

APPLICATION OF

FIREFLY ENERGY LLC

CASE NO. PUR-2024-00076

For certificates of public convenience and necessity for a solar generating and associated facilities in Pittsylvania County, Virginia

REPORT OF D. MATHIAS ROUSSY, JR., HEARING EXAMINER

October 24, 2024

In this case, Firefly Energy LLC seeks State Corporation Commission approval to construct and operate electric generation and associated interconnection facilities in Pittsylvania County. The proposed project includes a solar generation facility totaling up to 150 megawatts that would be installed on a site of approximately 3,170 acres of land, within which approximately 1,289 acres would be fenced and disturbed for the project. Pittsylvania County has granted a special use permit for this generation facility. To interconnect the proposed generation to the electric transmission system, the project would also include: (1) 11.2 miles of 34.5-kilovolt electric feeder lines and a collector substation to step the voltage up to 230 kilovolts, all on the same site as the proposed generation facility;¹ and (2) a 100-foot long, 230-kilovolt transmission line between the proposed collector substation and a station that Appalachian Power Company would build adjacent to the new collector substation. I recommend approval of the proposed project, subject to certain conditions.

PROCEDURAL BACKGROUND

On April 26, 2024, Firefly Energy LLC (“Firefly” or “Company”) filed with the State Corporation Commission (“Commission”) an Application² for certificates of public convenience and necessity to construct, own, and operate solar generation and associated facilities in Pittsylvania County, Virginia (“Project”).³ The Application organized the proposed facilities into the following groups: (1) a solar generating facility totaling up to 150 megawatts (“Solar Generating Facility”); and (2) the transmission lines and associated facilities necessary to interconnect the Solar Generating Facility to the transmission grid (“Interconnection Facilities”), including (a) approximately 11.2 miles of 34.5-kilovolt (“kV”) feeder lines (“Feeder Lines”) to interconnect the Solar Generating Facility with a Collector Substation that would be constructed for the Project; and (b) an approximately 100-foot long, 230-kV generation-tie line (“Gen-Tie Line”) to interconnect the new Collector Substation to the transmission grid at a new Appalachian Power Company (“APCo”) switching station.⁴

¹ Within the Project site are several roads and the Dan River Trail. To cross these, Firefly will need to secure easement agreements from Pittsylvania County or the Virginia Department of Transportation (“VDOT”).

² On July 3, 2024, Firefly filed replacement pages for parts of the Company’s April 26, 2024 filing.

³ Firefly filed public and confidential versions of its Application. On April 26, 2024, Firefly filed a Motion for Entry of Protective Ruling and Additional Protective Treatment. On May 28, 2024, a Hearing Examiner’s Protective Ruling was issued.

⁴ Ex. 2 (Application) at 1; Ex. 4 (Appendix 2) at 1, 5.

After the Application was filed, the Commission's Staff ("Staff") initiated the wetland impacts consultation, pursuant to § 62.1-44.15:21 D 2 of the Code of Virginia ("Code") and the associated memorandum of agreement ("Wetlands MOA") between the Commission and the Department of Environmental Quality ("DEQ").⁵ Staff also initiated DEQ's coordinated review, pursuant to Code § 56-46.1 G and a second MOA between the Commission and DEQ.⁶

By correspondence dated May 14, 2024, DEQ's Office of Wetlands and Stream Protection ("DEQ-OWSP"), responded to Staff by indicating, among other things, as follows:

A desktop survey per the requirements for information needed for submittal from the [Wetlands MOA] was not provided in the application. In addition, this information was not provided in the environmental assessment within the SCC application.⁷

On May 24, 2024, the Commission entered an Order for Notice and Hearing ("Procedural Order") that, among other things, directed Firefly to provide notice of its Application; directed Staff to investigate the Application and file testimony summarizing the results of Staff's investigation; established a procedural schedule, including a public evidentiary hearing; provided opportunities for interested persons to intervene and participate in this case; and appointed a Hearing Examiner to conduct further proceedings in this matter.

On July 3, 2024, DEQ filed the results of a coordinated review of Firefly's Application by various agencies ("DEQ Report"). The DEQ Report included the same DEQ-OWSP response that was previously provided to Staff, dated May 14, 2024.

On July 10, 2024, Firefly filed proof of notice and service.⁸

On August 9, 2024, a Hearing Examiner's Ruling directed Firefly to address DEQ-OWSP's indication that the Application failed to include information that, according to the Wetlands MOA, is needed for the wetland impacts consultation required by Code § 62.1-44.15:21 D 2. On August 21, 2024, Firefly filed its pleading.⁹ On September 4, 2024, a Hearing Examiner's Ruling directed: (i) Firefly to provide an update on this matter no later than the filing of its rebuttal testimony; and (ii) Staff to confer with DEQ-OWSP, consistent with the Wetlands MOA, to the extent necessary to gain clarity on this issue.

On September 10, 2024, Staff filed its testimony.¹⁰ On September 24, 2024, the Company filed its rebuttal testimony, which included a wetlands update and desktop survey. On September 30, 2024, DEQ-OWSP provided an updated wetlands impact consultation.¹¹

⁵ Letter from Michael J. Zielinski dated May 3, 2024, to David L. Davis.

⁶ Letter from Michael J. Zielinski dated May 3, 2024, to Bettina Rayfield.

⁷ DEQ-OWSP correspondence dated May 14, 2024, p. 1 (emphasis in original omitted). This correspondence was filed on July 18, 2024.

⁸ At the hearing, proof of notice and service was admitted as Exhibit 1.

⁹ Staff did not file a pleading.

¹⁰ Staff filed corrections on October 4, 2024.

¹¹ Ex. 12.

On October 3, 2024, Firefly filed supplemental rebuttal testimony.

No notices of participation were filed in this proceeding. No member of the public signed up to offer public witness testimony.

On October 7, 2024, the hearing was convened in the Commission's courtroom, as scheduled by the Procedural Order, to receive the evidence of the case participants and the testimony of any public witnesses. Andrew J. Flavin, Esquire, and Viktoriia De Las Casas, Esquire, appeared on behalf of Firefly. Kiva Bland Pierce, Esquire, and Michael Zielinski, Esquire, appeared on behalf of Staff.

On October 11, 2024, Firefly filed a late-filed exhibit correcting two pages of the Company's environmental justice analysis.¹²

PUBLIC COMMENTS

Joseph Slayton, of Hartford, Connecticut, filed comments asking Firefly about how it will use the Project's land and inquiring about the Project's benefits. He looked forward to possibly collaborating on a project that he believes could bring value to all parties involved.

SUMMARY OF THE RECORD

Applicant

Firefly is a Delaware limited liability company that is a wholly-owned indirect subsidiary of Recurrent Energy, LLC, and is among many direct and indirect subsidiaries of Canadian Solar, Inc.¹³ The Application lists 34 operational solar facilities in the United States developed by Recurrent Energy, LLC, another 13 operating in Canada, and four battery storage projects operating in the United States.¹⁴ As a foreign private issuer listing equity shares on exchanges in the United States, Canadian Solar, Inc. annually files an SEC Form 20-F, which is publicly available.¹⁵

Counsel for Firefly confirmed that the Company does not have the power of eminent domain. However, Firefly has secured option agreements needed for the Project, except for easements required from VDOT and Pittsylvania County to cross several roads and the Dan River Trail.¹⁶

¹² Ex. 9.

¹³ Ex. 3 (Appendix 1) at 1; Ex. 5 at attached Ex. B. In 2019, Firefly registered with the Commission as a foreign limited liability company. *Id.*

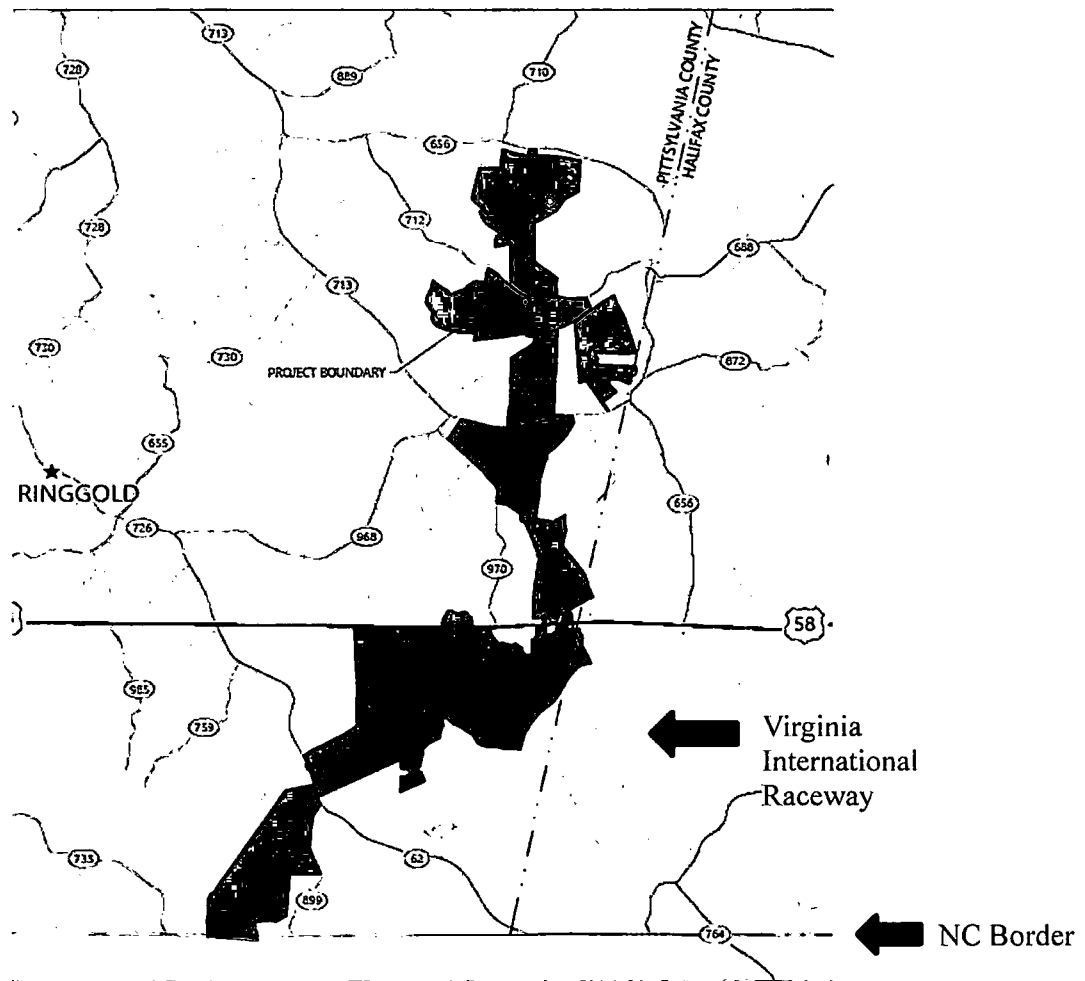
¹⁴ Ex. 5 at attached Ex. C. Three solar facilities under construction in the United States are also listed. *Id.*

¹⁵ Ex. 3 (Appendix 1) at 1 (providing weblink to Canadian Solar's most recent SEC Form 20-F). "SEC" refers to the United States Securities and Exchange Commission.

¹⁶ *See, e.g.*, Tr. at 18-19 (Flavin); Ex. 10 (Dodson report) at 6-7.

Project Description

The map excerpt below shows the location of Firefly's proposed Project in southeastern Pittsylvania County, just north of the North Carolina border.¹⁷ The Project would be constructed on a site of approximately 3,170 acres of land, within which approximately 1,289 acres would be fenced and disturbed for the Project.¹⁸ These properties are zoned for agriculture or light industry, which includes undeveloped woodland, planted silvicultural land, cleared timber land, agricultural fields, and pasture lands.¹⁹ The bending border on the eastern side of the parcel just west of the Virginia International Raceway is part of the Dan River.²⁰



¹⁷ Ex. 5 at attached Ex. N (excerpt) (arrows and captions identifying raceway and border added). The Project is located in the service territory of Danville Utilities. *See, e.g.*, Ex. 4 (Appendix 2) at 9-10.

