Solar PBR Regulatory Advisory Group (RAP)

November 15, 2019 Draft Meeting Notes

Location: DEQ Central Office

3rd Floor Conference Room

DEQ, 1111 East Main St. Richmond, VA

Start: 9:30 a.m.
Break: 11:06 p.m.
Reconvene: 11:25 p.m
Lunch Break: 12:34 p.m
Reconvene: 1:44 p.m.
Break: 2:52 p.m.
Reconvene: 3:00 p.m
End: 4:03 p.m.

RAP Members Present:

Jon Hillis; SolUnesco

Richard Gangle; Dominion Energy

William Reisinger; (Maryland-DC-Delaware-Virginia Solar Energy

Industries Ass. MDV-SEIA)

Dan Holmes; Piedmont Environmental Council Judy Dunscomb; The Nature Conservancy

Ken Jurman; Virginia Department of Mines, Minerals and Energy Cliona Mary Robb, Virginia Solar Energy Development and Energy

Storage Authority

RAP Members Absent:

John D. Hutchinson, V; Shenandoah Valley Battlefields Foundation Joe Lerch, Virginia Association of Counties (VACo) Hannah Coman; Southern Environmental Law Center David Krupp; Community Energy

Facilitator: Trieste Lockwood, DEQ and Tamera Thompson, DEQ

Recorders: Jill Hrynciw, DEQ and Mary E. Major, DEQ

Guests and Public Attendees:

Aimee Turnern
Julia Campus
Don Giecek
Todd Alonzo
Elizabeth Marshall
Keri Nicholas
Susan Tripp
Brandon Searcey
Carrie Hearne

Roger W. Kirchen; Virginia Department of Historic Resources (DHR) S. René Hypes; Virginia Department of Conservation and Recreation (DCR)

Ernie Aschenbach; Virginia Department of Game & Inland Fisheries

(DGIF)

Harry Godfrey; Advanced Energy Economy

Terrance Lasher; Virginia Department of Forestry (DoF)

Jenny Bellville-Marrow Jimmy Merrick Sharon Harless Jen Betz Adam Gillenwater Chris Moore Lindsey Hesch Chris Hawk

Welcome and Introductions:

Tamera Thompson (DEQ), provided the framework for the day by outlining the issues to be addressed (see agenda). RAP members and the public attendees made introductions.

Ms. Thompson continued the discussion of the fee structure begun at the November 4, 2019 meeting. Members of the RAP requested specific information pertaining to the actual man-hours involved in the application review and other activities associated with the program. Attachment 1 reflects the estimated costs associated with PRB reviews for 20 MW projects at the start of the program and prior to the expansion of projects from 100 MW to 150 MW.

Chris Moore, DEQ Director of Finance, continued the discussion of estimates for the current program (attachment 2). The group discussed the industry suggested fee structure (attachment 3) of an initial fee of \$7,500.00 with an additional cost per MW. There were questions regarding the agency estimates for maintenance fees and other costs. It was explained that these costs were already being absorbed by the agency through general funds and that the PBR program, by law, should be generating sufficient funds to cover these existing costs. Ideas on how to generate sufficient funding were discussed including the option to phase in the application fee increase.

Break: 11:06 p.m. to 11:25 p.m.

The members continued the discussion of permit fees.

Lunch from 12:34 p.m. to 1:44 p.m.

Trieste Lockwood, DEQ, summarized the situation pertaining to the fee structure. The members would review the fee structure as the initial industry submittal was based on different assumptions regarding projected FTE requirements for the program.

The group then began a review of the draft regulation (attachment 4) Ms. Lockwood indicated that the review of the pollinator scorecard discussed at a previous meeting (attachment 5) might be incorporated as a project review item within the PBR. The definitions of project site and disturbance zone were reviewed in relation to the areas described on the scorecard.

Break 2:52 p.m. to 3:00 p.m.

The group discussed an option for creating another category of projects (between 5 and 20 MW) that would not require a complete cultural or natural resource review. The affected state agencies will explore reduced requirements for these size projects and report back to the group at the next meeting.

The review of the proposed regulatory language continued with emphasis on the fact that the program would not cover industrial-sized battery storage and requirements for the Notice of Intent when it should be required to be submitted. The group was asked to review the proposed language and provide comments to DEQ by noon, Thursday, November 21. The agency will incorporate new suggested language into a new draft to be distributed by November 25, 2019, for review and discussion at the last meeting of the group.

Meeting ended 4: 03 p.m.

The group will reconvene at 9:30 a.m. on December 5, 2019 at the DEQ Piedmont Regional Office.

Solar Permit by Rule Work Group November 15, 2019, 9:30 a.m.

Virginia Department of Environmental Quality 1111 E. Main Street, 3rd Floor Conference Room Richmond, VA 23219

Agenda

9:30 a.m. Welcome

Continuation of permit and associated fee discussion

12:30 p.m. Break for lunch (not included)

1:30 p.m. Possible discussion on proposed regulations

4:00 p.m. Adjourn

Phase	Task	Subtask	Beth	Chris	Jill C	indy D	eb H. J	ennifer	Tamera	Todd	Mike La	uren O	ther T	ask Hours	rask Cost
Application Notice	Meeting w Applicant	To discuss NOI and application process	3.0	1.5	5									4.5	\$450
Application Notice	NOI	Publish and Notifications (web/ONSR)	0.5		0.5	0.3	0.5	0.5						2.3	\$230
Application Notice	NOI	Receive and Respond	1.0											1.0	\$100
Application Review	Application Review	Average per Application	40.0						2.0					42.0	\$4,200
Application Review	Architectural Review	Initial DHR Database Search, Assessment, and Recordkeeping		1.0)									1.0	\$100
Application Review	Architectural Review	Onsite Inspection of Consultant Report (shovel testing, etc.)		8.0)									8.0	\$800
Application Review	Architectural Review	Report Preparation and Recordkeeping		3.0)									3.0	\$300
Application Review	Architectural Review	Review Archeological Phase I Report and Provide Written Comments		8.0)									8.0	\$800
Application Review	Architectural Review	Review Consultant Provided Work Plan		4.0)									4.0	\$400
Application Review	External Meeting	To discuss issues with appli9cation or sister agencies	4.0	1.0)				1.0		1.0			7.0	\$700
Application Review	Internal Meeting	To discuss application with DEQ staff/regional office	3.0	1.0)				1.0	1.0	1.0			7.0	\$700
Application Review	PBR Authorization	Prepare and Finalize	5.0						1.0		1.0			7.0	\$700
Permit Maintenance	Administrative	Data Management (CEDS Entry)	2.0									0.5		2.5	\$250
Permit Maintenance	Administrative	Document Management	2.0									2.0		4.0	\$400
Permit Maintenance	Inspection - Construction	Onsite Inspection of Mitigation Plan		8.0)									8.0	\$800
Permit Maintenance	Inspection - Construction	Report Preparation and Recordkeeping	1.0	4.0)					1.0				6.0	\$600
Permit Maintenance	Inspection - Postconstruction	Onsite Inspection of Mitigation Plan		8.0)									8.0	\$800
Permit Maintenance	Inspection - Postconstruction	Report Preparation and Recordkeeping	1.0	4.0)					1.0				6.0	\$600
Permit Maintenance	Inspection - Poststartup (1 year)	Onsite Inspection of Mitigation Plan		8.0)									8.0	\$800
Permit Maintenance	Inspection - Poststartup (1 year)	Report Preparation and Recordkeeping	1.0	4.0)					1.0				6.0	\$600
Permit Maintenance	Inspection - Poststartup (5 year)	Onsite Inspection of Mitigation Plan		12.0)									12.0	\$1,200
Permit Maintenance	Inspection - Poststartup (5 year)	Report Preparation and Recordkeeping	1.0	4.0)					1.0				6.0	\$600
Permit Maintenance	Management	National Meetings	0.5								0.2			0.7	\$70
Permit Maintenance	Management	State Meetings	1.0								0.5			1.5	\$150
Permit Program	Guidance/Regulation Activity	Communications and Virginia Regulatory Town Hall					10.0							10.0	\$1,000
Permit Program	Guidance/Regulation Activity	Correspondence	5.0						1.0		1.0			7.0	\$700
Permit Program	Guidance/Regulation Activity	Policy Implementation	10.0						3.0		1.0			14.0	\$1,400
Permit Program	Guidance/Regulation Activity	Regulation Amendments	20.0						10.0	5.0	2.0			37.0	\$3,700
Permit Program	Guidance/Regulation Activity	Regulation Interpretation	4.0						2.0		1.0			7.0	\$700
Permit Program	Guidance/Regulation Activity	Updates and Form Creation	10.0											10.0	\$1,000
		Total	s 115.0	79.5	5 0.5	0.3	10.5	0.5	21.0	10.0	8.7	2.5	0.0	248.5	\$24,850

DEQ Permit By Rule, Not Including Mitigation Revenues by Fiscal Year

Year	Solar	Wind	Combustion	Total
FY 2015	14,000.00	-	-	14,000.00
FY 2016	8,000.00	16,000.00	-	24,000.00
FY 2017	76,000.00	-	-	76,000.00
FY 2018	124,000.00	-	-	124,000.00
FY 2019	128,000.00		-	128,000.00
Total Thrοι	\$ 350,000.00	\$ 16,000.00	\$ -	\$ 366,000.00

