

Exhibit D: Table C-1: Crowned Ridge Shadow Flicker Tabular Results Sorted by Receptor ID

Realistic case shadow results at occupied structures

Results using GE 2.3-116-90 m HH, GE 2.3-116-80 m HH WTG's

UTM NAD83 Zone 14

Codington County

Receptor ID	Participation Status	Easting (m)	Northing (m)	Elevation AMSL (m)	Real Case Shadow (hrs/year)	Distance to Nearest Turbine (ft)
CR1-C1-NP	Non-P	656,743.00	4,983,525.00	596.0	0:00	5,541
CR1-C2-NP	Non-P	658,791.00	4,984,483.00	602.0	0:00	6,273
CR1-C3-NP	Non-P	657,888.00	4,984,697.00	604.2	4:12	3,294
CR1-C4-NP	Non-P	659,744.00	4,984,749.00	606.0	0:00	5,981
CR1-C5-NP	Non-P	659,958.00	4,984,794.00	604.8	0:00	5,659
CR1-C6-P	Participant	662,989.00	4,995,228.00	599.8	0:00	6,102
CR1-C7-NP	Non-P	660,893.00	4,984,861.00	593.2	0:00	3,022
CR1-C9-NP	Non-P	665,352.00	4,985,004.00	609.0	18:14	2,280
CR1-C10-P	Participant	663,510.00	4,985,195.00	609.0	38:32	1,634
CR1-C11-P	Participant	664,111.00	4,985,679.00	609.0	10:30	1,860
CR1-C12-NP	Non-P	662,222.00	4,985,736.00	603.0	17:13	2,201
CR1-C12-1-NP	Non-P	662,199.00	4,986,047.00	606.0	10:38	2,818
CR1-C13-NP	Non-P	663,792.00	4,985,785.00	612.0	19:04	2,589
CR1-C14-NP	Non-P	657,982.00	4,985,894.00	609.0	10:02	1,880
CR1-C15-NP	Non-P	663,291.00	4,986,026.00	615.0	2:17	2,175
CR1-C16-NP	Non-P	661,960.00	4,986,288.00	606.0	6:18	2,648
CR1-C17-P	Participant	658,031.00	4,986,373.00	609.1	26:48	1,886
CR1-C18-P	Participant	663,651.00	4,987,157.00	610.4	6:00	3,409
CR1-C19-P	Participant	659,243.00	4,987,276.00	611.6	21:25	1,722
CR1-C20-P	Participant	663,054.00	4,987,455.00	606.0	14:42	2,336
CR1-C26-P	Participant	657,767.00	4,988,493.00	597.0	6:39	3,484
CR1-C27-NP	Non-P	656,876.00	4,988,683.00	583.0	0:00	5,974
CR1-C28-NP	Non-P	665,429.00	4,988,598.00	590.9	2:44	2,831
CR1-C29-NP	Non-P	666,572.00	4,988,867.00	575.9	6:56	2,457
CR1-C30-P	Participant	661,699.00	4,988,957.00	615.0	23:33	1,614
CR1-C31-NP	Non-P	665,939.00	4,988,950.00	585.4	0:00	2,126
CR1-C32-NP	Non-P	655,843.00	4,989,581.00	568.8	0:00	9,708
CR1-C33-NP	Non-P	656,839.00	4,990,404.00	569.8	0:00	7,418
CR1-C34-NP	Non-P	658,661.00	4,990,389.00	588.2	26:12	1,726
CR1-C35-P	Participant	662,025.00	4,990,475.00	609.0	11:51	2,123
CR1-C36-P	Participant	663,181.00	4,990,600.00	615.0	14:36	1,532
CR1-C37-NP	Non-P	663,563.00	4,991,342.00	605.1	15:55	1,631
CR1-C38-NP	Non-P	660,639.00	4,991,557.00	597.0	6:06	3,474
CR1-C39-NP	Non-P	660,144.00	4,991,670.00	588.0	6:57	2,605
CR1-C40-NP	Non-P	657,865.00	4,991,818.00	583.7	6:46	2,690
CR1-C41-NP	Non-P	665,053.00	4,992,084.00	576.1	12:30	2,356
CR1-C42-P	Participant	659,458.00	4,992,229.00	580.0	11:58	1,801
CR1-C44-NP	Non-P	665,076.00	4,993,095.00	578.2	28:25	2,155
CR1-C45-NP	Non-P	653,390.00	4,993,503.00	573.2	1:42	5,673