¹⁸ Ex. 2 (Application) at 2.

¹⁹ *See, e.g.*, Ex. 3 (Appendix 1) at 2.

²⁰ *See, e.g.*, Ex. 13 (Peterson rebuttal) at Attachment 2, Figure 1.

The map excerpt below²¹ depicts the Project with generating capacity up to 150 megawatts.²² Within the Project boundary, up to approximately 300,000 solar modules (purple shapes) would be constructed on approximately 201 acres, along with 11.2 miles of proposed 34.5-kV Feeder Lines (blue dashed lines around and between the modules) to connect the solar panels to a new proposed Collector Substation.²³ Firefly plans to construct the Feeder Lines overhead, on wooden single-circuit and double-circuit monopoles ranging from approximately 30 to 50 feet in height.²⁴ The Collector Substation – which would be constructed in the southwest portion of the Project – would step up the voltage of the solar power from 34.5 kV to 230 kV.²⁵



Firefly would also construct approximately 100 feet of 230-kV transmission line – *i.e.*, the Gen-Tie Line – to connect the proposed Collector Substation to an adjacent switching station off Cardwell Lane that APCo would build to interconnect Firefly's Solar Generating Facility.²⁶

²¹ Ex. 5 at attached Ex. D, Sheet EX3.200 (arrow and caption identifying stations and line added).

²² Ex. 3 (Appendix 1) at 3.

²³ See, e.g., Ex. 5 at attached Ex. D and attached Ex. F, p. 5, Sheet EX3.205; Ex. 4 (Appendix 2) at 5.

²⁴ See, e.g., Ex. 4 (Appendix 2) at 19; Ex. 5 at attached Ex. K.

²⁵ See, e.g., Ex. 3 (Appendix 1) at 3.

²⁶ See, e.g., Ex. 4 (Appendix 2) at 12. Firefly anticipates constructing one galvanized steel monopole structure, approximately 105 feet tall, to support the Gen-Tie Line. Ex. 5 at attached Ex. K.

Firefly – Direct

In support of its Application, Firefly offered the direct testimony of **Ryan Peck**, Senior Development Manager for Recurrent Energy, LLC. Mr. Peck represented that he is responsible for overseeing the Project's development, financing, construction, and operation by Firefly.²⁷ He sponsored the entire Application package, including the Application, two appendices, and all exhibits attached thereto.²⁸

Mr. Peck detailed the location of the Pittsylvania County site where Firefly proposes to construct the Project on approximately 1,290 acres, to support generating capacity up to 150 megawatts. Kerns Church Road (State Route 656) is to the north of the Project, Halifax County is to the east, and North Carolina is to the south. The Project site is on land zoned as A-1 (Agriculture) or M-1 (Light Industry). APCo's new switching station to interconnect the Project would be located off Cardwell Lane.²⁹ He sponsored the preliminary layout of the Project, showing 3,170 acres of parcel area, 1,289 acres of Project fenced area, and 201 acres of array cover.³⁰

As described by Mr. Peck, the Solar Generating Facility would have solar photovoltaic modules mounted on racking systems supported by a pile-driven foundation design. He expects that the Solar Generating Facility would use single-axis trackers oriented in north-south trending rows to track the sun from east to west during the day.³¹ He discussed other technology used by the Project, including combiner boxes, inverters, system switchgear, the step-up transformer at the Collector Station, a supervisory control and data acquisition system, fiber optic cable, and a meteorological data collection system. He indicated that each inverter will be fully enclosed, pad mounted, and stand approximately 7.5 feet in height. The primary switchgear and generator step-up transformer at the Collector Station will stand approximately 30 feet in height with conductors that increase the total height to approximately 34 feet.³² According to Mr. Peck, an operations and maintenance facility will be located on-site to store maintenance equipment and vehicles, safety equipment, replacement components, and other items needed for Project operations.³³

Mr. Peck described the Feeder Lines as approximately 11.2 miles of 34.5-kV medium voltage feeder lines to connect the solar generation equipment with the Collector Station. From the Collector Station, the Gen-Tie Line would travel approximately 100 feet to APCo's new switching station.³⁴

Mr. Peck sponsored the information required by: (1) the Commission's Filing Requirements in Support of Applications for Authority to Construct and Operate an Electric

²⁷ Ex. 6 (Peck direct) at 1.

²⁸ *Id.* at 2.

²⁹ *Id.* at 3.

³⁰ *Id.*; Ex. 5 at attached Ex. D.

³¹ Ex. 6 (Peck direct) at 3.

³² *Id.* at 4-5.

³³ *Id.* at 5.

³⁴ *Id.*; Ex. 4 (Appendix 2) at 5.

Generating Facility;³⁵ and (2) Staff's Guidelines for Transmission Line Applications Filed Under Title 56 of the Code of Virginia.³⁶

Mr. Peck summarized the environmental impacts of the Project, as further detailed in the Environmental Assessment filed with the Application, which he sponsored.³⁷ The Project will not emit any pollutants during operation. The Project will use some water during construction and may use water occasionally during operation, primarily for cleaning should natural precipitation be insufficient. Potential stormwater discharges during construction and operations will be addressed in compliance with Pittsylvania County and DEQ requirements. Potential impacts to wetlands include conduit crossings and road crossings for construction and maintenance vehicles. However, he represented that Firefly does not anticipate significant impacts to "[w]aters of the United States." He also does not expect negative impacts to natural heritage resources or threatened or endangered species from the Project. He represented that Firefly would comply with all necessary conditions imposed by regulatory authorities with jurisdiction over environmental aspects of the Project to ensure protection of public health and the environment.³⁸ Some of the Project's environmental impacts identified by Mr. Peck's Environmental Assessment are discussed below in this Report's analysis of environmental impacts.

Mr. Peck summarized the Project's economic benefits and sponsored a report by Mangum Economics, LLC, on the Project's fiscal and economic impacts.³⁹ He indicated that the Project is expected to create approximately 58 direct, indirect, and induced job years in Pittsylvania County during the construction period, and approximately eight full time jobs once the Project is operational.⁴⁰ He added that the Project will increase the tax base in the county and he expects the Project would increase direct and indirect spending with local merchants and vendors.⁴¹

In Mr. Peck's opinion, the Project promotes the public interest. In support of this opinion, he asserted that the Project would: provide economic benefits to Pittsylvania County and the Commonwealth; have no material adverse effect on the reliability of electric service provided by any regulated public utility; leverage existing infrastructure and necessitate only relatively minor upgrades to the transmission system; attract commercial and industrial opportunity as part of Virginia's emerging clean energy economy; increase the availability of renewable energy in the region; and help meet growing in-state electric demand. He added, among other things, that the entire business risk associated with the Project would be borne by Firefly, with no impact on the rates paid by Virginia ratepayers.⁴²

³⁵ Ex. 3 (Appendix 1). These filing requirements are 20 VAC 5-302-10 *et seq.*

³⁶ Ex. 4 (Appendix 2).

³⁷ Ex. 5 at attached Ex. F.

³⁸ Ex. 6 (Peck direct) at 6. The "waters of the United States" are defined by federal regulation, subject to judicial review.

³⁹ This economic study is attached to the Application as Exhibit L. *See, e.g.,* Ex. 5, 5-ES.

⁴⁰ Ex. 6 (Peck direct) at 9.

⁴¹ *Id.* The Mangum Report identifies the estimate of 8 jobs as 6 direct jobs and 2 indirect and induced jobs. *See, e.g.,* Ex. 5 at attached Ex. L, pp. 1, 15-16.

⁴² Ex. 6 (Peck direct) at 9.

Mr. Peck presented the results, as of March 2024, of Firefly's environmental justice evaluation of the Project using Kleinfelder, an environmental consultant.⁴³ The potential environmental justice communities identified by Kleinfelder – using EPA's EJScreen tool and DEQ's EJScreen+ tool – are summarized below.⁴⁴

			EPA Tool Results	DEQ Tool Results
Census Tract 108.03	Block Group 1	Pittsylvania	Low Income	None
	Block Group 2	Pittsylvania	Disproportionately high unemployment rate Persons with less than a high school education	Low Income
	Block Group 3	Pittsylvania	Individuals over age of 64	Low Income
Census Tract 9303.01	Block Group 2	Halifax	Individuals over age of 64	Community of Color Low Income
Census Tract 9301	Block Group 1	Caswell, North Carolina	Disproportionately high unemployment rate	None

Mr. Peck indicated that the first two census block groups shown above do not contain any aboveground facilities for the proposed Project. Rather, they are within the one-mile buffer around the Project footprint used for the analysis. Mr. Peck provided Kleinfelder's conclusion that disproportionate impacts are not expected on potential environmental justice populations because the Project has been sited to minimize adverse human health or environmental effects by avoiding population centers and sensitive environmental resources. He added that potential noise and visual impacts to surrounding communities would be offset through planned mitigation measures, including screening the aboveground equipment, and siting the noisiest equipment (inverters) away from the Project boundary.⁴⁵

Mr. Peck identified community outreach conducted by Firefly for the Project, including a community meeting on January 11, 2022, and an open house on February 24, 2022, both in Pittsylvania County. He identified Firefly's plan to host another open house in July 2024. He also described Project information packets sent to all neighbors of the Project, a Project website, and various forms of communication Firefly has used to respond to questions and comments. He added that Firefly has held, and continues to participate in, numerous meetings and conversations with Pittsylvania County officials.⁴⁶ The Application sponsored by Mr. Peck indicated that the

⁴³ Ex. 5 at attached Ex. M. The Kleinfelder report also presents results using a FERC threshold and the CEQ CEJST tool, which are not summarized in the table above. *Id.* at 17.

⁴⁴ Ex. 6 (Peck direct) at 7; Ex. 5 at attached Ex. M, p. 17. These results were unchanged by the July 2024 revised Kleinfelder report, which clarified, among other things, that for the DEQ EJScreen+ analysis, 2010 Census Tract 108.02, Block 2, was analyzed in place of 2020 Census Tract 108.03, Block Groups 1 and 3. This analysis was based on a review of 2010 tract boundaries. Ex. 7 (Little) at Attachment No. RDL-2, p. 18, n.4.

⁴⁵ Ex. 6 (Peck direct) at 7-8.

⁴⁶ *Id.* at 8. Staff confirmed the July 2024 open house occurred. Ex. 7 (Little) at 8.

Pittsylvania County Board of Zoning Appeals approved a special use permit application for the Project on April 11, 2022.⁴⁷

DEQ REPORT

The DEQ Report identified permits and approvals that are likely to be necessary as prerequisites to Project construction.⁴⁸ DEQ also provided recommendations that are in addition to the requirements of federal, state, or local law or regulations. DEQ's summary of its recommendations is provided below:⁴⁹

- Prior to commencing project work, all surface waters on the project site should be delineated by a qualified professional and verified by the U.S. Army Corps of Engineers or DEQ. Follow DEQ's recommendations to avoid and minimize impacts to wetlands and streams;
- Reduce solid waste at the source, reuse it and recycle it to the maximum extent practicable;
- Coordinate with the Department of Conservation and Recreation's Division of Natural Heritage ("DCR" or "DCR-DNH," as applicable) on its recommendations to develop an invasive species management plan, plant Virginia native pollinator plant species, avoid or minimize impacts to ecological cores, and obtain project updates;
- Coordinate with the Department of Forestry ("DOF") regarding its recommendations for compensation in areas which will require trees or forest vegetation to be removed, converted, or otherwise negatively impacted by project activities;
- Coordinate with the Virginia Outdoors Foundation for additional review if necessary;
- Follow the principles and practices of pollution prevention to the maximum extent practicable;
- Limit the use of pesticides and herbicides to the extent practicable; and
- Coordinate with VDOT on its recommendations to monitor for future VDOT projects in the area, if necessary.