Expenditure Forecast Summary Beginning in FY 2021

	FY 2021	FY 2022	FY 2023	FY 2024	FY 2025	Notes
DEQ Permitting	515,455	525,764	536,279	547,005	557,945	Includes 3.75 FTF
DEQ Compliance	149,800	152,796	155,852	158,969	162,148	Includes 1 FTE
DHR	115,500	117,810	120,166	122,570	125,021	
DGIF	231,000	235,620	240,332	245,139	250,042	
Total Projected Costs	1,011,755	1,031,990	1,052,630	1,073,682	1,095,156	:

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Small Renewable Energy		 					ļ		}					
Permit By Rule, Not including Mitigation 3rd Scenario end of day on 11/4 with RAP														
proposal Beginning in FY 2021			· 				}		} -					
11/18/19 10:21 AM		}							ļ				· · · · · · · · · · · · · · · · · · ·	
121017 1012 101		Last Scenario	o from RAP mee	eting on Nove	mher 4th				No	ovember 15th Sc	cenario - RAP pro	posal		
		Lust Scenario		jection by Yea					1	, canoca aparaga	commo re ir pre	posti	:	
	Fee Amount	FY 2021	FY 2022	FY 2023	FY 2024	FY 2025	Notes	If average MW is:	Then the RAP proposed fee would be:	FY 2021	FY 2022	FY 2023	FY 2024	FY 2025
Estimated Number of PBRs, by Year		20	20	20	20	20								
Estimated Number of PBRs, Cumulative, as of the beginning of the year		82	102	122	142	162								
New Estimated Percentages by Megawatt:		<u></u> -							<u> </u>					
New Estimated Percentages by Megawatt:		ļļ.												
5 25 MW	19.0%								; ;;					
5 - 25 MW > 25 - 50 MW >50 to 75 MW	7.9%	 							!					
>50 to 75 MW	20.6%	-							<u> </u>					
>75 to 150 MW	52.5%	}							{	}				
Recommended New Fee Structure:														
Application Fees									7500 lump sum and 150 per	MW				
5 - 25 MW	10,000	38,000	38,000	38,000	38,000	38,000		15.0		37,050	37,050	37,050	37,050	37,050
> 25 - 50 MW	25,000	39,500	39,500	39,500	39,500	39,500		37.5		20,738	20,738	20,738	20,738	20,738
>50 to 75 MW	35,000	144,200	144,200	144,200	144,200	144,200		62.5		69,525	69,525	69,525	69,525	69,525
>75 to 150 MW	46,000	483,000	483,000	483,000	483,000	483,000		112.5	24,375	255,938	255,938	255,938	255,938	255,938
Modification Fees	at 25% of applicat	tion fees							at 15% of application fees				j	
5 - 25 MW > 25 - 50 MW	2,500 6,200 8,700	2,500 6,200	2,500 6,200	2,500 6,200	2,500 6,200	2,500	Assume 1 per year in each category	15.0 37.5 62.5 112.5	1,463 1,969 2,531 3,656	1,463 1,969	1,463 1,969	1,463 1,969	1,463 1,969	1,463 1,969
> 25 - 50 MW >50 to 75 MW	6,200	6,200		6,200	6,200	0,200	Assume i per year in each category	37.5	1,969	1,969	1,969	1,969	1,969	1,969
>50 to 75 MW >75 to 150 MW	8,700 11,500	8,700 11,500	8,700 11,500	8,700 11,500	8,700 11,500	8,700	Assume 1 per year in each category Assume 1 per year in each category	62.5	2,531	2,531 3,656	2,531 3,656	2,531 3,656	2,531 3,656	2,531 3,656
>73 to 130 MW	11,300	11,500	11,500	11,500	11,300	11,500	Assume 1 per year in each category	112.3	3,030	3,030	5,030	3,030	3,030	3,030
Incomplete Fees	. 500/ . 5 . 1'	ļļ.							. 2007 C T C C		 			
Incomplete Fees	at 50% of applicat	tion fees							at 30% of application fees					
5 - 25 MW	5,000	5,000	5,000	5,000	5,000	5 000	Assume 1 per year in each category	15.0	2 025	2,925	2,925	2,925	2,925	2,925
> 25 - 50 MW	12 500	12,500	12,500	12,500	12,500	12 500	Assume I per year in each category	37.5	3 938	3,938	3,938	3,938	3,938	3,938
>50 to 75 MW	17,500	17,500	17,500	17,500	17,500	17,500	Assume 1 per year in each category	62.5	5,063	5,063	5,063	5,063	5,063	5,063
>50 to 75 MW >75 to 150 MW	12,500 17,500 23,000	17,500 23,000	17,500 23,000	23,000	17,500 23,000		Assume 1 per year in each category	62.5 112.5	2,925 3,938 5,063 7,313	5,063 7,313	5,063 7,313	5,063 7,313	5,063 7,313	5,063 7,313
NOI Fee									Assumes NOI fee for every	application				
		:							resumes from the for every t	-personance				
For all sizes	1,700	68,000	68,000	68,000	68,000	68,000	Assumes 40 per year		2,000	40,000	40,000	40,000	40,000	40,000
Maintenance Fees									500 lump sum and 10 per M	1W				
		i												
5 - 25 MW	600	9,348	11,628	13,908	16,188	18,468		15.0		10,127	12,597	15,067	17,537	20,007
> 25 - 50 MW	1,500	9,717	12,087	14,457	16,827	19,197		37.5	875	5,668	7,051	8,433	9,816 32,909	11,198
>50 to 75 MW >75 to 150 MW	1,800 3,000	30,406 129,150	37,822	45,238 192,150	52,654 223,650	60,070 255,150	} -	62.5 112.5	1,125 1,625	19,004	23,639 87,019	28,274 104,081	32,909 121,144	37,544 138,206
2.0 LO LOU WI W	5,000	129,150	160,650	192,150	223,650	255,150		112.5	1,625	69,956	67,019	104,081	121,144	138,206
Sum of Projected Fees		1,038,221	1,081,787	1,125,353	1,168,919	1,212,485				556,861	582,411	607,961	633,511	659,061
5 - 25 MW		54,848	57,128	59,408	61,688	63,968				51,565	54,035	56,505	58,975	61,445
> 25 - 50 MW		67,917	70,287	72,657	75,027	77,397			<u> </u>	32,312	33,695	35,077	36,460	37,842
>50 to 75 MW		200,806	208,222	215,638	223,054	230,470			{	96,122	100,757	105,392	110,027	114,662
>75 to 150 MW		646,650	678,150	709,650	741,150	772,650			i	336,863	353,925	370,988	388,050	405,113
	~~~~				68,000		,		, <u>,</u>					40,000
For all sizes Total		68,000 1,038,221	68,000 1,081,787	68,000 1,125,353	1,168,919	68,000 1,212,485	<b>/</b>		, ,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,	40,000 556,861	40,000 582,411	40,000 607,961	40,000 633,511	659,061

Small Renewable Energy Permit By Rule, Not including Mitigation 3rd Scenario -- end of day on 11/4 with RAP proposal Beginning in FY 2021

11/18/19 10:23 A	М	Last Scenario from RAP meeting on November 4th			1		November 15th - RAP scenario, changing to 450 per MW for application fees							
			Pre	ojection by Yea	r		]	TC	TI d DAD 1					
	Fee Amount	FY 2021	FY 2022	FY 2023	FY 2024	FY 2025	Notes	If average MW is:	Then the RAP proposed fee would be:	FY 2021	FY 2022	FY 2023	FY 2024	FY 2025
Estimated Number of PBRs, by Year		20	20	20	20	20								
Estimated Number of PBRs, Cumulative, as of the beginning of the year		82	102	122	142	162								
New Estimated Percentages by Megawatt:														
5 - 25 MW	19.0%													
> 25 - 50 MW >50 to 75 MW	7.9% 20.6%													
>50 to 75 MW >75 to 150 MW	52.5%													
Recommended New Fee Structure:														
Application Fees									7500 lump sum and 450 per	MW				
5 - 25 MW	10,000	38,000	38,000	38,000	38,000	38,000		15.0	14,250	54,150	54,150	54,150	54,150	54,150
> 25 - 50 MW	25,000	39,500	39,500	39,500	39,500	39,500		37.5	24,375	38,513	38,513	38,513	38,513	38,513
>50 to 75 MW >75 to 150 MW	35,000 46,000	144,200 483,000	144,200 483,000	144,200 483,000	144,200 483,000	144,200 483,000		62.5 112.5	35,625 58,125	146,775 610,313	146,775 610,313	146,775 610,313	146,775 610,313	146,775 610,313
Madification Fran	-+ 250/ -fli	f							-4 150/ -fliti f					
Modification Fees	at 25% of applica	tion rees							at 15% of application fees					
5 - 25 MW	2,500	2,500	2,500	2,500	2,500		Assume 1 per year in each category	15.0	2,138	2,138	2,138	2,138	2,138	2,138
> 25 - 50 MW >50 to 75 MW	6,200 8,700	6,200 8,700	6,200 8,700	6,200 8,700	6,200 8,700		Assume 1 per year in each category Assume 1 per year in each category	37.5 62.5	3,656 5,344	3,656 5,344	3,656 5,344	3,656 5,344	3,656 5,344	3,656 5,344
>75 to 150 MW	11,500	11,500	11,500	11,500	11,500		Assume 1 per year in each category	112.5	8,719	8,719	8,719	8,719	8,719	8,719
Incomplete Fees	at 50% of applica	tion fees							at 30% of application fees					
5 - 25 MW	5,000	5,000	5,000	5,000	5,000	5 000	Assume 1 per year in each category	15.0	4,275	4,275	4,275	4,275	4,275	4,275
> 25 - 50 MW	12,500	12,500	12,500	12,500	12,500		Assume 1 per year in each category	37.5	7,313	7,313	7,313	7,313	7,313	7,313
>50 to 75 MW	17,500	17,500	17,500	17,500	17,500		Assume 1 per year in each category	62.5	10,688	10,688	10,688	10,688	10,688	10,688
>75 to 150 MW	23,000	23,000	23,000	23,000	23,000	23,000	Assume 1 per year in each category	112.5	17,438	17,438	17,438	17,438	17,438	17,438
NOI Fee									Assumes NOI fee for every	application				
For all sizes	1,700	68,000	68,000	68,000	68,000	68,000	Assumes 40 per year		2,000	40,000	40,000	40,000	40,000	40,000
Maintenance Fees									500 lump sum and 10 per l	MW				
5 - 25 MW	600	9,348	11,628	13,908	16,188	18,468		15.0	650	10,127	12,597	15,067	17,537	20,007
> 25 - 50 MW	1,500	9,717	12,087	14,457	16,827	19,197		37.5	875	5,668	7,051	8,433	9,816	11,198
>50 to 75 MW	1,800	30,406	37,822	45,238	52,654	60,070		62.5	1,125	19,004	23,639	28,274	32,909	37,544
>75 to 150 MW	3,000	129,150	160,650	192,150	223,650	255,150		112.5	1,625	69,956	87,019	104,081	121,144	138,206
Sum of Projected Fees		1,038,221	1,081,787	1,125,353	1,168,919	1,212,485	- -			1,054,074	1,079,624	1,105,174	1,130,724	1,156,274
5 - 25 MW		54,848	57,128	59,408	61,688	63,968				70,690	73,160	75,630	78,100	80,570
> 25 - 50 MW		67,917	70,287	72,657	75,027	77,397				55,150	56,532	57,915	59,297	60,680
>50 to 75 MW >75 to 150 MW		200,806 646,650	208,222 678,150	215,638 709,650	223,054 741,150	230,470 772,650				181,810 706,425	186,445 723,488	191,080 740,550	195,715 757,613	200,350 774,675
For all sizes		68,000	68,000	68,000	68,000	68,000				40,000	40,000	40,000	40,000	40,000
Total		1,038,221	1,081,787	1,125,353	1,168,919	1,212,485				1,054,074	1,079,624	1,105,174	1,130,724	1,156,274
check		-	-	-	-	-				-	-	-	-	-

Small Renewable Energy Permit By Rule, Not including Mitigation 3rd Scenario -- end of day on 11/4 with RAP proposal Beginning in FY 2021

11/18/19 10:24 A7	м												
		Last Scenari	o from RAP me	eting on Nover	nber 4th			November 15th - RAP	scenario, chang	ging to 30000 lur	mp sum on appli	cation fees	
				jection by Yea							•		
	-					<u> </u>		Then the RAP proposed					
	Fee Amount	FY 2021	FY 2022	FY 2023	FY 2024	FY 2025 Notes	MW is:	fee would be:	FY 2021	FY 2022	FY 2023	FY 2024	FY 2025
Estimated Number of PBRs, by Year		20	20	20	20	20							
Estimated Number of PBRs, Cumulative, as of the beginning of the year		82	102	122	142	162							
New Estimated Percentages by Megawatt:													
5 - 25 MW	19.0%												
> 25 - 50 MW	7.9%												
>50 to 75 MW	20.6%												
>75 to 150 MW	52.5%												
Recommended New Fee Structure:													
Application Fees							30	0000 lump sum and 150 pe	er MW				
