COMMONWEALTH OF VIRGINIA
STATE CORPORATION COMMISSION

APPLICATION OF

APPALACHIAN POWER COMPANY **CASE NO. PUE-2015-00040**

For approval to establish Experimental Rider R.G.P. for the purchase of non-dispatchable renewable generation

REPORT OF DEBORAH V. ELLENBERG, CHIEF HEARING EXAMINER

August 31, 2016

This case involves the request of Appalachian Power Company ("APCo" or "Company") for approval of an experimental Rider R.G.P. ("Rider RGP" or "Rider"), pursuant to § 56-234 of the Code of Virginia ("Code"),[1] for the purchase of non-dispatchable renewable generation. Upon consideration of the record in this case, I find that the proposed Rider is not in the public interest, nor is the experiment necessary to acquire information that is or may be in furtherance of the public interest. I recommend that the Commission deny APCo's proposal.

HISTORY OF THE CASE

On April 17, 2015, APCo filed with the State Corporation Commission ("Commission") an application for approval of Rider RGP ("Application") pursuant to Code § 56-234 as an experiment to be part of the Company's Renewable Generation Purchase Program ("RGP Program" or "Program"). A qualified non-residential customer could purchase non-dispatchable renewable energy generated by a facility located on or adjacent to its property that is owned and operated by a third-party generator. In its Application, the Company states that the RGP Program would be available to all of its non-residential customers with loads above 250 kilowatts ("kW")[2]. To qualify, the renewable generating facilities must be non-dispatchable; be located on, or adjacent to, a participating customer's property; have a nameplate capacity between 250 kW and 2,000 kW; and be of a size no greater than the participating customer's load.[3] Participating customers, however, would continue to buy all of their energy and capacity from APCo under their standard tariff rate schedule ("Standard Schedule"), and also pay APCo an amount equal to what the Company pays the third-party generator under the terms of the Power Purchase Agreement ("PPA"). The participating customer would receive a Renewable Output Credit each month that would be determined by the market-based price of renewable energy sold into the PJM Interconnection, LLC ("PJM"),[4] market, and would fluctuate each

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[1] In the Application the Company asks the Commission to find Rider RGP to be just and reasonable. The footnote to that request cited Code § 56-234. Exhibit ("Ex.") 4 (Application), at 6. At the hearing, Counsel for the Company also clarified that APCo sought approval pursuant to Code § 56-234. Transcript ("Tr.") at 15.

[2] The Application read that the program would be available to all non-residential customers with "an aggregate load between 250 kW and 2,000 kW" but Company Witness Castle corrected that to refer to non-residential customers with a "load above 250 kW." Ex. 4 (Application), at 3; Ex. 15 (Castle Rebuttal), at 2; Tr. at 59.

[3] Ex. 4 (Application), at 3-4.

[4] PJM is the regional transmission organization that coordinates wholesale electric markets for a 13-state region including most of the Commonwealth of Virginia.

month. The Company also proposes to charge a program fee of $30 to cover its administrative costs.

On May 6, 2015, the Commission issued an Order for Notice and Hearing that directed the Company to provide notice of the Application; established the procedural schedule for the case; scheduled a public hearing to receive evidence on the Application; and assigned the case to a Hearing Examiner to conduct all further proceedings in this matter on behalf of the Commission and to file a report.

Notices of participation were filed by the Office of the Attorney General's Division of Consumer Counsel ("Consumer Counsel"); the VML/VACo APCo Steering Committee ("Steering Committee");[5] the Maryland DC Virginia Solar Energy Industries Association ("MDV-SEIA"); Appalachian Voices, the Chesapeake Climate Action Network, and the Virginia Chapter of the Sierra Club (collectively, "Environmental Respondents"); and the Council of Independent Colleges in Virginia ("CICV").[6]

Written comments were filed by The Alliance for Solar Choice ("TASC") recommending the Commission reject the Company's Application. TASC advised that its membership included the majority of the nation's rooftop solar market providers.[7] TASC concluded that the proposed Rider is a poor means of encouraging renewable energy development under third-party ownership business models, and is not necessary to facilitate customer-sited third-party generation as such arrangements are already permitted under Code § 56-577. Further, it contended that the Rider makes third-party arrangements uneconomical, strips customers of the benefits of customer-sited renewable energy generation, and discourages third-party developers from participating in APCo's service territory.

Written comments were also received from 114 citizens, many of whom are residential customers, in opposition to the proposed Rider. The commenters generally urged the Commission to spur solar development and economic growth by opening up markets to new solar energy opportunities, and warned the Commission to be cautious about approving programs such as APCo's proposed Rider that would constrain solar development. The commenters were supportive of distributed generation, and urged the Commission to facilitate widespread adoption of solar generation through initiatives aimed at opening market access and empowering customers to generate clean, local energy. They argued that Virginia ratepayers should be allowed to choose a competitive energy provider and enter into PPAs. They contended that the proposed Rider was an effort to block access to solar, was not customer friendly, represented a barrier to development, and resulted in higher costs and higher risks. Several commenters also asserted that the $30 fee was untenable. In addition to the written comments, a petition including 718 signatures was filed in opposition to the Application.

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[5] The Virginia Municipal League ("VML") and the Virginia Association of Counties ("VACo") together established the VML/VACo APCo Steering Committee.

[6] CICV later expressed its intent to Staff to provide testimony through two public witnesses rather than participate as a respondent. Tr. at 9.

[7] *See* TASC Comments, filed September 22, 2015, at 1.

On September 28, 2015, only four business days after the deadline established for public comments, the Virginia, Maryland & Delaware Association of Electric Cooperatives ("Association") filed a Motion for Leave to File Comments Out of Time ("Association Motion"),[8] and comments that took no position on the proposed Rider,[9] but were intended to identify some of the challenges facing electric utilities in finding ways to integrate solar into the electric grid in Virginia and to address some of the issues raised in other public comments. The Association opined that serious policy questions have been raised that are outside the scope of this proceeding, notably the extent to which net metering is available as an alternative to the proposed Rider. The Association expressed its continuing concern that net metering results in non-net metering customers subsidizing net metering customers, and it opposed such cost shifting. The Association suggested that standby charges are one acceptable way to recover costs imposed by solar generators in such situations. It contended that, although it took no position on the proposed Rider, the tripartite PPA proposed was also an acceptable way to integrate solar generation consistent with Virginia law. According to the Association, another acceptable way would be the "Solar Purchase Program" available to Virginia Electric and Power Company ("Dominion Virginia Power") customers.[10]

The hearing was convened as scheduled on September 29, 2015. Noelle J. Coates, Esquire, and James R. Bacha, Esquire, appeared on behalf of the Company; Ashley B. Macko, Esquire, and Matt Roussy, Esquire, appeared on behalf of the Staff of the Commission ("Staff"); William T. Reisinger, Esquire, appeared on behalf of Consumer Counsel; Robert D. Perrow, Esquire, appeared as counsel for the Steering Committee; Brian R. Greene, Esquire, and Eric W. Hurlocker, Esquire, appeared as counsel for MDV-SEIA; and Cale Jaffe, Esquire, appeared as counsel for the Environmental Respondents. Simultaneous post-hearing briefs were filed on November 3, 2015.

SUMMARY OF THE RECORD

Public Witnesses

Two witnesses who had previously prefiled written testimony on behalf of CICV offered their testimony as public witnesses. First, **Christopher Burnley**, vice president for business and finance for Ferrum College ("Ferrum"), raised several concerns and offered ways the proposed Rider might be improved to enable Ferrum to utilize its provisions. He was of the opinion that Ferrum could implement solar or other green generation programs through net metering, and was aware of the benefits of utilizing tax credits in order to reduce the cost of green generating systems, which helps bring the per kilowatt hour ("kWh") cost in line with fossil power sources. He testified that Ferrum's challenge is that it is a tax-exempt entity, and therefore, cannot access any tax-related benefits through to Ferrum in the form of more competitive rates.[11]

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[8] The Association Motion was addressed as a preliminary matter when the hearing on the Application was convened. The Company supported granting leave to receive the Association comments out of time. Staff, Consumer Counsel, and the respondents stated that they did not oppose receiving the Association comments out of time. Tr. at 10-11. The Association Motion was granted. Tr. at 11.