Staff

Staff summarized the results of its investigation through the testimony of **R. Davis Little**, PUR Analyst in the Commission's Division of Public Utility Regulation ("PUR"), and **Jeff Dodson**, Senior Utilities Engineer in PUR.

⁴⁷ Ex. 2 (Application) at 2.

⁴⁸ Ex. 11 (DEQ Report) at 3-5.

⁴⁹ *Id.* at 6. While the introduction of this summary references electric transmission facilities, the DEQ Report addresses the various components of the Project.

Mr. Little provided an overview of the Company, discussed the proposed Project, and identified applicable statutes.⁵⁰ Mr. Little advised that in 2022 the Company and APCo applied for a CPCN for solar generation and associated facilities in Pittsylvania County, but the prior application was withdrawn later that year due to cost uncertainty.⁵¹

Mr. Little provided a discovery response from Firefly indicating that, as of July 31, 2024, the Project does not have a purchase power agreement (“PPA”) or similar off-take agreement, but that the Company is actively marketing the Project.⁵² In another response supplied by Mr. Little, Firefly indicated that final construction cost and PPA details could necessitate downsizing the Project’s capacity to ensure viability.⁵³

According to Mr. Little, Staff generally agrees that the Project would produce some direct and indirect economic benefits to Pittsylvania County.⁵⁴ However, due to objections during the discovery process, Staff could not independently verify the results of Mangum’s economic impact analysis provided with the Application.⁵⁵

Mr. Little summarized Firefly’s community outreach efforts before and after the Application was filed. Mr. Little provided discovery responses from Firefly to Staff discovery requests regarding Code §§ 45.2-1706.1 C and 2.2-234, which, among other things, include further detail on Firefly’s community outreach.⁵⁶ He confirmed that, after the filing of the Application, Firefly conducted an open house on July 25, 2024.⁵⁷

Mr. Little discussed Firefly’s environmental justice analysis, conducted using EPA’s EJScreen and DEQ’s EJScreen+.⁵⁸ He discussed differences between the two tools and concluded that a review of both sets of results may provide useful datapoints in this case.⁵⁹

He pointed out that the definition of “low income” in EJScreen+, but not EJScreen, comports with the definitions of “low-income community” and “low income” in Code § 2.2-234, while EJScreen uses more current data than EJScreen+.⁶⁰

Mr. Little reported that Staff evaluated Firefly’s environmental justice analysis in part by attempting to replicate the results with the shapefiles used by the Company. He reported that Staff was able to produce generally similar EJScreen results. The results of Staff’s verification efforts using EJScreen were not identical because EPA updated data in EJScreen on July 9, 2024.

⁵⁰ Ex. 7 (Little) at 4-7.

⁵¹ *Id.* at 5 (citing *Application of Firefly Energy LLC and Appalachian Power Company, For certificates of public convenience and necessity for solar generating and associated facilities in Pittsylvania*, Case No. PUR-2022-00063, 2022 S.C.C. Ann. Rep. 549, Order Granting Withdrawal (Dec. 14, 2024)).

⁵² Ex. 7 (Little) at 7 and Attachment No. RDL-1 (Firefly’s discovery response to Staff request no. 4-32).

⁵³ *Id.* at 7 and Attachment No. RDL-1 (Firefly’s discovery response to Staff request no. 1-7).

⁵⁴ *Id.* at 23-24.

⁵⁵ *Id.* at 23.

⁵⁶ *Id.* at 20-21 and Attachment RDL-1 (Firefly’s discovery response to Staff request nos. 1-6, 1-9, 1-10, 1-11, 1-12, and 1-13).

⁵⁷ *Id.* at 8, 26.

⁵⁸ *Id.* at 12-18.

⁵⁹ *Id.* at 13-14.

⁶⁰ *Id.* at 12-14.

Staff's results indicated that three census blocks within a one-mile radius qualify as "low-income communities" – as defined by EPA – and two of these three blocks qualify as "communities of color" – as defined by EPA. Mr. Little noted that EPA identifies 32% of the population within a one-mile radius as low-income.⁶¹

Mr. Little reported that Staff was able to produce EJScreen+ results identical to Firefly's for low-income communities and communities of color. Staff's results relative to potential fenceline communities were generally similar. Using the same VA DEQ data layers Firefly identified as active sources of pollution, Staff identified three potential fenceline communities within a one-mile radius of the Project.⁶²

Mr. Little attached to his testimony a revised version of Kleinfelder's environmental justice analysis, which indicates it was revised in July 2024.⁶³ The analysis was revised to present analysis of potential fenceline communities, as summarized below.⁶⁴

	EJ Communities	Identified Pollution Sources
2010 Census Tract 108.02, Block Group 3	Low-Income Community (61.7% population under HUD and 68.2% population under two times the federal poverty level)	One (1) Registered Petroleum Tank Facility Two (2) Solid Waste Permits Seven (7) VPDES Outfall locations
2010 Census Tract 9303.01, Block Group 2	Low-Income Community (44.1% population under HUD and 37.5% population under two times the federal poverty level) Community of Color (41.7% population communities of color over statewide average)	One (1) Active Air Site Eleven (11) Registered Petroleum Tank Facilities Six (6) VPDES Outfalls
2010 Census Tract 108.02, Block Group 2	Low-Income Community (39.8% population under HUD and 41% population under two times the federal poverty level)	One (1) Active Air Site Five (5) Registered Petroleum Tank Facilities Two (2) VPDES Outfall locations

⁶¹ *Id.* at 15-16, n.39 and Attachment RDL-4.

⁶² *Id.* at corrected 17-18 and Attachment RDL-6.

⁶³ *Id.* at Attachment RDL-2.

⁶⁴ *Id.* at Attachment RDL-2, p. 24 of 91, as corrected by Ex. 9.

Mr. Little also reported the results of three additional sensitivities that Staff performed using the same screening tools and the shapefiles provided by Firefly. For one sensitivity, using EJScreen, expanded the analysis to a five-mile radius to identify “communities of color” and/or “low-income communities” – as defined by the EPA. This sensitivity identified one census block that qualifies as a community of color, six census blocks that qualify as low-income communities, and five of these six census blocks that qualify as both communities of color and low-income communities.⁶⁵

Staff’s other two sensitivities similarly expanded the study radius to five miles, but used EJScreen+. The first of these two sensitivities focused on “communities of color” and “low-income communities” – as defined by the Code – while the second focused on potential fenceline communities. These sensitivities identified eight block groups as low-income communities and potential fenceline communities, three of which are also communities of color.⁶⁶ Mr. Little provided Firefly’s position, offered through the revised Kleinfelder analysis,⁶⁷ that these pollution sources are regulated by DEQ and are not expected to present an increased health risk to area residents.⁶⁸

Mr. Little clarified that some of the pollution sources identified in Firefly’s and Staff’s evaluations of potential fenceline communities are located within one-mile of the Project, some within five-miles of the Project, and some are farther than five miles from the Project (but in census block groups near the Project).⁶⁹ He sponsored maps illustrating the location of pollution sources identified in DEQ’s EJScreen+ tool, within one-mile of the Project, five-miles of the Project, and within broader parts of Henry, Pittsylvania, Halifax, and Mecklenburg Counties.⁷⁰

Mr. Little concluded, in part, as follows:

Staff believes that the record in this case may warrant a finding that the proposed Project will have no material adverse effect on the reliability of electric service, as discussed in Staff witness Dodson’s testimony, and that it is not otherwise contrary to the public interest. Further, Staff believes the financial risks of the Project will be borne by the Company and not Virginia ratepayers. The Project appears likely to provide some economic benefits while imposing little or no negative economic impact on Pittsylvania County or the Commonwealth. These benefits likely include, but are not limited to, an increase in the local tax base as a result of the generation and Interconnection Facilities constructed by the Company, the creation or support of several jobs in the area during construction, and possible short-term indirect benefits arising from an increase in employment and incomes in the local community.⁷¹

⁶⁵ Ex. 7 (Little) at 18-19 and Attachment RDL-7.

⁶⁶ *Id.* at 19-20.

⁶⁷ *Id.* at Attachment RDL-2, pp. 25-26 of 91.

⁶⁸ *Id.* at 18-20.

⁶⁹ Tr. at 29-31 (Little)

⁷⁰ Ex. 8.

⁷¹ Ex. 7 (Little) at 24.

According to Mr. Little, Staff does not oppose Firefly's requested generation CPCN and recommends a five-year sunset provision. Staff further recommended that any Commission approval be conditioned on Firefly obtaining all necessary permits and approvals, and coordinating with DEQ to address the DEQ Report's recommendations.⁷²

Mr. Dodson focused primarily on Staff's review of the Interconnection Facilities proposed by Firefly and the reliability impacts of the proposed Solar Generating Facility. He confirmed that PJM has completed all interconnection studies for the proposed Solar Generating Facility and that Firefly has executed an Interconnection System Agreement obligating it to complete and/or pay for the identified interconnection and network upgrades to the transmission system.⁷³ For this reason, Staff does not oppose Firefly's requested CPCN from a reliability perspective.⁷⁴

Mr. Dodson recognized that new easements would be required for the Feeder Lines and the Gen-Tie Line.⁷⁵ Firefly has secured all easements for the Feeder Lines, except for four crossings of county or state roads and two crossings of the Dan River Trail that require easements from Pittsylvania County or VDOT.⁷⁶

Mr. Dodson confirmed that Firefly proposed no alternative routes for the 100-foot-long Gen-Tie Line.⁷⁷

Mr. Dodson indicated that the 34.5-kV Feeder Lines are proposed to be constructed outside of the boundaries of parcels owned by Firefly, which is not an incumbent utility in Virginia.⁷⁸ He recommended any Commission approval of a CPCN for the Solar Generating Station provide for a distribution CPCN for the Feeder Lines and a transmission CPCN for the Gen-Tie Line and Collector Substation.⁷⁹ He further recommended that should any issues arise in the permitting process necessitating a change in the proposed route of the Interconnection Facilities, Firefly should be required to file for an amended CPCN.⁸⁰

Firefly – Rebuttal

Firefly offered the rebuttal testimony of **Adam Peterson**, Senior Permitting Manager for Firefly's parent company, Recurrent Energy, LLC.

Mr. Peterson agreed with Staff witness Dodson's conclusions, including the recommendations that: (1) any CPCN approval of Solar Generating Facility be accompanied by

⁷² *Id.* at 25.

⁷³ Ex. 10 (Dodson report) at 4-5.

⁷⁴ *Id.* at 5.

⁷⁵ *Id.* at 7, 9.

⁷⁶ *Id.* at 6-7 and Attachment 5 (identifying one crossing each of White Ridge Road, Rock Springs Road, South Boston Highway (State Route 360/58), and Milton Highway (State Route 62)).

⁷⁷ *Id.* at 8.

⁷⁸ *Id.* at 6, 10-11.

⁷⁹ *Id.* at 11.