5 - 25 MW	10,000	38,000	38,000	38,000	38,000	38,000	15.0	32,250	122,550	122,550	122,550	122,550	122,550
> 25 - 50 MW	25,000	39,500	39,500	39,500	39,500	39,500	37.5	35,625	56,288	56,288	56,288	56,288	56,288
>50 to 75 MW	35,000	144,200	144,200	144,200	144,200	144,200	62.5	39,375	162,225	162,225	162,225	162,225	162,225
>75 to 150 MW	46,000	483,000	483,000	483,000	483,000	483,000	112.5	46,875	492,188	492,188	492,188	492,188	492,188
M NG & F	. 250/ S I'							150/ 6 1 6					
Modification Fees	at 25% of applicat	non rees					at	15% of application fees					
5 - 25 MW	2,500	2,500	2,500	2,500	2,500	2,500 Assume 1 per year in each category	15.0	4,838	4,838	4,838	4,838	4,838	4,838
> 25 - 50 MW	6,200	6,200	6,200	6,200	6,200	6,200 Assume 1 per year in each category	37.5	5,344	5,344	5,344	5,344	5,344	5,344
>50 to 75 MW	8,700	8,700	8,700	8,700	8,700	8,700 Assume 1 per year in each category	62.5	5,906	5,906	5,906	5,906	5,906	5,906
>75 to 150 MW	11,500	11,500	11,500	11,500	11,500	11,500 Assume 1 per year in each category	112.5	7,031	7,031	7,031	7,031	7,031	7,031
Incomplete Fees	at 50% of applicat	tion fees					at	30% of application fees					
5 25 150	5.000	5,000	£ 000	5 000	5 000	7.000 A 1 1 1 1	15.0	0.675	0.675	0.675	0.675	0.675	0.075
5 - 25 MW > 25 - 50 MW	5,000 12,500	5,000 12,500	5,000 12,500	5,000 12,500	5,000 12,500	5,000 Assume 1 per year in each category 12,500 Assume 1 per year in each category	15.0 37.5	9,675 10,688	9,675 10,688	9,675 10,688	9,675 10,688	9,675 10,688	9,675 10,688
> 25 - 50 MW >50 to 75 MW	17,500	17,500	17,500	17,500	17,500	17,500 Assume 1 per year in each category 17,500 Assume 1 per year in each category	62.5	11,813	11,813	11,813	11,813	11,813	11,813
>75 to 150 MW	23,000	23,000	23,000	23,000	23,000	23,000 Assume 1 per year in each category	112.5	14,063	14,063	14,063	14,063	14,063	14,063
575 to 150 MW	25,000	23,000	23,000	23,000	23,000	25,000 Tissume I per year in each eneggi.	112.0	11,003	11,000	11,000	11,000	11,000	11,003
NOI Fee							A	ssumes NOI fee for every	application				
For all sizes	1,700	68,000	68,000	68,000	68,000	68,000 Assumes 40 per year		2,000	40,000	40,000	40,000	40,000	40,000
Maintenance Fees							5	500 lump sum and 10 per M	ИW				
5 - 25 MW	600	9,348	11,628	13,908	16,188	18,468	15.0	650	10,127	12,597	15,067	17,537	20,007
5 - 25 MW > 25 - 50 MW	1,500	9,348 9,717	12,087	13,908	16,188	18,468 19,197	37.5	875	5,668	7,051	8,433	9,816	20,007
>50 to 75 MW	1,800	30,406	37,822	45,238	52,654	60,070	62.5	1,125	19,004	23,639	28,274	32,909	37,544
>75 to 150 MW	3,000	129,150	160,650	192,150	223,650	255,150	112.5	1,625	69,956	87,019	104,081	121,144	138,206
>13 to 130 MW	3,000	127,130	100,030	172,130	223,030	255,150	112.3	1,025	07,750	07,017	104,001	121,144	150,200
Sum of Projected Fees	- =	1,038,221	1,081,787	1,125,353	1,168,919	1,212,485		- =	1,047,361	1,072,911	1,098,461	1,124,011	1,149,561
5 - 25 MW		54,848	57,128	59,408	61,688	63,968			147,190	149,660	152,130	154,600	157,070
> 25 - 50 MW		67,917	70,287	72,657	75,027	77,397			77,987	79,370	80,752	82,135	83,517
>50 to 75 MW		200,806	208,222	215,638	223,054	230,470			198,947	203,582	208,217	212,852	217,487
>75 to 150 MW		646,650	678,150	709,650	741,150	772,650			583,238	600,300	617,363	634,425	651,488
For all sizes	-	68,000	68,000	68,000	68,000	68,000		-	40,000	40,000	40,000	40,000	40,000
Total	=	1,038,221	1,081,787	1,125,353	1,168,919	1,212,485		=	1,047,361	1,072,911	1,098,461	1,124,011	1,149,561
check		-	-	-	-	-			-	-	-	-	-

Fees	Amount	MW	App Fee	Mnt Fee/Yr	Old Fee	NPV of Mnt	X incr w/PV
Application						Fee	of Mnt Fee
Lump sum per project	\$ 7,500	5	8,250	550	8,000	6,192	1.81
\$/MW	\$ 150	10	9,000	600	8,000	6,755	1.97
Modification		20	10,500	700	8,000	7,880	2.30
% of application fee	15%	50	15,000	1,000	10,000	11,258	2.63
Incomplete		75	18,750	1,250	12,000	14,072	2.74
% of application fee	30%	100	22,500	1,500	14,000	16,887	2.81
Notice of Intent		150	30,000	2,000	14,000	22,516	3.75
Lump sum per project	\$ 2,000						
Maintenance							
Lump sum per project	500						
\$/MW/year	\$ 10						

Calendar Year	2019	2020	2021	2022	2023	2024	2025
Project Success % (PJM only)	60%	40%	35%	30%	30%	30%	30%
Distribution level not in PJM queue							
Projects	3	10	10	10	10	10	10
MWs (X 15 MW per project average)	45	150	150	150	150	150	150
PJM queue projects							
Projects	12	62	62	37	-	-	-
MWs	1,031	5,408	7,185	2,777	-	-	-
Projects to add to queue per trends							
Projects	-	-	-	25	50	50	50
MWs	-	-	-	4,000	5,000	5,000	5,000
Totals							
Total projects	15	72	72	72	60	60	60
Total MWs	1,076	5,558	7,335	6,927	5,150	5,150	5,150
Adjusted for success %							
Total projects	9	29	25	22	18	18	18
Total MWs	646	2,223	2,567	2,078	1,545	1,545	1,545
Total application fees	164,340	549,480	574,088	473,715	366,750	366,750	366,750
Other fees							

Modification fees Incomplete fees Notice of Intent fees	8,217 16,434 18,000	8,586 17,171 57,600	10,252 20,503 50,400	9,869 19,738 43,200	9,169 18,338 36,000	9,169 18,338 36,000	9,169 18,338 36,000
Maintenance fees	-	36,632	74,905	106,486	130,936	155,386	179,836
Total Revenue	206,991	669,469	730,147	653,008	561,192	585,642	610,092
			1,011,755	1,031,990	1,052,630	1,073,682	1,095,156

9VAC15-60-10. Definitions.

#### Part I

Definitions and Applicability

The following words and terms when used in this chapter shall have the following meanings unless the context clearly indicates otherwise:

"Applicant" means the owner or operator who submits an application to the department for a permit by rule pursuant to this chapter.

"Archive search" means a search of DHR's cultural resource inventory for the presence of previously recorded archaeological sites and for architectural structures and districts.

"Begin commercial operation" means to have begun to generate electricity for sale, excluding test generation.

"Begin construction" means that an owner or operator has either undertaken a continuous program of construction or has entered into a contractual obligation to undertake and complete, within a reasonable time, a continuous program of construction. (redefine, tie to construction permit, when start activities that require construction permit, tie to building permit, add in specific construction related activities)

"Coastal Avian Protection Zones" or "CAPZ" means the areas designated on the map of "Coastal Avian Protection Zones" generated on the department's Coastal GEMS geospatial data system (9VAC15-60-120 C 1).

"Concentrating photovoltaics" or "CPV" means PV systems with equipment to focus or direct sunlight on the PV cells. For purposes of this chapter, CPV is included in the definition of PV.

"Department" means the Department of Environmental Quality, its director, or the director's designee.

"DCR" means the Department of Conservation and Recreation.

"DGIF" means the Department of Game and Inland Fisheries.

"DHR" means the Department of Historic Resources.

"Disturbance zone" means the area within the site directly impacted by <u>land-disturbing activity</u> <u>including but not limited to construction and operation of the solar energy project and within 100 feet of the boundary of the directly impacted area.</u>

"Document certification" means the following statement signed by the responsible official or person and submitted to the department with the application documents for a permit by rule. This certification also applies to all supplemental information provided to the department after the initial application submittal:

"I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering and evaluating the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there

are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations."

"Historic resource" means any prehistoric or historic district, site, building, structure, object, or cultural landscape that is included or meets the criteria necessary for inclusion in the Virginia Landmarks Register pursuant to the authorities of § 10.1-2205 of the Code of Virginia and in accordance with 17VAC5-30-40 through 17VAC5-30-70.

"Integrated PV" means photovoltaics incorporated into building materials, such as shingles.

"Interconnection point" means the point or points where the solar energy project connects to a project substation for transmission to the electrical grid.

Land disturbance" or "land-disturbing activity" means a manmade change to the land surface that potentially changes its runoff characteristics including clearing, grading, or excavation, except that the term shall not include those exemptions specified in § 62.1-44.15:34 of the Code of Virginia.

"Notice of Intent" or "NOI" means written notification from an applicant stating intent to submit documentation for a permit under this chapter, accompanied by a non-refundable fee of \$XXXX.

"Natural heritage resource" means the habitat of rare, threatened, or endangered plant and animal species, rare or state significant natural communities or geologic sites, and similar features of scientific interest benefiting the welfare of the citizens of the Commonwealth.

"Operator" means the person responsible for the overall operation and management of a solar energy project.

"Other solar technologies" means materials or devices or methodologies of producing electricity from sunlight other than PV or CPV.

"Owner" means the person who owns all or a portion of a solar energy project.

"Parking lot" means an improved area, usually divided into individual spaces and covered with pavement or gravel, intended for the parking of motor vehicles.

"Permit by rule" or "PBR" means provisions of the regulations stating that a project or activity is deemed to have a permit if it meets the requirements of the provision.

"Person" means any individual, partnership, firm, association, joint venture, public or private corporation, trust, estate, commission, board, public or private institution, utility, cooperative, county, city, town, or other political subdivision of the Commonwealth, any interstate body, or any other legal entity.

"Photovoltaic" or "PV" means materials and devices that absorb sunlight and convert it directly into electricity by semiconductors.

