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February 1, 2023

Mr. Bryan Jake Schoffman
Morven Solar, LLC
130 Roberts Street
Asheville, NC 28801

RE: Morven Solar Impact Analysis, near Morven, Brooks County, GA

Mr. Schoffman

At your request, I have considered the impact of an 80 MW solar farm proposed to be constructed on a portion of a 940.30-acre assemblage of land on Lawson Mill Pond Road, Morven, Brooks County, Georgia. Specifically, I have been asked to give my professional opinion on whether the proposed solar farm will have any impact on adjoining property value and whether “the location and character of the use, if developed according to the plan as submitted and approved, will be in harmony with the area in which it is to be located.”

To form an opinion on these issues, I have researched and visited existing and proposed solar farms in Virginia as well as other states, researched articles through the Appraisal Institute and other studies, and discussed the likely impact with other real estate professionals. I have not been asked to assign any value to any specific property.

This letter is a limited report of a real property appraisal consulting assignment and subject to the limiting conditions attached to this letter. My client is Morven Solar, LLC, represented to me by Mr. Bryan Jake Schoffman. My findings support the Application. The effective date of this consultation is February 1, 2023.

Conclusion

The adjoining properties are well set back from the proposed solar panels and most of the site has good existing landscaping for screening the proposed solar farm. Furthermore, the project is proposed to be screened with a 10-foot earth berm with 5-foot tall evergreens on top for an effective 15-foot tall screen. This is a 100% screen for the first 10 feet and an effective screen up to 15 feet tall, which is significantly greater than most of the solar farms observed and identified throughout this report. This will serve to provide a greater assurance of a total screen on an earlier timeline than most of the other solar farms discussed.

The matched pair analysis shows no impact on home values due to abutting or adjoining a solar farm as well as no impact to abutting or adjacent vacant residential or agricultural land where the solar farm is properly screened and buffered. The criteria that typically correlates with downward adjustments on property values such as noise, odor, and traffic all indicate that a solar farm is a compatible use for rural/residential transition areas and that it would function in a harmonious manner with this area.

Data from the university studies, broker commentary, and other appraisal studies support a finding of no impact on property value adjoining a solar farm with proper setbacks and landscaped buffers.

Very similar solar farms in very similar areas have been found by hundreds of towns and counties not to have a substantial negative effect to abutting or adjoining properties, and many of those findings of no impact have been upheld by appellate courts. Similar solar farms have been approved with adjoining agricultural uses, schools, churches, and residential developments.

Based on the data and analysis in this report, it is my professional opinion that the solar farm proposed at the subject property will have no impact on the value of adjoining or abutting properties and that the proposed use is in harmony with the area in which it is located. I note that some of the positive implications of a solar farm that have been expressed by people living next to solar farms include protection from future development of residential developments or other more intrusive uses, reduced dust, odor and chemicals from former farming operations, protection from light pollution at night, it's quiet, and there is minimal traffic.

If you have any questions, please let me know.

Sincerely,



Richard C. Kirkland, Jr., MAI
NC Certified General Appraiser #A4359
GA Certified General Appraiser # 321885

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I. Proposed Project and Adjoining Uses

Proposed Use Description

This 80 MW solar farm is proposed to be constructed on a portion of a 940.3-acre assemblage of land on Lawson Mill Pond Road, Morven, Brooks County, Georgia.

The project is proposed to be screened with a 10-foot earth berm with 5-foot tall evergreens on top for an effective 15-foot tall screen. This is a 100% screen for the first 10 feet and an effective screen up to 15 feet tall, which is significantly greater than most of the solar farms observed and identified throughout this report. This will serve to provide a greater assurance of a total screen on an earlier timeline than most of the other solar farms discussed.

Adjoining Properties

I have considered adjoining uses and included a map to identify each parcel's location. The closest adjoining home will be 500 feet from the closest solar panel and the average distance to adjoining homes will be 1,532 feet to the nearest solar panel.

Adjoining land is a mix of residential and agricultural uses.

The breakdown of those uses by acreage and number of parcels is summarized below.

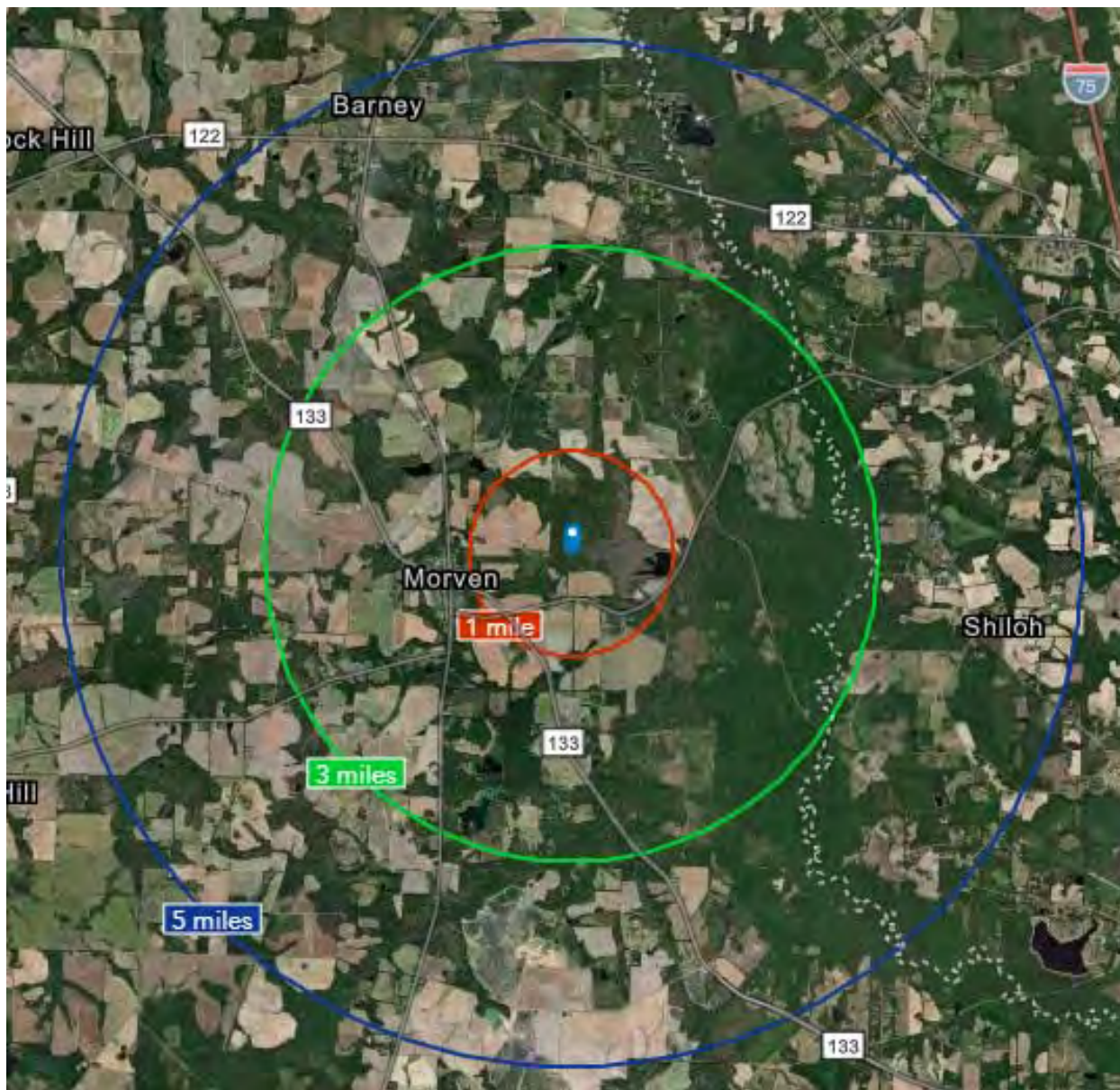
Adjoining Use Breakdown		
	Acreage	Parcels
Residential	2.25%	47.37%
Agricultural	69.64%	39.47%
Agri/Res	28.12%	13.16%
Total	100.00%	100.00%

Surrounding Uses

#	MAP ID	Owner	GIS Data		Adjoin	Adjoin	Distance (ft)
			Acres	Present Use	Acres	Parcels	Home/Panel
1	1180010	Guess	79.30	Agricultural	1.51%	2.63%	N/A
2	1180011	Williams	98.20	Agricultural	1.87%	2.63%	N/A
3	1180011A	Williams	5.50	Residential	0.10%	2.63%	575
4	1180017A	Williams	0.90	Residential	0.02%	2.63%	595
5	11800171	Williams	3.90	Residential	0.07%	2.63%	N/A
6	1180017	Williams	14.80	Residential	0.28%	2.63%	N/A
7	1180005	Cat Creek Dev	696.00	Agricultural	13.28%	2.63%	N/A
8	1190003	Langdale	2015.00	Agricultural	38.45%	2.63%	N/A
9	1190011	Heirs	33.90	Agricultural	0.65%	2.63%	N/A
10	1190001	Heirs	221.20	Agricultural	4.22%	2.63%	N/A
11	1190005	Heirs	28.70	Agricultural	0.55%	2.63%	N/A
12	1110064	Haefele	0.90	Residential	0.02%	2.63%	N/A
13	1110006A	Dell	2.40	Residential	0.05%	2.63%	500
14	1110006	Haefele	4.70	Residential	0.09%	2.63%	N/A
15	11100051	PlyMale	2.20	Residential	0.04%	2.63%	570
16	11100061	Chappell	38.10	Agricultural	0.73%	2.63%	N/A
17	1110051	Atkins	6.00	Residential	0.11%	2.63%	500
18	1190006	Langdale	944.40	Agri/Res	18.02%	2.63%	1,260
19	111001	Calhoun	74.30	Agri/Res	1.42%	2.63%	860
20	11100145	Whiddon	31.70	Agri/Res	0.60%	2.63%	2,695
21	11100051	Land Holdings	8.90	Residential	0.17%	2.63%	N/A
22	1110008	Murphy	124.30	Agricultural	2.37%	2.63%	N/A
23	1110007	Murphy	2.10	Residential	0.04%	2.63%	N/A
24	1110004A	Murphy	9.30	Residential	0.18%	2.63%	N/A
25	1110004D	Murphy	60.00	Agricultural	1.15%	2.63%	N/A
26	1110004C	Heirs	7.50	Residential	0.14%	2.63%	N/A
27	1110004C	Heirs	24.30	Agricultural	0.46%	2.63%	N/A
28	1110004B	Heirs	17.70	Residential	0.34%	2.63%	N/A
29	112002	Hooser	64.90	Agri/Res	1.24%	2.63%	1,300
30	11200232	Sapp	6.10	Residential	0.12%	2.63%	765
31	1120009	Laawsom	358.10	Agri/Res	6.83%	2.63%	4,150
32	1120007A	Sapp	0.80	Residential	0.02%	2.63%	565
33	1120007	Sapp	5.40	Residential	0.10%	2.63%	N/A
34	11800131	Welch	65.10	Agricultural	1.24%	2.63%	N/A
35	1180012	N/A	35.40	Agricultural	0.68%	2.63%	N/A
36	1120004A	Price	106.40	Agricultural	2.03%	2.63%	N/A
37	1120004K	Griffin	23.10	Agricultural	0.44%	2.63%	N/A
38	1120004J	Stubbs	18.60	Residential	0.35%	2.63%	5,580
Total			5240.100		100.00%	100.00%	1,532

Demographics Around Subject Property

I have pulled demographic data around a 1-mile, 3-mile and 5-mile radius from the middle of the project as shown on the following pages.





Housing Profile

31638, Morven, Georgia
Ring: 1 mile radius

Prepared by Esri
Latitude: 30.94937
Longitude: -83.47954

Population		Households	
2010 Total Population	36	2022 Median Household Income	\$50,000
2020 Total Population	36	2027 Median Household Income	\$56,105
2022 Total Population	35	2022-2027 Annual Rate	2.33%
2027 Total Population	34		
2022-2027 Annual Rate	-0.58%		

Housing Units by Occupancy Status and Tenure	Census 2010		2022		2027	
	Number	Percent	Number	Percent	Number	Percent
Total Housing Units	17	100.0%	16	100.0%	16	100.0%
Occupied	15	88.2%	15	93.8%	15	93.8%
Owner	11	64.7%	11	68.8%	11	68.8%
Renter	4	23.5%	4	25.0%	4	25.0%
Vacant	2	11.8%	1	6.2%	2	12.5%

Owner Occupied Housing Units by Value	2022		2027	
	Number	Percent	Number	Percent
Total	10	100.0%	10	100.0%
<\$50,000	2	20.0%	1	10.0%
\$50,000-\$99,999	1	10.0%	1	10.0%
\$100,000-\$149,999	0	0.0%	0	0.0%
\$150,000-\$199,999	4	40.0%	3	30.0%
\$200,000-\$249,999	2	20.0%	3	30.0%
\$250,000-\$299,999	0	0.0%	0	0.0%
\$300,000-\$399,999	0	0.0%	0	0.0%
\$400,000-\$499,999	0	0.0%	0	0.0%
\$500,000-\$749,999	1	10.0%	2	20.0%
\$750,000-\$999,999	0	0.0%	0	0.0%
\$1,000,000-\$1,499,999	0	0.0%	0	0.0%
\$1,500,000-\$1,999,999	0	0.0%	0	0.0%
\$2,000,000+	0	0.0%	0	0.0%
Median Value		\$175,000		\$200,000
Average Value		\$190,000		\$255,000

Census 2010 Housing Units	Number	Percent
Total	17	100.0%
In Urbanized Areas	0	0.0%
In Urban Clusters	0	0.0%
Rural Housing Units	17	100.0%

Data Note: Persons of Hispanic Origin may be of any race.

Source: Esri forecasts for 2022 and 2027. U.S. Census Bureau 2010 decennial Census data converted by Esri into 2020 geography.

January 30, 2023



Housing Profile

31638, Morven, Georgia
Ring: 3 mile radius

Prepared by Esri
Latitude: 30.94937
Longitude: -83.47954

Population		Households	
2010 Total Population	1,127	2022 Median Household Income	\$43,163
2020 Total Population	1,103	2027 Median Household Income	\$50,239
2022 Total Population	1,086	2022-2027 Annual Rate	3.08%
2027 Total Population	1,075		
2022-2027 Annual Rate	-0.20%		

Housing Units by Occupancy Status and Tenure	Census 2010		2022		2027	
	Number	Percent	Number	Percent	Number	Percent
Total Housing Units	458	100.0%	435	100.0%	436	100.0%
Occupied	402	87.8%	385	88.5%	384	88.1%
Owner	306	66.8%	291	66.9%	290	66.5%
Renter	96	21.0%	94	21.6%	94	21.6%
Vacant	57	12.4%	50	11.5%	53	12.2%

Owner Occupied Housing Units by Value	2022		2027	
	Number	Percent	Number	Percent
Total	292	100.0%	289	100.0%
<\$50,000	40	13.7%	25	8.7%
\$50,000-\$99,999	42	14.4%	21	7.3%
\$100,000-\$149,999	22	7.5%	13	4.5%
\$150,000-\$199,999	88	30.1%	80	27.7%
\$200,000-\$249,999	47	16.1%	60	20.8%
\$250,000-\$299,999	7	2.4%	9	3.1%
\$300,000-\$399,999	24	8.2%	43	14.9%
\$400,000-\$499,999	2	0.7%	2	0.7%
\$500,000-\$749,999	19	6.5%	35	12.1%
\$750,000-\$999,999	1	0.3%	1	0.3%
\$1,000,000-\$1,499,999	0	0.0%	0	0.0%
\$1,500,000-\$1,999,999	0	0.0%	0	0.0%
\$2,000,000+	0	0.0%	0	0.0%
Median Value		\$173,864		\$204,583
Average Value		\$194,692		\$250,865

Census 2010 Housing Units	Number	Percent
Total	458	100.0%
In Urbanized Areas	1	0.2%
In Urban Clusters	0	0.0%
Rural Housing Units	457	99.8%

Data Note: Persons of Hispanic Origin may be of any race.

Source: Esri forecasts for 2022 and 2027. U.S. Census Bureau 2010 decennial Census data converted by Esri into 2020 geography.