⁸⁰ *Id.* Staff counsel clarified that Code § 56-265.2, not § 56-46.1 B, requires CPCN approval of the Feeder Lines. Tr. at 43-44 (Zielinski).

a distribution CPCN for the Feeder Lines and a transmission CPCN for the Gen-Tie Line and Collector Substation; and (2) should any issues arise in the permitting process necessitating a change in the proposed route of the Interconnection Facilities, Firefly be required to file for an amended CPCN.⁸¹ Mr. Peterson also clarified Firefly's tentative timeline for constructing the Project, which depends in part on the timing of Commission approval in this case and APCo's completion of certain infrastructure.⁸²

Mr. Peterson provided an update on Firefly's efforts to ensure DEQ-OWSP has sufficient information to review potential Project impacts and conduct a wetlands impacts consultation. He supplemented the wetland information accompanying the Application with a desktop wetland survey for the Project⁸³ and a wetland impact assessment/map.⁸⁴ He represented that both documents were submitted to DEQ on September 24, 2024.⁸⁵

Mr. Peterson responded to the DEQ Report. While Firefly did not object to most of DEQ's recommendations, the Company requested that the Commission reject DCR-DNH's recommendation related to the avoidance of ecological cores and DOF's recommended forest impact compensation.⁸⁶

In response to DCR-DNH's recommendation of an invasive species plan for the Project and planting particular types of native pollinator plant species in particular areas, Mr. Peterson represented that Firefly would develop a comprehensive invasive species plan in collaboration with the engineering, procurement, and construction ("EPC") firm that will be selected for the Project. He also represented that Firefly would develop a comprehensive environmental management plan in collaboration with the Project's EPC firm.⁸⁷

Mr. Peterson also responded to DEQ-OWSP's recommended adherence to any time-of-year restrictions recommended by three state agencies or the U.S. Fish and Wildlife Service. He explained that Firefly plans to conduct surveys to assess the presence or absence of state and/or federally protected bat species identified as potentially present in the Project area. The survey results will inform Firefly's strategy regarding federal and state protections for the species. According to Mr. Peterson, Firefly has communicated with some of the referenced agencies and, to the extent needed, will continue coordinating with such agencies regarding protective measures for the species.⁸⁸

In response to the comments of the Virginia Marine Resource Commission ("VMRC") in the DEQ Report, Mr. Peterson clarified that Firefly is reviewing any potential impacts to subaqueous lands and will apply for any permit required from VMRC for such impacts.⁸⁹

⁸¹ Ex. 13 (Peterson rebuttal) at 4.

⁸² *Id.* at 4-5 and Attachment 1.

⁸³ *Id.* at Attachment 2.

⁸⁴ *Id.* at Attachment 3.

⁸⁵ *Id.* at 7.

⁸⁶ *Id.* at 7-10.

⁸⁷ *Id.* at 11.

⁸⁸ *Id.* at 10.

⁸⁹ *Id.* at 10-11.

Firefly – Supplemental Rebuttal

Firefly offered the supplemental rebuttal testimony of **Mr. Peterson**. He, among other things, provided the conceptual site plan referenced in the Project’s special use permit and addressed Enactment Clause 7 of the Virginia Clean Economy Act.⁹⁰

CODE

Firefly filed its Application pursuant to Code §§ 56-580 D, 56-46.1, and 56-265.2.⁹¹ Code § 56-580 D provides in part:

The Commission shall permit the construction and operation of electrical generating facilities in Virginia upon a finding that such generating facility and associated facilities (i) will have no material adverse effect upon reliability of electric service provided by any regulated public utility, ... and (iii) are not otherwise contrary to the public interest. . . .

Small renewable energy projects as defined in § 10.1-1197.5 are in the public interest and in determining whether to approve such project, the Commission shall liberally construe the provisions of this title.⁹²

Further, with regard to generating facilities, Code § 56-580 D directs that “the Commission shall give consideration to the effect of the facility and associated facilities on the environment and establish such conditions as may be desirable or necessary to minimize adverse environmental impact as provided in § 56-46.1. . . .”⁹³

Code § 56-46.1 A provides in part:

Whenever the Commission is required to approve the construction of any electrical utility facility, it shall give consideration to the effect of that facility on the environment and establish such conditions as may be desirable or necessary to minimize adverse environmental impact. ... In every proceeding under this subsection, the Commission shall receive and give consideration to all reports that relate to the proposed facility by state agencies concerned with environmental protection; and if requested by any county or municipality in which the facility is proposed to be built, to local comprehensive plans that have been adopted pursuant to Article 3 (§ 15.2-2223 et seq.) of Chapter 22 of Title 15.2.

⁹⁰ Ex. 14.

⁹¹ Ex. 2 (Application) at 1. Firefly also filed its Application pursuant to the Commission’s Filing Requirements in Support of Applications for Authority to Construct and Operate an Electric Generating Facility. *Id.*

⁹² Code § 10.1-1197.5, in turn, defines “[s]mall renewable energy project” as, among other things, “an electrical generation facility with a rated capacity not exceeding 150 megawatts that generates electricity only from sunlight...”

⁹³ Code § 56-580 D also includes a nine-month statutory deadline for small renewable energy projects.

Code § 56-46.1 A also provides:

In order to avoid duplication of governmental activities, any valid permit or approval required for an electric generating plant and associated facilities issued or granted by a federal, state or local governmental entity charged by law with responsibility for issuing permits or approvals regulating environmental impact and mitigation of adverse environmental impact or for other specific public interest issues such as building codes, transportation plans, and public safety, whether such permit or approval is granted prior to or after the Commission's decision, shall be deemed to satisfy the requirements of this section with respect to all matters that (i) are governed by the permit or approval or (ii) are within the authority of, and were considered by, the governmental entity in issuing such permit or approval, and the Commission shall impose no additional conditions with respect to such matters.

Code § 56-580 D contains language that is nearly identical to the governmental-duplication language set forth in Code § 56-46.1 A, as shown above.

The Code also directs the Commission to consider the effect of a proposed facility on economic development in Virginia. Code § 56-46.1 A states in part:

Additionally, the Commission (a) shall consider the effect of the proposed facility on economic development within the Commonwealth, including but not limited to furtherance of the economic and job creation objectives of the Commonwealth Clean Energy Policy set forth in § 45.2-1706.1, and (b) shall consider any improvements in service reliability that may result from the construction of such facility.

Similarly, Code § 56-596 A provides that “[i]n all relevant proceedings pursuant to [the Virginia Electric Utility Regulation] Act, the Commission shall take into consideration, among other things, the goal of economic development in the Commonwealth.”

The Application indicated that the Project satisfies the criteria reviewed for approval under Code § 56-265.2, if applicable for separate approval of the proposed Interconnection Facilities.⁹⁴ Code § 56-265.2 provides in part:

[I]t shall be unlawful for any public utility to construct, enlarge or acquire, by lease or otherwise, any facilities for use in public utility service, except ordinary extensions or improvements in the usual course of business, without first having obtained a certificate from the Commission that the public convenience and necessity require the exercise of such right or privilege. ... The certificate for overhead electrical transmission lines of 138 kilovolts or more shall be issued by the Commission only after compliance with the provisions of § 56-46.1.⁹⁵

⁹⁴ Ex. 2 (Application) at 5.

⁹⁵ Code § 56-265.2 A 1.

As relates to applicable transmission lines, Code § 56-46.1 B states in part:

As a condition to approval the Commission shall determine that the line is needed and that the corridor or route chosen for the line will avoid or reasonably minimize adverse impact to the greatest extent reasonably practicable on the scenic assets, historic resources recorded with [DHR], and environment of the area concerned. To assist the Commission in this determination, as part of the application for Commission approval of the line, the applicant shall summarize its efforts to avoid or reasonably minimize adverse impact to the greatest extent reasonably practicable on the scenic assets, historic resources recorded with [DHR], and environment of the area concerned. In making the determinations about need, corridor or route, and method of installation, the Commission shall verify the applicant's load flow modeling, contingency analyses, and reliability needs presented to justify the new line and its proposed method of installation....⁹⁶

For any transmission line application filed pursuant to Code § 56-265.2, the Code further requires that the Commission consider directing joint use of right-of-way for construction of the line within a locality pursuant to statutory standards, if timely requested by the governing body of such locality.⁹⁷

The Virginia Environmental Justice Act ("VEJ Act") sets forth that "[i]t is the policy of the Commonwealth to promote environmental justice and ensure that it is carried out throughout the Commonwealth, with a focus on environmental justice communities and fenceline communities."⁹⁸ As previously recognized by the Commission, the Commonwealth's policy on environmental justice is broad, including "the fair treatment and meaningful involvement of every person, regardless of race, color, national origin, income, faith, or disability, regarding the

⁹⁶ Legislation enacted during the 2024 General Assembly Session added "cultural resources identified by federally recognized Tribal Nations in the Commonwealth" to the resources that Code § 56-46.1 B directs the Commission, when evaluating a line route, to determine will avoid or reasonably minimize adverse impact to the greatest extent reasonably practicable. The legislation did not become effective until July 1, 2024, which was after the Application was filed. Accordingly, this legislative amendment does not apply to the Application, in my view. No such resources were identified in the record of this case.

⁹⁷ Code § 56-259 D.

⁹⁸ Code § 2.2-235. Code § 2.2-234 includes, among others, the following definitions:

"Environmental justice community" means any low-income community or community of color.

"Fair treatment" means the equitable consideration of all people whereby no group of people bears a disproportionate share of any negative environmental consequence resulting from an industrial, governmental, or commercial operation, program, or policy.

"Fenceline community" means an area that contains all or part of a low-income community or community of color and that presents an increased health risk to its residents due to its proximity to a major source of pollution.

"Low income" means having an annual household income equal to or less than the greater of (i) an amount equal to 80 percent of the median income of the area in which the household is located, as reported by the Department of Housing and Urban Development, and (ii) 200 percent of the Federal Poverty Level.

"Low-income community" means any census block group in which 30 percent or more of the population is composed of people with low income.

"Population of color" means a population of individuals who identify as belonging to one or more of the following groups: Black, African American, Asian, Pacific Islander, Native American, other non-white race, mixed race, Hispanic, Latino, or linguistically isolated.

development, implementation, or enforcement of any environmental law, regulation, or policy.”⁹⁹ In recent CPCN cases, the Commission has considered: (a) whether the applicant reasonably considered the requirements of the VEJ Act in its application;¹⁰⁰ and/or (b) whether the proposed Project appears to adversely impact the goals established by the VEJ Act.¹⁰¹

Other environmental justice laws that may be applicable to Firefly’s Application include Enactment Clause 7 of the Virginia Clean Economy Act, which states in part that: “it shall be the policy of the Commonwealth that the ... Commission ... in the ... placement of renewable energy facilities, shall consider whether and how those facilities and programs benefit local workers, historically economically disadvantaged communities, as defined in [Code] § 56-576 ..., ... veterans, and individuals in the Virginia coalfield region that are located near previously and presently permitted fossil fuel facilities or coal mines.”¹⁰²

Staff also cited Code §§ 45.2-1706.1 B and C as potentially relevant to the Application.¹⁰³ This non-binding guidance¹⁰⁴ from the Commonwealth Clean Energy Policy states in part that it shall be the policy of the Commonwealth for state agencies and subdivisions, among other things, to:

Recognize the disproportionate and inequitable impacts of climate change on historically economically disadvantaged communities and prioritize solutions and investment in these communities to maximize the benefits of clean energy and minimize the burdens of climate change;

Ensure the fair treatment and meaningful involvement, as those terms are defined in § 2.2-234, of all people regardless of race, color, national origin, faith, disability, or income with respect to the administration of energy laws, regulations, and policies; and

Increase access to clean energy and the benefits from clean energy to historically economically disadvantaged communities.¹⁰⁵

⁹⁹ Code § 2.2-234.

¹⁰⁰ *Application of Virginia Electric and Power Company, For approval and certification of electric transmission facilities: 500-230 kV Wishing Star Substation, 500 kV and 230 kV Mars-Wishing Star Lines, 500-230 kV Mars Substation, and Mars 230 kV Loop*, Case No. PUR-2022-00183, 2023 S.C.C. Ann. Rep. 295, 300, Final Order (Apr. 5, 2023).

¹⁰¹ See, e.g., *Application of Virginia Electric and Power Company, For approval and certification of electric transmission facilities: DTC 230 kV Line Loop and DTC Substation*, Case No. PUR-2021-00280, 2022 S.C.C. Ann. Rep. 419, 426, Final Order (July 7, 2022).