[9] *See* Association comments, filed September 28, 2015, at 3.

[10] *Id.* at 7.

[11] Ex. 1 (Burnley), at 3.

Mr. Burnley also offered testimony that over the last year Ferrum participated in an initial solar feasibility assessment for solar photovoltaic ("PV") systems on its campus through a joint effort of CICV and its Solar Market Pathways project team. That effort identified the campus' maximum solar PV capacity potential to be over 2.6 megawatts ("MW").[12] He stated that Ferrum had considered the financial implications of the proposed RGP Program, and concluded that if Ferrum negotiated the installation of the maximum sized system allowed under the proposed Rider, at a PPA rate of $0.08/kWh,[13] the RGP Program would result in additional annual net costs of $38,252 to Ferrum. Further, due to the unpredictability of annual costs or savings, and with the risk being assumed by the customer, there was no guarantee that the additional annual net cost would not escalate. He stated that Ferrum could not absorb or justify the increased cost or risk.[14] Mr. Burnley next expressed his understanding that the proposed Rider as structured would provide no environmental benefits to the Ferrum. Based on his understanding of the current solar market, Ferrum would be required to sell all associated renewable energy credits ("RECs") to the third-party generator in order to obtain the $0.08 kWh rate or Ferrum would have to absorb an even higher cost in order to obtain any environmental benefits from a solar PV project to help the campus achieve its sustainability goals.[15]

Finally, he testified that participation in the proposed RGP Program would preclude Ferrum from practicing net metering on the same meter, which would present a challenge since it has already partnered with an outside entity to provide biomass-generated thermal energy and co-generated electricity to the campus.[16] Ferrum's analysis indicates that the ability to net meter with biomass cogeneration will be crucial to the feasibility of the project, but based on its understanding of the proposed RGP Program, the Rider would prevent the college from participating in the program for solar PV and also practicing net metering for biomass cogeneration. Ferrum therefore requested the restriction on net metering be removed from the proposed RGP Rider.[17] Thus, his most significant concerns with the proposed RGP Rider are with cost and net metering.[18]

Tyler C. Espinoza, a senior project manager for Optony Inc. ("Optony"), also filed testimony on behalf of CICV, a nonprofit, 501 (c) (6), organization representing 28 accredited nonprofit independent colleges and universities in Virginia. Optony is an independent provider of solar project lifecycle services. The firm is a hired consultant for CICV, providing technical assistance to member colleges and universities participating in a grant sponsored by the Department of Energy ("DOE").[19]

Mr. Espinoza addressed five areas of concern relative to Rider RGP. First, he asserted that the Renewable Output Credit methodology undervalues solar generation. Second, he

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[12] *Id.*
[13] *Id.* at 4.
[14] *Id.*
[15] *Id.* at 5.
[16] *Id.*
[17] *Id.*
[18] *Id.* at 6.
[19] Ex. 3 (Espinoza), at 1-3.

expressed concern that the structure of the proposed Rider places all of the risks on the customer. Third, he contended that the Rider will not deliver the environmental benefits to the customer that the Company claims are attainable. Fourth, he testified that the eligibility requirements and time period for enrollment present a challenge for CICV customers to participate. Finally, he argued that the proposed Rider is unlikely to be attractive or beneficial to APCo customers or third-party solar generators, leading to low participation rates and little contribution toward the achievement of Virginia's clean energy policy goals.

Mr. Espinoza testified that the methodology of the proposed Renewable Output Credit assigns no value to the avoided line losses from distributed solar generation. Citing a report from the Regulatory Assistance Project, Mr. Espinoza stated that line losses range from six to ten percent on most grids in the United States, with estimates as high as 20% during peak periods.[20] In addition, Mr. Espinoza noted that the Renewable Output Credit methodology only assigns monetary value to avoided energy and capacity costs. Mr. Espinoza argues that monetary value should be attached to (1) the reduction in the long-term need to build new transmission lines, and (2) the avoided environmental compliance costs and societal costs of carbon and other greenhouse gases. Mr. Espinoza admits that assigning a monetary value to these categories of avoided costs can be difficult and subjective; however, he argues that "the value is undeniably not zero."[21]

In support of his position that the Rider places all risk on the customers and interferes with private business transactions, Mr. Espinoza stated that the third-party generator is assured that it will be paid the full negotiated price for all solar generation, while APCo and non-participating customers are completely insulated from any and all lost revenues or lost contributions to fixed costs. Mr. Espinoza stated that a primary attraction to customers in entering PPAs is that customers can predict their energy costs over a long-term planning horizon (typically 20 years) through an agreed-upon fixed rate. Mr. Espinoza testified that it is virtually impossible for customers to predict costs under APCo's proposed Rider thereby eliminating a major benefit of a PPA. In addition, Mr. Espinoza cautioned that customers and third-party solar generators may have concerns about privacy and confidential business information being revealed to the utility through APCo's proposed role as a middleman. Mr. Espinoza stated that normally a PPA between a customer and third-party generator is privately negotiated. Finally, Mr. Espinoza argued that the $30 monthly program charge may be necessitated only because of APCo's unusual approach to the PPA contract structure and the Renewable Output Credit, which complicates the Company's billing calculations.

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[20] *Id.* at 4 n.1.
[21] *Id.*

Company Direct Testimony

In support of its Application, the Company filed the testimony of William K. Castle, director of regulatory services for APCo; and Jennifer B. Sebastian, a regulatory consultant principal for APCo.

Mr. Castle provided an overview of the Company's proposed RGP Program, the Program's purposes, and the benefits the Company hopes to obtain.[22] According to Mr. Castle, the RGP Program will be offered to non-residential customers with an aggregate load greater than 250 kW through a voluntary rider, the Rider RGP. Third-party ownership of renewable generation is facilitated through the use of a PPA. The customer would remain on its Standard Schedule for 100% of its consumption, and the customer would receive a market-based credit for 100% of the generation. The Rider is designed to provide a market-based compensation mechanism for the energy, and generation and transmission capacity that is provided by the generator while keeping rates neutral for other customers.[23]

Mr. Castle stated further that the RGP Program and Rider will help the Company address its customers' interests in purchasing non-dispatchable renewable energy and allow the Company to obtain information about the impact of intermittent distributed generation on its system.

