIBE SCHEDULES 14A, 14B, AND 14C.

A. Schedule 14A shows the functional separation of total jurisdictional revenues, expenses, income, and rate base and costs into the production, transmission, distribution, and "other" categories per 20 VAC 5-200-21. As noted, none of the SVEC revenues or costs are categorized as transmission. This is because transmission service is provided by ODEC and is bundled into and entirely included in purchased power expense. The information required by Schedule 14B is provided on page 1 of Schedule 7 with reference made thereto. Schedule 14C provides the functional separation of revenues, expenses, and rate base by jurisdictional rate class per 20 VAC 5-200-21.

V. PROPOSED RATE DESIGN AND CLASS REVENUE DISTRIBUTION

Q44. PLEASE EXPLAIN THE COMPOSITION OF THE PROPOSED REVENUE INCREASE AND HOW IT IS ALLOCATED.

A. To achieve the revenue requirement, SVEC is proposing to increase rate revenues by $5.3 million. To address class parity, SVEC is proposing to allocate that increase primarily to Schedule A-12, Schedule C-12, and Schedule PC-5, with smaller percentage allocations to Schedule B-12 and Schedule LP-12. Revenue and rate neutral changes to base rates are applied as necessary to rebalance all rates between supply and distribution costs so that the rate year level of PSS revenue equals the rate year purchased power expense to the extent practical. The proposed revenue increase allocation is shown in column (10) of page 1 of Schedule 5B and is summarized as follows:

Class	Revenue (1,000's)	Percent
Sch. A-12	$4,628.8	3.75%
Sch. C-12	$134.8	9.83%
Sch. S-7	$(7.1)	(0.60)%
Sch. B-12	$195.6	0.50%
Sch. LP-12	$247.5	0.50%
Sch. PC-5	$134.0	3.45%
Sch. CMV-2	$(0.0)	(0.02)%
Sch. HPS-2	$(0.1)	(0.02)%
Sch. LED-2	$(8.5)	(6.45%)
Total	$5,325.1	2.43%

Note: Differences when totaled are due to rounding. Includes facilities charges in Schedules B-12, LP-12, and PC-5.

Q45. PRIOR TO ADDRESSING THE INDIVIDUAL TARIFFS, PLEASE DESCRIBE TARIFF DESIGNATION CHANGES SO THAT IT IS CLEAR HOW YOU ARE REFERENCING TARIFFS.

A. The Cooperative proposes to update the existing tariff numbers in sequence as follows:

Schedule A-12 to Schedule A-13
Schedule C-12 to Schedule C-13
Schedule B-12 to Schedule B-13
Schedule LP-12 to schedule LP-13
Schedule PC-5 to Schedule PC-6
Schedule PC-4 to Schedule LRC-1
Schedule CMV-2 to Schedule CMV-3
Schedule HPS-2 to Schedule HPS-3
Schedule LED-1 to Schedule LED-3
Schedule PCA-1 to Schedule PCA-2

For simplicity when referencing either present or proposed tariffs in the following testimony, SVEC will use the current tariff numerical designations in reference to all tariffs except Schedule LCR-1, which is Schedule PC-4 renamed.

Q46. PLEASE EXPLAIN SCHEDULE PCA-1.

A. Schedule PCA-1 is a power cost adjustment that is designed to recover purchased power expense booked in Account 555 on a dollar-for-dollar basis. It includes an over- and under-recovery mechanism that tracks the difference between purchased power expense recovered from sales and actual purchased power expense. Any over- or under-recovery is deferred as a liability or an asset. Schedule PCA-1 provides that the balance of any over- or under-recovery be rolled in to the PCA-1 factor at least once per year. It further provides that the billing factor is to be adjusted at any time that there is a change in the rates charged by ODEC or a material change in rates or costs from SEPA or a third-party power supply contract. The proposed PSS Base of $0.06351 per kWh sold is calculated in Schedule 15E of the Application. Although rate year base PSS rates are set to recover 100% of the rate year purchased power expense as nearly as practicable, a very small difference between proposed base PSS revenue and purchased power expense is unavoidable due to rounding. In this case, that difference is $1,462. To compensate for

the $1,462 difference so that proposed base PSS revenue plus PCA revenue will equal rate year purchased power expense, the rate year PCA factor under proposed rates is $0.000000654629 per kWh.

Q47. IS SVEC PROPOSING ANY CHANGES TO SCHEDULE PCA-1 OTHER THAN TO THE PSS BASE?