Exhibit D: Table C-1: Crowned Ridge Shadow Flicker Tabular Results Sorted by Receptor ID

Realistic case shadow results at occupied structures

Results using GE 2.3-116-90 m HH, GE 2.3-116-80 m HH WTG's

UTM NAD83 Zone 14

Codington County

continued

Receptor ID	Participation Status	Easting (m)	Northing (m)	Elevation AMSL (m)	Real Case Shadow (hrs/year)	Distance to Nearest Turbine (ft)
CR1-C46-NP	Non-P	655,802.00	4,993,540.00	609.1	25:44	1,795
CR1-C47-P	Participant	662,825.00	4,993,508.00	613.9	5:03	3,750
CR1-C48-P	Participant	664,247.00	4,993,646.00	588.0	3:48	1,847
CR1-C49-P	Participant	662,250.00	4,993,731.00	609.0	1:12	5,148
CR1-C50-P	Participant	656,806.00	4,994,388.00	621.0	28:38	1,591
CR1-C51-P	Participant	657,455.00	4,995,160.00	621.0	24:47	1,768
CR1-C52-NP	Non-P	654,924.00	4,995,231.00	603.0	11:16	1,883
CR1-C53-NP	Non-P	663,376.00	4,996,043.00	578.8	0:00	7,201
CR1-C54-NP	Non-P	663,421.00	4,995,376.00	583.4	0:00	5,351
CR1-C55-NP	Non-P	660,914.00	4,995,169.00	607.5	2:52	3,360
CR1-C56-P	Participant	655,953.00	4,995,244.00	606.5	28:54	1,972
CR1-C57-P	Participant	656,628.00	4,995,266.00	615.0	10:38	1,568
CR1-C58-NP	Non-P	657,781.00	4,996,906.00	615.0	17:05	1,647
CR1-C59-P	Participant	661,548.00	5,000,754.00	584.2	7:39	1,644
CR1-C60-NP	Non-P	656,855.00	4,998,565.00	613.5	14:18	2,592
CR1-C61-NP	Non-P	656,690.00	4,997,831.00	612.0	42:10	1,686
CR1-C62-NP	Non-P	658,375.00	4,995,138.00	615.0	18:10	1,676
CR1-C63-NP	Non-P	658,566.00	4,995,254.00	612.4	10:46	2,408
CR1-C64-P	Participant	659,436.00	4,992,174.00	581.0	19:54	1,614
CR1-C65-NP	Non-P	665,805.00	4,995,305.00	579.0	1:30	3,884
CR1-C66-NP	Non-P	659,718.00	4,985,032.00	606.0	0:00	5,800
CR1-C67-NP	Non-P	659,789.00	4,985,057.00	606.0	0:00	5,791
CR1-C68-P	Participant	662,652.00	4,987,606.00	609.0	6:46	2,146
CR1-C69-P	Participant	662,685.00	4,987,619.00	609.0	6:07	2,185
CR1-C70-NP	Non-P	665,135.00	4,988,293.00	595.9	12:05	3,540
CR1-C71-NP	Non-P	665,137.00	4,988,378.00	595.6	7:25	3,448
CR1-C72-NP	Non-P	665,158.00	4,988,170.00	594.6	7:41	3,776
CR1-C105-NP	Non-P	658,372.48	5,001,256.80	600.3	20:05	2,549
CR1-C107-NP	Non-P	656,810.99	4,999,855.15	598.8	9:58	1,401
CR1-C109-NP	Non-P	653,780.18	4,996,828.35	588.0	7:03	4,797
CR1-C110-NP	Non-P	654,384.54	4,996,685.57	593.9	20:47	2,910
CR1-C111-NP	Non-P	653,857.19	4,995,573.17	591.0	11:42	3,678
CR1-C112-NP	Non-P	660,001.53	4,984,907.81	604.6	0:44	5,627
CR2-C150-P	Participant	657,178.00	4,985,788.00	612.0	10:01	1,640

Exhibit D: Table C-1: Crowned Ridge Shadow Flicker Tabular Results Sorted by Receptor ID