"Photovoltaic cell" or "PV cell" means a solid state device that converts sunlight directly into electricity. PV cells may be connected together to form PV modules, which in turn may be combined and connected to form PV arrays (often called PV panels).

"Photovoltaic system" or "PV system" means PV cells, which may be connected into one or more PV modules or arrays, including any appurtenant wiring, electric connections, mounting hardware, power-conditioning equipment (inverter), and shall not include associated industrial scale storage batteries.

"Preconstruction" means any time prior to commencing land-clearing operations necessary for the installation of energy-generating structures at the small solar energy project.

"Rated capacity" means the maximum capacity of a solar energy project based on Photovoltaic USA Test Conditions (PVUSA Test Conditions) rating.

"Responsible official or responsible person" means:

- 1. For a corporation, a president, secretary, treasurer, or vice-president of the corporation in charge of a principal business function, or any other person who performs similar policy or decision-making functions for the corporation; (LLC)
- <u>2. For partnership or sole proprietorship, a general partner or the proprietor, respectively; and</u>
- 3. For a local government entity or state, federal, or other public agency, either a principal executive officer or ranking elected official.

"Site" means the area containing a solar energy project that is under common ownership or operating control. Electrical infrastructure and other appurtenant structures up to the interconnection point shall be considered to be within the site.

"Small renewable energy project" means (i) an electrical generation facility with a rated capacity not exceeding 150 megawatts that generates electricity only from sunlight or wind; (ii) an electrical generation facility with a rated capacity not exceeding 100 megawatts that generates electricity only from falling water, wave motion, tides, or geothermal power; or (iii) an electrical generation facility with a rated capacity not exceeding 20 megawatts that generates electricity only from biomass, energy from waste, or municipal solid waste.

"Small solar energy project," "solar energy project," or "project" means a small renewable energy project that (i) generates electricity from sunlight, consisting of one or more PV systems and other appurtenant structures and facilities within the boundaries of the site; and (ii) is designed for, or capable of, operation at a rated capacity equal to or less than 150 megawatts. Two or more solar energy projects otherwise spatially separated but under common ownership or operational control, which are connected to the electrical grid under a single interconnection agreement, shall be considered a single solar energy project. Nothing in this definition shall imply that a permit by rule is required for the construction of test structures to determine the appropriateness of a site for the development of a solar energy project.

"Supplemental information" means documents, reports or information submitted by the applicant or successors to the department after the date of the initial application submittal.

"VDACS" means the Virginia Department of Agriculture and Consumer Services.

"T&E," "state threatened or endangered species," or "state-listed species" means any wildlife species designated as a Virginia endangered or threatened species by DGIF pursuant to the §§ 29.1-563 through 29.1-570 of the Code of Virginia and 4VAC15-20-130. (Add VDACS to include other plants and insects)

"VLR" means the Virginia Landmarks Register (9VAC15-60-120 B 1).

"VLR-eligible" means those historic resources that meet the criteria necessary for inclusion on the VLR pursuant to 17VAC5-30-40through 17VAC5-30-70 but are not listed in VLR.

"VLR-listed" means those historic resources that have been listed in the VLR in accordance with the criteria of 17VAC5-30-40 through 17VAC5-30-70.

"Wildlife" means wild animals; except, however, that T&E insect species shall only be addressed as part of natural heritage resources and shall not be considered T&E wildlife. (add flora)

9VAC15-60-20. Authority and Applicability.

A. This regulation is issued under authority of Article 5 (§ 10.1-1197.5 et seq.) of Chapter 11.1 of Title 10.1 of the Code of Virginia. The regulation contains requirements for solar-powered electric generation projects consisting of PV systems and associated facilities with a single interconnection to the electrical grid that are designed for, or capable of, operation at a rated capacity equal to or less than 150 megawatts. This chapter applies to small solar energy projects throughout the Commonwealth of Virginia.

B. The department has determined that a permit by rule is required for small solar energy projects with a rated capacity greater than five megawatts and a disturbance zone greater than 10 acres, provided that the projects do not otherwise meet the criteria for Part III (9VAC15-60-130) of this chapter, and this regulation contains the permit by rule provisions for these projects in Part II (9VAC15-60-30 et seq.) of this chapter. This chapter applies to any small solar energy project with a rated capacity greater than five megawatts and a disturbance zone greater than 10 acres or that meet the criteria as set forth in Part III of this chapter.

C. The department has determined that different provisions should apply to projects that meet the criteria as set forth in Part III (9VAC15-60-130) of this chapter, and this regulation contains the requirements, if any, for these projects in Part III (9VAC15-60-130 A and B) of this chapter. Projects that meet the criteria for Part III of this chapter are deemed to be covered by the permit by rule

<u>D</u> <u>C</u>. The department has determined that small renewable energy projects utilizing other solar technologies shall fulfill all of the requirements in <u>9VAC15-40</u> as prescribed for small wind energy projects, unless (i) the owner or operator of the proposed project presents to the department information indicating that the other solar technology presents no greater likelihood of significant adverse impacts to natural resources than does PV technology and (ii) the department determines that it is appropriate for the proposed project utilizing the other solar technology to meet the requirements of this chapter or of some modification to either <u>9VAC15-40</u> or this chapter, as prescribed by the department for that particular project.

9VAC15-60-30. Application for Permit by Rule for Solar Energy Projects with Rated Capacity Greater Than Five Megawatts and Disturbance Zone Greater Than 10 Acres.

#### Part II

Permit by Rule <del>Provisions</del> for Solar Energy Projects with Rated Capacity Greater than Five Megawatts and Disturbance Zone Greater than Ten Acres

- A. The owner or operator of a small solar energy project with a rated capacity greater than five megawatts and a disturbance zone greater than 10 acres, provided that the project does not otherwise meet the criteria for Part III (9VAC15-60-130 A or B) of this chapter, shall submit to the department a complete application in which he satisfactorily accomplishes all of the following: A complete application shall contain the following:
- 1. In accordance with § 10.1-1197.6 B 1 of the Code of Virginia, and as early in the project development process as practicable, furnishes to the department a notice of intent, to be published in the Virginia Register, that he intends to submit the necessary documentation for a permit by rule for a small renewable energy project; A notice of intent submitted to the department and publish the notice in the Virginia Register prior to the start of any preconstruction analysis required under 9VAC15-60-40, or no later than 30 days after the applicant has received local approval for the project, which ever first occurs. The notice will include the following information: (needs some work)
- a. Name and address of the project as intended to appear in the PBR authorization;
- b. Location(s) including city, county or Township and shape file or closest feasible approximation;
- c. Name and address of the responsible party;
- d. Total acreage of the site including total forest and agricultural land acres; and
- e. Description of the project including approximate number of solar panels and rated capacity expressed in megawatts of alternate current (AC).
- 2. In accordance with § 10.1-1197.6 B 2 of the Code of Virginia, furnishes to the department a certification by the governing body of the locality or localities wherein the small renewable energy project will be located that the project complies with all applicable land use ordinances;
- 3. In accordance with § 10.1-1197.6 B 3 of the Code of Virginia, furnishes to the department copies of all interconnection studies undertaken by the regional transmission organization or transmission owner, or both, on behalf of the small renewable energy project;
- 4. In accordance with § 10.1-1197.6 B 4 of the Code of Virginia, furnishes to the department a copy of the final interconnection agreement between the small renewable energy project applicant and the regional transmission organization or transmission owner indicating that the connection of the small renewable energy project will not cause a reliability problem for the system. If the final agreement is not available, the most recent interconnection study shall be sufficient for the purposes of this section. When a final interconnection agreement is complete, it shall be provided to the department within 30 days of the date of commencing construction. The department shall forward a copy of the agreement or study to the State Corporation Commission:
- 5. In accordance with § 10.1-1197.6 B 5 of the Code of Virginia, furnishes to the department a certification signed including signature and stamp by a professional engineer licensed in Virginia that the maximum generation capacity of the small solar energy project, as designed, does not exceed 150 megawatts;