A. Yes, SVEC is proposing to eliminate rate features that are no longer applicable. SVEC is also proposing to update the formula to accommodate third party purchased power agreements other than ODEC and SEPA. Finally, SVEC is proposing to remove the adjustment for the non-purchased power component of PSS revenues from the calculation over and under recovery. This is consistent with SVEC's proposal to remove non-purchased power cost from the base PSS rates and transfer recovery of those costs to distribution rates.

Q48. IN RESPONSE TO QUESTION NO. 7, YOU TESTIFIED THAT SVEC IS INTRODUCING A DEMAND CHARGE TO THE DISTRIBUTION SERVICE PORTION OF SCHEDULE A-12 AND SCHEDULE C-12. PLEASE EXPLAIN WHY A DEMAND CHARGE FOR THESE TARIFFS IS APPROPRIATE FOR SVEC.

A. Recovering demand costs by applying demand charges is a more cost-based method than recovering demand costs through energy consumption charges. Utilizing demand charges for the recovery of demand-related costs is standard and accepted ratemaking practice. Demand charges are commonly used for non-residential rates and from a cost of service and cost recovery standpoint, the same principles apply to residential and church service.

Q49. WHY DO YOU BELIEVE DEMAND CHARGES HAVE NOT HISTORICALLY BEEN APPLIED TO RESIDENTIAL RATES?

A. Applying demand charges to residential rates has not been common practice in large part due to the historically high cost of metering and billing for demand. Until the advent and deployment of advanced metering infrastructure ("AMI"), it was far too expensive and not cost effective to meter the demands of residential customers. Further, there have been concerns that customers would not understand the difference between consumption and demand. Therefore, residential rates were designed historically to recover demand-related costs through the energy volumetric charge on a per kWh basis.

Q50. DOES COST CURRENTLY CREATE A BARRIER TO SVEC'S INTRODUCTION OF DEMAND CHARGES INTO SCHEDULE A-12 AND SCHEDULE C-12?

A. No. As is true for many cooperatives, SVEC has deployed metering technology that can effectively meter demand for all customers. SVEC is researching available metering technology and plans to install new AMI metering in the coming years that will be capable of recording demands by hour or even 15-minute intervals. That will enable the efficient and cost effective use of time-based pricing for demand and energy.

Q51. HAS SVEC CONSIDERED CUSTOMER IMPACT IN ITS PLAN TO INTRODUCE DEMAND BILLING TO SCHEDULES A-12 AND C-12?

A. Yes. SVEC proposes to introduce demand billing to Schedules A-12 and Schedule C-12 by adding a very small $0.10 per kW per month charge to only the distribution part of each tariff. Such a small demand charge will introduce the concept and structure of

billing for demand with minimal bill impact. Independent of other rate changes and measured on a class revenue neutral basis, introducing a $0.10 per kW demand charge with a corresponding reduction to the energy charge will affect the annual bills of 98.56% of Schedule A-12 customers in a range from minus 0.40% to plus 2%. The results are similar for Schedule C-12. Based on these results, the impact of the proposed demand charge is negligible for the vast majority of consumers.

Q52. DOES SVEC INTEND TO EDUCATE ITS MEMBERS ABOUT DEMAND VERSUS CONSUMPTION AND THE NEW DEMAND PORTION OF THE BILL?

A. Yes. As discussed in SVEC witness Rogers' testimony, SVEC plans to educate its members about demand billing.

Q53. WHAT DEMAND MEASUREMENTS WILL SVEC USE FOR BILLING DEMAND?

A. SVEC proposes that the monthly billing demand initially be the consumer's maximum 15-minute demand measured in each month.

Q54. WHAT DEMAND CHARGES WOULD BE NEEDED TO RECOVER 100% OF THE DEMAND RELATED COSTS?

A. For Schedule A-12, $2.55 per kW would recover 100% of the demand-related distribution costs. For Schedule C-12, $4.12 per kW would recover 100% of the demand-related distribution costs.

Q55. IF DEMAND CHARGES ARE APPROVED BY THE COMMISSION FOR SCHEDULES A-12 AND C-12, WILL THE COOPERATIVE THEREAFTER BE ABLE TO INCREASE THE DEMAND CHARGE ON A REVENUE-NEUTRAL BASIS BY BOARD ACTION?

A. Yes. Section 56-585.3 A 4 of the Code of Virginia, as recently amended, authorizes cooperatives to shift costs from the volumetric energy charges to existing demand charges on a revenue-neutral basis, upon an affirmative resolution of the Cooperative's board of directors.