Realistic case shadow results at occupied structures

Results using GE 2.3-116-90 m HH, GE 2.3-116-80 m HH WTG's

UTM NAD83 Zone 14

Grant County

continued

Receptor ID	Participation Status	Easting (m)	Northing (m)	Elevation AMSL (m)	Real Case Shadow (hrs/year)	Distance to Nearest Turbine (ft)
CR1-G12-NP	Non-P	668,229.00	4,989,039.00	575.0	0:00	4,623
CR1-G13-NP	Non-P	672,216.00	4,989,142.00	558.0	0:00	3,576
CR1-G14-NP	Non-P	668,156.00	4,989,332.00	574.1	0:00	3,940
CR1-G15-P	Participant	668,396.00	4,989,607.00	576.0	0:00	2,746
CR1-G16-NP	Non-P	668,419.00	4,989,861.00	576.0	0:00	2,070
CR1-G18-P	Participant	668,678.00	4,990,722.00	585.0	22:34	1,585
CR1-G19-P	Participant	671,018.00	4,990,744.00	570.0	5:44	2,077
CR1-G21-P	Participant	666,766.00	4,991,807.00	577.1	29:17	1,555
CR1-G22-NP	Non-P	674,670.00	4,991,955.00	527.6	0:00	5,781
CR1-G23-NP	Non-P	670,471.00	4,992,104.00	560.0	5:11	2,185
CR1-G24-P	Participant	673,058.00	4,992,440.00	539.4	0:00	2,231
CR1-G25-P	Participant	671,391.00	4,992,858.00	549.0	14:41	1,804
CR1-G26-P	Participant	672,589.00	4,993,869.00	531.0	8:17	3,140
CR1-G27-NP	Non-P	676,630.00	4,994,642.00	480.8	2:55	4,944
CR1-G28-P	Participant	673,113.00	4,994,772.00	513.9	23:01	1,614
CR1-G32-P	Participant	669,477.00	4,995,401.00	546.0	20:01	1,545
CR1-G33-P	Participant	668,911.00	4,995,550.00	548.7	3:53	2,779
CR1-G34-NP	Non-P	671,320.00	4,995,798.00	531.0	1:28	2,238
CR1-G36-NP	Non-P	673,559.00	4,996,344.00	498.0	0:00	6,211
CR1-G37-NP	Non-P	668,998.00	4,996,452.00	549.0	0:00	5,246
CR1-G38-P	Participant	673,972.00	4,996,493.00	494.5	0:00	5,646
CR1-G41-P	Participant	671,563.00	4,997,050.00	497.6	0:00	3,983
CR1-G42-NP	Non-P	670,566.00	4,997,097.00	518.9	0:00	3,819
CR1-G43-NP	Non-P	661,141.00	5,001,721.00	583.6	18:26	1,909
CR1-G44-NP	Non-P	661,781.00	5,001,732.00	583.7	2:50	3,123
CR1-G59-P	Participant	675,755.00	4,994,888.00	487.7	12:50	2,605
CR1-G60-P	Participant	675,830.00	4,995,687.00	477.0	5:44	3,343
CR1-G65-P	Participant	671,496.00	4,994,973.00	537.0	29:59	1,539
CR1-G66-P	Participant	670,802.00	4,994,681.00	539.7	16:45	1,801
CR1-G67-P	Participant	669,597.00	4,993,440.00	556.1	11:58	2,106
CR1-G68-NP	Non-P	669,159.00	4,993,632.00	565.6	2:07	2,113
CR1-G70-NP	Non-P	677,464.53	4,991,043.11	492.0	0:00	12,651
CR1-G77-NP	Non-P	676,031.00	4,992,629.00	502.7	0:00	5,728
CR1-G81-P	Participant	671,478.00	4,997,523.00	508.8	0:00	2,421
CR1-G105-NP	Non-P	668,696.00	4,998,325.00	549.0	0:00	6,345
CR1-G108-P	Participant	669,516.00	5,001,186.00	522.2	11:40	3,586
CR1-G109-NP	Non-P	667,064.00	5,000,425.00	566.2	0:59	2,152
CR1-G110-NP	Non-P	671,218.00	5,005,064.00	456.2	0:00	5,889