Mr. Castle explained that the Rider together with an executed PPA will allow the Company to purchase the energy produced by a renewable generation facility ("Facility") located on or adjacent to the customer's site, but owned and operated by a third-party generator. The customer pays APCo for the energy produced by the renewable generator at an amount equal to the amount APCo pays to the third-party generator, in addition to the rate under the customer's Standard Schedule.[24]

The Renewable Output Credit, Mr. Castle clarified, will have three components: energy, generation demand, and transmission demand. The hourly energy production of the Facility will be calculated at the PJM hourly cost at the APCo pricing point, which was operational June 1, 2015. The generation demand credit will be measured by comparing the Facility's generation at the PJM system peaks, and credits for transmission capacity will be made after determining the system output at the time of monthly peaks that determine the Company's share of the PJM Network Integration Transmission System ("NITS") rate.[25]

According to Mr. Castle, many higher education customers have a desire to generate on-site renewable energy for a portion of their load. Over the years, many of these customers have expanded their facilities over a large physical area and have a number of meter sites. For practical reasons, these customers will be allowed to aggregate loads from multiple meters to

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[22] Ex. 5 (Castle Direct), at 2-3.
[23] *Id.*
[24] *Id.* at 5.
[25] *Id.* at 3-4.

determine an allowable generator size. The generators are limited to the size of the load to avoid the need to upgrade distribution infrastructure.[26]

Mr. Castle differentiated the proposed RGP Program from the Company's other renewable tariffs and initiatives. First, the Facility must be located on or adjacent to the customer's location, which allows for a tangible display of environmental stewardship. The Company's existing Renewable Power Rider does not meet this key customer desire. Second, the Program allows for and enables third-party ownership of a generator. Third, the credit for production will include a transmission credit component, which is not included in the Company's tariff for cogeneration and small power production facilities ("Cogen/SPP") or the net-metering program. Fourth, under the Rider, the customer will remain on its applicable schedule for 100% of its requirements, therefore no fixed costs for that schedule will be avoided and there will be no cost shifting to other customers on the schedule. Finally, the Facility is limited in size to the size of the applicable load, unlike the Cogen/SPP Rider that has no size limitations.[27]

Mr. Castle explained that the PPA will establish the price that APCo pays the third-party generator for the output. It will contain terms that govern the relationship between the third-party generator, the Company, and the customer.[28]

Mr. Castle stated that the Company anticipates that the net costs of the Program will be recovered through the fuel factor. He explained that customer credits for energy and capacity mirror the market-based costs for energy and capacity and are not conceptually different from what is currently included in the fuel factor for the Company's wind contracts.[29] Mr. Castle further stated that although the market-based cost of the Facility's production is paid by all customers, it is simultaneously offset by a requirement to purchase less, or the ability to sell more energy and capacity at a cost that is expected to be comparable. The credits are expected to be revenue neutral from the perspective of non-participating customers.[30]

Finally, Mr. Castle clarified that the costs of the Program will not be fully offset with avoided costs. With regard to APCo's capacity obligation to PJM, the credit given to APCo for generation that occurs coincident with the PJM peaks is not readily transacted. Therefore, there will not be a reduction in capacity cost in the short-term. The output from the Facility will potentially reduce the Company's peak load, and in turn, its capacity obligation in PJM that will result in an off-setting avoided cost over time.[31]

Jennifer B. Sebastian's testimony explained in detail how the proposed RGP Program and Rider work. Ms. Sebastian also sponsored the rate design and billing process for the Rider.[32]

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[26] *Id.* at 4.
[27] *Id.* 5-6.
[28] *Id.* at 5.
[29] *Id.* at 6.
[30] *Id.* 6-7.
[31] *Id.* at 7.
[32] Ex. 9 (Sebastian Direct), at 2.

Ms. Sebastian explained that under the Rider, a participating, non-residential customer served under a Standard Schedule can receive credit for the energy and capacity generated from a non-dispatchable renewable energy resource sited on or adjacent to the customer's property but owned and operated by a third party. The customer would continue to purchase full service under its existing Standard Schedule.[33]

Ms. Sebastian stated that a customer must independently seek out a third-party generator, who will own, and potentially maintain or operate the Facility. Rider RGP provides for a charge and a credit on the customer's bill related to the energy and capacity associated with the Facility. The negotiated PPA will detail the terms of sale for the third-party generator's output to the Company, the associated payment from the customer to the Company, and the performance terms the Company will require.[34] The terms of the PPA are expected to be for periods of five to fifteen years.[35]

Ms. Sebastian detailed the requirements of the Facility. It must have a nameplate capacity between 250 kW and 2,000 kW and its size must be equal to or less than the capacity and energy requirements of the customer under its Standard Schedule account for the last twelve months. As explained earlier, the Facility must be sited either on or adjacent to the customer's metered account property. Ms. Sebastian further stated the Facility must be interconnected and operated in parallel with the Company's distribution facilities in accordance with the Distribution Interconnection Rider ("Rider DIR"). The proposed Rider is designed to terminate for new customers on June 1, 2017, or upon contracting 25 MW of nameplate capacity, whichever is sooner.[36]

Ms. Sebastian summarized the components of a participating customer's bill. At the end of each billing period, the amount of energy and capacity the customer purchased under its Standard Schedule, the credit amount of energy and capacity the Company purchased under Rider RGP, and the payment amount required to be paid to the third-party generator by the Company under the PPA will appear on the customer's bill. Schedule 2 of Ms. Sebastian's testimony provides an example of a participating customer's bill.[37]

Ms. Sebastian continued her testimony by discussing the components associated with the Renewable Output Credit to the customer under the Rider.[38] The terms governing the Company's credit to the customer for the Facility's output are detailed in Rider RGP. First, the energy credit will be equal to the Facility's hourly production of energy in kWh as measured by the interval meter(s) multiplied by the applicable Real Time PJM Locational Marginal Price ("LMP") hourly energy rate at the APCo pricing point.[39] Second, a capacity credit stated as $/kW per month will be calculated based on the performance of the Facility during the most recent five coincident peaks as determined by PJM and the capacity benchmark rate as

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[33] *Id.* at 3.
[34] *Id.*
[35] *Id.* at 4.
[36] *Id.* at 3-4.
[37] *Id.* at 4.
[38] *Id.* at 5.
[39] *Id.*

determined in the proceeding on the Company's renewable portfolio standard rate adjustment clause.[40] Finally, a transmission capacity credit will be based on the performance of the Facility during the AEP 12 coincident peaks.[41] The benchmark rate will be based on the Company's proportionate share of the NITS rate. If historical interval metering data is not yet available to determine the Facility's performance for calculation of the capacity and the transmission credits, the Company proposes to set the capacity performance amount to 35% of the Facility's nameplate capacity and the transmission amount to 10% of the Facility's nameplate capacity.[42]

Ms. Sebastian finally stated that the Company proposes that the capacity and transmission rates and the respective generator capacity performance amounts be updated for each customer each July.[43] Ms. Sebastian testified that the Company will not retain the RECs associated with the output of the Facility. Ms. Sebastian quoted the applicable language in proposed Rider RGP, "[t]he Company agrees to relinquish any interest in [RECs] and all environmental attributes associated with the Eligible Generator output."[44]

Lastly, Ms. Sebastian stated that Rider RGP requires interval data recorder metering for billing purposes, and any metering enhancement or upgrade costs associated with the Rider would be borne by the customer.[45]

Respondent Testimony

Dana Sleeper provides executive director and management services to MDV-SEIA. He testified that MDV-SEIA's mission is to protect and grow the regional solar market by advocating for solar friendly policies, and that MDV-SEIA has more than 150 members in the region that all work in the solar industry.[46] He addressed the viability of using the proposed Rider, and whether it provided feasible options for customers desiring to purchase solar energy from a competitive supplier, or generators and developers.[47] Mr. Sleeper testified that under the proposed Rider a customer can arrange to have solar panels installed and owned by a third-party generator on its property, but the customer will not actually purchase the electricity or take advantage of net metering as it would if the customer owned the system. Rather, the customer would continue buying all of its electricity from APCo, and the customer would pay APCo an amount equal to the amount that APCo pays to the third-party generator while receiving a credit for an equivalent amount of energy determined by the PJM market.[48] In Mr. Sleeper's opinion the proposal combines aspects of the wholesale sale transactions and retail solar transactions in a