Q56. HOW DOES SVEC'S ABILITY TO INCREASE THE DEMAND CHARGES BY BOARD ACTION BENEFIT CONSUMERS?

A. Incorporating a new demand charge into rates that did not previously include a demand charge makes those rates more cost based. After the demand charge is fully implemented, each consumer will pay for his or her actual demand, rather than pay an estimate collected through the consumption charge. Once the Commission approves a demand charge for these rates, the new legislation allows the Cooperative to gradually, with minimal customer impact, increase those demand charges to more effectively recover demand-related costs. Without this flexibility, as SVEC does not file general rate case requests very often, SVEC would have to propose a much larger single increase to the demand charges in its next rate case to meet cost recovery goals. This course of action would adversely impact consumers.

Q57. PLEASE PROVIDE THE COMMISSION WITH SOME EXAMPLES OF HOW INCREMENTAL CHANGES IN THE DEMAND CHARGE WOULD IMPACT CONSUMERS.

A. A $0.15 per kW revenue-neutral increase in the demand charge would affect the annual bills of 96.2% of Schedule A-12 customers from minus 0.62% to plus 2.00%. At $0.25 per kW, a revenue-neutral increase in the demand charge would affect the annual bills of 89.5% of Schedule A-12 customers from minus 1.03% to plus 2.00%.

Q58. HAS THE COMMISSION APPROVED A SIMILAR DEMAND CHARGE IN ANOTHER COOPERATIVE RATE CASE?

A. Yes, the Commission approved the introduction of a $0.10 per kWh demand charge to certain non-demand rates in Case No. PUR-2019-00090.[3]

Q59. PRIOR TO ADDRESSING THE PROPOSED CHANGES TO INDIVIDUAL RATES, IS SVEC PROPOSING TO WITHDRAW ANY SCHEDULES?

A. Yes, SVEC is proposing to withdraw Schedule S-7 and transfer every affected customer to Schedule A-12. As the Basic Consumer Charge ("BCC") of Schedule A-12 is increased closer to a fully cost based level, there is a diminished need for a separate rate for seasonal residential customers. Therefore, with cost recovery less of an issue, the administrative benefits of simplifying the rate classification process when consumers apply for service is justified at this time. As explained earlier, transferring Schedule S-7 consumers to Schedule A-12 in this case will result in the former Schedule S-7 class rate of return to be very comparable to that of Schedule A-12. Furthermore, to the extent the

[3] *Application of Southside Electric Cooperative, For a general increase in electric rates*, Case No. PUR-2019-00090, Doc. Con. Cen. No. 200420234, Final Order (Apr. 22, 2020).

SVEC Board increases the BCC with future revenue neutral rate adjustments, the small rate of return differential will be further reduced.

Q60. PLEASE PROCEED WITH YOUR TESTIMONY ON RATE DESIGN BY DESCRIBING THE PROPOSED PRICING CHANGES TO THE PSS PORTION OF SCHEDULE A-12.

A. The PSS base rates have been adjusted to roll in the $(0.00611) credit per kWh rate year PCA and to correct for any imbalance between ESS revenue and rate year purchased power expense allocated to Schedules A-12 and S-7 in the CCOS. SVEC is proposing to retain the current flat energy rate structure at a rate of $0.06380 per kWh for the months of October through May billing and for the first 800 kWh in the months of June through September billing. SVEC is proposing a rate of $0.09024 per kWh for usage above 800 kWh for June through September billing, a premium of $0.02644 per kWh. This premium represents the cost per kWh of thirty percent (30%) of the allocated Schedule A-12 and Schedule S-7 RTO related costs spread over the Schedule A-12 and Schedule S-7 summer month sales in the over 800 kWh block. Only 30% of the allocated RTO costs is applied in this manner to mitigate the customer impact of this rate design change.

Q61. HAS THE COMMISSION APPROVED A SIMILAR BLOCKED SEASONAL PSS RATE STRUCTURE IN ANOTHER COOPERATIVE RATE CASE?

A. Yes, the Commission approved the same PSS rate design in Case No. PUE-2013-00052.[4]

[4] *Application of Rappahannock Electric Cooperative, For approval of a plan to migrate transitioning customers to the Cooperative's legacy rates and to revise rate schedules for electric service*, Case No. PUE-2013-00052, 2014 S.C.C. Ann. Rpt. 270, Order Accepting Stipulation (April 2, 2014).