January 30, 2023



Housing Profile

31638, Morven, Georgia
Ring: 5 mile radius

Prepared by Esri
Latitude: 30.94937
Longitude: -83.47954

Population		Households	
2010 Total Population	2,981	2022 Median Household Income	\$54,218
2020 Total Population	3,078	2027 Median Household Income	\$61,032
2022 Total Population	3,063	2022-2027 Annual Rate	2.40%
2027 Total Population	3,055		
2022-2027 Annual Rate	-0.05%		

Housing Units by Occupancy Status and Tenure	Census 2010		2022		2027	
	Number	Percent	Number	Percent	Number	Percent
Total Housing Units	1,260	100.0%	1,291	100.0%	1,275	100.0%
Occupied	1,121	89.0%	1,157	89.6%	1,157	90.7%
Owner	871	69.1%	945	73.2%	947	74.3%
Renter	250	19.8%	212	16.4%	210	16.5%
Vacant	138	11.0%	134	10.4%	117	9.2%

Owner Occupied Housing Units by Value	2022		2027	
	Number	Percent	Number	Percent
Total	945	100.0%	946	100.0%
<\$50,000	100	10.6%	60	6.3%
\$50,000-\$99,999	110	11.6%	51	5.4%
\$100,000-\$149,999	121	12.8%	64	6.8%
\$150,000-\$199,999	186	19.7%	153	16.2%
\$200,000-\$249,999	91	9.6%	108	11.4%
\$250,000-\$299,999	111	11.7%	143	15.1%
\$300,000-\$399,999	111	11.7%	185	19.6%
\$400,000-\$499,999	30	3.2%	46	4.9%
\$500,000-\$749,999	73	7.7%	117	12.4%
\$750,000-\$999,999	12	1.3%	19	2.0%
\$1,000,000-\$1,499,999	0	0.0%	0	0.0%
\$1,500,000-\$1,999,999	0	0.0%	0	0.0%
\$2,000,000+	0	0.0%	0	0.0%
Median Value		\$188,038		\$262,937
Average Value		\$230,582		\$294,847

Census 2010 Housing Units	Number	Percent
Total	1,260	100.0%
In Urbanized Areas	36	2.9%
In Urban Clusters	0	0.0%
Rural Housing Units	1,225	97.2%

Data Note: Persons of Hispanic Origin may be of any race.

Source: Esri forecasts for 2022 and 2027. U.S. Census Bureau 2010 decennial Census data converted by Esri into 2020 geography.

January 30, 2023

II. Methodology and Discussion of Issues

Standards and Methodology

I conducted this analysis using the standards and practices established by the Appraisal Institute and that conform to the Uniform Standards of Professional Appraisal Practice. The analyses and methodologies contained in this report are accepted by all major lending institutions, and they are used in Georgia and across the country as the industry standard by certified appraisers conducting appraisals, market analyses, or impact studies and are considered adequate to form an opinion of the impact of a land use on neighboring properties. These standards and practices have also been accepted by the courts at the trial and appellate levels and by federal courts throughout the country as adequate to reach conclusions about the likely impact a use will have on adjoining or abutting properties.

The aforementioned standards compare property uses in the same market and generally within the same calendar year so that fluctuating markets do not alter study results. Although these standards do not require a linear study that examines adjoining property values before and after a new use (e.g. a solar farm) is developed, some of these studies do in fact employ this type of analysis. Comparative studies, as used in this report, are considered an industry standard.

The type of analysis employed is a Matched Pair Analysis or Paired Sales Analysis. This methodology is outlined in **The Appraisal of Real Estate**, Twelfth Edition by the Appraisal Institute pages 438-439. It is further detailed in **Real Estate Damages**, Third Edition, pages 33-36 by Randall Bell PhD, MAI. Paired sales analysis is used to support adjustments in appraisal work for factors ranging from the impact of having a garage, golf course view, or additional bedrooms. It is an appropriate methodology for addressing the question of impact of an adjoining solar farm. The paired sales analysis is based on the theory that when two properties are in all other respects equivalent, a single difference can be measured to indicate the difference in price between them. Dr. Bell describes it as comparing a test area to control areas. In the example provided by Dr. Bell he shows five paired sales in the test area compared to 1 to 3 sales in the control areas to determine a difference. I have used 3 sales in the control areas in my analysis for each sale developed into a matched pair.

Determining what is an External Obsolescence

An external obsolescence is a use of property that, because of its characteristics, might have a negative impact on the value of adjacent or nearby properties because of identifiable impacts. Determining whether a use would be considered an external obsolescence requires a study that isolates that use, eliminates any other causing factors, and then studies the sales of nearby versus distant comparable properties. The presence of one or a combination of key factors does not mean the use will be an external obsolescence, but a combination of these factors tends to be present when market data reflects that a use is an external obsolescence.

External obsolescence is evaluated by appraisers based on several factors. These factors include but are not limited to:

- 1) Traffic. Solar Farms are not traffic generators.
- 2) Odor. Solar farms do not produce odor.
- 3) Noise. Solar farms generate no noise concerns and are silent at night.

- 4) Environmental. Solar farms do not produce toxic or hazardous waste. Grass is maintained underneath the panels so there is minimal impervious surface area.
- 5) Appearance/Viewshed. This is the one area that potentially applies to solar farms. However, solar farms are generally required to provide significant setbacks and landscaping buffers to address that concern. Furthermore, any consideration of appearance of viewshed impacts has to be considered in comparison with currently allowed uses on that site. For example if a residential subdivision is already an allowed use, the question becomes in what way does the appearance impact adjoining property owners above and beyond the appearance of that allowed subdivision or other similar allowed uses.
- 6) Other factors. I have observed and studied many solar farms and have never observed any characteristic about such facilities that prevents or impedes neighbors from fully using their homes or farms or businesses for the use intended.

Relative Solar Farm Sizes

Solar farms have been increasing in size in recent years. Much of the data collected is from existing, older solar farms of smaller size, but there are numerous examples of sales adjoining 75 to 80 MW facilities that show a similar trend as the smaller solar farms. This is understandable given that the primary concern relative to a solar farm is the appearance or view of the solar farm, which is typically addressed through setbacks and landscaping buffers. The relevance of data from smaller solar farms to larger solar farms is due to the primary question being one of appearance. If the solar farm is properly screened, then little of the solar farm would be seen from adjoining property regardless of how many acres are involved.

Larger solar farms are often set up in sections where any adjoining owner would only be able to see a small section of the project even if there were no landscaping screen. Once a landscaping screen is in place, the primary view is effectively the same whether adjoining a 5 MW, 20 MW or 100 MW facility.

I have split out the data for the matched pairs adjoining larger solar farms only to illustrate the similarities later in this report.

Steps Involved in the Analysis

The paired sales analysis employed in this report follows the following process:

1. Identify sales of property adjoining existing solar farms.
2. Compare those sales to similar property that does not adjoin an existing solar farm.
3. Confirmation of sales are noted in the analysis write ups.
4. Distances from the homes to panels are included as a measure of the setbacks.
5. Topographic differences across the solar farms themselves are likewise noted along with demographic data for comparing similar areas.

There are a number of Sale/Resale comparables included in the write ups, but most of the data shown is for sales of homes after a solar farm has been announced (where noted) or after a solar farm has been constructed.

III. Research on Solar Farms

A. *Appraisal Market Studies*

I have also considered a number of impact studies completed by other appraisers as detailed below.

CohnReznick – Property Value Impact Study: Adjacent Property Values Solar Impact Study: A Study of Eight Existing Solar Facilities

Patricia McGarr, MAI, CRE, FRICS, CRA and Andrew R. Lines, MAI with CohnReznick completed an impact study for a proposed solar farm in Cheboygan County, Michigan completed on June 10, 2020. I am familiar with this study as well as a number of similar such studies completed by CohnReznick. I have not included all of these studies but I submit this one as representative of those studies.

This study addresses impacts on value from eight different solar farms in Michigan, Minnesota, Indiana, Illinois, Virginia and North Carolina. These solar farms are 19.6 MW, 100 MW, 11.9 MW, 23 MW, 71 MW, 61 MW, 40 MW, and 19 MW for a range from 11.9 MW to 100 MW with an average of 31 MW and a median of 31.5 MW. They analyzed a total of 24 adjoining property sales in the Test Area and 81 comparable sales in the Control Area over a five-year period.

The conclusion of this study is that there is no evidence of any negative impact on adjoining property values based on sales prices, conditions of sales, overall marketability, potential for new development or rate of appreciation.

Christian P. Kaila & Associates – Property Impact Analysis – Proposed Solar Power Plant Guthrie Road, Stuarts Draft, Augusta County, Virginia

Christian P. Kaila, MAI, SRA and George J. Finley, MAI developed an impact study as referenced above dated June 16, 2020. This was for a proposed 83 MW facility on 886 acres.

Mr. Kaila interviewed appraisers who had conducted studies and reviewed university studies and discussed the comparable impacts of other development that was allowed in the area for a comparative analysis of other impacts that could impact viewshed based on existing allowed uses for the site. He also discussed in detail the various other impacts that could cause a negative impact and how solar farms do not have such characteristics.

Mr. Kaila also interviewed county planners and real estate assessors in eight different Virginia counties with none of the assessor's identifying any negative impacts observed for existing solar projects.

Mr. Kaila concludes on a finding of no impact on property values adjoining the indicated solar farm.

Fred Beck, MAI, CCIM – Impact Analysis in Lincoln County 2013

Mr. Fred Beck, MAI, CCIM completed an impact analysis in 2013 for a proposed solar farm that concluded on a negative impact on value. That report relied on a single cancelled contract for an adjoining parcel where the contracted buyers indicated that the solar farm was the reason for the cancellation. It also relied on the activities of an assessment impact that was applied in a nearby county.

Mr. Beck was interviewed as part of the Christian Kalia study noted above. From that I quote "Mr. Beck concluded on no effect on moderate priced homes, and only a 5% change in his limited research of higher priced homes. His one sale that fell through is hardly a reliable sample. It also

was misleading on Mr. Beck's part to report the lower re-assessments since the primary cause of the re-assessments were based on the County Official, who lived adjacent to the solar farm, appeal to the assessor for reductions with his own home." In that Clay County Case study the noted lack of lot sales after announcement of the solar farm also coincided with the recession in 2008/2009 and lack of lot sales effectively defined that area during that time.

I further note, that I was present at the hearing where Mr. Beck presented these findings and the predominance of his argument before the Lincoln County Board of Commissioner's was based on the one cancelled sale as well as a matched pair analysis of high-end homes adjoining a four-story call center. He hypothesized that a similar impact from that example could be compared to being adjacent solar farm without explaining the significant difference in view, setbacks, landscaping, traffic, light, and noise. Furthermore, Mr. Beck did have matched pairs adjoining a solar farm in his study that he put in the back of his report and then ignored as they showed no impact on property value.

Also noted in the Christian Kalia interview notes is a response from Mr. Beck indicating that in his opinion "the homes were higher priced homes and had full view of the solar farm." Based on a description of screening so that "the solar farm would not be in full view to adjoining property owners. Mr. Beck said in that case, he would not see any drop in property value."

NorthStar Appraisal Company – Impact Analysis for Nichomus Run Solar, Pilesgrove, NJ, September 16, 2020

Mr. William J. Sapio, MAI with NorthStar Appraisal Company considered a matched pair analysis for the potential impact on adjoining property values to this proposed 150 MW solar farm. Mr. Sapio considered sales activity in a subdivision known as Point of Woods in South Brunswick Township and identified two recent new homes that were constructed and sold adjoining a 13 MW solar farm and compared them to similar homes in that subdivision that did not adjoin the solar farm. These homes sold in the \$1,290,450 to \$1,336,613 price range and these homes were roughly 200 feet from the closest solar panel.

Based on this analysis, he concluded that the adjoining solar farm had no impact on adjoining property value.

MR Valuation Consulting, LLC – The Kuhl Farm Solar Development and The Fischer Farm Solar Development – June 7, 2012

Mr. Mark Pomykacz, MAI MRICS with MR Valuation Consulting, LLC considered a matched pair analysis for sales near these solar farms. The sales data presented supported a finding of no impact on property value for nearby and adjoining homes and concludes that there is no impact on marketing time and no additional risk involved with owning, building, or selling properties next to the solar farms.

Mary McClinton Clay, MAI – McCracken County Solar Project Value Impact Report, July 10, 2021

Ms. Mary Clay, MAI reviewed a report by Kirkland Appraisals in this case and also provided a differing opinion of impact. She cites a number of other appraisal studies and interestingly finds fault with heavily researched opinions, while praising the results of poorly researched studies that found the opposing view.

Her analysis includes details from solar farms that show no impact on value, but she dismisses those.

She cites the University of Texas study noted later in this report, but she cites only isolated portions of that study to conclude the opposite of what that study specifically concludes.

She cites the University of Rhode Island study noted alter in this report, but specifically excludes the conclusion of that study that in rural areas they found no impact on property value.

She cites lot sales near Spotsylvania Solar without confirming the purchase prices with brokers as indicative of market impact and has made no attempt to compare lot prices that are contemporaneous. In her 5 lot sales that she identifies, all of the lot prices decline with time from 2015 through 2019. This includes the 3 lot sales prior to the approval of the solar farm. The decrease in lot values shown in this chart are more indicative of the trend in the market, than of any impact related to the solar farm. Otherwise, how does she explain the drop in price from 2015 to 2017 prior to the solar farm approval.

She considers data at McBride Place Solar Farm and does a sale/resale analysis based on Zillow Home Value Index, which is not a reliable indication for appreciation in the market. She then adjusted her initial sales prior to the solar farm over 7 years to determine what she believes the home should have appreciated by and then compares that to an actual sale. She has run no tests or any analysis to show that the appreciation rates she is using are consistent with the market but more importantly she has not attempted to confirm any of these sales with market participants. I have spoken with brokers active in the sales that she cites and they have all indicated that the solar farm was not a negative factor in marketing or selling those homes.

She has considered lot sales at Sunshine Farms in Grandy, NC. She indicates that the lots next to the solar farm are selling for less than lots not near the solar farm, but she is actually using lot sales next to the solar farm prior to the solar farm being approved. She also ignores recent home sales adjoining this solar farm after it was built that show no impact on property value.

She also notes a couple of situations where solar developers have purchased adjoining homes and resold them or where a neighbor agreement was paid as proof of a negative impact on property value. Given that there are over 2,500 solar farms in the USA as of 2018 according to the U.S. Energy Information Administration and there are only a handful of such examples, this is clearly not an industry standard but a business decision. Furthermore, solar developers are not in the business of flipping homes and are in a position very similar to a bank that acquires a home as OREO (Other Real Estate Owned), where homes are frequently sold at discounted prices, not because of any drop in value, but because they are not a typically motivated seller. Market value requires an analysis of a typically motivated buyer and seller. So these are not good indicators of market value impacts.

The comments throughout this study are heavy in adjectives, avoids stating facts contrary to the conclusion and shows a strong selection bias.

Conclusion of Impact Studies

Of the five studies noted two included actual sales data to derive an opinion of no impact on value. The two studies to conclude on a negative impact includes the Fred Beck study based on no actual sales data, and he has since indicated that with landscaping screens he would not conclude on a negative impact. The other study by Mary Clay shows improper adjustments for time, a lack of confirmation of sales comparables, and exclusion of data that does not support her position.

I have relied on these studies as additional support for the findings in this impact analysis.

B. Articles

I have also considered a number of articles on this subject as well as conclusions and analysis as noted below.

Farm Journal Guest Editor, March 22, 2021 – Solar’s Impact on Rural Property Values

Andy Ames, ASFMRA (American Society of Farm Managers and Rural Appraisers) published this article that includes a discussion of his survey of appraisers and studies on the question of property value related to solar farms. He discusses the university studies that I have cited as well as Patricia McGarr, MAI.

He also discusses the findings of Donald A. Fisher, ARA, who served six years at the Chair of the ASFMRA’s National Appraisal Review Committee. He is also the Executive Vice President of the CNY Pomeroy Appraiser and has conducted several market studies on solar farms and property impact. He is quoted in the article as saying, “Most of the locations were in either suburban or rural areas, and all of those studies found either a neutral impact, or ironically, a positive impact, where values on properties after installation of solar farms went up higher than time trends.”

Howard Halderman, AFM, President and CEO of Halderman Real Estate and Farm Management attended the ASFMRA solar talk hosted by the Indiana Chapter of the ASFMRA and he concludes that other rural properties would likely see no impact and farmers and landowners shown even consider possible benefits. “In some cases, farmers who rent land to a solar company will insure the viability of their farming operation for a longer time period. This makes them better long-term tenants or land buyers so one can argue that higher rents and land values will follow due to the positive impact the solar leases offer.”

More recently in August 2022, Donald Fisher, ARA, MAI and myself led a webinar on this topic for the ASFMRA discussing the issues, the university studies and specific examples of solar farms having no impact on adjoining property values.

National Renewable Energy Laboratory – Top Five Large-Scale Solar Myths, February 3, 2016

Megan Day reports from NREL regarding a number of concerns neighbors often express. Myth #4 regarding property value impacts addresses specifically the numerous studies on wind farms that show no impact on property value and that solar farms have a significantly reduced visual impact from wind farms. She highlights that the appearance can be addressed through mitigation measures to reduce visual impacts of solar farms through vegetative screening. Such mitigations are not available to wind farms given the height of the windmills and again, those studies show no impact on value adjoining wind farms.

North Carolina State University: NC Clean Energy Technology Center White Paper: Balancing Agricultural Productivity with Ground-Based Solar Photovoltaic (PV) Development (Version 2), May 2019

Tommy Cleveland and David Sarkisian wrote a white paper for NCSU NC Clean Energy Technology Center regarding the potential impacts to agricultural productivity from a solar farm use. I have interviewed Tommy Cleveland on numerous occasions and I have also heard him speak on these issues at length as well. He addresses many of the common questions regarding how solar farms work and a detailed explanation of how solar farms do not cause significant impacts on the soils, erosion and other such concerns. This is a heavily researched paper with the references included.