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[40] *Id.*, citing *Petition of Appalachian Power Company, For approval of a rate adjustment clause, RPS-RAC, to recover the incremental costs of participation in the Virginia renewable energy portfolio standard program pursuant to Va. Code §§ 56-585.1 A 5 d and 56-585.2 E*, Case No. PUE-2015-00034, Final Order (Nov. 16, 2015).
[41] Ex. 9 (Sebastian), at 5.
[42] *Id.*
[43] *Id.* at 6.
[44] *Id.*
[45] *Id.* at 7.
[46] Ex. 11 (Sleeper), at 2.
[47] *Id.*
[48] *Id.*

fashion that is not marketable.[49] He testified that under a normal PPA arrangement, a customer who installs solar on its property behind the meter, does so to use electricity generated directly by solar facilities, to save money and provide price certainty for a portion of its energy use. None of those benefits would accrue to the customer under the APCo proposal. Quite the contrary, Mr. Sleeper asserts that APCo's proposal offers no price certainty for the customer.[50] According to Mr. Sleeper, the proposal is also not attractive to third-party generators. The proposed Rider would require generators to disclose their retail PPA deal structures and transaction information to a potential competitor. According to Mr. Sleeper, "[t]his is clearly a non-starter."[51] Further, Mr. Sleeper observed that although the Rider is described as a retail transaction, the generator is selling energy directly to APCo on a wholesale basis with a limited relationship with the customer.[52]

Mr. Sleeper testified that he does not anticipate any of his member companies will utilize the proposed program. "The customer size and class limitations, uncertain billing arrangements, and great economic risk placed on customers makes this tariff unattractive and all but eliminates any possibility that a project would move forward under this structure."[53] He suggested that if the goal of the RGP Program is to collect valuable information about the impact of intermittent distributed generation systems, APCo should consider further engagement with the solar development community on more viable structures.[54]

Staff Testimony

Staff offered the testimony of **Brian S. Pratt**, senior utilities analyst with the Commission's Division of Energy Regulation.[55] Mr. Pratt summarized and assessed the key aspects of the RGP Program and proposed Rider, and offered comment on public interest considerations. Staff did not oppose the parameters and limitation proposed by the Company but noted that there could be eligible non-residential customers that are not higher education customers that have similar characteristics with respect to their load in that they may have expanded their campuses over the years and their load may be served by multiple meters across a large contiguous area. Staff therefore recommended that the Company should allow similarly situated customers an option to aggregate load from multiple meters for the purpose of determining an allowable size for the Facility.[56]

Mr. Pratt observed that under the proposed Rider, participating customers will remain on their current Standard Schedule for 100% of their consumption. The Company will purchase energy produced by a renewable generator located on or adjacent to the customer's site but owned and operated by a third party. The customer would pay APCo for the energy at an amount equal to the amount APCo pays the third-party generator in addition to the amount paid for

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[49] *Id.* at 3.
[50] *Id.*
[51] *Id.*
[52] *Id.*
[53] *Id.* at 3-4.
[54] *Id.* at 4.
[55] Tr. at 107.
[56] Ex. 12 (Pratt), at 4.

consumption pursuant to the Standard Schedule. The Company would then credit the customer based on a market-based mechanism, the Renewable Output Credit.[57]

Mr. Pratt also explained that the terms of the relationship between the Company, the third-party generator, and the customer will be established and governed through a PPA between all three parties. The Company has developed a standard PPA that it will use for all transactions. According to the PPA, the third-party generator would agree to sell all output generated from the Facility to APCo, APCo would agree to buy all of the output from the third-party generator, and the customer would agree to pay APCo an amount equal to the amount that APCo pays for the renewable energy purchased.[58] The third-party generator would maintain ownership of all output until purchased by APCo and would be required to obtain and retain all environmental financial incentives and tax benefits associated with the generation and sale of renewable energy. Moreover, the PPA would provide that where the terms of the PPA are in conflict with the Company's tariff terms, the tariff would prevail.[59] The price would be negotiated between the customer and the third-party generator, and memorialized in the PPA. Staff observed that the Company requires the terms of the PPA to be agreeable to APCo, but does not provide customers with any information about what may or may not be agreeable to the Company, and does not identify what process it will use to determine whether a PPA is agreeable or a process for appeal of a Company's determination.[60] Staff recommends the Company expand and clarify its PPA approval process. Specifically, Staff recommends that the proposed Rider include language that establishes and clarifies the process APCo will use to determine whether a PPA is agreeable to the Company, and establishes and clarifies a process by which the customer and/or third-party generator may appeal the Company's determination and/or renegotiate the terms of the PPA so it is agreeable to the Company.[61]

Mr. Pratt next discussed the manner in which the customer would be billed under the proposed Rider. The customer would be required to continue purchasing all of its consumption from the Company pursuant to the customer's Standard Schedule -- the charges that the customer would pay regardless of participation in the RGP Program -- while also paying an amount equal to the amount APCo pays the third-party generator for the output -- the PPA negotiated price multiplied by the monthly Facility output in kilowatt hours.[62] The customer would be credited the Renewable Output Credit. The credit is designed to approximate the market-based pricing the Facility would experience if the output were sold into the PJM market. The credit will vary each month as the underlying market-based prices and data used to comprise the credit vary. The negotiated price for the output will remain fixed under the PPA. The customer assumes the risk of uncertainty with respect to the net impact the Rider will have on the monthly bill.[63]

Mr. Pratt explained that the Company also proposes a $30 monthly program fee intended to recover the costs associated with billing, administrative and communication expenses related

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[57] *Id.* at 5.
[58] *Id.*
[59] *Id.* at 6.
[60] *Id.*
[61] *Id.* at 6-7.
[62] *Id.*at 7.
[63] *Id.* at 9.

to implementation and administration of the Program.[64] The Company relied on the cost support used to develop the program charge for Schedule Cogen/SPP. Staff is not opposed to the Program fee but recommends that it be monitored and modified after actual experience.[65]

The customer bill then would consist of charge for service under the Standard Schedule, charges equal to the Company's cost for the Facility output pursuant to the PPA, a Renewable Output Credit, and a Program fee.

The Company intends to gather information related to the production output of Facilities such as real power output and energy produced, reactive power output and energy produced, voltage at the point of common coupling, solar irradiance percentage availability of the system, fault current contribution, and duration of fault current contribution.[66]

Staff observed that the Company stated that it may seek to recover costs associated with gathering information in a future base rate proceeding. Staff took no position with respect to the recovery of any costs associated with gathering information related to the Facility's impact on the Company's system. Should the Company file for recovery of these costs in a future base rate proceeding, Staff may review the Company's cost recovery methodology and comment on any concerns or considerations at that time.[67]

The Company proposed to recover costs associated with billing administrative and communications through the monthly Program fee assessed to customers participating in the RGP Program. It proposes to recover all three components of the Renewable Output Credit through the fuel factor that is designed to recover variable fuel costs associated with providing energy to customers. Staff advised that the current fuel factor includes generation fuel expenses and purchased power expenses. It also provides for recovery of certain transmission line losses and includes a credit for fuel associated with off-system sales and off-system margins.[68] Staff did not take a position with regard to the Company's proposal to recover the costs of the Renewable Output Credit through the fuel factor.[69]

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[64] *Id.* at 10.
[65] *Id.* at 11.
[66] *Id.* at 9.
[67] *Id.* at 10.
[68] *Id.*
[69] *Id.* at 12.

Company Rebuttal

Mr. Castle offered rebuttal testimony.[70] He clarified the restriction pertaining to the third-party generator. He stated that the Application stated that the Rider was available to non-residential customers with load between 250 kW and 2,000 kW, and in direct testimony, Ms. Sebastian had stated that eligible generators must have a nameplate capacity between 250 kW and 2,000 kW. Mr. Castle clarified that the limitation applies to the generator size as stated by Ms. Sebastian, and not the customer's load size as stated in the Application. He felt the clarification should resolve CICV witness Burnley's concern regarding the customer load limitation. Mr. Castle also testified that Staff's recommendation to expand the ability to aggregate meters to include all eligible customers, not just institutions of higher education, was acceptable to the Company.[71]

Mr. Castle stated that Rider RGP seeks to minimize the cost impact on non-participating customers so it is important that participating customers pay all applicable charges associated with the cost to serve them under their Standard Schedule. If customers could simultaneously participate in the net metering rider, the customer would avoid those applicable charges associated with their Standard Schedule thus undermining the intent of Rider RGP.[72]

He testified that Rider RGP is not designed to guarantee a participating customer can reduce costs, but rather it is designed to allow customers to "go green" by purchasing from a renewable energy Facility.[73] Depending on how a PPA is written, the market risk may be borne by either the third-party generator or the participating customer, but should not be borne by non-participating customers.[74] He contended that although the risk would be borne by the third-party generator and/or customer, the potential reward would also accrue to them. He testified that the respondents focused on the first-year costs and argued that market-based compensation will be insufficient. Mr. Castle observed that renewable generators typically have a life in excess of twenty years.[75]

Mr. Castle explained that distributed, non-dispatchable renewable generation is generally more expensive than market alternatives and as a consequence, it is not guaranteed that installing such generation will result in cost savings for participants.