Q62. PLEASE DESCRIBE THE PROPOSED CHANGES TO THE DISTRIBUTION PORTION OF SCHEDULE A-12.

A. SVEC proposes to increase the single-phase Basic Consumer Charge ("BCC") by $5.00, from $25.00 per month to $30.00 per month. SVEC proposes to increase the three-phase BCC by $9.35, from $28.15 per month to $37.50 per month. For comparison, as shown in Schedule 15E, the COSS study supports a monthly BCC of $32.31 for single-phase service and $55.09 for three-phase service. SVEC also proposes to add a $0.10 per kW demand charge to Schedule A-12, which will recover $952,015 including Schedule S-7 sales, or less than 2.0% of the distribution revenue requirement. As an added feature, SVEC is including a proposed incremental off-peak demand charge also set at $0.10 per kW. To balance out the distribution revenues of the Schedule A-12, SVEC proposes slight decreases to the distribution energy charges and to eliminate the first 300 kWh block in favor of a flat distribution energy rate of $0.01965 per kWh. The changes to Schedule A-12 are detailed on page 1 of Schedule 15A.

Q63. PLEASE EXPLAIN THE PURPOSE OF THE INCREMENTAL OFF-PEAK DEMAND CHARGE.

A. The incremental off-peak demand charge is initially a placeholder because SVEC's currently installed meters do not have the practical capability to measure on and off- peak demand. However, as explained in the response to Question No. 50, SVEC plans to upgrade meter technology that will have the capability of providing on and off-peak, or even hourly demands. At that time, addendum (a) of the proposed definition of billing demand will establish the billing demand as the maximum 15-minute demand measured from 6:00 a.m. to 11:00 p.m. Addendum (b) will define the incremental off-peak billing

demand as the amount, if any, by which the maximum 15-minute demand measured between 11:00 p.m. and 6:00 a.m. exceeds the billing demand as defined in addendum (a). At that time, SVEC will be able to apply both the demand charge and the incremental off-peak demand charge. So long as the demand charge and incremental off-peak demand charge are the same, this feature will have no impact on consumer bills. In time, the SVEC Board plans to gradually introduce a price differential between the on- and off-peak demand charges as it rebalances rates pursuant to Section 56-585.3 A 4 of the Code of Virginia. Limiting the billing demands to on-peak hours from 6:00 a.m. to 11:00 p.m., combined with a discounted rate for incremental off-peak demand, should encourage more off-peak usage and will be helpful in developing future rate options to encourage off-peak usage.

Q64. PLEASE EXPLAIN THE CHANGES PROPOSED TO THE SCHEDULE A-12 AVAILABILITY LANGUAGE AND SPECIAL TERMS AND CONDITIONS.

A. The Availability language has been modified so that seasonal consumers qualify for the tariff. A sentence has also been added to clarify the current policy that Schedule A-12 is not available for construction service. Construction service is a form of commercial service and is provided under Schedule B-12. In addition, the following has been added to Special Terms and Conditions:

> When, at the request of the Consumer, the Cooperative disconnects and reconnects the Consumer at the same premises within thirteen-months of the requested disconnection, a charge equal to the sum of the Basic Consumer Charges for each month the service was disconnected must be paid prior to reconnection.

Although historically not a problem for SVEC, this special condition will protect SVEC from the risk of revenue erosion should seasonal consumers be inclined to reconnect and disconnect in response to the increases in the BCC.

Q65. PLEASE DESCRIBE THE PROPOSED PRICING AND RATE DESIGN CHANGES INCLUDED IN SCHEDULE C-12.

A. The design changes to Schedule C-12 are similar to those applied to Schedule A-12, including a distribution demand charge of $0.10 per kW as well as an incremental off-peak demand charge of $0.10 per kW. The single-phase BCC and three-phase BCC will be increased by $2.90 to $30.00 and $7.25 to $37.50, respectively. The distribution energy charges are reduced to balance out the revenue increase. The three-block declining rate distribution energy pricing is flattened somewhat but not eliminated. As with Schedule A-12, Schedule C-12 PSS base rates include an adjustment to roll in the $(0.00611) per kWh rate year PCA and to correct for any imbalance between ESS revenue and rate year purchased power expense. SVEC is likewise proposing that 30% of the allocated RTO Capacity Service costs be assigned to the summer kWh sales but unlike Schedule A-12, a flat summer rate will apply. The proposed summer premium is $0.01569 per kWh per kWh resulting in a rate of $0.08992 per kWh is proposed for June through September billing and $0.07423 per kWh is proposed for October through May billing. The changes to Schedule C-12 pricing are detailed on page 3 of Schedule 15A.