North Carolina State University: NC Clean Energy Technology Center White Paper: Health and Safety Impacts of Solar Photovoltaics, May 2017

Tommy Cleveland wrote a white paper for NCSU NC Clean Energy Technology Center regarding the health and safety impacts to address common questions and concerns related to solar farms. This is a heavily researched white paper addressing questions ranging from EMFs, fire safety, as well as vegetation control and the breakdown of how a solar farm works.

C. *Broker Commentary*

In the process of working up the matched pairs used later in this report, I have collected comments from brokers who have actually sold homes adjoining solar farms indicating that the solar farm had no impact on the marketing, timing, or sales price for the adjoining homes. I have included comments from brokers within this report where they discussed specific solar projects including brokers from Kentucky, Virginia, Tennessee, and North Carolina.

I have additional commentary from other states including New Jersey and Michigan that provide the same conclusion.

IV. University Studies

I have also considered the following studies completed by four different universities related to solar farms and impacts on property values.

A. *University of Texas at Austin, May 2018* **An Exploration of Property-Value Impacts Near Utility-Scale Solar Installations**

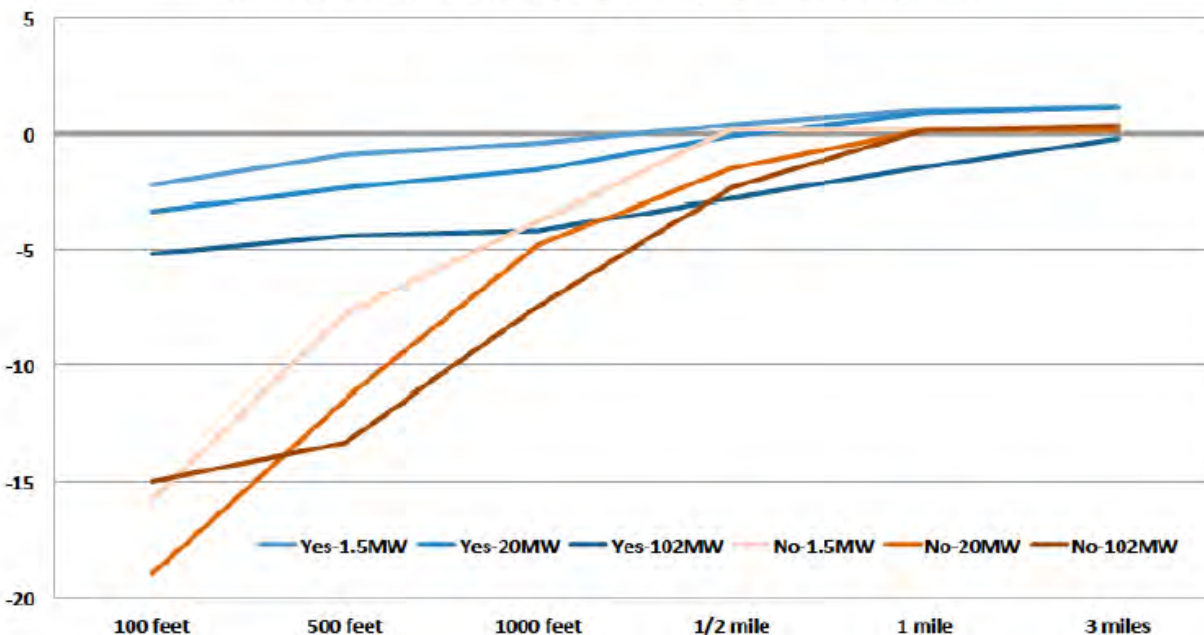
This study considers solar farms from two angles. First it looks at where solar farms are being located and concludes that they are being located primarily in low density residential areas where there are fewer homes than in urban or suburban areas.

The second part is more applicable in that they conducted a survey of appraisers/assessors on their opinions of the possible impacts of proximity to a solar farm. They consider the question in terms of size of the adjoining solar farm and how close the adjoining home is to the solar farm. I am very familiar with this part of the study as I was interviewed by the researchers multiple times as they were developing this. One very important question that they ask within the survey is very illustrative. They asked if the appraiser being surveyed had ever appraised a property next to a solar farm. There is a very noticeable divide in the answers provided by appraisers who have experience appraising property next to a solar farm versus appraisers who self-identify as having no experience or knowledge related to that use.

On Page 16 of that study they have a chart showing the responses from appraisers related to proximity to a facility and size of the facility, but they separate the answers as shown below with appraisers with experience in appraising properties next to a solar farm shown in blue and those inexperienced shown in brown. Even within 100 feet of a 102 MW facility the response from experienced appraisers were -5% at most on impact. While inexperienced appraisers came up with significantly higher impacts. This chart clearly shows that an uninformed response widely diverges from the sales data available on this subject.

Chart B.2 - Estimates of Property Value Impacts (%) by Size of Facility, Distance, & Respondent Type

Have you assessed a home near a utility-scale solar installation?



Furthermore, the question cited above does not consider any mitigating factors such as landscaping buffers or screens which would presumably reduce the minor impacts noted by experienced appraisers on this subject.

The conclusion of the researchers is shown on Page 23 indicated that “Results from our survey of residential home assessors show that the majority of respondents believe that proximity to a solar installation has either no impact or a positive impact on home values.”

This analysis supports the conclusion of this report that the data supports no impact on adjoining property values.

B. University of Rhode Island, September 2020

Property Value Impacts of Commercial-Scale Solar Energy in Massachusetts and Rhode Island

The University of Rhode Island published a study entitled **Property Value Impacts of Commercial-Scale Solar Energy in Massachusetts and Rhode Island** on September 29, 2020 with lead researchers being Vasundhara Gaur and Corey Lang. I have read that study and interviewed Mr. Corey Lang related to that study. This study is often cited by opponents of solar farms but the findings of that study have some very specific caveats according to the report itself as well as Mr. Lang from the interview.

While that study does state in the Abstract that they found depreciation of homes within 1-mile of a solar farm, that impact is limited to non-rural locations. On Pages 16-18 of that study under Section 5.3 Heterogeneity in treatment effect they indicate that the impact that they found was limited to non-rural locations with the impact in rural locations effectively being zero. For the study they defined “rural” as a municipality/township with less than 850 population per square mile.

They further tested the robustness of that finding and even in areas up to 2,000 population per square mile they found no statistically significant data to suggest a negative impact. They have not specifically defined a point at which they found negative impacts to begin, as the sensitivity study stopped checking at the 2,000-population dataset.

Where they did find negative impacts was in high population density areas that was largely a factor of running the study in Massachusetts and Rhode Island which the study specifically cites as being the 2nd and 3rd most population dense states in the USA. Mr. Lang in conversation as well as in recorded presentations has indicated that the impact in these heavily populated areas may reflect a loss in value due to the scarce greenery in those areas and not specifically related to the solar farm itself. In other words, any development of that site might have a similar impact on property value.

Based on this study I have checked the population for Morven CCD, Brooks County, which has a population of 4,645 for 2022 based on HomeTownLocator.com and a total area of 91.08 square miles. This indicates a population density of 51 people per square mile which puts this well below the threshold indicated by the Rhode Island Study.

I therefore conclude that the Rhode Island Study supports a finding of no impact on adjoining properties for the proposed solar farm.

Morven Division Data & Demographics (As of July 1, 2022)

POPULATION		HOUSING	
Total Population	4,645 (100%)	Total HU (Housing Units)	2,081 (100%)
Population in Households	4,517 (97.2%)	Owner Occupied HU	1,555 (74.7%)
Population in Families	3,626 (78.1%)	Renter Occupied HU	290 (13.9%)
Population in Group Quarters ¹	128 (2.8%)	Vacant Housing Units	236 (11.3%)
Population Density	51	Median Home Value	\$156,710
Diversity Index ²	51	Average Home Value	\$209,502
		Housing Affordability Index ³	143

INCOME		HOUSEHOLDS	
Median Household Income	\$52,823	Total Households	1,845
Average Household Income	\$65,715	Average Household Size	2.45
% of Income for Mortgage ⁴	16%	Family Households	1,164
Per Capita Income	\$26,148	Average Family Size	3
Wealth Index ⁵	51		

C. Georgia Institute of Technology, October 2020
Utility-Scale Solar Farms and Agricultural Land Values

This study was completed by Nino Abashidze as Post-Doctoral Research Associate of Health Economics and Analytics Lab (HEAL), School of Economics, Georgia Institute of Technology. This research was started at North Carolina State University and analyzes properties near 451 utility-scale ground-mount solar installations in NC that generate at least 1 MW of electric power. A total of 1,676 land sales within 5-miles of solar farms were considered in the analysis.

This analysis concludes on Page 21 of the study “Although there are no direct effects of solar farms on nearby agricultural land values, we do find evidence that suggests construction of a solar farm may create a small, positive, option -value for land owners that is capitalized into land prices. Specifically, after construction of a nearby solar farm, we find that agricultural land that is also located near transmission infrastructure may increase modestly in value.”

This study supports a finding of no impact on adjoining agricultural property values and in some cases could support a modest increase in value.

D. Master’s Thesis: ECU by Zachary Dickerson July 2018
A Solar Farm in My Backyard? Resident Perspectives of Utility-Scale Solar in Eastern North Carolina

This study was completed as part of a Master of Science in Geography Master’s Thesis by Zachary Dickerson in July 2018. This study sets out to address three questions:

1. Are there different aspects that affect resident satisfaction regarding solar farms?
2. Are there variations in satisfaction for residents among different geographic settings, e.g. neighborhoods adjacent to the solar farms or distances from the solar farms?
3. How can insight from both the utility and planning sectors, combined with knowledge gained from residents, fill gaps in communication and policy writing in regard to solar farms?

This was done through survey and interview with adjacent and nearby neighbors of existing solar farms. The positive to neutral comments regarding the solar farms were significantly higher than negative. The researcher specifically indicates on Page 46 “The results show that respondents generally do not believe the solar farms pose a threat to their property values.”

The most negative comments regarding the solar farms were about the lack of information about the approval process and the solar farm project prior to construction.

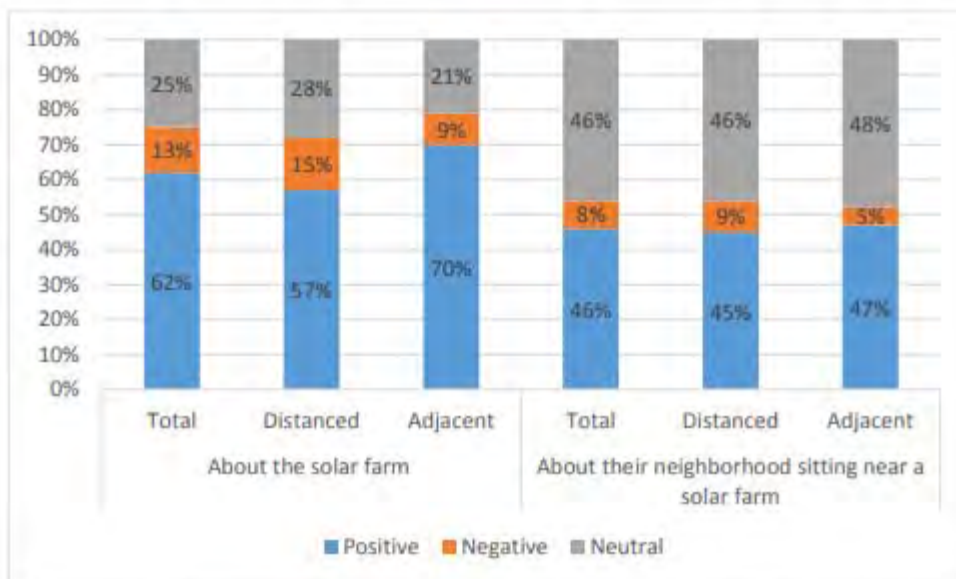


Figure 11: Residents' positive/negative word choices by geographic setting for both questions

V. Assessor Surveys

I have been working on a survey of Virginia Assessors regarding property values related to solar farms and whether or not the local assessors have found any data to support any changes to value on property adjoining solar farms. In this process I have contacted every assessor's office by email and I have received responses by email and by phone from a number of these counties. Many of the counties in Virginia rely on outside firms to assist in gathering data for the assessments and where that is the case, we have contacted the outside firms regarding the question of whether or not the assessors are currently making any adjustments to properties adjoining solar farms.

I currently have response from 16 counties that have solar farms in them and of those 16 responses none of the assessors are currently applying a negative impact on property value. One response suggested that adjoining values may go up.

I did speak with Randy Willis with Pearson Assessors. His company assists in the assessments in many of the counties south of Richmond. He indicated that they had found no data to suggest a negative impact on property value and they have looked as they were concerned about that issue. He indicated that they would make no negative impact adjustments and that he recognizes that there are a number of agricultural adjoining uses that have a greater impact on adjoining properties in terms of noise, dust and odor than a solar farm would have. He did indicate that there could be situations where an individual home might have a greater visual impact and those should be looked at on a case-by-case basis, but he also agreed that many allowed agricultural uses could have similar visual impacts on such properties as well.

VIRGINIA Commissioner of the Revenue

County	Assessor Name	Number of Farms in Operation	Change in adjacent property value
Appomattox	Sara Henderson	1, plus one in process	No
Augusta	W. Jean Shrewsbury	no operational	No
Buckingham	Stephanie D. Love	1	No
Charlotte	Naisha Pridgen Carter	1, several others in the works	No
Clarke	Donna Peake	1	No
Frederick	Seth T. Thatcher	none, 2 approved for 2022	No, assuming compatible with rural area
Goochland	Mary Ann Davis		No
Hanover	Ed Burnett	1	No
Louisa	Stacey C. Fletcher	2 operational by end of year	No, only if supported by market data
Mecklenburg	Joseph E. "Ed" Taylor		No
Nottoway	Randy Willis with Pearson Assessors		No
Powhatan	Charles Everest	2 approved, 1 built	Likely increase in value
Rockingham	Dan Cullers	no operational	Likely no
Southampton	Amy B. Carr	1	Not normally
Surry	Jonathan F. Judkins	1	None at this time
Westmoreland	William K. Hoover	4	No

Responses: 16

Negative Impact on Adjoining Value = Yes: 0

Negative Impact on Adjoining Value = No: 16

I have also attempted to contact all of the assessor departments in North Carolina to determine how local assessors are handling solar farms and adjoining property values. I have spoken personally with a number of assessors, but much of this data was obtained via email. I have 39 counties in NC that have both responded to these questions on property value and also have solar farms in that county. I have excluded responses from assessors from counties where there are no current solar farms.

As can be seen in the chart below, of the 39 responses all of the responses have indicated that they make no adjustment to properties adjoining solar farms. Several assessors indicated that it would require an adjoining property owner to appeal their property value with data showing a negative impact before they would make any adjustment and to date they have not had that happen.

I also point out specifically Clay County. I spoke with the assessor there specifically about adjustments that were applied to some properties near a solar farm back in 2008. She was unaware of the details of that event as she was not in this position at that time. As discussed earlier in this report the lower re-assessments at that solar farm were based on a County Official, who owned property adjacent to the solar farm, who made an appeal to the assessor for reductions for his own property. The noted lack of lot sales after announcement of the solar farm however coincided with the recession in 2008/2009 and lack of lot sales effectively defined that area during that time, but without relying on any data the assessor made that change in that time frame based on conversations with the assessor. Since then, Clay County has confirmed that they do not currently make any changes to adjoining property values and the current county assessor was not even aware that they had in the past done so.