He explained that RECs are the premium associated with renewable generation over the market value of the energy and capacity produced. RECs plus the market value of the energy and capacity are necessary to compensate a third-party generator to build a renewable generator. For solar generation there are separate solar REC markets that typically demand an even higher premium. Mr. Castle testified that it is not realistic to "go green" and not expect to incur additional costs.[76]

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[70] Ex. 15 (Castle Rebuttal).
[71] *Id.* at 1-2.
[72] *Id.* at 3.
[73] *Id.*
[74] *Id.* at 4.
[75] *Id.*
[76] *Id.* at 5.

He testified that the intention of the Rider is to compensate participants to the fullest extent possible without passing the costs associated with the decision to non-participating customers.[77] He stated that since the timing will differ for the realization of avoided generation and transmission costs, crediting market-based compensation, and the existence of revenue sharing of off-system sales, the match will not be perfect and there may be differences in timing of costs and benefits.[78]

He stated that if the Company compensated Rider RGP at the net metering rate, non-participating customers would be impacted. The Company recovers 83% of its fixed costs through volumetric rates in the small general service schedule and 39% of its fixed costs volumetrically in the large general service schedule. Net metering enables the avoidance of those fixed costs to be charged to non-participating customers.[79] He testified that PJM has accounted for transmission line losses through the loss component of the LMP since 2007.[80] Further due to the distributed nature of the generating Facilities that may participate in the Program, the Company has also not provided a credit for distribution losses, similarly to its treatment in the Cogen/SPP tariff.[81]

The Company also takes the position that a customer cannot use the net metering tariff financed through a PPA as Mr. Espinoza suggests and as provided for in the Dominion Virginia Power pilot program.[82]

Mr. Castle countered Mr. Espinoza's testimony that the Renewable Output Credit methodology assigns no value to avoided line loss, stating that by using the APCo load aggregate LMP in the customer credit calculation, proposed Rider RGP accounts for transmission level losses and provides credit to participating customers.[83]

Mr. Castle addressed privacy and dispute resolution concerns associated with three-way PPA agreements. He testified that he was unclear with what proprietary information the respondents were concerned as the only information APCo requires is the agreed-upon purchase price for the output of the renewable generator to be paid to the third-party generator and received from the customer.[84]

He also commented on Staff Witness Pratt's recommendation that the Rider include language that defines a process for determining whether a PPA is agreeable to the Company and a process to resolve disputes. Mr. Castle expressed concern with the recommendation stating

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[77] *Id.*
[78] *Id.*
[79] *Id.* at 6.
[80] *Id.*
[81] *Id.* at 8.
[82] *Id.*
[83] *Id.*
[84] *Id.* at 9.

that the economic terms of any agreement are inconsequential to the Company; however, the Company would require basic financial or safety protections.[85]

In conclusion, Mr. Castle also sought Commission guidance on the proposed method of cost recovery. The Company proposed to recover the Renewable Output Credit through the fuel factor, and is concerned that Staff takes no position on the proposal, which the Company interprets to mean Staff intends to make a recommendation after costs are incurred. Mr. Castle contended that in order to offer a market-based customer credit for participating customers, the Company seeks guidance that the proposed method for calculating the customer credit is reasonable prior to offering the Program, and therefore all that would be left for a fuel factor proceeding is to properly account for those costs. The Company is proposing to book the market-based credits in FERC account 555 (Purchased Power) and ultimately recover as fuel costs substantially the same as the non-incremental costs associated with wind PPAs also booked to FERC account 555 and recovered through fuel.[86]

DISCUSSION

Standard of Review

Rider RPG was filed as an experimental offering. As such, the applicable Code provision is Code § 56-234 B which provides in relevant part:

> It shall be the duty of every public utility to charge uniformly therefor all persons, corporations or municipal corporations using such service under like conditions. However, no provision of law shall be deemed to preclude voluntary rate or rate design tests or experiments, or other experiments involving the use of special rates, where such experiments have been approved by order of the Commission after notice and hearing and a finding that such experiments are necessary in order to acquire information which is or may be in furtherance of the public interest.

The Experimental Proposal

According to the Company the proposed experimental Rider would be part of the Company's RGP Program, and would allow certain non-residential customers with annual load above 250 kW in the APCo Virginia service territory to participate, on a voluntary basis, in the Program through which those participating customers would purchase energy and capacity from renewable generating Facilities. To qualify, renewable generating Facilities must be non-dispatchable, be located on, or adjacent to, a participating customer's property, have a nameplate capacity between 250 kW and 2,000 kW, and be of a size no greater than the participating customer's load measured by the previous 12 months.

APCo contends that the RGP Program is designed to minimize the cost impact on the customers that do not participate in the RGP Program, and to gather information about the

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[85] *Id.* at 10.
[86] *Id.*

impact of renewable Facilities on the APCo system and the success of alternative rate structures. APCo initially proposed to allow only nonprofit higher education customers to aggregate load from multiple meters for the purpose of determining an allowable size for eligible generation Facilities.

The Rider would establish a three-way relationship between APCo, the third-party generator and the participating customer memorialized in a three-way PPA. The third-party generator and the participating customer would agree to a price for the output of the Facility. APCo would not be party to those negotiations and is indifferent to the agreed-upon price, but would purchase all the output at the agreed-upon price. APCo would not claim the RECs generated by the Facility. The RECs would remain the property of either the third-party generator or participating customer pursuant to the PPA.

The Rider includes four components monthly:

1. The participating customer would continue to pay retail rates for all of its consumption pursuant to its Standard Schedule.
2. The participating customer also pays APCo the exact amount that APCo paid the third-party generator for the output.
3. The participating customer would also pay a $30 program fee to cover the Company's costs of billing and administering the Program.
4. APCo would credit the customer for the market value of the output as if it were sold into the PJM market through the Renewable Output Credit.[87]

The Renewable Output Credit consists of three components:

1. An energy credit that is equal to the hourly energy output in kWh, as measured by an interval meter, multiplied by the applicable hourly Real-Time LMP at the APCo pricing point.
2. A generation capacity credit to reflect the Facility's impact on the Company's generation capacity requirements in PJM. The participating customer would be credited for the generation capacity requirement that is offset because of the Facility's contribution at the time of the PJM peaks.[88]
3. A transmission capacity credit to reflect the Facility's impact on the Company's allocated PJM transmission costs for the most recent completed calendar year.[89]

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[87] Ex. 9 (Sebastian), at 3-4.

[88] The customer is credited for the generation capacity requirement that is offset because of the Facility's contribution at the time PJM peaks. The generation capacity credit will be equal to a generation capacity price multiplied either by the average of the Facility's output during the five highest coincident peak hours or by 25 percent of the Facility's nameplate capacity if sufficient interval metering data is not available.

[89] The transmission capacity credit will be equal to the Facility's average production during the time of AEP East Transmission Zone coincident monthly peaks from the preceding year ended October 31 multiplied by the prevailing NITS Monthly rate. If insufficient data is available, the value will be set at 10 percent of the Facility's nameplate capacity.