¹⁰² 2020 Va. Acts chs. 1193, 1194, Enactment Clause 7. Code § 56-576, in turn, defines “[h]istorically economically disadvantaged community” as “(i) a community in which a majority of the population are people of color or (ii) a low-income geographic area.” Code § 56-576 further defines “[l]ow-income geographic area” as “any locality, or community within a locality, that has a median household income that is not greater than 80 percent of the local median household income, or any area in the Commonwealth designated as a qualified opportunity zone by the U.S. Secretary of the Treasury via his delegation of authority to the Internal Revenue Service.”

¹⁰³ Ex. 7 (Little) at 5.

¹⁰⁴ Code § 45.2-1706.1 F.

¹⁰⁵ Code § 45.2-1706.1 B (1)-(3).

....

Equitably incorporate requirements for technical, policy, and economic analyses and assessments that recognize the unique attributes of different energy resources and delivery systems to identify pathways to net-zero carbon that maximize Virginia’s energy reliability and resilience, economic development, and jobs;

Require that pathways to net-zero greenhouse gas emissions be determined on the basis of technical, policy, and economic analysis to maximize their effectiveness, optimize Virginia’s economic development, support industrial employment, and create quality jobs while minimizing adverse impacts on public health, affected communities, and the environment;

Ensure an adequate energy supply and a Virginia-based energy production capacity, while also optimizing intrastate and interstate use of energy supply and delivery to maximize energy availability, reliability, and price opportunities to the benefit of all user classes and the Commonwealth’s economy;

....

Create training opportunities and green career pathways for local workers and workers in historically economically disadvantaged communities in onshore and offshore wind, solar energy, electrification, energy efficiency, clean transportation, and other emerging clean energy industries; [and]

....

Ensure that decision making is transparent and includes opportunities for full participation by the public[.]¹⁰⁶

IMPACT ON RELIABILITY

As shown above, the first of two relevant criteria in Code § 56-580 D for evaluating a CPCN request is whether the proposed facilities “have no material adverse effect upon reliability of electric service provided by any regulated public utility.” The PJM process for assessing the system reliability impacts of the Solar Generating Facility and the necessary transmission facilities for interconnection and addressing any system impacts is complete. The Project has an executed Interconnection Service Agreement, which obligates Firefly to complete and/or pay for all transmission upgrades necessary for reliable interconnection and operation.¹⁰⁷

No record evidence indicates that the addition of Firefly’s Project would have a material adverse effect on reliability.

¹⁰⁶ Code § 45.2-1706.1 C (1)-(3), (8), (10).

¹⁰⁷ Ex. 4 (Appendix 2) at 3; Ex. 10 (Dodson report) at 4-5.

NOT CONTRARY TO THE PUBLIC INTEREST

The second criterion in Code § 56-580 D for evaluating a CPCN request is whether the proposed facilities “are not otherwise contrary to the public interest.” However, for solar generation facilities of 150 megawatts or less, the statute removes the public interest determination from an evidentiary decision to a legal conclusion.¹⁰⁸ The statute deems Firefly’s (up to) 150 megawatt Solar Facility to be “in the public interest.”¹⁰⁹ Were this an evidentiary determination, Firefly also offered reasons the Project would be in the public interest – including the Project’s economic benefits and that Firefly, not ratepayers, bear the business risk associated with the Project.¹¹⁰

The proposed Gen-Tie Line, Collector Substation, and Feeder Lines are all needed to interconnect and operate the Solar Facility, which the General Assembly has deemed to be in the public interest.

Accordingly, the record supports a finding that the Project is not contrary to the public interest.

ENVIRONMENTAL EFFECT OF THE PROPOSED FACILITIES

Subject to the statutory “anti-duplication” provisions for generation and associated facilities, the Commission’s evaluation of a CPCN request for generation and transmission facilities must consider the “effect of that facility on the environment and establish such conditions as may be desirable or necessary to minimize adverse environmental impact.”¹¹¹ Additionally, the Commission must consider whether the 230-kV Gen-Tie Line’s route “will avoid or reasonably minimize adverse impact to the greatest extent reasonably practicable on the scenic assets, historic resources recorded with [DHR], and environment of the area concerned.”¹¹²

Environmental impacts of the proposed 230-kV Gen-Tie Line are minimal. APCo’s existing 230-kV East Danville – Roxborough transmission line traverses the southwest part of the Project site.¹¹³ The Gen-Tie Line would extend approximately 100 feet between the Project’s Collector Station and a planned APCo switching station (to tap into the existing line). The proposed route would parallel APCo’s existing 230-kV transmission line.¹¹⁴ Firefly anticipates constructing one galvanized steel monopole structure, approximately 105 feet tall, to support the Gen-Tie Line.¹¹⁵ No dwellings are within 500 feet of the Gen-Tie Line’s centerline and approximately two acres of forestland would be impacted.¹¹⁶

¹⁰⁸ Code § 56-580 D (“Small renewable energy projects as defined in § 10.1-1197.5 are in the public interest....”).

¹⁰⁹ *Id.*

¹¹⁰ *See, e.g.*, Ex. 3 (Appendix 1) at 9.

¹¹¹ Code § 56-46.1 A. *See also* Code § 56-580 D.

¹¹² Code § 56-46.1 B.

¹¹³ Ex. 4 (Appendix 2) at 19; Ex. 5 at attached Ex. D, Ex3.205; Ex. 10 (Dodson report) at 6.

¹¹⁴ Ex. 4 (Appendix 2) at 19.

¹¹⁵ Ex. 5 at attached Ex. K.

¹¹⁶ Ex. 4 (Appendix 2) at 13.

Based on the record of this case – including, but not limited to, the evidence summarized above, I find that the Gen-Tie Line’s route “will avoid or reasonably minimize adverse impact to the greatest extent reasonably practicable on the scenic assets, historic resources recorded with [DHR], and environment of the area concerned.”¹¹⁷

Most of the environmental impacts of the Project are associated with the Solar Generating Facility and the Feeder Lines. Approximately 1,289 acres would be fenced and disturbed for the Project.¹¹⁸ These properties are zoned for agriculture or light industry, which includes undeveloped woodland, planted silvicultural land, cleared timber land, agricultural fields, and pasture lands.¹¹⁹ DOF estimates that approximately 749 acres of forested or recently harvested timberlands are at risk of conversion from the Project.¹²⁰ Access roads would be constructed throughout the Project site.¹²¹ The Solar Facility would be constructed in part on property that is designated C4 (moderate integrity) or C5 (general integrity), which are the two least significant types of ecological cores.¹²² The Feeder Lines are expected to impact approximately 3.1 acres of prime farmlands and 17.9 acres of farmlands of statewide importance.¹²³

The Feeder Lines would cross county or state roads at four locations. The Feeder Lines would also cross the Dan River Trail in two locations, south of White Ridge Road and west of Kerns Church Road.¹²⁴

Stormwater discharges from the Project site, during construction or operations, would be controlled in accordance with state and local regulations.¹²⁵ The Solar Facility would have no air emissions from operations.¹²⁶ During construction, wells may be installed and utilize up to 100,000 – 150,000 gallons per day, but water requirements would not be significant during operations.¹²⁷ Firefly has delineated wetlands on the Project site¹²⁸ and, based on a desktop survey, estimated permanent impacts to less than two acres of wetlands, and to less than 800 linear feet of streams (ephemeral, intermittent, and perennial).¹²⁹

¹¹⁷ Code § 56-46.1 B.

¹¹⁸ Ex. 4 (Application) at 2.

¹¹⁹ *See, e.g.*, Ex. 3 (Appendix 1) at 2.

¹²⁰ Ex. 11 (DEQ Report) at 17.

¹²¹ *See, e.g.*, Ex. D at attached Ex3.201, Ex3.202, Ex3.203, Ex3.204, Ex3.205 (orange lines).

¹²² Ex. 11 (DEQ Report) at 15-16.

¹²³ Ex. 4 (Appendix 2) at 14; Ex. 5 at attached Ex. P.

¹²⁴ *See, e.g.*, Ex. 14 (Peterson supplemental rebuttal) at 4; Ex. 5 at attached Ex. D, Ex3.201 (bottom of page). The Dan River Trail is also called the Richmond and Danville Rail-Trail and the Ringgold Rail Trail. Ex. 14 (Peterson supplemental rebuttal) at 3.

¹²⁵ *See, e.g.*, Ex. 5 at attached Ex. F, pp. 7-8; Ex. 11 (DEQ Report) at 11-12.

¹²⁶ *See, e.g.*, Ex. 5 at attached Ex. F, p. 7.

¹²⁷ *See, e.g., id.* While Firefly indicated permits may be required for such water withdrawal, the DEQ Office of Water Withdrawal Permitting indicated that a permit would not be required because Pittsylvania is not in a groundwater management area. Ex. 11 (DEQ Report) at 8.

¹²⁸ Ex. 5 at attached Ex. U.

¹²⁹ Ex. 13 (Peterson rebuttal) at Attachment 3, cover letter; Ex. 12 (updated wetlands impact consultation) at 2. There are estimated temporary impacts to approximately 0.23 acres of wetlands and 7,300 linear feet of streams. *Id.*

The eastern edge of one of the Project's parcels, just south of U.S. Route 58 and west of the Virginia International Raceway, borders part of the Dan River, which has a scenic river designation.¹³⁰ A segment of the 34.5-kV Feeder Lines briefly parallels the Dan River at a distance no closer than 500 feet from the river's edge.¹³¹ The Project is located adjacent to the Dan River Trail, a recreational pedestrian area owned by Pittsylvania County. The Feeder Lines would cross the Trail at two locations, if authorized by the County.¹³²

The matters addressed by the Project's special use permit include the heights of the Project's solar panels and other equipment, setbacks, fencing, landscaping, construction management and mitigation, viewshed protection, buffers, road repairs, erosion and sediment control, stormwater management, operational noise and electrical interference, operational light, and decommissioning.¹³³ The special use permit prescriptively addresses each of these matters and/or requires their subsequent approval by Pittsylvania County or DEQ.¹³⁴ The Project's fencing must be chain-link and at least six feet high.¹³⁵

One dwelling is within 500 feet of the Feeder Lines' centerline, but none are within 250 feet.¹³⁶ No conservation easements, open space easements, or scenic byways have been identified in the Project area.¹³⁷ No natural heritage resources (including rare, threatened, or endangered plant or animal species) have been documented in the Project area, although DCR stated that this could indicate the area has not been surveyed.¹³⁸

DHR identified 71 architectural resources that were documented by Firefly's Phase 1 survey, 41 of which are newly recorded. DHR recommended three newly recorded sites as potentially eligible for inclusion in the Virginia Landmarks Register/National Register, and observed that Firefly's planned construction activities would avoid these sites. DHR concurred with Firefly's recommendations to place a minimum 50-foot buffer around historic cemeteries.¹³⁹

Staff recommended that any Commission approval in this case should be conditioned on a requirement for Firefly to obtain all necessary permits and approvals.¹⁴⁰ I agree.

¹³⁰ See, e.g., Ex. 5 at attached Ex. M, Figure 1; Ex. 4 (Appendix 2) at 16.

¹³¹ Ex. 4 (Appendix 2) at 16.

¹³² Ex. 3 (Appendix 1) at 7; Ex. 4 (Appendix 2) at 17.

¹³³ Ex. 5 at attached Ex. M, Board of Zoning Appeals of Pittsylvania County, Final Order S-22-003.

¹³⁴ *Id.*

¹³⁵ *Id.*

¹³⁶ Ex. 4 (Appendix 2) at 13.

¹³⁷ *Id.* at 16. As of May 13, 2024, the Project will not encroach on any existing or proposed Virginia Outdoors Foundation open-space easements. Ex. 11 (DEQ Report) at 18.