NC Assessor Survey on Solar Farm Property Value Impacts

County	Assessor's Name	Number of Farms	Change in Adjacent Property Value
Alexander	Doug Fox	3	No
Buncombe	Lisa Kirbo	1	No
Burke	Daniel Isenhour	3, 2 on 1 parcel, 1 on 3 parcels	No
Cabarrus	Justin	less than 10, more in the works	No
Caldwell	Monty Woods	3 small	No, but will look at data in 2025
Catawba	Lori Ray	14	No
Chatham	Jenny Williams	13	No
Cherokee	Kathy Killian	9	No
Chowan	Melissa Radke	3, 1 almost operational	No
Clay	Bonnie L. Lyvers		No
Davidson	Libby	1	No
Duplin	Gary Rose	34, 2 more in planning	No
Franklin	Marion Cascone	11	No
Gaston	Traci Hovis	3	No
Gates	Chris Hill	3	No
Granville	Jenny Griffin	8	No
Halifax	C. Shane Lynch	Multiple	No
Hoke	Mandi Davis	4	No
Hyde	Donnie Shumate	1 to supplement egg processing plant	No
Iredell	Wes Long	2, 3 others approved	No
Lee	Lisa Faulkner	8	No
Lincoln	Susan Sain	2	No
Moore	Michael Howery	10	No
New Hanover	Rhonda Garner	35	No
Orange	Chad Phillip	2 or 7 depending on breakdown	No
Pender	Kayla Bolick Futrell	6	No
Person	Russell Jones	9	No
Pitt	Russell D. Hill	8, 1 in planning	No
Randolph	Mark Frick	19	No
Rockingham	Mark C McClintock	6	No
Rutherford	Kim Aldridge	20	No
Sampson	Jim Johnson	9, 1 in construction	No
Scotland	James Brown	15, 1 in process	No
Stokes	Richard Brim	2	No
Surry	Penny Harrison	4, 2 more in process	No
Union	Robin E. Merry	6	No
Vance	Cathy E. Renn	13	No
Warren	John Preston	7	No
Wayne	Alan Lumpkin	32	No
Wilson	William (Witt) Putney	~16	No, mass appraisal standards applied

Responses: 39

Negative Impact on Adjoining Value = Yes: 0

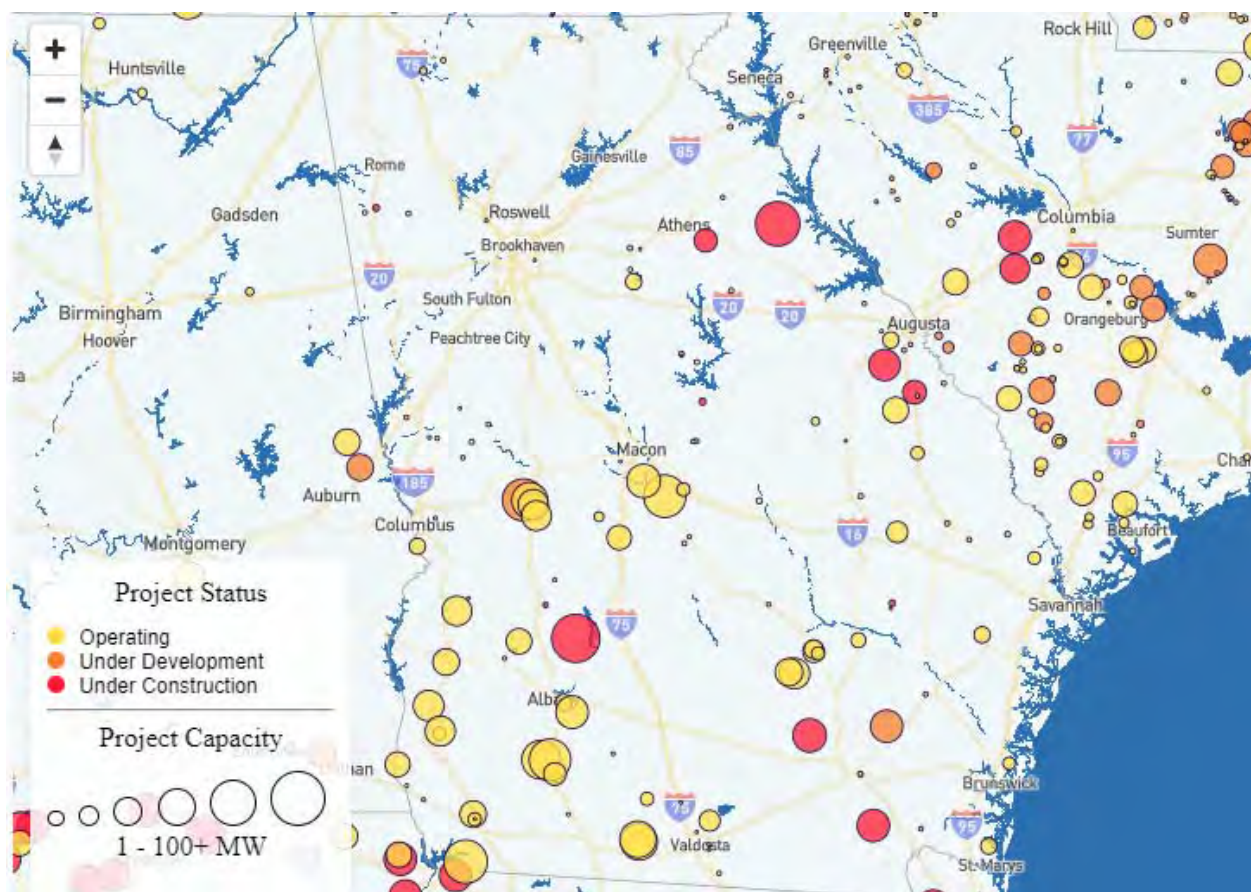
Negative Impact on Adjoining Value = No: 39

VI. Summary of Solar Projects In Georgia

I have researched the solar projects in Georgia. I identified the solar farms through the Solar Energy Industries Association (SEIA) Major Projects List and then excluded the roof mounted facilities. I focused on larger solar farms over 10 MW though I have included a couple of smaller solar farms as shown in the chart below.

Below I have an excerpt from that map showing projects in and around Georgia. The closest operating solar farms identified include the two southwest of Morven and north of Quitman known as Quitman Solar and Quitman II Solar. Both of those solar farms are 150 MW each. There is another smaller project known as Moody Air Force Base Solar which is just under 50 MW. Another project to the north between Morven and Moultrie is the SR Odom, which is a 20 MW project.

There are numerous other solar farms around Georgia as shown in the map by yellow dots with the size of each dot being relative to the size of the solar farm in terms of MWs.



I was able to identify and research 12 solar farms in Georgia as shown on the following pages. These are between 30 MW and 1,000 MW in size with adjoining homes as close as 100 feet and the mix of adjoining uses is primarily agricultural and residential.

Solar #	Name	State	County	City	Output (MW)	Total Acres	Used Acres	Avg. Dist to home	Closest Home	Adjoining Use by Acre			
										Res	Agri	Agri/Res	Com
600	Simon	GA	Walton	Social Circle	30	237.16	237.16	707	240	13%	66%	19%	1%
601	Fort Gordon	GA	Augusta-Richmond	Augusta	30	336.93	336.93	800	715	26%	0%	0%	74%
602	White Oak	GA	Burke	Waynesboro	76.5	516.7	516.7	2,995	1,790	1%	34%	65%	0%
603	Butler GA	GA	Taylor	Butler	103	2395.1	2395.1	1,534	255	2%	73%	23%	2%
604	White Pine	GA	Taylor	Butler	101.2	505.94	505.94	1,044	100	1%	51%	48%	1%
605	Live Oak	GA	Candler	Metter	51	417.84	417.84	910	235	4%	72%	23%	0%
606	Hazelhurst II	GA	Jeff Davis	Hazelhurst	52.5	947.15	490.42	2,114	105	9%	64%	27%	0%
607	Decatur Parkway	GA	Decatur	Bainbridge	80	781.5	781.5	1,123	450	2%	27%	22%	49%
608	Americus	GA	Sumter	Leslie-DeSoto	1000	9661.2	4437	5,210	510	1%	63%	36%	0%
638	Twiggs	GA	Twiggs	Dry Branch	200	2132.7	2132.7	-	-	10%	55%	35%	0%
	Quitman	GA	Brooks	Quitman	150	1,200	1,200	-	-	-	-	-	-
	Quitman II	GA	Brooks	Quitman	150	1,707	1,707	-	-	-	-	-	-

	Output (MW)	Total Acres	Used Acres	Avg. Dist to home	Closest Home	Res	Agri	Agri/Res	Com
Average	168.7	1736.6	1263.2	1826	489	7%	51%	30%	13%
Median	90.6	864.3	649.1	1123	255	3%	59%	25%	1%
High	1000.0	9661.2	4437.0	5210	1790	26%	73%	65%	74%
Low	30.0	237.2	237.2	707	100	1%	0%	0%	0%

On the following pages I have included summary data on constructed solar farms from the list indicated above. Similar information is available for the larger set of solar farms in the adjoining states in my files if requested.

601: Simon Solar, Social Circle, GA

This project was built in 2013 and located on 237.16 acres on Hawkins Academy Road with the closest home 240 feet from the closest solar panel.

Adjoining Use Breakdown

	Acreage	Parcels
Residential	13.45%	60.87%
Agricultural	66.34%	26.09%
Agri/Res	18.82%	8.70%
Substation	1.38%	4.35%
Total	100.00%	100.00%

602: Fort Gordon Solar, Augusta, GA



This project was built in 2015 including 143.39 acres for a 30 MW project with the closest home at 285 feet from the closest solar panel with an average distance of 719 feet.

Adjoining Use Breakdown

	Acreage	Parcels
Residential	12.68%	57.14%
Religious	13.27%	7.14%
Commercial	74.06%	35.71%
Total	100.00%	100.00%

603: White Oak Solar, Waynesboro, GA



This project was built in 2016 including 516.7 acres for a 76.5 MW project with the closest home 1,790 feet from the closest panel.

Adjoining Use Breakdown

	Acreage	Parcels
Residential	0.53%	12.50%
Agricultural	34.14%	37.50%
Agri/Res	65.09%	37.50%
Substation	0.24%	12.50%
Total	100.00%	100.00%

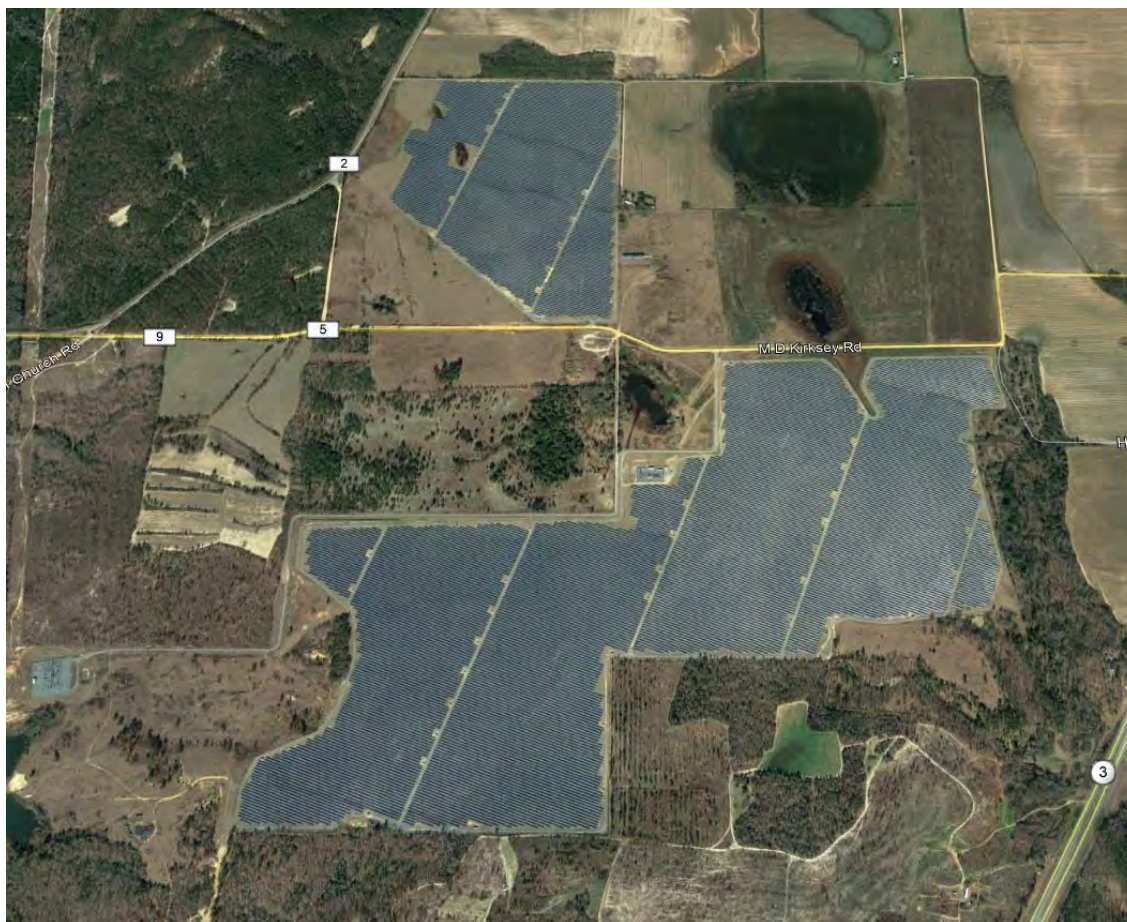
604: Butler GA Solar, Butler, GA

This project was built in 2016 on 2,395 acres for a 103 MW project where the closest home is 255 feet from the closest panel.

Adjoining Use Breakdown

	Acreage	Parcels
Residential	1.65%	32.08%
Agricultural	73.39%	39.62%
Agri/Res	23.05%	11.32%
Commercial	0.64%	9.43%
Industrial	0.19%	3.77%
Airport	0.93%	1.89%
Substation	0.15%	1.89%
Total	100.00%	100.00%

605: White Pine Solar, Butler, GA

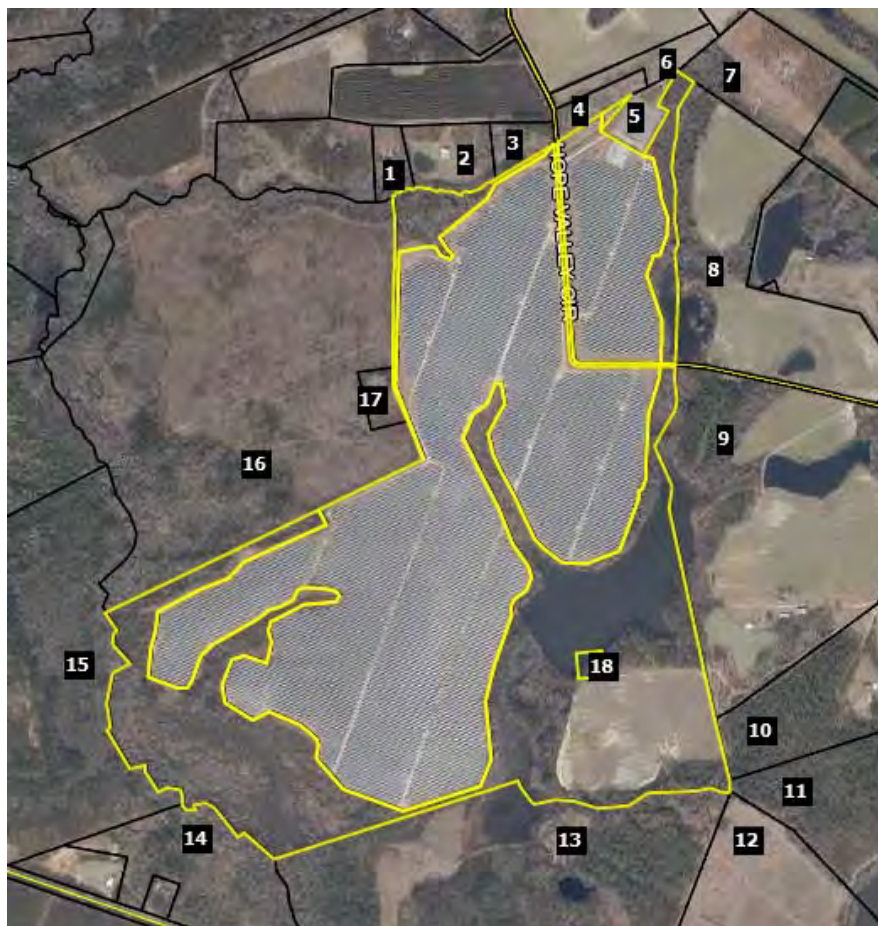


This project was built in 2016 on 506 acres for a 101.2 MW project where the closest home is 100 feet from the closest panel. The second closest home is 120 feet from the closest panel.

Adjoining Use Breakdown

	Acreage	Parcels
Residential	0.76%	14.29%
Agricultural	50.64%	42.86%
Agri/Res	47.56%	35.71%
Substation	1.04%	7.14%
Total	100.00%	100.00%

606: Live Oak Solar, Metter, GA



This project was built in 2016 on 418 acres for a 51 MW project where the closest home is 235 feet from the closest panel.

Adjoining Use Breakdown

	Acreage	Parcels
Residential	4.42%	44.44%
Agricultural	72.42%	33.33%
Agri/Res	22.80%	16.67%
Substation	0.37%	5.56%
Total	100.00%	100.00%

607: Hazelhurst II Solar, Hazelhurst, GA



This project was built in 2016 on 490 acres out of a parent tract of 947 acres for a 52.5 MW project where the closest home is 105 feet from the closest panel.

Adjoining Use Breakdown

	Acreage	Parcels
Residential	9.22%	80.77%
Agricultural	63.60%	11.54%
Agri/Res	27.18%	7.69%
Total	100.00%	100.00%

608: Decatur Parkway Solar, Bainbridge, GA



This project was built in 2015 on 781.5 acres for an 80 MW project where the closest home is 450 feet from the closest panel.