As noted above, APCo seeks approval of a $30 monthly fee on participating customers to recover costs associated with billing, administrative and communications expenses of the Program. APCo represents that it developed the charge based on the program charge for its Schedule Cogen/SPP. Staff did not oppose the program fee but recommended that it be monitored and adjusted after actual experience.[90] MDV-SEIA, however, asserted that the proposed Rider monthly charge is unreasonable, noting that it is the unusual structure of the Program which interjects APCo into a PPA between a customer and a third-party generator that causes any additional administrative burden.[91]

Staff also observed that the Commission has significant discretion to determine whether the proposed Program should be approved, and to condition any approval on terms that the Commission finds appropriate.[92] Staff does not oppose approval of the Rider, but recommends certain reporting requirements and tariff improvements. Specifically, if the Commission approves the voluntary Rider, Staff recommends: (1) requiring regular reports by APCo that would allow the Commission, Staff, and the public to evaluate Program information obtained by the Company; (2) revising the proposed tariff language of the Rider to identify any reasons APCo would potentially reject a PPA; and (3) revising the proposed tariff language of the Rider to allow similarly situated customers to aggregate load under the Program.[93] Staff also recommends that the Rider describe a process through which the third-party generator or participating customer can appeal the Company's determination that a PPA is objectionable.[94]

The Company agreed to Staff's recommended reporting requirements, and accepted the Staff suggestion to insert language in Rider RGP to make clear the reasons why APCo might find a PPA objectionable. Those reasons would primarily be changes to provisions that protect the Company financially and that ensure that the arrangement does not have a negative impact on the safety and reliability of the Company's system. APCo proposed the following language to be added to the Rider:

> The Company reserves the right to withhold approval of a specific Purchase Power Agreement if, in the Company's sole discretion, proposed revisions to the pro forma contract compromise the Company's financial rights and risk protections and/or its safety and reliability obligations, or alter the sale and purchase obligations of any party.[95]

The Company also agreed with Staff's proposal to extend the ability to aggregate load from multiple meters to determine the allowable size for the facility to include "any eligible customer that is served by several meters across a contiguous physical area."[96]

The Company, however, disagreed with the Staff recommendation that the Rider describe a process through which the third-party generator or participating customer can appeal the

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[90] Ex. 12 (Pratt), at 10-11.
[91] MDV-SEIA Brief, at 11.
[92] Staff Brief, at 3.
[93] *Id.*
[94] Ex. 12 (Pratt), at 6-7.
[95] APCo Brief, at 12 n. 48.
[96] *Id.* at 2 n. 4.

Company's determination that a PPA is objectionable. According to APCo such an occasion is unlikely as its interest in the terms of the PPA are limited to those related to protecting safety and reliability and the Company's financial interest. APCo contended that if the Commission determines that there is a need for such a process, the Commission would be the most appropriate forum to consider a dispute.[97]

The Steering Committee also did not oppose approval of the experimental RGP Program if certain conditions are met, and the Program should be revised to (i) provide that customers and Facilities participating in the RGP Program will not count toward APCo's net metering cap; (ii) incorporate the reporting requirements suggested by the Staff; (iii) include Staff's proposed changes to the PPA form; and (iv) allow aggregation of load from a customer's multiple meters for the purpose of qualifying to participate in the RGP Program. The Steering Committee contends that the program must be experimental with a limited duration because it constitutes a special rate and the number of participants and the cost to non-participants is unknown.[98]

Consumer Counsel took no position on whether the Company's filing was in the public interest and should be approved, but argued that while Rider RGP may allow participating customers to help facilitate the development of renewable energy, it cannot be characterized as a tariff for renewable energy. It asserted that APCo, not the customer, would be purchasing all of the renewable energy output from the third-party generator. Consumer Counsel observed that the Commission has held that the purchase of RECs or other attributes associated with renewable energy does not constitute the purchase of renewable energy output. The Commission has further held that renewable energy riders cannot be characterized as renewable energy tariffs unless the subject renewable energy is directly allocated to customers.[99]

The Environmental Respondents, however, opposed the Company's proposal as not just and reasonable, and contrary to the public interest. They contended that the Program is not in the public interest because it is not marketable to solar developers and is unappealing to customers. The problems with the Rider identified by the Environmental Respondents include unmarketability, conflicts with APCo's existing net metering rider, the likelihood and risk that participation would lead to an increase in net costs for the customers, and loss of REC benefits to customers.[100] They also argued that customers are not interested in the Program, noting that although Company witness Castle stated that the Company had met with Appalachian School of Law to discuss the Program before the Application was filed, MDV-SEIA witness Sleeper testified that Appalachian School of Law was opposed to the Rider due to the structure of the proposed Program.[101] In addition, CICV, which includes Appalachian School of Law, offered two public witnesses opposed to the Program. Mr. Burnley also expressed concern about the the structure of the Rider, and the potential costs of the Program noting that the proposed Program would result in an additional annual net cost of $38,000 for Ferrum College.[102] Mr. Espinoza

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[97] *Id.* at 13.
[98] Steering Committee Brief, at 3-4.
[99] Consumer Counsel Brief, at 1-4.
[100] Environmental Respondents Brief, at 3.
[101] Tr. at 99.
[102] *Id.* at 38-39.

testified that a complete lack of customer support demonstrates that the proposal is not in the public interest as required by § 56-234 of the Code.

MDV-SEIA also recommended the proposed Rider be rejected. MDV-SEIA also argued that the Rider will not deliver the environmental benefits the Company claims are achievable. It asserted that the Rider is not structured to provide customers with any tangible environmental benefits. MDV-SEIA, like Consumer Counsel, observed that the participating customers must continue to purchase energy under their Standard Schedule, so customers would be purchasing all of their electricity from the system mix of resources, not directly from the renewable facility as would be the case under a normal PPA that has two parties, the customer and the third-party generator.[103] MDV-SEIA further contended that the proposed Rider will contribute little to Virginia's clean energy policy goals. The clean energy policy objectives include increasing reliance on renewable sources of energy that pollute less than traditional sources of energy, such as coal, and recognizing the need to foster alternative sources of energy as vital components of a diversified portfolio of energy resources. MDV-SEIA asserted that the Commission is required to recognize the elements of the Commonwealth Energy Policy, Code § 67-102 C, and act in a manner consistent with it when taking discretionary action regarding energy issues.

MDV-SEIA asserted that the proposed Rider raised jurisdictional and enforcement issues due to the three-party structure of the PPA. MDV-SEIA contended that under the Rider the generator sells the renewable energy to APCo, which is a wholesale sale of energy, a retail sale component, and a private contract. The Company contends that the question of whether or not the PPA provides for a wholesale transaction subject to FERC jurisdiction is not relevant to the Commission's consideration of the proposed Rider.[104]

Aspects of the Commonwealth Energy Policy that are particularly relevant to this Application are Code §§ 67-101 and 67-102 which provide in part:

67-101. Energy objectives

. . .

9. Increasing Virginia's reliance on sources of energy that, compared to traditional energy resources, are less polluting of the Commonwealth's air and waters; . . . .

67-102. Commonwealth Energy Policy

A. To achieve the objectives enumerated in § 67-101, it shall be the policy of the Commonwealth to:

1. Support research and development of, and promote the use of, renewable energy sources;

. . .

[103] MDV-SEIA Brief, at 6.
[104] *Id.* at 15-16.

6 . Promote the generation of electricity through technologies that do not contribute to greenhouse gases and global warming; . . . .