Exhibit D: Table C-2: Crowned Ridge Shadow Flicker Tabular Results Sorted by Real Case Shadow Flicker Hours/Year
Realistic case shadow results at occupied structures
Results using GE 2.3-116-90 m HH, GE 2.3-116-80 m HH WTG's
UTM NAD83 Zone 14
Codington County

Receptor ID	Participation Status	Easting (m)	Northing (m)	Elevation AMSL (m)	Real Case Shadow (hrs/year)	Distance to Nearest Turbine (ft)
CR1-C61-NP	Non-P	656,690.00	4,997,831.00	612.0	42:10	1,686
CR1-C10-P	Participant	663,510.00	4,985,195.00	609.0	38:32	1,634
CR1-C56-P	Participant	655,953.00	4,995,244.00	606.5	28:54	1,972
CR1-C50-P	Participant	656,806.00	4,994,388.00	621.0	28:38	1,591
CR1-C44-NP	Non-P	665,076.00	4,993,095.00	578.2	28:25	2,155
CR1-C17-P	Participant	658,031.00	4,986,373.00	609.1	26:48	1,886
CR1-C34-NP	Non-P	658,661.00	4,990,389.00	588.2	26:12	1,726
CR1-C46-NP	Non-P	655,802.00	4,993,540.00	609.1	25:44	1,795
CR1-C51-P	Participant	657,455.00	4,995,160.00	621.0	24:47	1,768
CR1-C30-P	Participant	661,699.00	4,988,957.00	615.0	23:33	1,614
CR1-C19-P	Participant	659,243.00	4,987,276.00	611.6	21:25	1,722
CR1-C110-NP	Non-P	654,384.54	4,996,685.57	593.9	20:47	2,910
CR1-C105-NP	Non-P	658,372.48	5,001,256.80	600.3	20:05	2,549
CR1-C64-P	Participant	659,436.00	4,992,174.00	581.0	19:54	1,614
CR1-C13-NP	Non-P	663,792.00	4,985,785.00	612.0	19:04	2,589
CR1-C9-NP	Non-P	665,352.00	4,985,004.00	609.0	18:14	2,280
CR1-C62-NP	Non-P	658,375.00	4,995,138.00	615.0	18:10	1,676
CR1-C12-NP	Non-P	662,222.00	4,985,736.00	603.0	17:13	2,201
CR1-C58-NP	Non-P	657,781.00	4,996,906.00	615.0	17:05	1,647
CR1-C37-NP	Non-P	663,563.00	4,991,342.00	605.1	15:55	1,631
CR1-C20-P	Participant	663,054.00	4,987,455.00	606.0	14:42	2,336
CR1-C36-P	Participant	663,181.00	4,990,600.00	615.0	14:36	1,532
CR1-C60-NP	Non-P	656,855.00	4,998,565.00	613.5	14:18	2,592
CR1-C41-NP	Non-P	665,053.00	4,992,084.00	576.1	12:30	2,356
CR1-C70-NP	Non-P	665,135.00	4,988,293.00	595.9	12:05	3,540
CR1-C42-P	Participant	659,458.00	4,992,229.00	580.0	11:58	1,801
CR1-C35-P	Participant	662,025.00	4,990,475.00	609.0	11:51	2,123
CR1-C111-NP	Non-P	653,857.19	4,995,573.17	591.0	11:42	3,678
CR1-C52-NP	Non-P	654,924.00	4,995,231.00	603.0	11:16	1,883
CR1-C63-NP	Non-P	658,566.00	4,995,254.00	612.4	10:46	2,408
CR1-C12-1-NP	Non-P	662,199.00	4,986,047.00	606.0	10:38	2,818
CR1-C57-P	Participant	656,628.00	4,995,266.00	615.0	10:38	1,568
CR1-C11-P	Participant	664,111.00	4,985,679.00	609.0	10:30	1,860
CR1-C14-NP	Non-P	657,982.00	4,985,894.00	609.0	10:02	1,880
CR2-C150-P	Participant	657,178.00	4,985,788.00	612.0	10:01	1,640
CR1-C107-NP	Non-P	656,810.99	4,999,855.15	598.8	9:58	1,401
CR1-C72-NP	Non-P	665,158.00	4,988,170.00	594.6	7:41	3,776
CR1-C59-P	Participant	661,548.00	5,000,754.00	584.2	7:39	1,644
CR1-C71-NP	Non-P	665,137.00	4,988,378.00	595.6	7:25	3,448