¹³⁸ See, e.g., Ex. 11 (DEQ Report) at 15.

¹³⁹ See, e.g., *id.* at attached DHR correspondence dated June 10, 2024. In 2022, DHR indicated that Virginia International Raceway and Chaney House are eligible for listing in the National Register for their social/recreation significance as the third permanent road racecourse constructed in the United States. However, DHR noted that viewshed analysis was needed and recognized that the property has experienced changes such as the construction of additional segments and housing stock. Firefly provided DHR with viewshed analysis supporting Firefly's conclusion that the Project should not be visible from the raceway property and DHR concurred. Ex. 5 at attached Ex. Q.

¹⁴⁰ Ex. 7 (Little) at 25. Firefly expressed appreciation for the Staff testimony that included this recommendation. Ex. 13 (Peterson rebuttal) at 5-6.

DEQ REPORT AND RECOMMENDED CONDITIONS

As shown above, the Code directs the Commission, in this proceeding, to “receive and give consideration to all reports that relate to the proposed facility by state agencies concerned with environmental protection.”¹⁴¹ The DEQ Report, and DEQ-OWSP’s updated wetlands impact consultation, were received and made a part of the record.¹⁴²

A. Uncontested DEQ Report Recommendations

While Firefly opposed some recommendations in the DEQ Report and offered “clarifications” on others, Firefly has not opposed the remaining recommendations in the DEQ Report and DEQ-OWSP’s updated wetlands impact consultation.¹⁴³ I find that these uncontested recommendations should be made a condition of approval in this case.

B. Contested DEQ Report Recommendations

Firefly recommended the Commission reject two recommendations in the DEQ Report, which are discussed below. These recommendations relate to environmental impacts that are common to proposed solar generation facilities because of their significant project footprints that need to be cleared and fenced.

Ecological Core Impacts

Firefly opposed DCR’s recommendation to avoid impacts to ecological cores¹⁴⁴ and, where avoidance cannot be achieved, to minimize the area of impacts overall and concentrate the impacted area at the edges of such cores.¹⁴⁵

For the Solar Facility site, all the ecological cores mapped by DCR within the limits of disturbance are classified as C4 or C5 – the two lowest rankings.¹⁴⁶ The property rights necessary to construct Project facilities in these locations were voluntarily provided to Firefly.¹⁴⁷ Approximately half of the acreage of the parcels included in the Project area is owned by Cloverdale Lumber Co. Inc.¹⁴⁸ Additionally, the specificity of the area in which Pittsylvania County’s special use permit allows Firefly to construct Project infrastructure¹⁴⁹ suggests a Commission condition to avoid constructing in that permitted area could implicate the statutory

¹⁴¹ Code § 56-46.1 A.

¹⁴² Exs. 11, 12.

¹⁴³ Ex. 13 (Peterson rebuttal) at 7; Tr. at 13 (Flavin).

¹⁴⁴ Ecological cores are areas of at least 100 acres of continuous interior, natural cover that provide habitat for a wide range of species. Impacts occur when a core’s natural cover is partially or completely converted permanently to developed land uses. Ex. 11 (DEQ Report) at 15-16.

¹⁴⁵ Ex. 13 (Peterson rebuttal) at 7-8.

¹⁴⁶ Ex. 11 (DEQ Report) at 15-16.

¹⁴⁷ Tr. at 18-19 (Flavin).

¹⁴⁸ Ex. 14 (Peterson supplemental rebuttal) at Attachment 1, Sheet C.100.

¹⁴⁹ See, e.g., Ex. 5 at attached Ex. M, Board of Zoning Appeals of Pittsylvania County, Final Order S-22-003, Condition 1 (“All solar panels and other above-ground equipment will be located within the ‘Project Area’ shown on the Conceptual Site Plan included with the SUP application.”); Ex. 14 (Peterson supplemental rebuttal) at Attachment 1.

anti-duplication provisions. However, Firefly represented that it will continue to attempt to minimize impact to the identified ecological cores where possible.¹⁵⁰

Based on the record, I do not recommend adoption of DCR's recommendation. However, I recommend the Commission encourage Firefly to continue to attempt to minimize impact to the identified ecological cores where possible.

Forest Impacts

DOF recommended that Firefly compensate for unavoidable forest impacts by establishing new trees, forests, or forest vegetation onsite or in the general vicinity of the Project area in such a way as to maintain or improve overall water quality, ecosystem functions, and value of forest products.¹⁵¹ DOF recommended as additional compensation options for unavoidable clearance of forestland that Firefly:

1. Plant forested buffers along waterbodies that do not yet have them or otherwise afforest existing open land.... [T]he area planted or afforested should be equal to or greater than the total acreage converted during the project[;]
2. Permanently protect existing forestland that is within the project area or within the same geographical area and that is at risk of development, by establishing open-space easements or protected areas[...; and]
3. Contribute an in-lieu fee to DOF's State Forest Mitigation and Acquisition Fund ... or similar fund, which would then be used by DOF and other organizations to complete forestland conservation projects near the project site.¹⁵²

Firefly opposed the above recommendations, asserting that: (1) the recommendations can add significant cost to the Project; (2) most tree removal for the Project will occur in areas previously devoted to silviculture; (3) tree removal would not occur within the wetland/stream buffer corridors along the Project perimeter where Pittsylvania County requires a 100-foot undisturbed vegetative buffer; and (4) the Commission has previously considered and rejected DOF's recommendations in prior proceedings.¹⁵³

Firefly is correct that the Commission has rejected substantively similar recommendations in many transmission line¹⁵⁴ and solar generation proceedings.¹⁵⁵ The

¹⁵⁰ Tr. at 12 (Flavin).

¹⁵¹ Ex. 11 (DEQ Report) at 17 and attached DOF letter.

¹⁵² *Id.* at 17-18 and attached DOF letter.

¹⁵³ Ex. 13 (Peterson rebuttal) at 8-9.

¹⁵⁴ *See, e.g., Application of Virginia Electric and Power Company, For approval and certification of electric transmission facilities: Line #235 Extension to Cloud 230 kV Switching Station and related projects*, Case No. PUR-2021-00137, 2022 S.C.C. Ann. Rep. 281, 285, Final Order (Feb. 22, 2022).

¹⁵⁵ *See, e.g., Petition of Virginia Electric and Power Company, For approval of the RPS Development Plan, approval and certification of the proposed CE-2 Solar Projects pursuant to §§ 56-580 D and 56-46.1 of the Code of Virginia, revisions of rate adjustment clause, designated Rider CE, under § 56-585.1 A 6 of the Code of Virginia*,

Commission has declined to adopt such DOF recommendations in recent cases involving far more solar construction and estimated forestland impacts than in the instant case.¹⁵⁶ Consistent with these orders, and based on the record, I recommend denial of this DOF recommendation.

C. Firefly Clarifications to DEQ Report Recommendations

Firefly offered clarifications to the following DEQ Report recommendations:

- DCR-DNH’s recommendations related to the development and implementation of an invasive species plan;
- DEQ-OWSP’s recommendation related to threatened or endangered species and/or critical habitat; and
- DEQ’s recommendation related to the development of an EMS.¹⁵⁷

Invasive Species Plan and Vegetation

DCR-DNH recommended the: (i) implementation of an invasive species plan; (ii) planting of Virginia native pollinator species that bloom through the spring and summer in at least the buffer areas of the planned facility, and optimally including other areas; and (iii) planting of native species appropriate in the region for screening zones outside the perimeter fencing.¹⁵⁸ In response, Firefly represented that it will develop a comprehensive invasive species plan in collaboration with the EPC firm that will be selected for the Project.¹⁵⁹

As discussed above, while Code §§ 56-580 D and 56-46.1 A direct the Commission to consider the environmental impact of proposed facilities, anti-duplication provisions in these statutes also indicate that:

any valid permit or approval required for an electric generating plant and associated facilities issued or granted by a federal, state or local governmental entity charged by law with responsibility for issuing permits or approvals regulating environmental impact and mitigation of adverse environmental impact

and a prudence determination to enter into power purchase agreements pursuant to § 56-585.1:4 of the Code of Virginia, Case No. PUR-2021-00146, 2022 S.C.C. Ann. Rep. 309, 319, Final Order (Mar. 15, 2022) (rejecting a similar recommendation as “unwarranted given the lack of a legal requirement for one-for-one mitigation”); *Petition of Virginia Electric and Power Company, For approval of its 2022 RPS Development Plan under § 56-585.5 D 4 of the Code of Virginia and related requests*, Case No. PUR-2022-00124, 2022 S.C.C. Ann. Rep. 217, 220, Final Order (Apr. 14, 2023); *Application of Rocky Ford Solar Energy LLC, For certificates of public convenience and necessity for a solar generating facility and associated interconnection facilities*, Case No. PUR-2023-00003, 2023 S.C.C. Ann. Rep. 359, 361-62, Final Order (Oct. 13, 2023) (“*Rocky Ford Order*”); *Petition of Virginia Electric and Power Company, For approval of its 2023 RPS Development Plan under § 56-585.5 D 4 of the Code of Virginia and related requests*, Case No. PUR-2023-00142, Final Order at 4-5, 8 (Mar. 29, 2024).

¹⁵⁶ *Id.*

¹⁵⁷ Ex. 13 (Peterson rebuttal) at 7. Mr. Peterson also addressed DEQ’s observation that Firefly did not address potential impacts to subaqueous lands. Ex. 11 (DEQ Report) at 10. Mr. Peterson clarified that Firefly is reviewing any such potential impacts and will apply for any VMRC permit required to address such impacts. Ex. 13 (Peterson rebuttal) at 10-11.

¹⁵⁸ Ex. 11 (DEQ Report) at 16.

¹⁵⁹ Ex. 13 (Peterson rebuttal) at 11.

or for other specific public interest issues such as ... transportation plans, and public safety, whether such permit or approval is prior to or after the Commission's decision, shall be deemed to satisfy the requirements of this section with respect to all matters that (i) are governed by the permit or approval or (ii) are within the authority of, and were considered by, the governmental entity in issuing such permit or approval, and the Commission shall impose no additional conditions with respect to such matters....

The Commission has previously declined to consider matters implicated by these statutory provisions.¹⁶⁰

The record established that for the proposed Solar Facility, landscaping, including the maintenance of existing vegetation and new plantings, are matters that either (i) are governed by the special use permit or (ii) are within the authority of, and were considered by, Pittsylvania County in granting such permit. In addition to the language of Pittsylvania County's approval,¹⁶¹ DCR-DNH's recommendation indicates that the Project's special use permit application included a planting list and that a Pittsylvania ordinance requires the use of native species for screening zones outside of perimeter fencing.¹⁶² Because the record establishes that these matters implicate the statutory anti-duplication provisions, I do not recommend adherence to DCR-DNH's recommendations as conditions of Commission approval of the Solar Facility in this case. By statute, "the Commission shall impose no additional conditions with respect to such matters."¹⁶³ However, I recommend that the Commission encourage the Company to honor its commitment to implement an invasive species plan, to the extent it is not inconsistent with local requirements.

Time-of-Year Restrictions and Protections for Species and Habitat

DEQ-OWSP recommended adherence to time-of-year restrictions recommended by the Department of Wildlife Resources, DCR, VMRC, or the U.S. Fish and Wildlife Service, or other protective measures for listed threatened or endangered species and/or critical habitat.¹⁶⁴ Firefly explained that the Company plans to conduct surveys to assess the presence or absence of state and/or federally protected bat species identified as potentially present in the Project area. Those survey results will inform Firefly's strategy regarding federal and state protections for the species. Firefly represented that it has communicated with some of the referenced agencies and, to the extent needed, will continue coordinating with such agencies regarding protective measures for the species.¹⁶⁵

To the extent federal or state law requires time-of-year restrictions or other protective measures for listed species and/or critical habitat, Firefly has a legal obligation to comply with

¹⁶⁰ See, e.g., *Application of Highland New Wind Development, LLC, For Approval to Construct, Own and Operate an Electric Generation Facility in Highland County, Virginia pursuant to §§ 56-46.1 and 56-580 D of the Code of Virginia*, Case No. PUE-2005-00101, 2007 S.C.C. Ann. Rep. 295, 297, Final Order (Dec. 20, 2007); Rocky Ford Order, 2023 S.C.C. Ann. Rep. at 361-62.