- 6. In accordance with § 10.1-1197.6 B 6 of the Code of Virginia, furnishes to the department an analysis of potential environmental impacts of the small renewable energy project's operations on attainment of national ambient air quality standards;
- 7. In accordance with § 10.1-1197.6 B 7 of the Code of Virginia, furnishes to the department, where relevant, an analysis of the beneficial and adverse impacts of the proposed project on natural resources. The owner or operator shall perform the analyses prescribed in pursuant to 9VAC15-60-40. For wildlife, that analysis shall be based on information on the presence, activity, and migratory behavior of wildlife to be collected at the site for a period of time dictated by the site conditions and biology of the wildlife being studied, not exceeding 12 months;
- 8. In accordance with § 10.1-1197.6 B 8 of the Code of Virginia, furnishes to the department a mitigation plan pursuant to 9VAC15-60-60 if a determination of potential significant impact has been determined according to 9VAC15-60-50 that details reasonable actions to be taken by the owner or operator to avoid, minimize, or otherwise mitigate such impacts, and to measure the efficacy of those actions; provided, however, that the provisions of this subdivision shall only be required if the department determines, pursuant to 9VAC15-60-50, that the information collected pursuant to § 10.1-1197.6 B 7 of the Code of Virginia and 9VAC15-60-40 indicates that significant adverse impacts to wildlife or historic resources are likely. The mitigation plan shall be an addendum to the operating plan of the solar energy project, and the owner or operator shall implement the mitigation plan as deemed complete and adequate by the department. The mitigation plan shall be an enforceable part of the permit by rule;
- 9. In accordance with § 10.1-1197.6 B 9 of the Code of Virginia, furnishes to the department a certification signed including signature and stamp by a professional engineer licensed in Virginia that the project is designed in accordance with 9VAC15-60-80;
- 10. In accordance with § 10.1-1197.6 B 10 of the Code of Virginia, furnishes to the department an operating plan that includes a description of how the project will be operated. The operation plan will also include a mitigation plan if one is required due to findings under 9VAC15-60-50 in compliance with its mitigation plan, if such a mitigation plan is required pursuant to 9VAC15-60-50;
- 11. In accordance with § 10.1-1197.6 B 11 of the Code of Virginia, furnishes to the department a detailed site plan meeting the requirements of pursuant to 9VAC15-60-70;
- 12. In accordance with § 10.1-1197.6 B 12 of the Code of Virginia, furnishes to the department a certification signed by the applicant that the small solar energy project has applied, registered for or obtained all necessary environmental permits;
- 13. In accordance with § 10.1-1197.6 H and I of the Code of Virginia, furnishes to the department a certification signed by the applicant that the small solar energy project is being proposed, developed, constructed, or purchased by a person that is not a utility regulated pursuant to Title 56 of the Code of Virginia or provides certification that (i) the project's costs are not recovered from Virginia jurisdictional customers under base rates, a fuel factor charge, or a rate adjustment clause, or (ii) the applicant is a utility aggregation cooperative formed under Article 2 (§ 56-231.38 et seq.) of Chapter 9.1 of Title 56 of the Code of Virginia;
- 14. Prior to authorization of the project and in accordance with § 10.1-1197.6 B 13 and B 14 of the Code of Virginia, conducts A summary report of public comment activities pursuant to 9VAC15-60-90; a 30-day public review and comment period and holds a public meeting pursuant to 9VAC15-60-90. The public meeting shall be held in the locality or, if the project is

located in more than one locality, in a place proximate to the location of the proposed project. Following the public meeting and public comment period, the applicant shall prepare a report summarizing the issues raised by the public and include any written comments received and the applicant's response to those comments. The report shall be provided to the department as part of this application; and

- 15. In accordance with <u>9VAC15-60-110</u>, furnishes to the department the appropriate fee. <u>Appropriate fees pursuant to 9VAC15-60-100 and if required, mitigation pursuant to 9VAC5-15-60-60 B:</u>
- 16. A cover letter containing the following:
- a. The name of the individual receiving the permit by rule authorization; and,
- b. Document certification signed by a responsible person that contains the following statement:

"I certify under penalty of law that this application document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering and evaluating the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations."

- B. Within 90 days of receiving all of the required documents and fees listed in subsection A of this section, the department shall determine, after consultation with <u>DCR, DHR and DGIF</u>, whether the application is complete and whether it adequately meets the requirements of this chapter. other agencies in the Secretariat of Natural Resources, whether the application is complete and whether it adequately meets the requirements of this chapter pursuant to § <u>10.1-1197.7</u> A of the Code of Virginia.
- 1. If the department determines that the application meets the requirements of this chapter, then the department shall notify the applicant in writing that the application is complete he and the applicant is authorized to construct and operate a small solar energy project pursuant to this chapter.
- 2. If the department determines that the application does not meet the requirements of this chapter, then the department shall notify the applicant in writing and specify the deficiencies.
- 3. If the applicant chooses to correct deficiencies in a previously submitted application, the applicant shall notify the department no later than XX days after receipt of the incomplete determination and submit required supplemental information in a timeframe and manner acceptable to the department. The department shall follow the procedures of this subsection and notify the applicant whether the revised application supplemental information meets the requirements of this chapter within 60 days of receiving the revised application supplemental information.
- 4. Any case decision by the department pursuant to this subsection shall be subject to the process and appeal provisions of the Administrative Process Act (§ <u>2.2-4000</u> et seq. of the Code of Virginia).

- C. Any responsible person who fails to submit any relevant facts or who has submitted incorrect information in an application or supplemental information shall, upon becoming aware of such failure or incorrect submittal, promptly submit corrected information.
- <u>D. Unless an extension is granted by the department, the authorization to construct and operate shall become invalid, if:</u>
- 1. A program of continuous construction or modification is not begun within eighteen months from the date the PBR authorization is issued; or
- 2. A program of construction or modification is discontinued for a period of 18 months or more, or is not completed within a reasonable time, except for a department approved period between phases of a phased construction project.
- 9VAC15-60-40. Analysis of the Beneficial and Adverse Impacts on Natural Resources.
- A. Analyses of wildlife. To fulfill the requirements of § 10.1-1197.6 B 7 of the Code of Virginia, the applicant shall conduct preconstruction wildlife analyses.—based on information on the presence, activity, and migratory behavior of wildlife to be collected at the site for a period of time dictated by the site conditions and biology of the wildlife being studied, not exceeding 12 months and conduct preconstruction wildlife analyses. The analyses of wildlife shall include the following:
- 1. Desktop surveys and maps. The applicant shall obtain a wildlife report and map generated
- <u>a.</u> from DGIF's Virginia Fish and Wildlife Information Service web-based application (<u>9VAC15-60-120</u> C 3); or
- <u>b.</u> from a data and mapping system including the most recent data available from DGIF's subscriber-based Wildlife Environmental Review Map Service of the following: (i) known wildlife species and habitat features on the site or within two miles of the boundary of the site and (ii) known or potential sea turtle nesting beaches located within one-half mile of the disturbance zone; <u>and</u>
- c. information from the Center for Conservation Biology at the College of Williams and Mary.
- 2. Desktop map for avian resources in Coastal Avian Protection Zones (CAPZ). The applicant shall consult the "Coastal Avian Protection Zones" map generated on the department's Coastal GEMS geospatial data system (9VAC15-60-120 C 1) and determine whether the proposed solar energy project site will be located in part or in whole within one or more CAPZ.
- 3. The applicant shall assess and describe the expected beneficial and adverse impacts, if any, of the proposed project on wildlife identified by these studies and analyses.
- B. Analyses of historic resources. To fulfill the requirements of § 10.1-1197.6 B 7 of the Code of Virginia, the applicant shall also conduct a preconstruction historic resources analysis. The analysis shall be conducted by a qualified professional meeting the professional qualification standards of the Secretary of the Interior's Standards for Archeology and Historic Preservation (9VAC15-60-120 B 2) in the appropriate discipline. The analysis shall include each of the following:
- 1. Compilation of known historic resources. The applicant shall gather information on known historic resources within the disturbance zone and within one-half mile of the disturbance zone