Exhibit D: Table C-2: Crowned Ridge Shadow Flicker Tabular Results Sorted by Real Case Shadow Flicker Hours/Year
 Realistic case shadow results at occupied structures
 Results using GE 2.3-116-90 m HH, GE 2.3-116-80 m HH WTG's
 UTM NAD83 Zone 14
 Codrington County
 continued

Receptor ID	Participation Status	Easting (m)	Northing (m)	Elevation AMSL (m)	Real Case Shadow (hrs/year)	Distance to Nearest Turbine (ft)
CR1-C109-NP	Non-P	653,780.18	4,996,828.35	588.0	7:03	4,797
CR1-C39-NP	Non-P	660,144.00	4,991,670.00	588.0	6:57	2,605
CR1-C29-NP	Non-P	666,572.00	4,988,867.00	575.9	6:56	2,457
CR1-C40-NP	Non-P	657,865.00	4,991,818.00	583.7	6:46	2,690
CR1-C68-P	Participant	662,652.00	4,987,606.00	609.0	6:46	2,146
CR1-C26-P	Participant	657,767.00	4,988,493.00	597.0	6:39	3,484
CR1-C16-NP	Non-P	661,960.00	4,986,288.00	606.0	6:18	2,648
CR1-C69-P	Participant	662,685.00	4,987,619.00	609.0	6:07	2,185
CR1-C38-NP	Non-P	660,639.00	4,991,557.00	597.0	6:06	3,474
CR1-C18-P	Participant	663,651.00	4,987,157.00	610.4	6:00	3,409
CR1-C47-P	Participant	662,825.00	4,993,508.00	613.9	5:03	3,750
CR1-C3-NP	Non-P	657,888.00	4,984,697.00	604.2	4:12	3,294
CR1-C48-P	Participant	664,247.00	4,993,646.00	588.0	3:48	1,847
CR1-C55-NP	Non-P	660,914.00	4,995,169.00	607.5	2:52	3,360
CR1-C28-NP	Non-P	665,429.00	4,988,598.00	590.9	2:44	2,831
CR1-C15-NP	Non-P	663,291.00	4,986,026.00	615.0	2:17	2,175
CR1-C45-NP	Non-P	653,390.00	4,993,503.00	573.2	1:42	5,673
CR1-C65-NP	Non-P	665,805.00	4,995,305.00	579.0	1:30	3,884
CR1-C49-P	Participant	662,250.00	4,993,731.00	609.0	1:12	5,148
CR1-C112-NP	Non-P	660,001.53	4,984,907.81	604.6	0:44	5,627
CR1-C1-NP	Non-P	656,743.00	4,983,525.00	596.0	0:00	5,541
CR1-C27-NP	Non-P	656,876.00	4,988,683.00	583.0	0:00	5,974
CR1-C2-NP	Non-P	658,791.00	4,984,483.00	602.0	0:00	6,273
CR1-C31-NP	Non-P	665,939.00	4,988,950.00	585.4	0:00	2,126
CR1-C32-NP	Non-P	655,843.00	4,989,581.00	568.8	0:00	9,708
CR1-C33-NP	Non-P	656,839.00	4,990,404.00	569.8	0:00	7,418
CR1-C4-NP	Non-P	659,744.00	4,984,749.00	606.0	0:00	5,981
CR1-C54-NP	Non-P	663,421.00	4,995,376.00	583.4	0:00	5,351
CR1-C5-NP	Non-P	659,958.00	4,984,794.00	604.8	0:00	5,659
CR1-C66-NP	Non-P	659,718.00	4,985,032.00	606.0	0:00	5,800
CR1-C67-NP	Non-P	659,789.00	4,985,057.00	606.0	0:00	5,791
CR1-C6-P	Participant	662,989.00	4,995,228.00	599.8	0:00	6,102
CR1-C7-NP	Non-P	660,893.00	4,984,861.00	593.2	0:00	3,022
CR1-C53-NP	Non-P	663,376.00	4,996,043.00	578.8	0:00	7,201