Adjoining Use Breakdown

	Acreage	Parcels
Residential	1.70%	23.08%
Agricultural	26.76%	38.46%
Agri/Res	22.36%	15.38%
Substation	1.01%	15.38%
Airport	48.17%	7.69%
Total	100.00%	100.00%

Quitman Solar, Quitman, GA

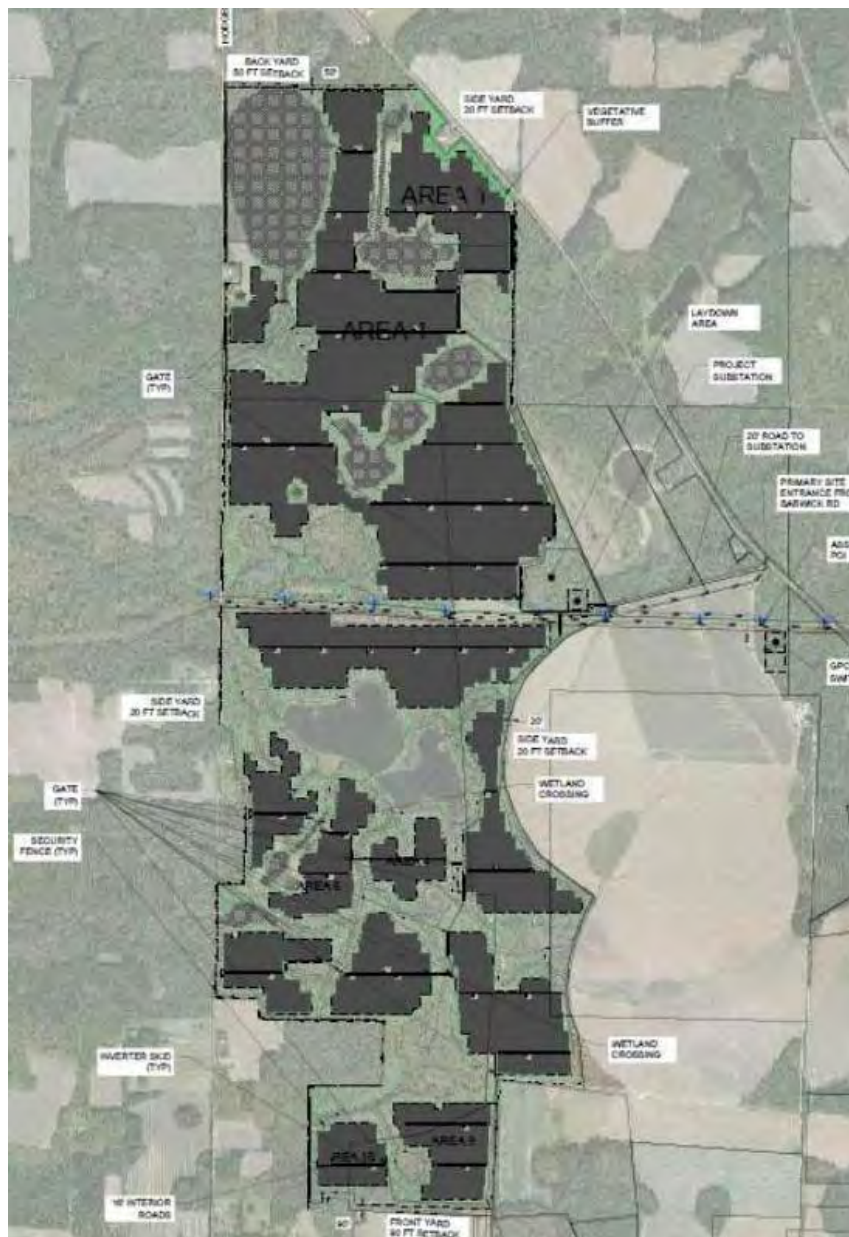


This project was built in 2019 on 1200 acres for a 150 MW project where the closest home is 285 feet from the closest panel.

Adjoining 5799 and 5755 Barwick Road sold on December 2, 2022 for \$1,000,000 for 152 acres with conservation easements in place and the two homes. The two parcels were bought by the owner of an adjoining parcel to the south that is within this solar farm project. Given the conservation easements, the multiple houses, the acreage, and the adjoining purchaser, there are too many variables to do a credible paired sales analysis on this sale. The last market transfer of this property was in 1994 for \$185,000, but that did not include the later home built in 1996. I therefore cannot complete a Sale/Resale analysis on this transaction either.

To the southeast of this project at 4355 Barwick Road a home sold on January 18, 2022 for \$292,500 for an historic home on 7.20 acres. The home was sold for above asking price within 30 days of being listed and was marketed as having “great views.” This home is around 2,200 feet from the nearest solar panel. It is difficult to use this sale for analysis as it is far away from the project and does not directly adjoin the project. It does show that nearby properties are not being identified as impacted.

Quitman II Solar, Quitman, GA



This project lies directly adjacent to the northwest of Quitman Solar and was built in 2021. The aerial imagery on GoogleEarth does not yet show that project. The closest adjoining home appears to be less than 300 feet and is the inset lot located off Barwick Road with panels shown on 3 sides.

I identified a sale at 1995 Coleman Road in close proximity to this project on May 4, 2020 for \$24,000. This lot sold between family members and is noted as not market. I therefore cannot use it for analysis.

VII. Market Analysis of the Impact on Value from Solar Farms

I have researched hundreds of solar farms in numerous states to determine the impact of these facilities on the value of adjoining property. This research has primarily been in North Carolina, but I have also conducted market impact analyses in Virginia, South Carolina, Tennessee, Texas, Oregon, Mississippi, Maryland, New York, California, Missouri, Florida, Montana, Georgia, Louisiana, and New Jersey.

Wherever I have looked at solar farms, I have derived a breakdown of the adjoining uses to show what adjoining uses are typical for solar farms and what uses would likely be considered consistent with a solar farm use similar to the breakdown that I've shown for the subject property on the previous page. A summary showing the results of compiling that data over hundreds of solar farms is shown later in the Scope of Research section of this report.

I also consider whether the properties adjoining a solar farm in one location have characteristics similar to the properties abutting or adjoining the proposed site so that I can make an assessment of market impact on each proposed site. Notably, in most cases solar farms are placed in areas very similar to the site in question, which is surrounded by low density residential and agricultural uses. In my over 700 studies, I have found a striking repetition of that same typical adjoining use mix in over 90% of the solar farms I have looked at. Matched pair results in multiple states are strikingly similar, and all indicate that solar farms – which generate very little traffic, and do not generate noise, dust or have other harmful effects – do not negatively impact the value of adjoining or abutting properties.

On the following pages I have considered matched pair data specific to Georgia as well as the Southeast.

A. Georgia Data

I have identified matched pairs adjoining the solar farms at Simon Circle as outlined below.

Paired Sale – Simon Solar, Social Circle, GA



This solar farm is located off Hawkins Academy Road and Social Circle Fairplay Road. I identified a number of adjoining sales to this tract after development of the solar farm. However, one of those is shown as Parcel 12 in the map above and includes a powerline easement encumbering over a third of the 5 acres and adjoins a large substation as well. It would be difficult to isolate those impacts from any potential solar farm impact and therefore I have excluded that sale. I also excluded the recent sale of Parcel 17, which is a farm with conservation restrictions on it that similarly would require a detailed examination of those conservation restrictions in order to see if there was any impact related to the solar farm. I therefore focused on the recent sale of Parcel 7 and the adjoining parcel to the south of that. They are technically not adjoining due to the access road for the flag-shaped lot to the east. Furthermore, there is an apparent access easement serving the two rear lots that encumber these two parcels which is a further limitation on these sales. This analysis assumes that the access easement does not negatively impact the subject property, though it may.

Adjoining Residential Sales After Solar Farm Approved

Parcel	Solar	Address	Acres	Date Sold	Sales Price	\$/Ac	Type	Other
7+	Adjoins	4514 Hawkins	36.86	3/31/2016	\$180,000	\$4,883	Pasture	Esmts
	Not	HD Atha	69.95	12/20/2016	\$357,000	\$5,104	Wooded	N/A
	Not	Pannell	66.94	11/8/2016	\$322,851	\$4,823	Mixed	*
	Not	1402 Roy	123.36	9/29/2016	\$479,302	\$3,885	Mixed	**

* Adjoining 1 acre purchased by same buyer in same deed. Allocation assigned on the County Tax Record.

**Dwelling built in 1996 with a 2016 tax assessed value of \$75,800 deducted from sales price to reflect land value.

Adjoining Sales Adjusted						Avg	
Address	Time	Size	Other	Total/Ac	% Diff	% Diff	
4514 Hawkins				\$4,883			
HD Atha	-\$114			\$4,990	-2%		
Pannell	-\$90			\$4,733	3%		
1402 Roy	-\$60	\$194		\$4,020	18%		
						6%	

I further note that if I did not make any adjustment to 1402 Roy for the improvements, the indicated value per acre before adjustments would be \$4,500 per acre. Using the same adjustments for time and size, the adjusted indication of value would be \$4,793 per acre, which indicates an impact at +2% for the presence of the solar farm and shifts the average impact to +1%.

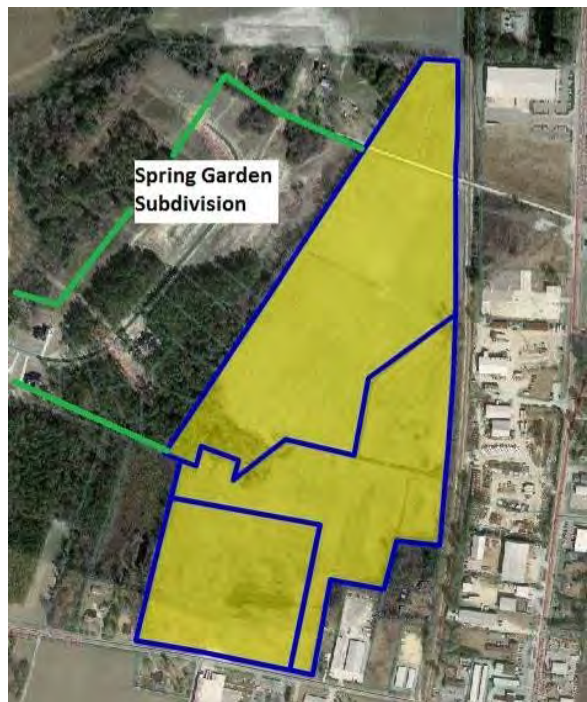
The range of impact identified by these matched pairs ranges are therefore -2% to +18% for with an average of +6% if I adjust for the improvements at the one comparable, or -2% to +3% if I don't adjust for those improvements.

The best matched pair with the least adjustment supports a +3% impact due to the solar farm as it requires the least adjustment and has no complication with the improvement value. I note again that this analysis considers no impact for the existing access easements that meander through this property. Still at +3% impact as the best indication for the impact of the solar farm, I consider that to be no impact given that market fluctuations support +/- 5%.

B. Southeastern USA Data – Over 5 MW

1. Matched Pair – AM Best Solar Farm, Goldsboro, NC

This 5 MW solar farm adjoins Spring Garden Subdivision which had new homes and lots available for new construction during the approval and construction of the solar farm. The recent home sales have ranged from \$200,000 to \$250,000. This subdivision sold out the last homes in late 2014. The solar farm is clearly visible particularly along the north end of this street where there is only a thin line of trees separating the solar farm from the single-family homes.



Homes backing up to the solar farm are selling at the same price for the same floor plan as the homes that do not back up to the solar farm in this subdivision. According to the builder, the solar farm has been a complete non-factor. Not only do the sales show no difference in the price paid for the various homes adjoining the solar farm versus not adjoining the solar farm, but there are actually more recent sales along the solar farm than not. There is no impact on the sellout rate, or time to sell for the homes adjoining the solar farm.

I spoke with a number of owners who adjoin the solar farm and none of them expressed any concern over the solar farm impacting their property value.

The data presented on the following page shows multiple homes that have sold in 2013 and 2014 adjoining the solar farm at prices similar to those not along the solar farm. These series of sales indicate that the solar farm has no impact on the adjoining residential use.

The homes that were marketed at Spring Garden are shown below.

	<p>Americana SqFt: 3,194 Bed / Bath: 3 / 3.5</p>	<p>Price: \$237,900 View Now »</p>		<p>Washington SqFt: 3,292 Bed / Bath: 4 / 3.5</p>	<p>Price: \$244,900 View Now »</p>
	<p>Presidential SqFt: 3,400 Bed / Bath: 5 / 3.5</p>	<p>Price: \$247,900 View Now »</p>		<p>Kennedy SqFt: 3,494 Bed / Bath: 5 / 3</p>	<p>Price: \$249,900 View Now »</p>
	<p>Virginia SqFt: 3,449 Bed / Bath: 5 / 3</p>	<p>Price: \$259,900 View Now »</p>			

The homes adjoining the solar farm are considered to have a light landscaping screen as it is a narrow row of existing pine trees supplemented with evergreen plantings.

Matched Pairs

As of Date: 9/3/2014

Adjoining Sales After Solar Farm Completed

TAX ID	Owner	Acres	Date Sold	Sales Price	Built	GBA	\$/GBA	Style
3600195570	Helm	0.76	Sep-13	\$250,000	2013	3,292	\$75.94	2 Story
3600195361	Leak	1.49	Sep-13	\$260,000	2013	3,652	\$71.19	2 Story
3600199891	McBrayer	2.24	Jul-14	\$250,000	2014	3,292	\$75.94	2 Story
3600198632	Foresman	1.13	Aug-14	\$253,000	2014	3,400	\$74.41	2 Story
3600196656	Hinson	0.75	Dec-13	\$255,000	2013	3,453	\$73.85	2 Story
	Average	1.27		\$253,600	2013.4	3,418	\$74.27	
	Median	1.13		\$253,000	2013	3,400	\$74.41	

Adjoining Sales After Solar Farm Announced

TAX ID	Owner	Acres	Date Sold	Sales Price	Built	GBA	\$/GBA	Style
0	Feddersen	1.56	Feb-13	\$247,000	2012	3,427	\$72.07	Ranch
0	Gentry	1.42	Apr-13	\$245,000	2013	3,400	\$72.06	2 Story
	Average	1.49		\$246,000	2012.5	3,414	\$72.07	
	Median	1.49		\$246,000	2012.5	3,414	\$72.07	

Adjoining Sales Before Solar Farm Announced

TAX ID	Owner	Acres	Date Sold	Sales Price	Built	GBA	\$/GBA	Style
3600183905	Carter	1.57	Dec-12	\$240,000	2012	3,347	\$71.71	1.5 Story
3600193097	Kelly	1.61	Sep-12	\$198,000	2012	2,532	\$78.20	2 Story
3600194189	Hadwan	1.55	Nov-12	\$240,000	2012	3,433	\$69.91	1.5 Story
	Average	1.59		\$219,000	2012	2,940	\$74.95	
	Median	1.59		\$219,000	2012	2,940	\$74.95	

Nearby Sales After Solar Farm Completed

TAX ID	Owner	Acres	Date Sold	Sales Price	Built	GBA	\$/GBA	Style
3600193710	Barnes	1.12	Oct-13	\$248,000	2013	3,400	\$72.94	2 Story
3601105180	Nackley	0.95	Dec-13	\$253,000	2013	3,400	\$74.41	2 Story
3600192528	Mattheis	1.12	Oct-13	\$238,000	2013	3,194	\$74.51	2 Story
3600198928	Beckman	0.93	Mar-14	\$250,000	2014	3,292	\$75.94	2 Story
3600196965	Hough	0.81	Jun-14	\$224,000	2014	2,434	\$92.03	2 Story
3600193914	Preskitt	0.67	Jun-14	\$242,000	2014	2,825	\$85.66	2 Story
3600194813	Bordner	0.91	Apr-14	\$258,000	2014	3,511	\$73.48	2 Story
3601104147	Shaffer	0.73	Apr-14	\$255,000	2014	3,453	\$73.85	2 Story
	Average	0.91		\$246,000	2013.625	3,189	\$77.85	
	Median	0.92		\$249,000	2014	3,346	\$74.46	

Nearby Sales Before Solar Farm Announced

TAX ID	Owner	Acres	Date Sold	Sales Price	Built	GBA	\$/GBA	Style
3600191437	Thomas	1.12	Sep-12	\$225,000	2012	3,276	\$68.68	2 Story
3600087968	Lilley	1.15	Jan-13	\$238,000	2012	3,421	\$69.57	1.5 Story
3600087654	Burke	1.26	Sep-12	\$240,000	2012	3,543	\$67.74	2 Story
3600088796	Hobbs	0.73	Sep-12	\$228,000	2012	3,254	\$70.07	2 Story
	Average	1.07		\$232,750	2012	3,374	\$69.01	
	Median	1.14		\$233,000	2012	3,349	\$69.13	

Matched Pair Summary

	Adjoins Solar Farm		Nearby Solar Farm	
	Average	Median	Average	Median
Sales Price	\$253,600	\$253,000	\$246,000	\$249,000
Year Built	2013	2013	2014	2014
Size	3,418	3,400	3,189	3,346
Price/SF	\$74.27	\$74.41	\$77.85	\$74.46

Percentage Differences

Median Price	-2%
Median Size	-2%
Median Price/SF	0%

I note that 2308 Granville Drive sold again in November 2015 for \$267,500, or \$7,500 more than when it was purchased new from the builder two years earlier (Tax ID 3600195361, Owner: Leak). The neighborhood is clearly showing appreciation for homes adjoining the solar farm.