Upon consideration of the record, I recommend that the Commission deny APCo's Application for approval of experimental Rider RGP. I appreciate that the Rider is proposed as a voluntary Program, and that no customer is obligated to participate, but I find that the proposed Rider would not encourage renewable development, and, even further, there is evidence that it would discourage development contrary to the Commonwealth Energy Policy. I am most troubled by the pricing structure. A customer, if one was interested in participating, would be purchasing 100% of its load under its Standard Schedule, **and** pay again for the output of the renewable Facility on or adjacent to its property, **and** pay an extra $30 program fee for the additional billing and administrative work APCo would perform largely due to a complicated structure of its own making. Further, the Renewable Output Credit is not based on what APCo pays the third-party generator, but rather, an unknown variable PJM market-based price. In essence, the customer would know exactly what it would be paying, and paying again, but any potential offsetting credit would be completely unknown each and every month as it would fluctuate every month based on the PJM market even though the price negotiated under the PPA could be fixed and known. That uncertainty will not encourage renewable energy development. Further, if the Rider is approved, APCo will have no further incentive to reconsider alternate programs that it could develop to encourage renewable generation that would serve to promote the objectives of the Commonwealth Energy Policy. I therefore conclude that the Company's proposed Rider RGP is not in the public interest, nor is the experiment necessary to acquire information that is or may be in furtherance of the public interest.

If the Commission decides to approve the Rider, however, I also find that Staff's recommendations should be incorporated as agreed to by the Company. Specifically, (1) requiring regular reports by APCo that would allow the Commission, Staff, and the public to evaluate Program information obtained by the Company; (2) revising the proposed tariff language of the Rider to identify any reasons APCo would potentially reject a PPA; and (3) revising the proposed tariff language of the Rider to allow similarly situated customers to aggregate load under the Program.

The reporting requirements should include:

1. The number of customers participating in the Program broken down by rate schedule;

2. The average charge or credit to participating customers resulting from the difference between the Renewable Output Credit and the payments under the PPAs;

3. The actual costs of administering the Program;

4. The LMP in each hour reported, and avoided generation and transmission costs; and

5. All system reliability analysis performed by the Company of the Program information such as real output and energy produced, reactive power output and energy produced,

voltage at the point of common coupling, solar irradiance percentage availability of the system, fault contribution, and duration of fault current contribution.

The tariff should also extend the ability to aggregate load from multiple meters to determine the allowable size for the Facility to include "any eligible customer that is served by several meters across a contiguous physical area."

The language proposed by the Company to define the conditions that might cause a PPA to be rejected is also acceptable if the Commission approves the Rider. That language again is:

> The Company reserves the right to withhold approval of a specific Purchase Power Agreement if, in the Company's sole discretion, proposed revisions to the pro forma contract compromise the Company's financial rights and risk protections and/or its safety and reliability obligations, or alter the sale and purchase obligations of any party.

Fuel Factor Recovery

The Company asks the Commission to find that the costs incurred by APCo related to the Renewable Output Credit are recoverable through the Company's fuel factor, subject to the Commission's review of the costs in subsequent fuel factor proceedings. The Company contends that the Renewable Output Credit mirrors market-based costs for energy and capacity and are similar if not identical to the costs of purchase power. It also contends that the costs are also substantially the same as the non-incremental costs associated with APCo's PPAs with wind generating facilities that the Company books to FERC Account 555 and recovers through the fuel factor.[105] The Company represents that if it does not have certainty that the costs are recoverable through the fuel factor it cannot go forward with the voluntary experimental program.

Staff is of the opinion that it would be premature for the Commission to address the Company's request outside of the context of a fuel factor proceeding. Staff notes that the record does not indicate, among other things, the magnitude of costs, how such unquantified costs would affect the fuel factor rate, or the differing impact the costs would have on the retail rates paid by various customer classes.[106] Indeed, the Company cannot provide that information at this stage. Staff further contends that approval of a pilot program without prejudging the recovery of costs in a future proceeding is consistent with Commission precedent, including Commission consideration of other pilot programs.[107]

I agree with Staff, and if the Commission approves the experimental Rider, I find the associated costs should be addressed in a future rate proceeding.

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[105] APCo Brief, at 11.
[106] Staff Brief, at 10.
[107] *See, e.g., Commonwealth of Virginia, ex rel. State Corporation Commission, In re: Appalachian Power Company's proposed pilot programs on dynamic rate structures for renewable generation facilities*, Case No. PUE-2010-00134, 2011 S.C.C. Ann. Rep. 383, Order Establishing Pilot Programs (May 18, 2011).

Legality of PPAs between Retail Customers and Third-Party Providers in Virginia

MDV-SEIA and the Environmental Respondents recommend the proposed Rider be rejected as superfluous and unnecessary. They contend that there is no reason for the Rider at this time because PPAs executed between customers and third-party generators are already legal in the APCo service territory. APCo does not currently offer an approved tariff for electric energy provided 100% from renewable energy therefore they assert retail customers of any customer class are permitted to purchase electric energy provided 100 percent from renewable energy from any supplier licensed to sell retail electric energy in Virginia pursuant to Code § 56-577.

APCo is of the opinion that third-party PPAs are allowed only in Dominion Virginia Power's service territory under a pilot program that was approved by the Commission. It asserts that the legislation that created the Dominion Virginia Power pilot program precluded the use of third-party PPAs other than through the pilot program. The Company also recognizes that although electric utilities have the exclusive right to provide retail electric service in their service territories, there are statutory exceptions such as those set forth in Code § 56-577, but contends that the Commission should not address the legal issues raised by MDV-SEIA and the Environmental Respondents in this proceeding. The Company argues that the public has not been placed on notice that the Commission might consider the legal issues raised. The Company contends that the Commission's analysis of and decision on the Application does not require it to resolve the legal questions related to net metering or the application of Code § 56-577 A 5 raised by some of the participants. It urges the Commission to limit its consideration to the issues before it, namely, consideration of the justness and reasonableness of Rider RGP.[108]

Staff also asserts that the legal issues regarding third-party renewable generation and net metering policies need not be addressed for the Commission to evaluate whether the Company has met the applicable statutory standard in this case.

Consumer Counsel supported the requests for briefing made by the Environmental Respondents and MDV-SEIA.[109] Consumer Counsel disagrees with APCo's position that customers cannot purchase renewable energy from third-party generators under current law. Consumer Counsel contends that several provisions of the Code, including Code §§ 56-594 and 56-577, explicitly allow customers to purchase renewable generation from third-party sellers, and specifically, Code § 56-577 A 5 provides that customers may purchase 100% renewable energy from third-party sellers if the incumbent utility does not offer an approved tariff for renewable energy.[110]

Although I agree with Staff and the Company that the Commission need not address those legal issues to determine if the Company's proposal meets the statutory standard of Code § 56-234, APCo has taken the position that customers cannot legally execute PPAs directly with third party generators except under its proposed Program which raises uncertainty that

[108] APCo Brief, at 13.
[109] Consumer Counsel Brief, at 2.
[110] *Id.* at 3.

could adversely impact development of renewable energy. The renewable generation market needs clarity in order to promote development, and the Commission may elect to address the issues now in this case, particularly because APCo now has a petition pending for approval to provide a tariff offering 100% renewable energy,[111] or in another case. So, I will address the question here.

The analysis starts with Code § 56-577 A 5 that provides, in part:

After the expiration or termination of capped rates, individual retail customers of electric energy within the Commonwealth, regardless of customer class, shall be permitted:

a. ***To purchase electric energy provided 100 percent from renewable energy from any supplier of electric energy licensed to sell retail electric energy within the Commonwealth***, other than any incumbent electric utility that is not the incumbent electric utility serving the exclusive service territory in which such a customer is located, ***if the incumbent electric utility serving the exclusive service territory does not offer an approved tariff for electric energy provided 100 percent from renewable energy***; and
b. To continue purchasing renewable energy pursuant to the terms of a power purchase agreement in effect on the date there is filed with the Commission a tariff for the incumbent electric utility that serves the exclusive service territory in which the customer is located to offer electric energy provided 100 percent from renewable energy, for the duration of such agreement.