¹⁶¹ See, e.g., Ex. 5 at attached Ex. M, Board of Zoning Appeals of Pittsylvania County, Final Order S-22-003.

¹⁶² Ex. 11 (DEQ Report) at 16.

¹⁶³ Code §§ 56-46.1 A, 56-580 D.

¹⁶⁴ Ex. 11 (DEQ Report) at 9; Ex. 12 at 4. These filings do not specify any particular time-of-year restrictions.

¹⁶⁵ Ex. 13 (Peterson rebuttal) at 10.

such requirements. I do not recommend the Commission impose any time-of-year restrictions or other measures beyond those otherwise required by law.

Environmental Management Plan

DEQ recommended that Firefly consider development of an effective environmental management system.¹⁶⁶ Firefly responded that the Company would develop a comprehensive environmental management plan in collaboration with the EPC firm selected for the Project. Firefly represented that its plan will ensure that the Company complies with environmental laws and regulations, reduces risk, minimizes adverse environmental impacts, sets environmental goals, and achieves improvements in its environmental performance.¹⁶⁷ I find Firefly's plan to be reasonable and note this Report's recommendation that the Commission condition any approval granted in this case on Firefly obtaining all environmental permits and approvals that are necessary to construct and operate the Project.

RIGHTS-OF-WAY AND ROUTING

The Code requires that the Commission consider existing right-of-way easements when siting transmission lines in specified contexts. Code § 56-46.1 C provides that "[i]n any hearing the public service company shall provide adequate evidence that existing rights-of-way cannot adequately serve the needs of the company." In addition, Code § 56-259 C provides that "[p]rior to acquiring any easement of right-of-way, public service corporations will consider the feasibility of locating such facilities on, over, or under existing easements of rights-of-way."¹⁶⁸

Firefly represented that it does not own any nearby right-of-way and nearby right-of-way owned by other entities are not large enough to accommodate additional transmission facilities.¹⁶⁹ The 100-foot-long Gen-Tie Line route would use one structure to interconnect the proposed Collector Substation to a new switching station planned by APCo. APCo's new station will allow APCo to cut into, and interconnect with, the existing transmission line that crosses the Project site.¹⁷⁰ I find that Firefly's proposed use of new right-of-way is a reasonable use of property near an existing transmission line right-of-way that allows for direct transmission interconnection facilities with a limited footprint.

As discussed above, I find that the Gen-Tie Line's route "will avoid or reasonably minimize adverse impact to the greatest extent reasonably practicable on the scenic assets,

¹⁶⁶ Ex. 11 (DEQ Report) at 20-21.

¹⁶⁷ Ex. 13 (Peterson rebuttal) at 11.

¹⁶⁸ Code § 56-259 C appears to apply to public service corporations that have the power of eminent domain, *see also* Code § 56-259.1, which Firefly does not possess. *See, e.g.*, Code § 56-49(2) (expanding the definition of "public service corporation" to include Virginia limited liability companies certificated to provide only certain telecommunications services). However, a relevant Staff guideline directs transmission line applicants to provide information responsive to the statutory preference for utilizing existing rights-of-way, when adequate. *See* Ex. 4 (Appendix 2) at 6 ("To the extent the proposed route is not entirely within existing [right-of-way], explain why existing [right-of-way] cannot adequately service the needs of the Applicant.").

¹⁶⁹ Ex. 4 (Appendix 2) at 6.

¹⁷⁰ Ex. 5 at attached Ex. H.

historic resources recorded with [DHR], and environment of the area concerned,”¹⁷¹ subject to applicable conditions recommended in preceding sections of this Report.

NEED FOR THE GEN-TIE LINE

Code § 56-46.1 B requires, among other things, a Commission determination that a proposed transmission line is needed. The Gen-Tie Line and other Interconnection Facilities are needed only to interconnect the Solar Facility.¹⁷² Accordingly, the Commission should condition any CPCN for the Gen-Tie Line on the construction and operation of the Solar Facility.

POST-ORDER ROUTE CHANGES

Staff recommended that, should any issues arise in the permitting process necessitating a change in the proposed route of the Interconnection Facilities, Firefly should be required to file for an amended CPCN to address the changes.¹⁷³ Staff also recognized the recent *Rocky Ford Order*, which clarified that the generation tie line associated with another merchant solar generation project could change slightly without necessitating a new CPCN, provided such changes are limited in nature and do not require new easements or rights-of-way.¹⁷⁴ I find that Firefly should be afforded similar limited flexibility.

SUNSET PROVISION

The Commission’s CPCN approvals of non-incumbent generation typically include a sunset provision indicating that, unless extended by the Commission, the CPCN will expire if construction does not commence within a specified number of years of the Commission’s CPCN approval. In the instant case, Staff recommended that the Commission condition CPCN approval on a five-year sunset provision, but Staff would not oppose a shorter sunset provision. Staff recommended a five-year sunset provision to promote consistency with Commission approvals in most merchant solar CPCN cases.¹⁷⁵

I continue to see some tension between the pace at which the Code anticipates the development and construction of new renewable generation in the Commonwealth and a sunset provision that allows a certificated solar generation project to wait to begin construction for as long as five years (and potentially longer, upon motion and good cause shown).¹⁷⁶ However, I find that a five-year sunset period, subject to potential extension for good cause shown upon

¹⁷¹ Code § 56-46.1 B.

¹⁷² Ex. 4 (Appendix 2) at 1; Ex. 10 (Dodson report) at 3.

¹⁷³ Ex. 10 (Dodson report) at 11.

¹⁷⁴ *Rocky Ford Order*, 2023 S.C.C. Ann. Rep. at 362 (“The Commission further finds that based upon the circumstances of this case, slight changes to the Gen-Tie Line based on engineering considerations are permissible without a new application to the Commission, provided they are limited in nature and do not require new easements or right-of-way.”).

¹⁷⁵ Ex. 7 (Little) at 25.

¹⁷⁶ As discussed above, Firefly’s Project has, among other things, already obtained a special use permit and has cleared the PJM interconnection study process.

motion, is consistent with a majority of Commission precedent since 2018.¹⁷⁷ I recommend that any CPCN approved in this case be conditioned on an appropriate sunset provision.

ECONOMIC DEVELOPMENT

The economic development report submitted with the Application is fairly typical of a solar generation project. While there would be a limited number of jobs supported during facility operations, infrastructure of this magnitude would support many more jobs during the construction period.¹⁷⁸ Additionally, Firefly expects to pay real estate taxes and siting agreement payments totaling \$14.1 million over the life of the Project.¹⁷⁹ The record supports a finding that the Project will likely support economic development.

Once Firefly has selected an EPC firm, Firefly explained its plans as follows:

Firefly ... will work with its [EPC] firm to prioritize the hiring and utilization of local firms and workers, including veterans and individuals from historically economically disadvantaged communities, to perform a variety of work during the Project's construction and operation. Firefly ... is also exploring opportunities to participate in local and regional workforce training initiatives.

¹⁷⁷ During this period, two- and three-year sunsets were approved for three non-incumbent solar facilities. *Application of Cavalier Solar A, LLC, For Certificates of Public Convenience and Necessity for solar generating facilities totaling up to 240 megawatts in Surry County, and Isle of Wight County, Virginia*, Case No. PUR-2020-00235, 2021 S.C.C. Ann. Rep. 305, 311, Final Order (May 27, 2021); *Application of Keydet Solar Center, LLC, For Certificates of Public Convenience and Necessity for a solar generating facility totaling up to 145 MW and associated interconnection facilities to be located in Charles City County, Virginia*, Case No. PUR-2022-00154, 2023 S.C.C. Ann. Rep. 254, 256-27, Final Order (May 30, 2023); *Application of Sycamore Cross Solar, LLC, For certificates of public convenience and necessity for a solar generating facility totaling up to 240 MWac in Isle of Wight County and Surry County, Virginia*, Case No. PUR-2023-00126, Final Order (Jan. 19, 2024) (approving a 3-year sunset provision). Five-year sunsets were approved for five non-incumbent solar facilities and one non-incumbent fossil facility. *Application of Chickahominy Power, LLC, For certification of an electric generating facility in Charles City County pursuant to § 56-580 D of the Code of Virginia*, Case No. PUR-2017-00033, 2018 S.C.C. Ann. Rep. 209, 213, Final Order (May 8, 2018); *Application of Pleinmont Solar, LLC et al., For certificates of public convenience and necessity for a 500 MW solar generating facility in Spotsylvania County pursuant to §§ 56-46.1 and 56-580 D of the Code of Virginia*, Case No. PUR-2017-00162, 2018 S.C.C. Ann. Rep. 310, 317, Order Granting Certificates (Aug. 8, 2018); *Application of Skipjack Solar Center, LLC et al., For certificates of public convenience and necessity for solar generating facilities totaling up to 320 MWac in Charles City County, Virginia*, Case No. PUR-2019-00073, 2020 S.C.C. Ann. Rep. 262, 268, Order Granting Certificates (Mar. 5, 2020); *Application of Axton Solar, LLC, For certificates of public convenience and necessity for a nominal 201.1 megawatt solar generating facility located in Henry and Pittsylvania Counties*, Case No. PUR-2021-00085, 2022 S.C.C. Ann. Rep. 240, 245, Final Order (Oct. 7, 2022); *Application of Chester Solar Technology Park, LLC, For certificates of public convenience and necessity for a solar generating facility and associated interconnection facilities*, Case No. PUR-2022-00179, 2023 S.C.C. Ann. Rep. 288, 290, Final Order (Sep. 18, 2023); Rocky Ford Order, 2023 S.C.C. Ann. Rep. at 362 (approving a 5-year sunset provision for a project with PJM construction milestones several years earlier).

¹⁷⁸ The economic development report filed with Firefly's Application estimates that for Pittsylvania County the Project would support 58 direct, indirect, and induced job years during construction, and 8 direct, indirect, and induced job years during operations. See, e.g., Ex. 5 at attached Ex. L, pp. 1, 15-16.

¹⁷⁹ See, e.g., Ex. 5 at attached Ex. L, pp. 17-19. At the current tax rate, the Application's economic impact report estimates that the Project's site generates approximately \$7,100 of real estate taxes annually. This amount, if paid annually over the estimated 35-year operational period, totals \$246,900. *Id.* at 21.

Although the Project is not proposed in or near the Virginia coalfield region, individuals from [that area] may apply for jobs during the Project's construction and operation phases. Even non-local workers employed at the Project site would have an indirect economic impact on the local economy through their purchase of food, beverages, gas, and other goods and services.¹⁸⁰

ENVIRONMENTAL JUSTICE

Firefly's environmental justice assessment (conducted in 2021, then updated in 2024) identified four census block groups in Virginia and one in North Carolina within a one-mile radius of the Project site, including the Gen-Tie Line route.¹⁸¹ Using DEQ's EJScreen+ tool, the low-income percentages for three of these census blocks exceed¹⁸² the 30% VEJ Act threshold that is based on the greater of (i) 80% of the median income of the area or (ii) 200% of the federal poverty level.¹⁸³

Where most of the Project's construction would occur,¹⁸⁴ Firefly's analysis indicates approximately 40% and 41% of the population falls below the VEJ Act's median income and federal poverty level figures, respectively.¹⁸⁵ Staff's analysis indicates approximately 50% and 49% of the population in this census block falls below these respective levels.¹⁸⁶

Of the four census block groups in Virginia within a one-mile radius of the Project site evaluated using DEQ's EJScreen+ tool, Firefly's environmental justice analysis identified one as a community of color.¹⁸⁷ A small portion of the Project is in this area, which was also one of the low-income census block groups.¹⁸⁸ Staff's analysis verified these results.¹⁸⁹

Under the Code, a low-income community or community of color, or part thereof, could be considered a fenceline community if the area "presents an increased health risk to its residents due to its proximity to a major source of pollution."¹⁹⁰ Firefly and Staff identified, for further evaluation, three census block groups as being or containing potential fenceline communities. The first is the low-income census block group where most of the Project's construction would occur.¹⁹¹ Within one mile of the Project, the record identified one active air site, six petroleum

¹⁸⁰ Ex. 14 at 4-5 (Peterson supplemental rebuttal) (internal footnote and quotations omitted).