The Median Price is the best indicator to follow in any analysis as it avoids outlying samples that would otherwise skew the results. The median sizes and median prices are all consistent throughout the sales both before and after the solar farm whether you look at sites adjoining or nearby to the solar farm. The average size for the homes nearby the solar farm shows a smaller building size and a higher price per square foot. This reflects a common occurrence in real estate where the price per square foot goes up as the size goes down. So even comparing averages the indication is for no impact, but I rely on the median rates as the most reliable indication for any such analysis.

I have also considered four more recent resales of homes in this community as shown on the following page. These comparable sales adjoin the solar farm at distances ranging from 315 to 400 feet. The matched pairs show a range from -9% to +6%. The range of the average difference is -2% to +1% with an average of 0% and a median of +0.5%. These comparable sales support a finding of no impact on property value.

Adjoining Residential Sales After Solar Farm Approved

Parcel	Solar	Address	Acres	Date Sold	Sales Price	Built	GBA	\$/GBA	BR/BA	Park	Style	Other	Distance
	Adjoins	103 Granville Pl	1.42	7/27/2018	\$265,000	2013	3,292	\$80.50	4/3.5	2-Car	2-Story		385
	Not	2219 Granville	1.15	1/8/2018	\$260,000	2012	3,292	\$78.98	4/3.5	2-Car	2-Story		
	Not	634 Friendly	0.96	7/31/2019	\$267,000	2018	3,053	\$87.45	4/4.5	2-Car	2-Story		
	Not	2403 Granville	0.69	4/23/2019	\$265,000	2014	2,816	\$94.11	5/3.5	2-Car	2-Story		
												Avg	
	Solar	Address	Time	Site	YB	GLA	BR/BA	Park	Other	Total	% Diff	% Diff	
	Adjoins	103 Granville Pl								\$265,000		-2%	
	Not	2219 Granville	\$4,382		\$1,300	\$0				\$265,682	0%		
	Not	634 Friendly	-\$8,303		-\$6,675	\$16,721	-\$10,000			\$258,744	2%		
	Not	2403 Granville	-\$6,029		-\$1,325	\$31,356				\$289,001	-9%		

Adjoining Residential Sales After Solar Farm Approved

Parcel	Solar	Address	Acres	Date Sold	Sales Price	Built	GBA	\$/GBA	BR/BA	Park	Style	Other	Distance
	Adjoins	104 Erin	2.24	6/19/2017	\$280,000	2014	3,549	\$78.90	5/3.5	2-Car	2-Story		315
	Not	2219 Granville	1.15	1/8/2018	\$260,000	2012	3,292	\$78.98	4/3.5	2-Car	2-Story		
	Not	634 Friendly	0.96	7/31/2019	\$267,000	2018	3,053	\$87.45	4/4.5	2-Car	2-Story		
	Not	2403 Granville	0.69	4/23/2019	\$265,000	2014	2,816	\$94.11	5/3.5	2-Car	2-Story		
												Avg	
	Solar	Address	Time	Site	YB	GLA	BR/BA	Park	Other	Total	% Diff	% Diff	
	Adjoins	104 Erin								\$280,000		0%	
	Not	2219 Granville	-\$4,448		\$2,600	\$16,238				\$274,390	2%		
	Not	634 Friendly	-\$17,370		-\$5,340	\$34,702	-\$10,000			\$268,992	4%		
	Not	2403 Granville	-\$15,029		\$0	\$48,285				\$298,256	-7%		

Adjoining Residential Sales After Solar Farm Approved

Parcel	Solar	Address	Acres	Date Sold	Sales Price	Built	GBA	\$/GBA	BR/BA	Park	Style	Other	Distance
	Adjoins	2312 Granville	0.75	5/1/2018	\$284,900	2013	3,453	\$82.51	5/3.5	2-Car	2-Story		400
	Not	2219 Granville	1.15	1/8/2018	\$260,000	2012	3,292	\$78.98	4/3.5	2-Car	2-Story		
	Not	634 Friendly	0.96	7/31/2019	\$267,000	2018	3,053	\$87.45	4/4.5	2-Car	2-Story		
	Not	2403 Granville	0.69	4/23/2019	\$265,000	2014	2,816	\$94.11	5/3.5	2-Car	2-Story		
												Avg	
	Solar	Address	Time	Site	YB	GLA	BR/BA	Park	Other	Total	% Diff	% Diff	
	Adjoins	2312 Granville								\$284,900		1%	
	Not	2219 Granville	\$2,476		\$1,300	\$10,173				\$273,948	4%		
	Not	634 Friendly	-\$10,260		-\$6,675	\$27,986	-\$10,000			\$268,051	6%		
	Not	2403 Granville	-\$7,972		-\$1,325	\$47,956				\$303,659	-7%		

Adjoining Residential Sales After Solar Farm Approved

Parcel	Solar	Address	Acres	Date Sold	Sales Price	Built	GBA	\$/GBA	BR/BA	Park	Style	Other	Distance
	Adjoins	2310 Granville	0.76	5/14/2019	\$280,000	2013	3,292	\$85.05	5/3.5	2-Car	2-Story		400
	Not	2219 Granville	1.15	1/8/2018	\$260,000	2012	3,292	\$78.98	4/3.5	2-Car	2-Story		
	Not	634 Friendly	0.96	7/31/2019	\$267,000	2018	3,053	\$87.45	4/4.5	2-Car	2-Story		
	Not	2403 Granville	0.69	4/23/2019	\$265,000	2014	2,816	\$94.11	5/3.5	2-Car	2-Story		
												Avg	
	Solar	Address	Time	Site	YB	GLA	BR/BA	Park	Other	Total	% Diff	% Diff	
	Adjoins	2310 Granville								\$280,000		1%	
	Not	2219 Granville	\$10,758		\$1,300	\$0				\$272,058	3%		
	Not	634 Friendly	-\$1,755		-\$6,675	\$16,721	-\$10,000			\$265,291	5%		
	Not	2403 Granville	\$469		-\$1,325	\$31,356				\$295,500	-6%		

I have also considered the original sales prices in this subdivision relative to the recent resale values as shown in the chart below. This rate of appreciation is right at 2.5% over the last 6 years. Zillow indicates that the average home value within the 27530-zip code as of January 2014 was \$101,300 and as of January 2020 that average is \$118,100. This indicates an average increase in the market of 2.37%. I conclude that the appreciation of the homes adjoining the solar farm are not impacted by the presence of the solar farm based on this data.

Address	Initial Sale		Second Sale		Year Diff	% Apprec.		Apprec. %/Year
	Date	Price	Date	Price		Apprec.	Apprec.	
1 103 Granville Pl	4/1/2013	\$245,000	7/27/2018	\$265,000	5.32	\$20,000	8.16%	1.53%
2 105 Erin	7/1/2014	\$250,000	6/19/2017	\$280,000	2.97	\$30,000	12.00%	4.04%
3 2312 Granville	12/1/2013	\$255,000	5/1/2015	\$262,000	1.41	\$7,000	2.75%	1.94%
4 2312 Granville	5/1/2015	\$262,000	5/1/2018	\$284,900	3.00	\$22,900	8.74%	2.91%
5 2310 Granville	8/1/2013	\$250,000	5/14/2019	\$280,000	5.79	\$30,000	12.00%	2.07%
6 2308 Granville	9/1/2013	\$260,000	11/12/2015	\$267,500	2.20	\$7,500	2.88%	1.31%
7 2304 Granville	9/1/2012	\$198,000	6/1/2017	\$225,000	4.75	\$27,000	13.64%	2.87%
8 102 Erin	8/1/2014	\$253,000	11/1/2016	\$270,000	2.25	\$17,000	6.72%	2.98%
							Average	2.46%
							Median	2.47%

2. Matched Pair – Mulberry, Selmer, TN



This 16 MW solar farm was built in 2014 on 208.89 acres with the closest home being 480 feet.

This solar farm adjoins two subdivisions with Central Hills having a mix of existing and new construction homes. Lots in this development have been marketed for \$15,000 each with discounts offered for multiple lots being used for a single home site. I spoke with the agent with Rhonda Wheeler and Becky Hearnberger with United County Farm & Home Realty who noted that they have seen no impact on lot or home sales due to the solar farm in this community.

I have included a map below as well as data on recent sales activity on lots that adjoin the solar farm or are near the solar farm in this subdivision both before and after the announced plan for this solar farm facility. I note that using the same method I used to breakdown the adjoining uses at the subject property I show that the predominant adjoining uses are residential and agricultural, which is consistent with the location of most solar farms.

Adjoining Use Breakdown

	Acreage	Parcels
Commercial	3.40%	0.034
Residential	12.84%	79.31%
Agri/Res	10.39%	3.45%
Agricultural	73.37%	13.79%
Total	100.00%	100.00%

I have run a number of direct matched comparisons on the sales adjoining this solar farm as shown below. These direct matched pairs include some of those shown above as well as additional more recent sales in this community. In each of these I have compared the one sale adjoining the solar farm to multiple similar farm homes nearby that do not adjoin a solar farm to look for any potential impact from the solar farm.

Parcel	Solar	Address	Acres	Date Sold	Sales Price	Built	GBA	\$/GBA	BR/BA	Park	Style	Other
3	Adjoins	491 Dusty	6.86	10/28/2016	\$176,000	2009	1,801	\$97.72	3/2	2-Gar	Ranch	
	Not	820 Lake Trail	1.00	6/8/2018	\$168,000	2013	1,869	\$89.89	4/2	2-Gar	Ranch	
	Not	262 Country	1.00	1/17/2018	\$145,000	2000	1,860	\$77.96	3/2	2-Gar	Ranch	
	Not	35 April	1.15	8/16/2016	\$185,000	2016	1,980	\$93.43	3/2	2-Gar	Ranch	

Adjoining Sales Adjusted												
Parcel	Solar	Address	Acres	Date Sold	Sales Price	Built	GBA	\$/GBA	BR/BA	Park	Style	Other
3	Adjoins	491 Dusty										
	Not	820 Lake Trail			-\$8,324		\$12,000	-\$3,360				\$176,000
	Not	262 Country			-\$5,450		\$12,000	\$6,525				\$163,426
	Not	35 April			\$1,138		\$12,000	-\$6,475				\$154,396
												\$178,283
												Average
												6%
												480

The best matched pair is 35 April Loop, which required the least adjustment and indicates a -1% increase in value due to the solar farm adjacency.

Adjoining Residential Sales After Solar Farm Built

Parcel	Solar	Address	Acres	Date Sold	Sales Price	Built	GBA	\$/GBA	BR/BA	Park	Style	Other
12	Adjoins	57 Cooper	1.20	2/26/2019	\$163,000	2011	1,586	\$102.77	3/2	2-Gar	1.5 Story	Pool
	Not	191 Amelia	1.00	8/3/2018	\$132,000	2005	1,534	\$86.05	3/2	Drive	Ranch	
	Not	75 April	0.85	3/17/2017	\$134,000	2012	1,588	\$84.38	3/2	2-Crprt	Ranch	
	Not	345 Woodland	1.15	12/29/2016	\$131,000	2002	1,410	\$92.91	3/2	1-Gar	Ranch	

Adjoining Sales Adjusted												
Parcel	Solar	Address	Acres	Date Sold	Sales Price	Built	GBA	\$/GBA	BR/BA	Park	Style	Other
12	Adjoins	57 Cooper			\$163,000							
	Not	191 Amelia			\$2,303		\$3,960	\$2,685		\$10,000	\$5,000	\$163,000
	Not	75 April			\$8,029	\$4,000	-\$670	-\$135		\$5,000	\$5,000	\$155,947
	Not	345 Woodland			\$8,710		\$5,895	\$9,811		\$5,000	\$5,000	\$155,224
												\$160,416
												Average
												4%
												685

The best matched pair is 191 Amelia, which was most similar in time frame of sale and indicates a +4% increase in value due to the solar farm adjacency.

Adjoining Residential Sales After Solar Farm Built

Parcel	Solar	Address	Acres	Date Sold	Sales Price	Built	GBA	\$/GBA	BR/BA	Park	Style	Other
15	Adjoins	297 Country	1.00	9/30/2016	\$150,000	2002	1,596	\$93.98	3/2	4-Gar	Ranch	
	Not	185 Dusty	1.85	8/17/2015	\$126,040	2009	1,463	\$86.15	3/2	2-Gar	Ranch	
	Not	53 Glen	1.13	3/9/2017	\$126,000	1999	1,475	\$85.42	3/2	2-Gar	Ranch	Brick

Adjoining Sales Adjusted

Parcel	Solar	Address	Sales Price	Time	Site	YB	GLA	Park	Other	Total	% Diff	Distance
15	Adjoins	297 Country	\$150,000							\$150,000		650
	Not	185 Dusty	\$126,040	\$4,355		-\$4,411	\$9,167	\$10,000		\$145,150	3%	
	Not	53 Glen	\$126,000	-\$1,699		\$1,890	\$8,269	\$10,000		\$144,460	4%	
										Average	3%	

The best matched pair is 53 Glen, which was most similar in time frame of sale and required less adjustment. It indicates a +4% increase in value due to the solar farm adjacency.

The average indicated impact from these three sets of matched pairs is +4%, which suggests a mild positive relationship due to adjacency to the solar farm. The landscaping buffer for this project is mostly natural tree growth that was retained as part of the development but much of the trees separating the panels from homes are actually on the lots for the homes themselves. I therefore consider the landscaping buffer to be thin to moderate for these adjoining homes.

I have also looked at several lot sales in this subdivision as shown below.

These are all lots within the same community and the highest prices paid are for lots one parcel off from the existing solar farm. These prices are fairly inconsistent, though they do suggest about a \$3,000 loss in the lots adjoining the solar farm. This is an atypical finding and additional details suggest there is more going on in these sales than the data crunching shows. First of all Parcel 4 was purchased by the owner of the adjoining home and therefore an atypical buyer seeking to expand a lot and the site is not being purchased for home development. Moreover, using the SiteToDoBusiness demographic tools, I found that the 1-mile radius around this development is expecting a total population increase over the next 5 years of 3 people. This lack of growing demand for lots is largely explained in that context. Furthermore, the fact that finished home sales as shown above are showing no sign of a negative impact on property value makes this data unreliable and inconsistent with the data shown in sales to an end user. I therefore place little weight on this outlier data.

Parcel	Solar	Address	Acres	Date Sold	Sales Price	4/18/2019 Adj for Time	\$/AC	4/18/2019 Adj for Time
4	Adjoins	Shelter	2.05	10/25/2017	\$16,000	\$16,728	\$7,805	\$8,160
10	Adjoins	Carter	1.70	8/2/2018	\$14,000	\$14,306	\$8,235	\$8,415
11	Adjoins	Cooper	1.28	9/17/2018	\$12,000	\$12,215	\$9,375	\$9,543
	Not	75 Dusty	1.67	4/18/2019	\$20,000	\$20,000	\$11,976	\$11,976
	Not	Lake Trl	1.47	11/7/2018	\$13,000	\$13,177	\$8,844	\$8,964
	Not	Lake Trl	1.67	4/18/2019	\$20,000	\$20,000	\$11,976	\$11,976
		Adjoins	Per Acre	Not Adjoins	Per Acre	% DIF/Lot	% DIF/AC	
Average		\$14,416	\$8,706	\$17,726	\$10,972	19%	21%	
Median		\$14,306	\$8,415	\$20,000	\$11,976	28%	30%	
High		\$16,728	\$9,543	\$20,000	\$11,976	16%	20%	
Low		\$12,215	\$8,160	\$13,177	\$8,964	7%	9%	

3. Matched Pair – Leonard Road Solar Farm, Hughesville, MD



This 5 MW solar farm is located on 47 acres and mostly adjoins agricultural and residential uses to the west, south and east as shown above. The property also adjoins retail uses and a church. I looked at a 2016 sale of an adjoining home with a positive impact on value adjoining the solar farm of 2.90%. This is within typical market friction and supports an indication of no impact on property value.

I have shown this data below. The landscaping buffer is considered heavy.

Leonardtown Road Solar Farm, Hughesville, MD

Nearby Residential Sale After Solar Farm Construction

Address	Solar Farm Acres	Date Sold	Sales Price*	Built	GBA	\$/GBA	Style	BR/BA	Bsmt	Park	Upgrades	Other
14595 Box Elder Ct	Adjoins	2/12/2016	\$291,000	1991	2,174	\$133.85	Colonial	5/2.5	No	2 Car Att	N/A	Deck
15313 Bassford Rd	Not	7/20/2016	\$329,800	1990	2,520	\$130.87	Colonial	3/2.5	Finished	2 Car Att	Custom	Scr Por/Patio

*\$9,000 concession deducted from sale price for Box Elder and \$10,200 deducted from Bassford

Adjoining Sales Adjusted

Address	Date Sold	Sales Price	Time	GLA	Bsmt	Upgrades	Other	Total
14595 Box Elder Ct	2/12/2016	\$291,000						\$291,000
15313 Bassford Rd	7/20/2016	\$329,800	-\$3,400	-\$13,840	-\$10,000	-\$15,000	-\$5,000	\$282,560

Difference Attributable to Location \$8,440
2.90%

This is within typical market friction and supports an indication of no impact on property value.