Exhibit D: Table C-2: Crowned Ridge Shadow Flicker Tabular Results Sorted by Real Case Shadow Flicker Hours/Year
Realistic case shadow results at occupied structures
Results using GE 2.3-116-90 m HH, GE 2.3-116-80 m HH WTG's
UTM NAD83 Zone 14
Grant County
continued

Receptor ID	Participation Status	Easting (m)	Northing (m)	Elevation AMSL (m)	Real Case Shadow (hrs/year)	Distance to Nearest Turbine (ft)
CR1-G65-P	Participant	671,496.00	4,994,973.00	537.0	29:59	1,539
CR1-G21-P	Participant	666,766.00	4,991,807.00	577.1	29:17	1,555
CR1-G138-P	Participant	664,809.00	5,006,456.00	549.0	25:26	1,824
CR1-G114-NP	Non-P	666,214.00	5,006,667.00	521.1	23:23	2,205
CR1-G28-P	Participant	673,113.00	4,994,772.00	513.9	23:01	1,614
CR1-G18-P	Participant	668,678.00	4,990,722.00	585.0	22:34	1,585
CR1-G32-P	Participant	669,477.00	4,995,401.00	546.0	20:01	1,545
CR1-G124-P	Participant	669,843.00	5,000,605.00	525.0	19:27	1,791
CR1-G137-P	Participant	666,501.00	5,005,136.00	529.3	18:42	1,939
CR1-G43-NP	Non-P	661,141.00	5,001,721.00	583.6	18:26	1,909
CR1-G66-P	Participant	670,802.00	4,994,681.00	539.7	16:45	1,801
CR1-G125-NP	Non-P	668,289.00	5,000,643.00	543.0	15:49	1,716
CR1-G128-P	Participant	670,242.00	5,001,314.00	513.0	15:02	2,612
CR1-G25-P	Participant	671,391.00	4,992,858.00	549.0	14:41	1,804
CR1-G59-P	Participant	675,755.00	4,994,888.00	487.7	12:50	2,605
CR1-G149-P	Participant	669,284.00	5,003,283.00	503.2	12:42	2,815
CR1-G67-P	Participant	669,597.00	4,993,440.00	556.1	11:58	2,106
CR1-G108-P	Participant	669,516.00	5,001,186.00	522.2	11:40	3,586
CR1-G136-P	Participant	667,706.00	5,004,861.00	522.0	10:36	2,277
CR1-G26-P	Participant	672,589.00	4,993,869.00	531.0	8:17	3,140
CR1-G135-P	Participant	668,616.00	5,005,161.00	504.0	8:12	2,142
CR1-G139-P	Participant	668,199.00	5,008,062.00	476.2	8:03	2,612
CR1-G115-NP	Non-P	664,933.00	5,006,731.00	544.6	8:01	2,188
CR1-G132-P	Participant	669,098.00	5,004,948.00	501.0	7:41	2,703
CR1-G113-NP	Non-P	666,228.00	5,005,549.00	537.0	7:09	2,746
CR1-G19-P	Participant	671,018.00	4,990,744.00	570.0	5:44	2,077
CR1-G60-P	Participant	675,830.00	4,995,687.00	477.0	5:44	3,343
CR1-G23-NP	Non-P	670,471.00	4,992,104.00	560.0	5:11	2,185
CR1-G33-P	Participant	668,911.00	4,995,550.00	548.7	3:53	2,779
CR1-G133-P	Participant	669,881.00	5,005,460.00	478.8	3:27	3,556
CR1-G126-P	Participant	672,157.00	5,000,446.00	484.3	3:22	3,176
CR1-G27-NP	Non-P	676,630.00	4,994,642.00	480.8	2:55	4,944
CR1-G44-NP	Non-P	661,781.00	5,001,732.00	583.7	2:50	3,123
CR1-G129-P	Participant	673,111.00	4,997,703.00	478.1	2:25	4,153
CR1-G127-P	Participant	669,534.00	4,999,939.00	533.8	2:22	3,369
CR1-G68-NP	Non-P	669,159.00	4,993,632.00	565.6	2:07	2,113
CR1-G117-NP	Non-P	663,801.00	5,005,084.00	581.3	1:54	4,501
CR1-G131-P	Participant	668,466.00	5,005,145.00	505.2	1:32	2,133