Q66. PLEASE DESCRIBE THE PROPOSED PRICING AND RATE DESIGN CHANGES INCLUDED IN SCHEDULE B-12.

A. The PSS base rates include an adjustment to roll in the $(0.00611) per kWh rate year

PCA and to correct for any imbalance between ESS revenue and rate year purchased power expense. SVEC is proposing that 30% of the allocated RTO related costs be assigned to the summer kWh sales. The proposed summer premium of $0.00913 per kWh results in a rate of $0.06979 per kWh for June through September billing. A rate of $0.06066 per kWh is proposed for October through May billing. The single-phase BCC and three phase BCC will be increased by $3.27 to $30.00 and $7.77 to $37.50, respectively. In the continuing effort to gradually meld the First 20 kW and over 20 kW distribution demand blocks into one, the first block rate is increased by $1.00 to $3.50 per kW while the over 20 kW rate is decreased by $0.55 to $7.05 per kW. Correspondingly, the declining block rate energy rates have been flattened by reducing the first 500 kWh block rate from $0.04903 per kWh to $.01901 per kWh. The changes to Schedule B-12 pricing are detailed on page 4 of Schedule 15A.

Q67. PLEASE DESCRIBE THE PROPOSED PRICING AND RATE DESIGN CHANGES INCLUDED IN SCHEDULE LP-12.

A. No structural changes are proposed for Schedule LP-12. The PSS base rates include an adjustment to roll in the $(0.00611) per kWh rate year PCA and to correct for any imbalance between ESS revenue and rate year purchased power expense. In response to the change by ODEC to average demand for ROC, the PSS demand charges have been reduced and the PSS energy rates have been increased as compared to the net present energy rates that include the rate year credit PCA. In addition, seasonal PSS demand charges are proposed with the rate for June through September billing being $1.00 per kW higher than the non-summer rate. The only proposed change to distribution rates is to increase the demand charge by $1.298 to $6.883 per kW. The definition of Minimum

Charge has been corrected to include the distribution specification that was inadvertently omitted from the tariff in Case No. PUE-2013-00132. The changes to Schedule LP-12 pricing are detailed on page 5 of Schedule 15A.

Q68. PLEASE DESCRIBE THE PROPOSED PRICING AND RATE DESIGN CHANGES INCLUDED IN SCHEDULE PC-5.

A. Under Schedule PC-5, purchased power costs based on the ODEC wholesale rate are rate are passed through directly. Therefore, no change is required to the PSS portion of the rate except to remove the $0.00011 per kWh adder for the recovery of non-purchased power supply costs. As with all other rates subject to Schedule PCA, non-purchased power costs recovery is being transferred to the distribution rate. To recover the proposed distribution revenue increase, the Schedule PC-5 demand charge is increase by $0.474 to $4.43 per kW and the energy charge is increase by $0.00114 to $0.00163 per kWh.

Q69. PLEASE EXPLAIN THE NEW PROPOSED CHANGES TO SCHEDULES CMV-3, HPS-3, AND LED-3.

A. Schedule CMV-3 is a closed tariff and SVEC is proposing to also close Schedule HPS-3 to any new or replacement services. All new or replacement lights will be of the more energy efficient light-emitting diode ("LED") variety and will be served under Schedule LED. Until all mercury vapor ("MV") and high-pressure sodium ("HPS") lights are replaced with LED, both tariffs will be maintained. SVEC is proposing revenue neutral rebalancing of the PSS and distribution rates of Schedules CMV-3 and HPS-3 by setting the PSS rates based on the allocated purchased power expense of $0.048399 per kWh. SVEC is also proposing to adjust each Schedule LED PSS rate based on $0.048399 per

kWh. SVEC is proposing to adjust the Schedule LED distribution rates to be the same as the proposed distribution rates for the corresponding HPS lights. The costs of LED fixtures have declined appreciably since Schedule LED-3 was introduced in 2014. Thus, higher distribution rates for LED vs. HPS are no longer justified. Second, it would be counter-productive to require that all HPS replacements be LED and then charge the consumer more for the service. Replacing HPS with the more efficient LED is in the interest of the Cooperative and all its members.