4. Matched Pair – Gastonia SC Solar, Gastonia, NC



This 5 MW project is located on the south side of Neal Hawkins Road just outside of Gastonia. The property identified above as Parcel 4 was listed for sale while this solar farm project was going

5. Matched Pair – Summit/Ranchlands Solar, Moyock, NC



This project is located at 1374 Caritoke Highway, Moyock, NC. This is an 80 MW facility on a parent tract of 2,034 acres. Parcels Number 48 and 53 as shown in the map above were sold in 2016. The project was under construction during the time period of the first of the matched pair sales and the permit was approved well prior to that in 2015.

I looked at multiple sales of adjoining and nearby homes and compared each to multiple comparables to show a range of impacts from -10% up to +11% with an average of +2% and a median of +3%. These ranges are well within typical real estate variation and supports an indication of no impact on property value.

Adjoining Residential Sales After Solar Farm Approved

Parcel	Solar	Address	Acres	Date Sold	Sales Price	Built	GBA	\$/GBA	BR/BA	Park	Style	Other	Distance
48	Adjoins	129 Pinto	4.29	4/15/2016	\$170,000	1985	1,559	\$109.04	3/2	Drive	MFG		1,060
	Not	102 Timber	1.30	4/1/2016	\$175,500	2009	1,352	\$129.81	3/2	Drive	MFG		
	Not	120 Ranchland	0.99	10/1/2014	\$170,000	2002	1,501	\$113.26	3/2	Drive	MFG		
												Avg	
	Adjoins	129 Pinto										\$170,000	% Diff
	Not	102 Timber	\$276	\$10,000	-\$29,484	\$18,809						\$175,101	-3%
	Not	120 Ranchland	\$10,735	\$10,000	-\$20,230	\$4,598						\$175,103	-3%

Solar	Address	Acres	Date Sold	Sales Price	Built	GBA	\$/GLA	BR/BA	Park	Style	Other
Adjoins	105 Pinto	4.99	12/16/2016	\$206,000	1978	1,484	\$138.81	3/2	Det G	Ranch	
Not	111 Spur	1.15	2/1/2016	\$193,000	1985	2,013	\$95.88	4/2	Gar	Ranch	
Not	103 Marshall	1.07	3/29/2017	\$196,000	2003	1,620	\$120.99	3/2	Drive	Ranch	
Not	127 Ranchland	0.00	6/9/2015	\$219,900	1988	1,910	\$115.13	3/2	Gar/3Det	Ranch	

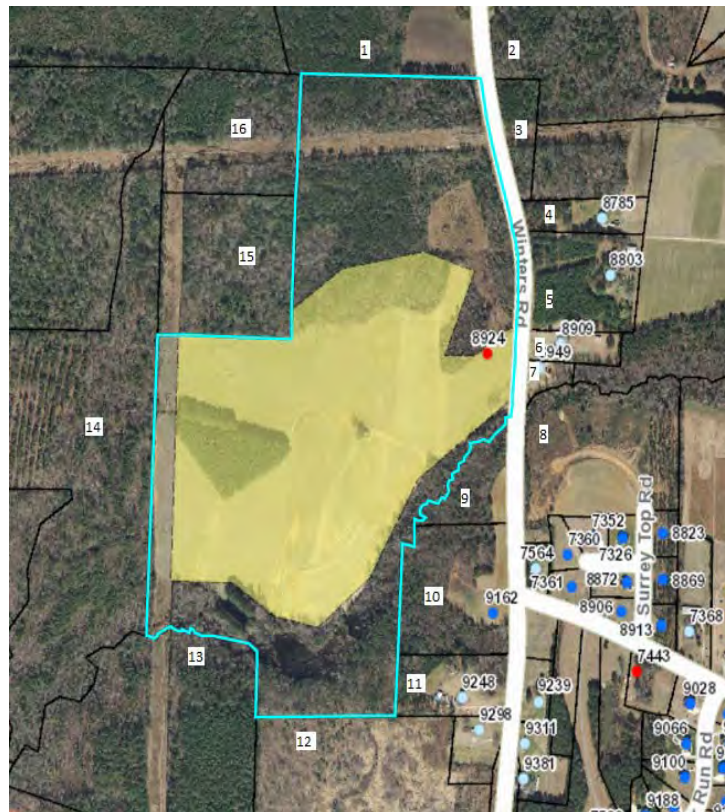
Adjoining Sales Adjusted

Address	Time	Site	YB	GLA	BR/BA	Park	Other	Total	% Diff	Avg % Diff	Distance
105 Pinto								\$206,000			980
111 Spur	\$6,747	\$10,000	-\$6,755	-\$25,359				\$177,633	14%		
103 Marshall	-\$2,212	\$10,000	-\$24,500	-\$8,227		\$5,000		\$176,212	14%		
127 Ranchland	\$13,399	\$10,000	-\$10,995	-\$24,523		-\$10,000		\$197,781	4%		
										11%	

Adjoining Residential Sales After Solar Farm Built

Parcel	Solar	Address	Acres	Date Sold	Sales Price	Built	GBA	\$/GBA	BR/BA	Park	Style	Other	Distance
15	Adjoins	318 Green View	0.44	9/15/2019	\$357,000	2005	3,460	\$103.18	4/4	2-Car	1.5 Brick		570
	Not	195 St Andrews	0.55	6/17/2018	\$314,000	2002	3,561	\$88.18	5/3	2-Car	2.0 Brick		
	Not	336 Green View	0.64	1/13/2019	\$365,000	2006	3,790	\$96.31	6/4	3-Car	2.0 Brick		
	Not	275 Green View	0.36	8/15/2019	\$312,000	2003	3,100	\$100.65	5/3	2-Car	2.0 Brick		
												Avg	
	Adjoins	318 Green View										\$357,000	% Diff
	Not	195 St Andrews	\$12,040		\$4,710	-\$7,125	\$10,000					\$333,625	7%
	Not	336 Green View	\$7,536		-\$1,825	-\$25,425						\$340,286	5%
	Not	275 Green View	\$815		\$3,120	\$28,986	\$10,000					\$354,921	1%

6. Matched Pair – Tracy Solar, Bailey, NC



This project is located in rural Nash County on Winters Road with a 5 MW facility that was built in 2016 on 50 acres. A local builder acquired parcels 9 and 10 following construction as shown below

at rates comparable to other tracts in the area. They then built a custom home for an owner and sold that at a price similar to other nearby homes as shown in the matched pair data below. The retained woods provide a heavy landscaped buffer for this homesite.

Adjoining Land Sales After Solar Farm Completed

#	Solar Farm	TAX ID	Grantor	Grantee	Address	Acres	Date Sold	Sales Price	\$/AC	Other
9 &10	Adjoins	316003 & 316004	Cozart	Kingsmill	9162 Winters	13.22	7/21/2016	\$70,000	\$5,295	
	Not	6056	Billingsly		427 Young	41	10/21/2016	\$164,000	\$4,000	
	Not	33211	Fulcher	Weikel	10533 Cone	23.46	7/18/2017	\$137,000	\$5,840	Doublewide, structures
	Not	106807	Perry	Gardner	Claude Lewis	11.22	8/10/2017	\$79,000	\$7,041	Gravel drive for sub, cleared
	Not	3437	Vaughan	N/A	11354 Old Lewis Sch	18.73	Listing	\$79,900	\$4,266	Small cemetery,wooded

Adjoining Sales Adjusted

Time	Acres	Location	Other	Adj \$/Ac	% Diff
				\$5,295	
	\$0	\$400	\$0	\$0	\$4,400 17%
	-\$292	\$292	\$0	-\$500	\$5,340 -1%
	-\$352	\$0	\$0	-\$1,000	\$5,689 -7%
	-\$213	\$0	\$0	\$213	\$4,266 19%
				Average	7%

Adjoining Residential Sales After Solar Farm Completed

#	Solar Farm	n	Address	Acres	Date Sold	Sales Price	Built	GLA	\$/GLA	BR/BA	Style	Other
9 &10	Adjoins	s	9162 Winters	13.22	1/5/2017	\$255,000	2016	1,616	\$157.80	3/2	Ranch	1296 sf wrkshp
	Not	w	7352 Red Fox	0.93	6/30/2016	\$176,000	2010	1,529	\$115.11	3/2	2-story	

Adjoining Sales Adjusted

Time	Acres	YB	GLA	Style	Other	Total	% Diff
						\$255,000	
	\$0	\$44,000	\$7,392	\$5,007	\$5,000	\$15,000	\$252,399 1%

The comparables for the land show either a significant positive relationship or a mild negative relationship to having and adjoining solar farm, but when averaged together they show no negative impact. The wild divergence is due to the difficulty in comping out this tract of land and the wide variety of comparables used. The two comparables that show mild negative influences include a property that was partly developed as a residential subdivision and the other included a doublewide with some value and accessory agricultural structures. The tax assessed value on the improvements were valued at \$60,000. So both of those comparables have some limitations for comparison. The two that show significant enhancement due to adjacency includes a property with a cemetery located in the middle and the other is a tract almost twice as large. Still that larger tract after adjustment provides the best matched pair as it required the least adjustment. I therefore conclude that there is no negative impact due to adjacency to the solar farm shown by this matched pair.

The dwelling that was built on the site was a build-to-suit and was compared to a nearby homesale of a property on a smaller parcel of land. I adjusted for that differenced based on a \$25,000 value for a 1-acre home site versus the \$70,000 purchase price of the larger subject tract. The other adjustments are typical and show no impact due to the adjacency to the solar farm.

The closest solar panel to the home is 780 feet away.

I note that the representative for Kingsmill Homes indicated that the solar farm was never a concern in purchasing the land or selling the home. He also indicated that they had built a number of nearby homes across the street and it had never come up as an issue.

7. Matched Pair – Manatee Solar Farm, Parrish, FL



This solar farm is located near Seminole Trail, Parrish, FL. The solar farm has a 74.50 MW output and is located on a 1,180.38-acre tract and was built in 2016. The tract is owned by Florida Power & Light Company.

I have considered the recent sale of 13670 Highland Road, Wimauma, Florida. This one-story, concrete block home is located just north of the solar farm and separated from the solar farm by a railroad corridor. This home is a 3 BR, 3 BA 1,512 s.f. home with a carport and workshop. The property includes new custom cabinets, granite counter tops, brand-new stainless-steel appliances, updated bathrooms and new carpet in the bedrooms. The home is sitting on 5 acres. The home was built in 1997.

I have compared this sale to several nearby homesales as part of this matched pair analysis as shown below. The landscaping separating the home from the solar farm is considered heavy.

Solar	TAX ID/Address	Acres	Date Sold	Sales Price	Built	GBA	\$/GBA	BR/BA	Park	Style	Note
Adjoins	13670 Highland	5.00	8/21/2017	\$255,000	1997	1,512	\$168.65	3/3	Carport/Wrkshp	Ranch	Renov.
Not	2901 Arrowsmith	1.91	1/31/2018	\$225,000	1979	1,636	\$137.53	3/2	2 Garage/Wrkshp	Ranch	
Not	602 Butch Cassidy	1.00	5/5/2017	\$220,000	2001	1,560	\$141.03	3/2	N/A	Ranch	Renov.
Not	2908 Wild West	1.23	7/12/2017	\$254,000	2003	1,554	\$163.45	3/2	2 Garage/Wrkshp	Ranch	Renov.
Not	13851 Highland	5.00	9/13/2017	\$240,000	1978	1,636	\$146.70	4/2	3 Garage	Ranch	Renov.

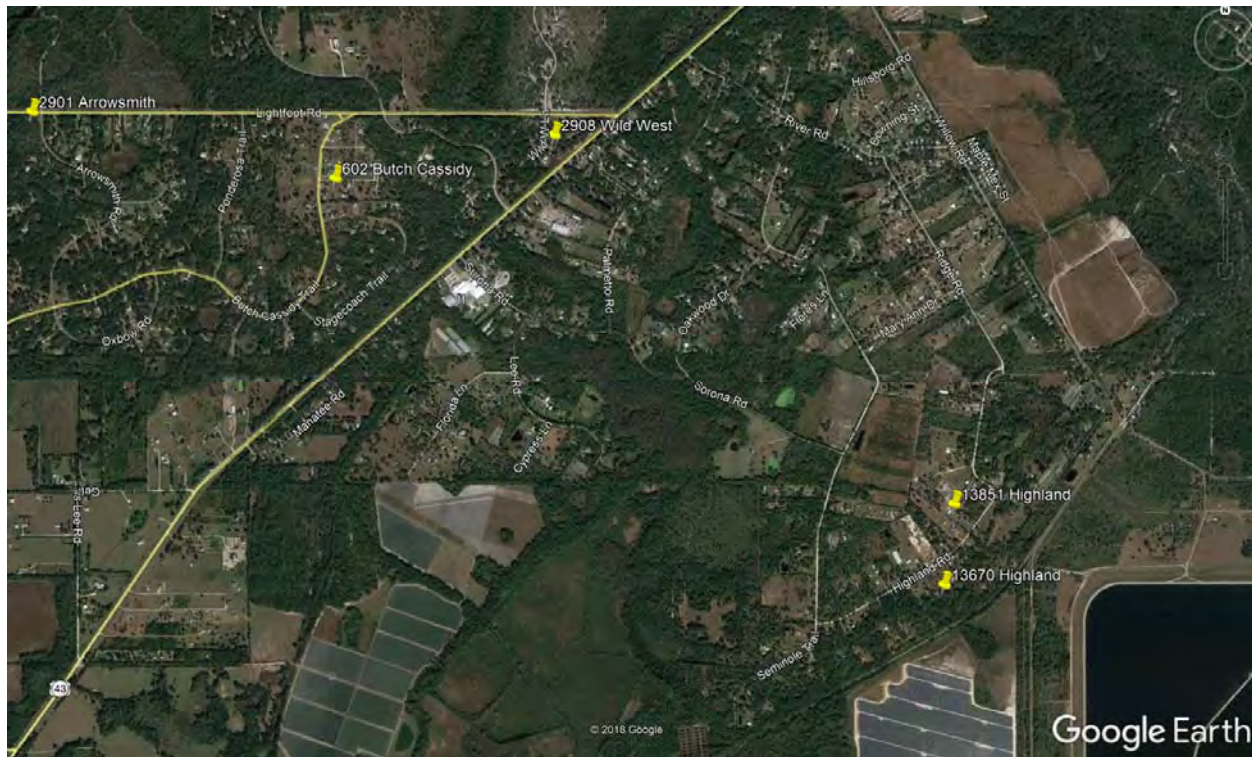
Adjoining Sales Adjusted

Solar	TAX ID/Address	Time	Acres	YB	GLA	BR/BA	Park	Note	Total	% Diff
Adjoins	13670 Highland								\$255,000	
Not	2901 Arrowsmith	\$2,250	\$10,000	\$28,350	-\$8,527	\$5,000	-\$10,000	\$10,000	\$262,073	-3%
Not	602 Butch Cassidy	-\$2,200	\$10,000	-\$6,160	-\$3,385	\$5,000	\$2,000		\$225,255	12%
Not	2908 Wild West	\$0	\$10,000	-\$10,668	-\$3,432	\$5,000	-\$10,000		\$244,900	4%
Not	13851 Highland	\$0	\$0	\$31,920	-\$9,095	\$3,000	-\$10,000		\$255,825	0%
									Average	3%

The sales prices of the comparables before adjustments range from \$220,000 to \$254,000. After adjustments they range from \$225,255 to \$262,073. The comparables range from no impact to a strong positive impact. The comparables showing -3% and +4% impact on value is considered within a typical range of value and therefore not indicative of any impact on property value.

This set of matched pair data falls in line with the data seen in other states. The closest solar panel to the home at 13670 Highland is 1,180 feet. There is a wooded buffer between these two properties.

I have included a map showing the relative location of these properties below.



8. Matched Pair – McBride Place Solar Farm, Midland, NC

This project is located on Mount Pleasant Road, Midland, North Carolina. The property is on 627 acres on an assemblage of 974.59 acres. The solar farm was approved in early 2017 for a 74.9 MW facility.

I have considered the sale of 4380 Joyner Road which adjoins the proposed solar farm near the northwest section. This property was appraised in April of 2017 for a value of \$317,000 with no consideration of any impact due to the solar farm in that figure. The property sold in November

2018 for \$325,000 with the buyer fully aware of the proposed solar farm. The landscaping buffer relative to Joyner Road, Hayden Way, Chanel Court and Kristi Lane is considered medium, while the landscaping for the home at the north end of Chanel Court is considered very light.

I have considered the following matched pairs to the subject property.