¹⁸¹ Ex. 6 (Peck direct) at 7; Ex. 5 at attached Ex. M, p. 2.

¹⁸² See, e.g., Ex. 7 (Little) at Attachment No. RDL-2, p. 24 of 91, as corrected by Ex. 9.

¹⁸³ Code § 2.2-234.

¹⁸⁴ See Ex. 5 at attached Ex. M, attached Figure 2 (Tract 10803, Block Groups 1 and 3).

¹⁸⁵ See, e.g., Ex. 7 (Little) at Attachment No. RDL-2, pp. 24, 63 of 91, as corrected by Ex. 9. For the DEQ EJScreen+ analysis, 2010 Census Tract 108.02, Block Group 2 was analyzed in place of 2020 Census Tract 108.03, Block Groups 1 and 3. *Id.* at 12 of 91. See also *id.* at 31 of 91 (2020 census block map).

¹⁸⁶ See, e.g., *id.* at Attachment No. RDL-5.

¹⁸⁷ See, e.g., *id.* at Attachment No. RDL-2, p. 24 of 91 (41.7% of population).

¹⁸⁸ See, e.g., *id.* at Attachment No. RDL-2, pp. 19-20 of 91 (Tract 9303.01, Block Group 2). Most of this census block group is located east of the Project, but contains a small portion of the Project area. Ex. 5 at attached Ex. M, Figure 2 (Tract 930301, Block Group 2).

¹⁸⁹ See, e.g., Ex. 7 (Little) at Attachment No. RDL-5.

¹⁹⁰ Code § 2.2-234.

¹⁹¹ Ex. 7 (Little) at Attachment RDL-6, pp. Corrected 1, 12-22 (Blockgroup Number 511430108022).

tank facilities, and two VPDES outfalls.¹⁹² Firefly associated the active air permit with Milams Equipment Sales, Inc., an equipment merchant wholesaler registered with DEQ as an operating synthetic minor air emission source. Firefly attributed one of the outfall locations and regulated inactive underground storage tanks to Cloverdale Lumber Company. The other petroleum tanks are associated with active gas stations.¹⁹³

The second potential fenceline community is the only census block group that the DEQ EJScreen+ analysis identified as both a low-income community and a community of color under the VEJ Act.¹⁹⁴ This area is mostly to the east of the Project in Halifax County, but does include a small part of the Project site.¹⁹⁵ The record indicates that only two closed petroleum release sites in this census block group are located within one mile of the Project.¹⁹⁶ An additional nine petroleum tank facilities, two active air sites, and six VPDES outfalls are located within the census block group area but are farther than one mile (and some farther than five miles) from the Project.¹⁹⁷

The third potential fenceline community is the census block group west of the southern portion of the Project area. The record identified one petroleum tank facility, seven VPDES outfalls, and two solid waste permits within the census block group – none of which are within one mile of the Project.¹⁹⁸

The Commission has broad discretion to determine what constitutes a proximate major source of pollution that, along with demographic information, could identify a fenceline community. However, the proximate pollution sources identified in the record do not rise to the level contemplated under the Code, in my opinion.

Firefly appears to have conducted community outreach in a broad fashion and by engaging neighboring landowners, without specifically targeting environmental justice communities in such efforts.¹⁹⁹ Operation of the Project will not create any emissions or pollutants.²⁰⁰ With respect to local impacts, including forest and visual impacts, the Project will be constructed entirely on parcels of private property owned by companies and individuals who will voluntarily enter lease agreements to allow the Project's construction and operation on their properties.²⁰¹ Additionally, approval of the special use permit for the Solar Facility required certain setbacks and landscaping requirements.²⁰²

¹⁹² *Id.* at Attachment RDL-6, p. Corrected 1; Tr. at 34-35 (Little) and Ex. 8.

¹⁹³ Ex. 7 (Little) at Attachment RDL-2, p. 25 of 91, as corrected by Ex. 9. The other outfall is a residential outfall. *Id.*

¹⁹⁴ Ex. 7 (Little) at Attachment RDL-6, p. Corrected 1 (Blockgroup Number 510839303012).

¹⁹⁵ *See, e.g.*, Ex. 7 (Little) at Attachment RDL-2, p. 19-20 of 91 (Tract 9303.01, Block Group 2) and Figure 2 (Tract 930301, Block Group 2); Ex. 5 at attached Ex. R.

¹⁹⁶ Ex. 7 (Little) at Attachment No. RDL-2, p. 25 of 91, as corrected by Ex. 9.

¹⁹⁷ Ex. 7 (Little) at Attachment No. RDL-6, pp. Corrected 1, 23-38 (Blockgroup Number 510839303012); Tr. at 35-36 (Little) and Ex. 8.

¹⁹⁸ Ex. 7 (Little) at Attachment RDL-2, p. 24 of 91, as corrected by Ex. 9; Ex. 7 (Little) at Attachment RDL-6, pp. 2-10.

¹⁹⁹ *See, e.g.*, Ex. 5 at attached Ex. M, p. 1; Ex. 4 (Appendix 2) at 13.

²⁰⁰ *See, e.g.*, Ex. 6 (Peck direct) at 6.

²⁰¹ Ex. 3 (Appendix 1) at 2.

²⁰² Ex. 5 at attached Ex. M, Board of Zoning Appeals of Pittsylvania County, Final Order S-22-003.

I also note that while the VEJ Act includes a general policy to avoid disproportionate negative environmental impacts to, among others, environmental justice communities and fenceline communities,²⁰³ other statutory policies suggest that locating renewable facilities in or near such communities can also be beneficial to those communities. The Commonwealth Clean Energy Policy includes a general policy to “prioritize solutions and investment in [historically economically disadvantaged communities] to maximize the benefits of clean energy” and to “[i]ncrease access to clean energy and the benefits from clean energy to historically economically disadvantaged communities.”²⁰⁴ The Virginia Clean Economy Act states in part that “it shall be the policy of the Commonwealth that the ... Commission ... in the ... placement of renewable energy facilities, shall consider whether and how those facilities and programs benefit,” among others, “historically economically disadvantaged communities.”²⁰⁵

Based on the record of this case, I find that Firefly reasonably considered the requirements of the VEJ Act in its Application. I also find that the Project will not have a disproportionate adverse impact on environmental justice communities, inclusive of potential fenceline communities. In addition, as discussed in the Economic Development section of this Report, the Project offers opportunities for jobs – construction jobs and indirect jobs during the construction period, in particular – in a low-income area.

FINDINGS AND RECOMMENDATIONS

Based on the Code and the record developed in this case, I find that:

(1) The record supports a finding that the Project proposed by Firefly – which is obligated under federal law to complete and/or pay for all transmission upgrades necessary for reliable interconnection and operation – will have no material adverse effect upon reliability of electric service;

(2) The Project is not contrary to the public interest;

(3) The proposed Gen-Tie Line’s route – which is approximately 100-feet long and would be constructed on property secured pursuant to a voluntary property agreement – will avoid or reasonably minimize adverse impact to the greatest extent reasonably practicable on the scenic assets, recorded historic resources, and environment of the area concerned;

(4) As a condition of Commission approval, Firefly should be required to obtain all necessary permits and approvals for its Project;

²⁰³ Code § 2.2-234 (defining “Fair treatment” as “the equitable consideration of all people whereby no group of people bears a disproportionate share of any negative environmental consequence resulting from an industrial, governmental, or commercial operation, program, or policy.”) and Code § 2.2-235 (identifying a focus on environmental justice communities and fenceline communities).

²⁰⁴ Code § 45.2-1706.1 B (1), (3).

²⁰⁵ 2020 Va. Acts chs. 1193, 1194, Enactment Clause 7.

(5) As a condition of Commission approval, Firefly should be required to comply with the recommendations of the DEQ Report and DEQ-OWSP updated wetlands impact consultation that the Company did not oppose or seek to clarify in its rebuttal testimony;

(6) To the extent federal or state law requires time-of-year restrictions or other protective measures for listed species and/or critical habitat, Firefly has a legal obligation to comply with such requirements. Time-of-year restrictions or other protective measures beyond those otherwise required by law should not be imposed for the Project;

(7) Firefly should not be required to implement DCR's invasive species and vegetation recommendations. However, the Company should be encouraged to honor its commitment to implement an invasive species plan, to the extent it is not inconsistent with local requirements;

(8) Firefly should also be encouraged to honor its commitments to: (a) develop a comprehensive environmental management plan in collaboration with the EPC firm selected for the Project; and (b) continue to attempt to minimize impact to identified ecological cores where possible.

(9) Should any issues arise in the permitting process necessitating a change in the proposed route of the Interconnection Facilities, Firefly should be required to file for an amended CPCN to address the changes. However, this requirement should not apply to slight changes of the Gen-Tie Line that are limited in nature and do not require new easements or rights-of-way;

(10) A five-year sunset provision, which could be extended for good cause shown, is consistent with a majority of recent Commission precedent;

(11) The Project will likely support economic development; and

(12) Firefly's Application reasonably considered the requirements of the Virginia Environmental Justice Act and the Project will not have a disproportionate adverse impact on environmental justice communities, inclusive of potential fenceline communities.

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

(1) **ADOPTS** the findings and recommendations in this Report;

(2) **GRANTS** generation, transmission, and distribution CPCNs for the generation and associated facilities proposed by Firefly;

(3) **CONDITIONS** approval of the CPCNs on: (i) Firefly's compliance with the recommendations in the DEQ Report and DEQ-OWSP's updated wetlands impact consultation that Firefly neither contested nor sought to clarify in rebuttal testimony; (ii) Firefly obtaining all environmental permits and approvals that are necessary to construct and operate the Project; and (iii) expiration of the CPCNs if construction of the Project has not commenced within an appropriate period after the Commission's order, subject to Commission extension;

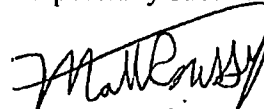
(4) **CONDITIONS** approval of the transmission CPCN for the Gen-Tie Line on the construction of the proposed Solar Generating Facility; and

(5) **ENCOURAGES** Firefly to honor its commitments to: (a) implement an invasive species plan, to the extent it is not inconsistent with local requirements; (b) continue to attempt to minimize impact to the identified ecological cores where possible; and (c) develop a comprehensive environmental management plan in collaboration with the EPC firm selected for the Project.

COMMENTS

Staff and parties are advised that, pursuant to Rule 5 VAC 5-20-120 C of the Commission's Rules of Practice and Procedure ("Rules of Practice") and Code § 12.1-31, any comments on this Report must be filed on or before November 8, 2024. To promote administrative efficiency, the parties are encouraged to file electronically in accordance with 5 VAC 5-20-140 of the Rules of Practice. If not filed electronically, an original and fifteen (15) copies must be submitted in writing to the Clerk of the Commission, c/o 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 sent by electronic mail to all counsel of record and any such party not represented by counsel.

Respectfully submitted,



D. Mathias Roussy, Jr.
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, Tyler Building, First Floor, Richmond, VA 23219.