The Company contends that PPAs between retail customers and third-party entities in the Commonwealth are only permissible in the pilot program in Dominion Virginia Power's service territory pursuant to Code § 56-577. It argues that a PPA between a retail customer and a third-party provider outside that pilot program is only legal if it is consistent with the Commission-approved APCo tariff and if it met one of the specific exemptions set forth in Code § 56-577. The Company argues that its Open Access Distribution Service Schedule states that "[a] customer is not permitted to have partial competitive electric service. The [third-party provider] shall be responsible for providing the total energy consumed by the customer in any given billing month."[112] APCo also contended that a third-party provider must provide 100 percent of a customer's load and must do so with energy that is produced 100 percent from renewable resources, and further, a PPA would not be permissible between a retail customer and a third-party provider if APCo had an approved tariff that offered electric energy provided 100 percent from renewable energy.[113]

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[111] *Petition of Appalachian Power Company, For approval of a 100% renewable energy rider*, Case No. PUE-2016-00051, filed April 28, 2016.
[112] APCo Brief, at 15 citing Tariff of Appalachian Power Company, Sheet No. 3-4D, Terms and Conditions of Open Access Distribution Service.
[113] APCo Brief, at 16.

The Environmental Respondents, MDV-SEIA, and Consumer Counsel all assert that the provisions of Code § 56-577 are not so limiting, and provide that the consumer can purchase 100% renewable energy from third-party providers. They further assert that the Code does not require customers to take 100% of their load from such providers, but rather only requires that all energy purchased must be 100% renewable energy. I agree. The provisions of Code § 56-577 A 5 are not limited to Dominion Virginia Power, and clearly allow customers under any customer class "[t]o purchase electric energy provided 100 percent from renewable energy from any supplier of electric energy licensed to sell retail electric energy within the Commonwealth . . . if the incumbent electric utility serving the exclusive service territory does not offer an approved tariff for electric energy provided 100 percent from renewable energy . . . ."[114] APCo does not currently offer such a tariff.

Net Metering

The Environmental Respondents further contended that the Rider is not necessary because customers within the Company's service territory can already enter into PPAs pursuant to § 56-594 of the Code. They argue that customers enrolled in the net metering program can install a solar generating facility, and they noted that APCo conceded it would not be aware of any behind the meter financing arrangements for net metered solar customers.[115] They noted that the proposed Rider would treat customers completely different in terms of pricing and contracting. Moreover, they referred to Mr. Burnley's testimony that participation in the proposed Rider would threaten Ferrum's use of the net metering tariff for a planned biomass cogeneration facility.[116]

Consumer Counsel also contended that APCo's Application was misleading in that it suggested that Rider RGP would be the only means through which customers could purchase renewable energy from third parties. To the contrary, Consumer Counsel also asserted that the existing net metering statute, Code § 56-594, allows retail customers to contract with third parties for the provision of renewable energy. Consumer Counsel, however, also noted that APCo has limited customer self-generation by capping the maximum size of net metering at 20 kW for residential customers and 1 MW for non-residential customers; and the allowable net metering generation capacity is limited to no more than one percent of the Company's peak load.

Code § 56-594 A expressly authorizes customer generators to enter into stand alone, behind-the-meter PPAs with third-party generators that own and operate a renewable generating facility for the customer.

Code § 56-594 B defines an "eligible customer-generator" for the purposes of net metering to be "a customer that owns and operates, or contracts with other persons to own, operate, or both, an electrical generating facility that . . . uses as its total source of fuel renewable energy . . . ."

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[114] Code § 56-577 A 5 a.
[115] Environmental Respondents Brief, at 2-3; Tr. at 128.
[116] Tr. at 40.

The Company contends that the definition of "eligible customer-generator" does not state, explicitly or implicitly, that a net metering customer can purchase power from that "other person." APCo again asserted that PPAs between customers and third-party providers for part of their monthly load are not legal in APCo's service territory and therefore such arrangements cannot be legal for customers that participate in net metering without specific statutory authorization. The Company contended, however, that in any event, even if such arrangements were legal for net metering customers, the issue is not relevant to the question before the Commission as Rider RGP is not a bar to net metering.

Again, I agree with the Environmental Respondents, MDV-SEIA, and Consumer Counsel. Certainly there are limitations as noted by the Consumer Counsel to that amount of behind-the-meter generation that customers can contract for, but net metering does provide an option for customers,[117] and contrary to APCo's contention, Code § 56-594 B does allow customers to contract with third parties to "own, operate, or both, an electrical generating facility" that complies with the other requirements of the Code. I do appreciate that the Company attempted to address the subsidization issues that occur with net metering. Nonetheless, net metering is currently a legal and viable option for customers. Company witness Castle even recognized that "[p]articipation in the net metering tariff remains open to eligible customers."[118]

FINDINGS AND RECOMMENDATIONS

Based on the record developed in this proceeding, and for the reasons discussed above, I find that:

1. The Company's Application for the proposed Rider RGP should denied.

2. However, if the Commission decides that the Rider should be approved, the reporting requirements and the modifications recommended by Staff, and agreed to by the Company, should be adopted;

3. In such case, the following reporting requirements should be imposed:

    - The number of customers participating in the Program broken down by rate schedule;
    - The average charge or credit to participating customers resulting from the difference between the Renewable Output Credit and the payments under the PPAs;
    - The actual costs of administering the Program;
    - The LMP in each hour reported, and avoided generation and transmission costs; and

[117] Ex. 10 (VA. S.C.C. TARIFF NO. 254, OPTIONAL RIDER N.M.S. (Net Metering Service Rider)).
[118] Ex. 5 (Castle Direct), at 6.

- All system reliability analysis performed by the Company of the Program information such as real output and energy produced, reactive power output and energy produced, voltage at the point of common coupling, solar irradiance percentage availability of the system, fault contribution, and duration of fault current contribution;

4. If Rider RGP is approved, it should extend the ability to aggregate load from multiple meters to determine the allowable size for the facility to include "any eligible customer that is served by several meters across a contiguous physical area."

5. If Rider RGP is approved, the tariff should be modified to include language to clarify the conditions under which the Company would not accept a PPA as follows:

    - The Company reserves the right to withhold approval of a specific Purchase Power Agreement if, in the Company's sole discretion, proposed revisions to the pro forma contract compromise the Company's financial rights and risk protections and/or its safety and reliability obligations, or alter the sale and purchase obligations of any party.

Accordingly, **I RECOMMEND** the Commission enter an order that:

1. **ADOPTS** the findings of this Report;

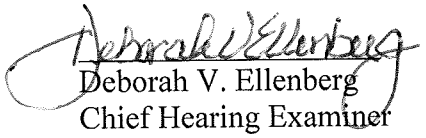
2. **DENIES** the Application; and

3. **DISMISSES** this case from the Commission's docket of active cases.

COMMENTS

The parties are advised that pursuant to Commission Rule 5 VAC 5-20-120 C of the Commission's Rules of Practice and Procedure, any comments to this Report must be filed with the Clerk of the Commission in writing, in an original and fifteen copies, within 21 days from the date hereof. The mailing address to which any such filing must be sent is Document Control Center, P.O. Box 2118, Richmond, Virginia 23218. Any party filing such comments shall attach a certificate to the foot of such document certifying that copies have been mailed or delivered to all counsel of record and any such party not represented by counsel.

Respectfully submitted,



Deborah V. Ellenberg
Chief Hearing Examiner

Document Control Center is requested to send a copy of the above Report to all persons on the official Service List in this matter. The Service List is available from the Clerk of the State Corporation Commission, c/o Document Control Center, 1300 East Main Street, First Floor, Tyler Building, Richmond, Virginia 23219.