Q70. PLEASE EXPLAIN THE PROPOSED CHANGES TO THE FACILITIES CHARGE RATES INCLUDED IN SECTION VI. E. OF THE COOPERATIVE'S TERMS AND CONDITIONS OF SERVICE.

A. The Cooperative is proposing to update the facilities charge rates for excess facilities that are set forth in its Term and Conditions of Service based on the rate year fixed charge rates developed in the CCOS. Summary calculations of the prevailing fixed charge rates are shown on page 166 of Schedule 7. As shown on line 42, the annual fixed charge rate is 16.32% where the Cooperative provides the capital investment for the facilities. It is 9.60% in those instances where the consumer provides the capital investment through a contribution-in-aide of constriction ("CIAC"). Therefore, SVEC is proposing to decrease the Section VI.E.1 facilities charge from 10.5576% per year to 9.61% per year. SVEC is proposing to decrease the Section VI.E.2 facilities charge from 19.3735% per year to 16.32% per year.

Q71. PLEASE EXPLAIN THE NEW PROPOSED TARIFF, SCHEDULE AS-1.

A. The Alternate Supplier Cost Adjustment Rider, Schedule AS-1, is a proposed rider to Schedule PC-5 and proposed Schedule LCR-1. The purpose of this rider is to pass through a load ratio share of the net benefits or net costs of the Morgan Stanley power supply contract while continuing the direct pass through of ODEC power costs based on each customer's usage and coincident billing demands. Heretofore, there has not been a mechanism in Schedule PC-5 or Schedule LCR-1 to pass through any of the Morgan Stanley net savings or costs. As shown on line 21 of Schedule 15F, Schedule AS-1 produces, based on rate year costs, a credit before adjusting for losses of $0.357 per kW of demand coincident with SVEC's annual non-coincident peak. As shown on lines 23, 24, and 25 of Schedule 15F, the rate year credit rates for transmission primary ("TP"), transmission secondary ("TS"), and distribution primary ("DP") service levels are $0.367 per kW, $0.373 per kW, and $0.367 per kW, respectively. The rates will be adjusted based on actual cost at the time of implementation.

Q72. PLEASE EXPLAIN WHY SVEC PROPOSES TO IMPLEMENT SCHEDULE AS-1 AS OF THE FEBRUARY 2022 BILLING.

A. Schedule AS-1 is designed to be calculated in January of each year based on power cost data from the previous calendar year. Hence, it cannot be initially billed until February 2022 and subsequent annual changes must also be applied each February. In addition, Schedule AS-1 is related entirely to purchased power cost and will not affect the Cooperative's margins because any credit or charge passed through Schedule PC-5 or Schedule LCR-1 correspondingly will be recovered or credited through Schedule PCA-1.

Q73. PLEASE EXPLAIN THE NEW PROPOSED TARIFF, SCHEDULE SSR-1.

A. Schedule SSR-1is a community solar subscription rider to Schedule A-12. It is patterned after the same riders approved for Rappahannock Electric Cooperative in Case No. PUR-2018-00019, A&N Electric Cooperative in Case No. PUR-2018-00020, Mecklenburg Electric Cooperative in Case No. PUR-2018-00021, and Northern Neck Electric Cooperative in Case No. PUR-2018-00022. Under Schedule SSR-1, qualifying consumers can purchase 50 kWh solar blocks of energy at a flat three-year fixed rate of $5.38 per block as developed in Schedule 15G. The proposed Fixed Block Charge is based on the Cooperative's proposed residential supply service rate plus the PCA plus a solar adder based on the loss adjusted difference between the solar resources and the ODEC's standard energy rate, plus a 10% risk premium. The 10% risk premium is to protect all other SVEC consumers from cost shifts should there be increases in capacity costs from ODEC during the fixed rate team. This 10% risk premium was approved for the four other cooperatives in the above referenced cases. During a subscription period, subscribers will be subject to the terms and conditions of Schedule A-12 except as modified by Schedule SSR-1. Subscribers would be able to cancel their subscription at any time after giving at least a 30-day notice to the Cooperative.

Q74. IS IT YOUR OPINION THAT SVEC NEEDS ALL THE REVENUE REQUESTED IN THIS CASE TO MAINTAIN ITS FINANCIAL INTEGRITY AND THAT THE RATES AND CHARGES REFLECTED IN THE APPLICATION ARE FAIR, JUST, AND REASONABLE?

A. Yes.

Q75. MR. GAINES, DOES THIS CONCLUDE YOUR DIRECT TESTIMONY?

A. Yes, it does.