boundary and present this information on the context map referenced in <u>9VAC15-60-70</u> B, or as an overlay to this context map, as well as in tabular format.

- 2. Architectural survey. The applicant shall conduct a field survey of all architectural resources, including cultural landscapes, 50 years of age or older within the disturbance zone and within one-half mile of the disturbance zone boundary and evaluate the eligibility of any identified resource for listing in the VLR.
- 3. Archaeological survey. The applicant shall conduct an archaeological field survey of the disturbance zone and evaluate the eligibility of any identified archaeological site for listing in the VLR. As an alternative to performing this archaeological survey, the applicant may make a demonstration to the department that the project will utilize nonpenetrating footings technology and that any necessary grading of the site prior to construction does not have the potential to adversely impact any archaeological resource.
- 4. The applicant shall assess and describe the expected beneficial and adverse impacts, if any, of the proposed project on historic resources identified by these studies and analyses.
- C. Analyses of other natural resources. To fulfill the requirements of § 10.1-1197.6 B 7 of the Code of Virginia, the applicant shall also conduct a preconstruction desktop survey of natural heritage resources within the disturbance zone.
- D. Summary report. The applicant application shall provide contain to the department a report presenting the findings of the studies and analyses conducted pursuant to subsections A, B, and C of this section;. All along with all data and supporting documents shall be provided to the respective agencies responsible for analysis to make determinations pursuant to 9VAC15-60-50. The applicant shall assess and describe the expected beneficial and adverse impacts, if any, of the proposed project on wildlife and historic resources identified by these studies and analyses.

9VAC15-60-50. Determination of Likely Significant Adverse Impacts.

- A. The department shall find that significant adverse impacts to wildlife are likely whenever the wildlife analyses prescribed in <u>9VAC15-60-40</u> A document that any of the following conditions exists:
- 1. State-listed T&E wildlife are found to occur within the disturbance zone site or the disturbance zone site is located on or within one-half mile of a known or potential sea turtle nesting beach.
- 2. The disturbance zone site is located in part or in whole within zones 1, 2, 3, 4, 5, 10, 11, 12, or 14 on the Coastal Avian Protection Zones (CAPZ) map.
- B. The department shall find that significant adverse impacts to historic resources are likely whenever the historic resources analyses prescribed by <u>9VAC15-60-40</u> B indicate that the proposed project is likely to diminish significantly any aspect of a historic resource's integrity.
- C. Mitigation for other Natural Resources.

9VAC15-60-60. Mitigation Plan.

A. If the department determines that significant adverse impacts to wildlife or historic resources or both are likely, then the applicant shall prepare a mitigation plan. The applicant shall prepare a mitigation plan for any resource for which a significant adverse impact determination has been

made as a result of the analysis required under 9VAC15-60-40. The plan shall detail actions by the applicant to avoid, minimize, or otherwise mitigate such impacts. Mitigation measures for significant adverse impacts to wildlife shall include:

- B. Mitigation measures for significant adverse impacts to wildlife shall include:
- 1. For state-listed T&E wildlife, the applicant shall take all reasonable measures to avoid significant adverse impacts or shall demonstrate in the mitigation plan what significant adverse impacts cannot practicably be avoided and why additional proposed actions are reasonable. These additional proposed actions may include best practices to avoid, minimize, or offset adverse impacts to resources analyzed pursuant to 9VAC15-60-40 A or C.
- 2. For proposed projects where the disturbance zone site is located on or within one-half mile of a known or potential sea turtle nesting beach, the applicant shall take all reasonable measures to avoid significant adverse impacts or shall demonstrate in the mitigation plan what significant adverse impacts cannot practicably be avoided, and why additional proposed mitigation actions are reasonable. Mitigation measures shall include the following:
- a. Avoiding construction within likely sea turtle crawl or nesting habitats during the turtle nesting and hatching season (May 20 through October 31). If avoiding construction during this period is not possible, then conducting daily crawl surveys of the disturbance zone (May 20 through August 31) and one mile beyond the northern and southern reaches of the disturbance zone (hereinafter "sea turtle nest survey zone") between sunrise and 9 a.m. by qualified individuals who have the ability to distinguish accurately between nesting and nonnesting emergences.
- b. If construction is scheduled during the nesting season, then including measures to protect nests and hatchlings found within the sea turtle nest survey zone.
- c. Minimizing nighttime construction during the nesting season and designing project lighting during the construction and operational phases to minimize impacts on nesting sea turtles and hatchlings.
- 3. For projects located in part or in whole within zones 1, 2, 3, 4, 5, 10, 11, 12, or 14 on the Coastal Avian Protection Zones (CAPZ) map, contribute \$1,000.00 per megawatt of rated capacity, or partial megawatt thereof, to a fund designated by the department in support of scientific research investigating the impacts of projects in CAPZ on avian resources.

Mitigation measures for significant adverse impacts to historic resources shall include:

- 1. Significant adverse impacts to VLR-eligible or VLR-listed architectural resources shall be minimized, to the extent practicable, through design of the solar energy project or the installation of vegetative or other screening.
- 2. If significant adverse impacts to VLR-eligible or VLR-listed architectural resources cannot be avoided or minimized such that impacts are no longer significantly adverse, then the applicant shall develop a reasonable and proportionate mitigation plan that offsets the significantly adverse impacts and has a demonstrable public benefit and benefit for the affected or similar resource.
- 3. If any identified VLR-eligible or VLR-listed archaeological site cannot be avoided or minimized to such a degree as to avoid a significant adverse impact, significant adverse impacts of the project will be mitigated through archaeological data recovery.

9VAC15-60-70. Site Plan and Context Map Requirements.

A. The applicant shall submit a site plan that includes maps showing the physical features, topography, and land cover of the area within the site, both before and after construction of the proposed project. The site plan shall be submitted at a scale sufficient to show, and shall include, the following:

- (i) 1. the boundaries of the site, boundaries of the disturbance zone, and site buffer areas;
- (ii) <u>2.</u> the location, height, and dimensions of all existing and proposed PV systems, other structures, fencing, and other <u>interconnection</u> infrastructure;
- 4. Fencing location and height;
- 5. Location and dimensions of other structures;
- <u>6. Location of any resources subject to mitigation including avoidance and any proposed</u> mitigation measures or buffers;
- (iii) <u>7.</u> the location, grades, and dimensions of all temporary and permanent on-site and access roads from the nearest county or state maintained road; and
- (iv) 8. water bodies, waterways, wetlands, and drainage channels.
- B. The applicant shall submit a context map including the area encompassed by the site and within five miles of the site boundary. The context map shall show state and federal resource lands and other protected areas, Coastal Avian Protection Zones, historic resources, state roads, waterways, locality boundaries, forests, open spaces, and transmission and substation infrastructure.

9VAC15-60-80. Small Solar Energy Project Design Standards and Operation Plan.

<u>A.</u> The design and installation of the small solar energy project shall incorporate any requirements of the mitigation plan that pertain to design and installation if a mitigation plan is required pursuant to <u>9VAC15-60-50</u>.

- B. The applicant shall prepare an operation plan detailing operational parameters for the project including, but not limited to:
- 1. Staffing or remote monitoring;
- 2. Maintenance of PV system;
- 3. Landscape maintenance including a discussion of vegetation to be used under the photovoltaic system and within buffer areas and projected amount and application frequency of herbicides and pesticides on the project site over the life of the project. The operation plan shall include a link to the VDACS Fieldwatch. Owners and operators are encouraged to utilize the link prior to the application of either pesticides or herbicides.
- 4. Emergency procedures and contact personnel.

9VAC15-60-90. Public Participation.

A. Before the initiation of any construction at the small solar energy project, the applicant shall comply with this section. The owner or operator shall first publish a notice once a week for two consecutive weeks in a major local newspaper of general circulation informing the public that he intends to construct and operate a project eligible for a permit by rule. No later than the date of newspaper publication of the initial notice, the owner or operator shall submit to the department a copy of the notice along with electronic copies of all documents that the applicant plans to submit in support of the application. The notice shall include:

The applicant shall compile all application documents and make them available for public review and comment during a public comment period. The public comment period shall be conducted pursuant to subsection B of this section. A public meeting shall be conducted pursuant to subsection C of this section. A public participation report shall be compiled and included in the application pursuant to subsection D of this section.

- B. The applicant shall publish a notice in a local newspaper that the public shall be provided at least 30 days to comment on the proposed project and application documents and that a public meeting shall be held during the comment period.
- 1. The comment period shall begin no sooner than 15 days after the applicant initially publishes the notice in the local newspaper.
- 2. The notification for the comment period shall be published once a week for two consecutive weeks in a local newspaper of general circulation and include the following:
- 1 <u>a</u>. A brief description of the proposed project, and its location, including the approximate dimensions of the site <u>and disturbance zone</u>, <u>and the</u> approximate number and configuration of PV systems, and approximate maximum height of PV systems;
- 2 <u>b</u>. A statement that the purpose of the public participation is to:
- (i) 1. acquaint the public with the technical aspects of the proposed project and how the standards and the requirements of this chapter will be met,
- (ii) 2. identify issues of concern,
- (iii) 3. facilitate communication, and
- (iv) <u>4.</u> establish a dialogue between the owner or operator and persons who may be affected by the project;
- 3. Announcement of a 30-day comment period in accordance with subsection C <u>B</u> of this section, and the name, telephone number, address, and email address of the applicant who can be contacted by the interested persons to answer questions or to whom comments shall be sent <u>The start and end dates of the 30-day comment period</u>;
- 4. Announcement of the date, time, and place for a public meeting held in accordance with subsection D of this section The date, time and place for a public meeting convenient for public attendance and in the locality where the project is proposed; and
- 5. Location where copies of the documentation to be submitted to the department in support of the permit by rule application <u>documents</u> will be available for inspection <u>accessible to the public during business hours for the duration of the comment period in the jurisdiction of the proposed <u>project</u>:</u>

- 6. Uniform Resource Locator (URL) for reviewing application documents on the World Wide Web; and
- 7. The name, telephone number, address, and email address of the applicant who can be contacted by the interested persons to answer questions or to whom comments shall be sent.
- B. The owner or operator shall place a copy of the documentation in a location accessible to the public during business hours for the duration of the 30-day comment period in the vicinity of the proposed project. The applicant shall conduct a public meeting during the public comment period according to the following:
- 1. Scheduled at a time when most members of the public can attend:
- 2. Scheduled at least 15 days after the start of the comment period; and
- 3. Held in the locality in which the project is situated or, if the project is situated in more than one locality, in a place proximate to the proposed project.

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- C. The public shall be provided at least 30 days to comment on the technical and the regulatory aspects of the proposal. The comment period shall begin no sooner than 15 days after the applicant initially publishes the notice in the local newspaper All application documents and a copy of the notice for the comment period shall be forwarded to the department in electronic format no later than the date of the initial publication date of the notice.
- 1. The applicant shall submit a public participation report as part of the application. At a minimum, the report shall include the following:
  - a. Notice of the comment period;
  - b. Proof the notice was published in the newspaper for two consecutive weeks;
  - c. Public meeting sign-in sheet;
  - d. All public comments received, written and oral, and the applicant's response

to the comments.

2. The time frame for conducting the public participation activities shall follow the schedule under Table 1.

#### Table 1

Minimum Timeframe for Public Participation Requirements

<u>Day 1</u>	1 st publication of Notice of Public Comment Period in newspaper
	(Submit electronically all application documents and copy of the public notice to DEQ on or before this date.)

Day 8	2 nd publication of Notice of Public Comment Period in newspaper
<u>Day 16</u>	Earliest date that minimum 30-day comment period can begin
<u>Days 30-38</u>	Conduct public meeting
<u>Day 45</u>	End of 30-day public comment period

- D. The applicant shall hold a public meeting not earlier than 15 days after the beginning of the 30-day public comment period and no later than seven days before the close of the 30-day comment period. The meeting shall be held in the locality or, if the project is located in more than one locality, in a place proximate to the location of the proposed project.
- E. For purposes of this chapter, the applicant and any interested party who submits written comments on the proposal to the applicant during the public comment period or who signs in and provides oral comments at the public meeting shall be deemed to have participated in the proceeding for a permit by rule under this chapter and pursuant to § 10.1-1197.7 B of the Code of Virginia.

9VAC15-60-100. Change of Ownership, Project Modifications, Termination.

- A. Change of ownership. A permit by rule may be transferred to a new owner or operator if:
- 1. The current owner or operator notifies the department at least 30 days in advance of the transfer date by submittal of a notice per subdivision 2 of this subsection;
- 2. The notice shall include a written agreement between the existing and new owner or operator containing a specific date for transfer of permit responsibility, coverage, and liability between them: and
- 3. The transfer of the permit by rule to the new owner or operator shall be effective on the date specified in the agreement described in subdivision 2 of this subsection.
- B. Project modifications. Provided project modifications are in accordance with the requirements of this permit by rule and do not increase the rated capacity of the small solar energy project, the owner or operator of a project authorized under a permit by rule may modify its design or operation or both by furnishing to the department new certificates prepared by a professional engineer, new documentation required under <a href="https://example.com/9VAC15-60-30">9VAC15-60-30</a>, and the appropriate fee in accordance with <a href="https://example.com/9VAC15-60-110">9VAC15-60-110</a>. The department shall review the received modification submittal in accordance with the provisions of subsection B of <a href="https://example.com/9VAC15-60-30">9VAC15-60-30</a>.
- C. Permit by rule termination. The department may terminate the permit by rule whenever the department finds that:
- 1. The applicant has knowingly or willfully misrepresented or failed to disclose a material fact in any report or certification required under this chapter; or
- 2. After the department has taken enforcement actions pursuant to <u>9VAC15-60-140</u>, the owner or operator persistently operates the project in significant violation of the project's mitigation plan.

Prior to terminating a permit by rule pursuant to subdivision 1 or 2 of this subsection, the department shall hold an informal fact-finding proceeding pursuant to § 2.2-4019 of the Virginia Administrative Process Act in order to assess whether to continue with termination of the permit by rule or to issue any other appropriate order. If the department determines that it should continue with the termination of the permit by rule, the department shall hold a formal hearing pursuant to § 2.2-4020 of the Virginia Administrative Process Act. Notice of the formal hearing shall be delivered to the owner or operator. Any owner or operator whose permit by rule is terminated by the department shall cease operating his small solar energy project.

9VAC15-60-110. Fees for Projects Subject to Part II of This Chapter.

- A. Purpose. The purpose of this section is to establish schedules and procedures pertaining to the payment and collection of fees from any applicant seeking a new permit by rule or a modification to an existing permit by rule for a small solar energy project subject to Part II (9VAC15-60-30 et seq.) of this chapter.
- B. Permit fee payment and deposit. Fees for permit by rule applications or modifications shall be paid by the applicant as follows:
- 1. Due date. All permit application fees or modification fees are due on submittal day of the application or modification package.
- 2. Method of payment. Fees shall be paid by check, draft, or postal money order made payable to "Treasurer of Virginia/DEQ" and shall be sent to the Department of Environmental Quality, Receipts Control, P.O. Box 1104, Richmond, VA 23218.
- 3. Incomplete payments. All incomplete payments shall be deemed nonpayments.
- 4. Late payment. No application or modification submittal will be deemed complete until the department receives proper payment.
- C. Fee schedules. Each application for a permit by rule and each application for a modification of a permit by rule is a separate action and shall be assessed a separate fee. The amount of the permit application fee is based on the costs associated with the permitting program required by this chapter. The fee schedules are shown in the following table:

Type of Action	Fee
Permit by rule application – by rated capacity:	
>5 MW up to and including 25 MW	\$ <del>8,000</del>
>25 MW up to and including 50 MW	<del>\$10,000</del>
>50 MW up to and including 75 MW	<del>\$12,000</del>
>75 MW up to and including 150 MW	<del>\$14,000</del>
Permit by rule modification – for any project subject to Part II of this chapter	\$4,000

- D. Use of fees. Fees are assessed for the purpose of defraying the department's costs of administering and enforcing the provisions of this chapter including permit by rule processing, permit by rule modification processing, and inspection and monitoring of small solar energy projects to ensure compliance with this chapter. Fees collected pursuant to this section shall be used for the administrative and enforcement purposes specified in this chapter and in § 10.1-1197.6 E of the Code of Virginia.
- E. Fund. The fees, received by the department in accordance with this chapter, shall be deposited in the Small Renewable Energy Project Fee Fund.
- F. Periodic review of fees. Beginning July 1, 2013, and periodically thereafter, the department shall review the schedule of fees established pursuant to this section to ensure that the total fees collected are sufficient to cover 100% of the department's direct costs associated with use of the fees.

9VAC15-60-120. Internet Accessible Resources.

- A. This chapter refers to resources to be used by applicants in gathering information to be submitted to the department. These resources are available through the Internet; therefore, in order to assist applicants, the uniform resource locator or Internet address is provided for each of the references listed in this section.
- B. Internet available resources.
- 1. The Virginia Landmarks Register, Virginia Department of Historic Resources, 2801 Kensington Avenue, Richmond, Virginia. Available at the following Internet address: http://www.dhr.virginia.gov/registers/register.htm.
- 2. Professional Qualifications Standards, the Secretary of the Interior's Standards and Guidelines for Archeology and Historic Preservation, as amended and annotated (48 FR 44716-740, September 29, 1983), National Parks Service, Washington, DC. Available at the following Internet address: <a href="http://www.nps.gov/history/local-law/arch_stnds_9.htm">http://www.nps.gov/history/local-law/arch_stnds_9.htm</a>.
- 3. The Natural Communities of Virginia, Classification of Ecological Community Groups, Virginia Department of Conservation and Recreation, Division of Natural Heritage, Richmond, Virginia. Available at the following Internet address: http://www.dcr.virginia.gov/natural_heritage/ncintro.shtml.
- 4. Virginia's Comprehensive Wildlife Conservation Strategy, 2005 (referred to as the Virginia Wildlife Action Plan), Virginia Department of Game and Inland Fisheries, 4010 West Broad Street, Richmond, Virginia. Available at the following Internet address: http://www.bewildvirginia.org/wildlifeplan/.
- C. Internet applications.
- 1. Coastal GEMS application, 2010, Virginia Department of Environmental Quality. Available at the following Internet address: <a href="http://www.deq.virginia.gov/coastal/coastalgems.html">http://www.deq.virginia.gov/coastal/coastalgems.html</a>.

NOTE: This website is maintained by the department. Assistance and information may be obtained by contacting Virginia Coastal Zone Management Program, Virginia Department of Environmental Quality, 1111 East Main Street, Suite 1400, Richmond, Virginia 23219, (804) 698-4000.

2. Virginia Natural Landscape Assessment, Virginia Department of Conservation and Recreation. Available at the following Internet address: for detailed information on ecological cores go to <a href="http://www.dcr.virginia.gov/natural_heritage/vclnavnla.shtm">http://www.dcr.virginia.gov/natural_heritage/vclnavnla.shtm</a>. Land maps may be viewed at DCR's Land Conservation Data Explorer Geographic Information System website at <a href="http://www.vaconservedlands.org/gis.aspx">http://www.vaconservedlands.org/gis.aspx</a>.

NOTE: The website is maintained by DCR. Actual shapefiles and metadata are available for free by contacting a DCR staff person at vaconslands@dcr.virginia.gov or DCR, Division of Natural Heritage, 217 Governor Street, Richmond, Virginia 23219, (804) 786-7951.

3. Virginia Fish and Wildlife Information Service 2010, Virginia Department of Game and Inland Fisheries. Available at the following Internet address: <a href="http://www.vafwis.org/fwis/">http://www.vafwis.org/fwis/</a>.

NOTE: This website is maintained by DGIF and is accessible to the public as "visitors," or to registered subscribers. Registration, however, is required for access to resource-specific or species-specific locational data and records. Assistance and information may be obtained by contacting DGIF, Fish and Wildlife Information Service, 4010 West Broad Street, Richmond, Virginia 23230, (804) 367-6913.

9VAC15-60-130. Small Solar Energy Projects Less Than or Equal to Five Megawatts or Less Than or Equal to 10 Acres or Meeting Certain Categorical Criteria.

#### Part III

Provisions for Projects Less Than or Equal to Five Megawatts or Less Than or Equal to 10 Acres or Meeting Certain Categorical Criteria

A. The owner or operator of a small solar energy project is not required to submit any notification or certification to the department if he meets at least one of the following criteria:

- 1. The small solar energy project has either a rated capacity equal to or less than 500 kilowatts or a disturbance zone equal to or less than two acres; or
- 2. The small solar project falls within at least one of the following categories, without regard to the rated capacity or the disturbance zone of the project:
- a. The small solar energy project is mounted on a single-family or duplex private residence.
- b. The small solar energy project is mounted on one or more buildings less than 50 years old or, if 50 years of age or older, have been evaluated and determined by DHR within the preceding seven years to be not VLR-eligible.
- c. The small solar energy project is mounted over one or more existing parking lots, existing roads, or other previously disturbed areas and any impacts to undisturbed areas do not exceed an additional two acres.
- d. The small solar energy project utilizes integrated PV only, provided that the building or structure on which the integrated PV materials are used is less than 50 years old or, if 50 years of age or older, has been evaluated and determined by DHR within the preceding seven years to be not VLR-eligible.
- B. The owner or operator of a small solar energy project with either a rated capacity greater than 500 kilowatts and less than or equal to five megawatts or a disturbance zone greater than two acres and less than or equal to 10 acres shall notify the department and shall submit a

certification by the governing body of the locality or localities wherein the project will be located that the project complies with all applicable land use ordinances.

9VAC15-60-140. Enforcement.

Part IV Enforcement

The department may enforce the provisions of this chapter and any permits by rule authorized under this chapter in accordance with §§ 10.1-1197.9, 10.1-1197.10, and 10.1-1197.11 of the Code of Virginia. In so doing, the department may:

- 1. Issue directives in accordance with the law;
- 2. Issue special orders in accordance with the law;
- 3. Issue emergency special orders in accordance with the law;
- 4. Seek injunction, mandamus, or other appropriate remedy as authorized by the law;
- 5. Seek civil penalties under the law; or
- 6. Seek remedies under the law, or under other laws including the common law

# VIRGINIA POLLINATOR-SMART/ BIRD HABITAT SCORECARD

#### Established Solar Sites



- 1. Pollinator services,
- 2. Biodiversity and habitat enhancement,
- 3. Carbon sequestration,
- 4. Erosion and sediment control, and;
- Reduced vegetation maintenance over time.

The Virginia Solar Site Pollinator/Bird Habitat Scorecard is used to establish target conditions and/or evaluate the effectiveness of Pollinator-Smart measures once implemented. If the score thresholds are met, a site is deemed Pollinator-Smart.

#### **DEFINITIONS**

**Open Area**: Any area beyond the panel zone, within the property boundary.

**Panel Zone**: The area underneath the solar arrays, including inter-row spacing.

Screening Zone: A vegetated visual barrier.

**Solar Native Plant Finder**: The Virginia Solar Site Native Plant Finder (<u>link</u>), an online research tool developed by the DCR Natural Heritage Program.

**Used by Pollinators:** Plant species with a "pollinator" designation on the Virginia Solar Site Native Plant Finder.

#### **RESOURCES**

Virginia Solar Site Native Plant Finder
Virginia's Pollinator-Smart Solar Portal
Comprehensive Manual
Monitoring Plan

#### INSTRUCTIONS

For detailed instructions on how to implement the scorecard, please refer to the **Comprehensive Manual**.

- All questions and fields must be filled out.
- Submit your scorecard and associated documents via email to: pollinator. smart@dcr.virginia.gov
- 3. A Proposed or Retrofit Solar Site Scorecard should be submitted during the initial planting year. To remain certified, an Established Sites Scorecard should be submitted in years 2, 4, 6, 8, and 10. A long-term management plan should also be submitted with the Established Sites Scorecard during year 10. If all criteria are met during year 10, the site will be considered pollinator-friendly for the life of the project.

#### ATTACHMENTS PROVIDED

- Project Vicinity Map
- Vegetation Management Plan
- □ Vegetation Monitoring Report
- Invasive Species Mapping
- Research Collaboration Documentation
- Site Photos
- Long-term management plan (Year 10 only)

SCREENING ZONE	
- FENCLLINE	
PANEL ZONE	SCREENING ZONE
OPEN AREA	S
SCREENING ZONE	
	PANEL ZONE

# VIRGINIA DEPARTMENT OF ENVIRONMENTAL QUALITY

DATE:



# PROJECT DETAILS & CONTACT INFORMATION

SITE OWNER OR DESIGNEE:
PROJECT ADDRESS:
PROJECT SIZE (ACS AND MW):
POINT OF CONTACT:
EMAIL/PHONE:
VEGETATION CONSULTANT:

#### FINAL SCORE

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Certified VA Pollinator-Smart: 80-99 pts

Gold Certified VA Pollinator-Smart: 100+ pts