Adjoining Residential Sales After Solar Farm Approved

Solar	Address	Acres	Date Sold	Sales Price	Built	GBA	\$/GBA	BR/BA	Park	Style	Other
Adjoins	4380 Joyner	12.00	11/22/2017	\$325,000	1979	1,598	\$203.38	3/2	2xGar	Ranch	Outbldg
Not	3870 Elkwood	5.50	8/24/2016	\$250,000	1986	1,551	\$161.19	3/2.5	Det 2xGar	Craft	
Not	8121 Lower Rocky	18.00	2/8/2017	\$355,000	1977	1,274	\$278.65	2/2	2xCarprrt	Ranch	Eq. Fac.
Not	13531 Cabarrus	7.89	5/20/2016	\$267,750	1981	2,300	\$116.41	3/2	2xGar	Ranch	

Adjoining Sales Adjusted

Time	Acres	YB	Condition	GLA	BR/BA	Park	Other	Total	% Diff
								\$325,000	
\$7,500	\$52,000	-\$12,250	\$10,000	\$2,273	-\$2,000	\$2,500	\$7,500	\$317,523	2%
\$7,100	-\$48,000	\$4,970		\$23,156	\$0	\$3,000	-\$15,000	\$330,226	-2%
\$8,033	\$33,000	-\$3,749	\$20,000	-\$35,832	\$0	\$0	\$7,500	\$296,702	9%
								Average	3%

The home at 4380 Joyner Road is 275 feet from the closest solar panel.

I also considered the recent sale of a lot at 5800 Kristi Lane that is on the east side of the proposed solar farm. This 4.22-acre lot sold in December 2017 for \$94,000. A home was built on this lot in 2019 with the closest point from home to panel at 689 feet. The home site is heavily wooded and their remains a wooded buffer between the solar panels and the home. I spoke with the broker, Margaret Dabbs, who indicated that the solar farm was considered a positive by both buyer and seller as it ensures no subdivision will be happening in that area. Buyers in this market are looking for privacy and seclusion.

The breakdown of recent lot sales on Kristi are shown below with the lowest price paid for the lot with no solar farm exposure, though that lot has exposure to Mt Pleasant Road South. Still the older lot sales have exposure to the solar farm and sold for higher prices than the front lot and adjusting for time would only increase that difference.

Adjoining Lot Sales After Solar Farm Built

Parcel	Solar	Address	Acres	Date Sold	Sales Price	\$/AC	\$/Lot
	Adjoins	5811 Kristi	3.74	5/1/2018	\$100,000	\$26,738	\$100,000
	Adjoins	5800 Kristi	4.22	12/1/2017	\$94,000	\$22,275	\$94,000
	Not	5822 Kristi	3.43	2/24/2020	\$90,000	\$26,239	\$90,000

The lot at 5811 Kristi Lane sold in May 2018 for \$100,000 for a 3.74-acre lot. The home that was built later in 2018 is 505 feet to the closest solar panel. This home then sold to a homeowner for \$530,000 in April 2020. I have compared this home sale to other properties in the area as shown below.

Adjoining Residential Sales After Solar Farm Built

Solar	Address	Acres	Date Sold	Sales Price	Built	GBA	\$/GBA	BR/BA	Park	Style	Other
Adjoins	5811 Kristi	3.74	3/31/2020	\$530,000	2018	3,858	\$137.38	5/3.5	2 Gar	2-story	Cement Ext
Not	3915 Tania	1.68	12/9/2019	\$495,000	2007	3,919	\$126.31	3/3.5	2 Gar	2-story	3Det Gar
Not	6782 Manatee	1.33	3/8/2020	\$460,000	1998	3,776	\$121.82	4/2/2h	2 Gar	2-story	Water
Not	314 Old Hickory	1.24	9/20/2019	\$492,500	2017	3,903	\$126.18	6/4.5	2 Gar	2-story	

Solar	Address	Time	Site	YB	GLA	BR/BA	Park	Other	Total	% Diff	Avg % Diff
Adjoins	5811 Kristi								\$530,000		5%
Not	3915 Tania	\$6,285		\$27,225	-\$3,852			-\$20,000	\$504,657	5%	
Not	6782 Manatee	\$1,189		\$46,000	\$4,995	\$5,000			\$517,183	2%	
Not	314 Old Hickory	\$10,680		\$2,463	-\$2,839	-\$10,000			\$492,803	7%	

After adjusting the comparables, I found that the average adjusted value shows a slight increase in value for the subject property adjoining a solar farm. As in the other cases, this is a mild positive impact on value but within the typical range of real estate transactions.

I also looked at 5833 Kristi Lane that sold on 9/14/2020 for \$625,000. This home is 470 feet from the closest panel.

Solar	Address	Acres	Date Sold	Sales Price	Built	GBA	\$/GLA	BR/BA	Park	Style	Other
Nearby	5833 Kristi	4.05	9/14/2020	\$625,000	2008	4,373	\$142.92	5/4	3-Car	2-Brick	
Not	4055 Dakeita	4.90	12/30/2020	\$629,000	2005	4,427	\$142.08	4/4	4-Car	2-Brick	4DetGar/Stable
Not	9615 Bales	2.16	6/30/2020	\$620,000	2007	4,139	\$149.79	4/5	3-Car	2-Stone	2DetGar
Not	9522 Bales	1.47	6/18/2020	\$600,000	2007	4,014	\$149.48	4/4.5	3-Car	2-Stone	

Adjoining Sales Adjusted

Address	Time	Site	YB	GLA	BR/BA	Park	Other	Total	% Diff	Avg % Diff	Distance
5833 Kristi								\$625,000			470
4055 Dakeita	-\$9,220		\$5,661	-\$6,138			-\$25,000	\$594,303	5%		
9615 Bales	\$6,455		\$1,860	\$28,042	-\$10,000	-\$15,000		\$631,356	-1%		
9522 Bales	\$7,233		\$1,800	\$42,930	-\$5,000			\$646,963	-4%		
									0%		

The average difference is 0% impact and the differences are all within a close range with this set of comparables and supports a finding of no impact on property value.

I have also looked at 4504 Chanel Court. This home sold on January 1, 2020 for \$393,500 for this 3,010 square foot home built in 2004 with 3 bedrooms, 3.5 bathrooms, and a 3-car garage. This home includes a full partially finished basement that significantly complicates comparing this to other sales. This home previously sold on January 23, 2017 for \$399,000. This was during the time that the solar farm was a known factor as the solar farm was approved in early 2017 and public discussions had already commenced. I spoke with Rachelle Killman with Real Estate Realty, LLC the buyer's agent for this transaction and she indicated that the solar farm was not a factor or consideration for the buyer. She noted that you could see the panels sort of through the trees, but it wasn't a concern for the buyer. She was not familiar with the earlier 2017 sale, but indicated that it was likely too high. This again goes back to the partially finished basement issue. The basement has a fireplace, and an installed 3/4 bathroom but otherwise bare studs and concrete floors with different buyers assigning varying value to that partly finished space. I also reached out to Don Gomez with Don Anthony Realty, LLC as he was the listing agent.

I also looked at the recent sale of 4599 Chanel Court. This home is within 310 feet of solar panels but notably does not have a good landscaping screen in place as shown in the photo below. The plantings appear to be less than 3-feet in height and only a narrow, limited screen of existing hardwoods were kept. The photograph is from the listing.

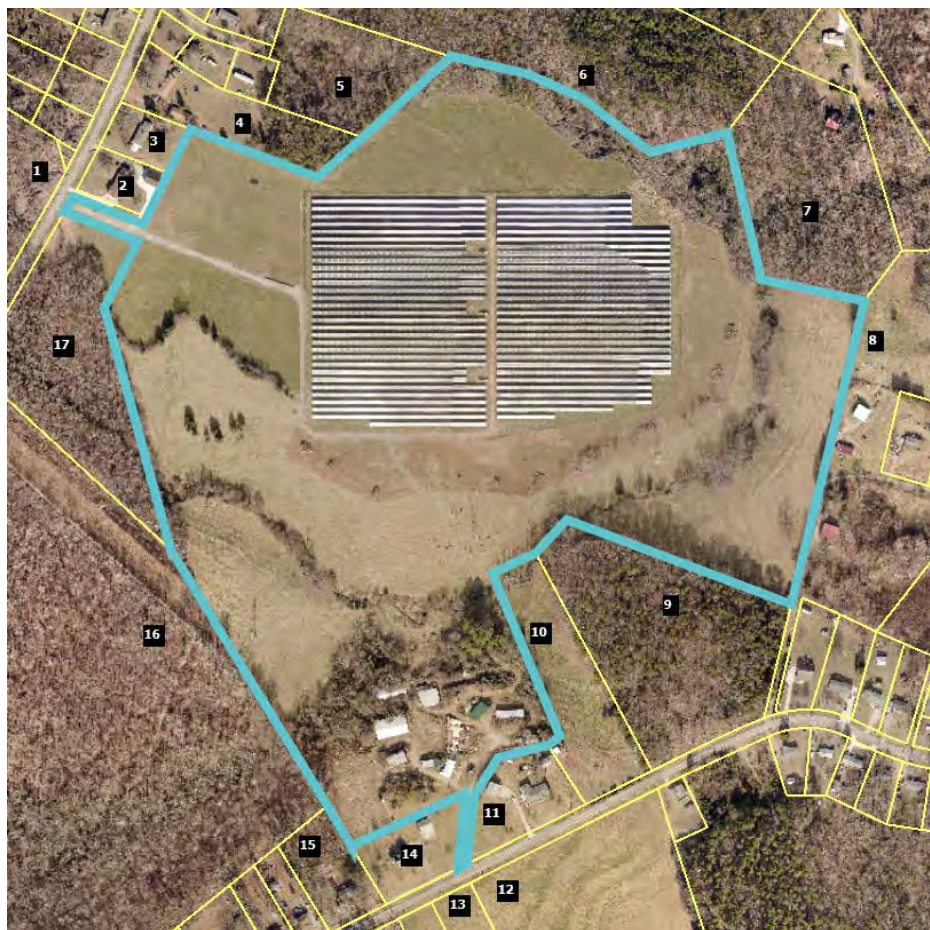
According to Scott David with Better Homes and Gardens Paracle Realty, this property was under contract for \$550,000 contingent on the buyer being able to sell their former home. The former home was apparently overpriced and did not sell and the contract stretched out over 2.5 months.

The seller was in a bind as they had a home they were trying to buy contingent on this closing and were about to lose that opportunity. A cash buyer offered them a quick close at \$500,000 and the seller accepted that offer in order to not lose the home they were trying to buy. According to Mr. David, the original contracted buyer and the actual cash buyer never considered the solar farm as a negative. In fact Mr. David noted that the actual buyer saw it as a great opportunity to purchase a home where a new subdivision could not be built behind his house. I therefore conclude that this property supports a finding of no impact on adjoining property, even where the landscaping screen still requires time to grow in for a year-round screen.

I also considered a sale/resale analysis on this property. This same home sold on September 15, 2015 for \$462,000. Adjusting this upward by 5% per year for the five years between these sales dates suggests a value of \$577,500. Comparing that to the \$550,000 contract that suggests a 5% downward impact, which is within a typical market variation. Given that the broker noted no negative impact from the solar farm and the analysis above, I conclude this sale supports a finding of no impact on value.



9. Matched Pair – Mariposa Solar, Gaston County, NC



This project is a 5 MW facility located on 35.80 acres out of a parent tract of 87.61 acres at 517 Blacksnsake Road, Stanley that was built in 2016.

I have considered a number of recent sales around this facility as shown below.

The first is identified in the map above as Parcel 1, which is 215 Mariposa Road. This is an older dwelling on large acreage with only one bathroom. I've compared it to similar nearby homes as shown below. The landscaping buffer for this home is considered light.

Adjoining Residential Sales After Solar Farm Approved

Solar	Address	Acres	Date Sold	Sales Price	Built	GBA	\$/GBA	BR/BA	Park	Style
Adjoins	215 Mariposa	17.74	12/12/2017	\$249,000	1958	1,551	\$160.54	3/1	Garage	Br/Rnch
Not	249 Mariposa	0.48	3/1/2019	\$153,000	1974	1,792	\$85.38	4/2	Garage	Br/Rnch
Not	110 Airport	0.83	5/10/2016	\$166,000	1962	2,165	\$76.67	3/2	Crprt	Br/Rnch
Not	1249 Blacksnsake	5.01	9/20/2018	\$242,500	1980	2,156	\$112.48	3/2	Drive	1.5
Not	1201 Abernathy	27.00	5/3/2018	\$390,000	1970	2,190	\$178.08	3/2	Crprt	Br/Rnch

Adjoining Residential Sales After Solar Farm Approved					Adjoining Sales Adjusted								
Solar	Address	Acres	Date Sold	Sales Price	Time	YB	Acres	GLA	BR/BA	Park	Other	Total	% Diff
Adjoins	215 Mariposa	17.74	12/12/2017	\$249,000								\$249,000	
Not	249 Mariposa	0.48	3/1/2019	\$153,000	-\$5,583	-\$17,136	\$129,450	-\$20,576	-\$10,000			\$229,154	8%
Not	110 Airport	0.83	5/10/2016	\$166,000	\$7,927	-\$4,648	\$126,825	-\$47,078	-\$10,000			\$239,026	4%
Not	1249 Blacksnake	5.01	9/20/2018	\$242,500	-\$5,621	-\$37,345	\$95,475	-\$68,048	-\$10,000	\$5,000		\$221,961	11%
Not	1201 Abernathy	27.00	5/3/2018	\$390,000	-\$4,552	-\$32,760	-\$69,450	-\$60,705	-\$10,000			\$212,533	15%
												Average	9%

The average difference after adjusting for all factors is +9% on average, which suggests an enhancement due to the solar farm across the street. Given the large adjustments for acreage and size, I will focus on the low end of the adjusted range at 4%, which is within the typical deviation and therefore suggests no impact on value.

I have also considered Parcel 4 that sold after the solar farm was approved but before it had been constructed in 2016. The landscaping buffer for this parcel is considered light.

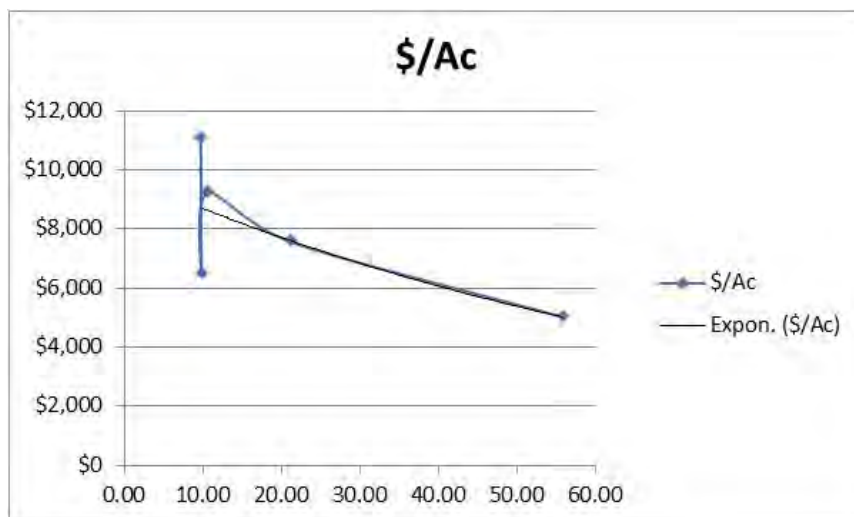
Adjoining Residential Sales After Solar Farm Approved												
Solar	Address	Acres	Date Sold	Sales Price	Built	GBA	\$/GBA	BR/BA	Park	Style	Other	
Adjoins	242 Mariposa	2.91	9/21/2015	\$180,000	1962	1,880	\$95.74	3/2	Carport	Br/Rnch	Det Wrkshop	
Not	249 Mariposa	0.48	3/1/2019	\$153,000	1974	1,792	\$85.38	4/2	Garage	Br/Rnch		
Not	110 Airport	0.83	5/10/2016	\$166,000	1962	2,165	\$76.67	3/2	Crprt	Br/Rnch		
Not	1249 Blacksnake	5.01	9/20/2018	\$242,500	1980	2,156	\$112.48	3/2	Drive	1.5		

Adjoining Residential Sales After Solar Farm Approved					Adjoining Sales Adjusted									
Solar	Address	Acres	Date Sold	Sales Price	Time	YB	Acres	GLA	BR/BA	Park	Other	Total	% Diff	
Adjoins	242 Mariposa	2.91	9/21/2015	\$180,000								\$180,000		
Not	249 Mariposa	0.48	3/1/2019	\$153,000	-\$15,807	-\$12,852	\$18,468	\$7,513		-\$3,000	\$25,000	\$172,322	4%	
Not	110 Airport	0.83	5/10/2016	\$166,000	-\$3,165	\$0	\$15,808	-\$28,600			\$25,000	\$175,043	3%	
Not	1249 Blacksnake	5.01	9/20/2018	\$242,500	-\$21,825	-\$30,555	-\$15,960	-\$40,942		\$2,000	\$25,000	\$160,218	11%	
												Average	6%	

The average difference after adjusting for all factors is +6%, which is again suggests a mild increase in value due to the adjoining solar farm use. The median is a 4% adjustment, which is within a standard deviation and suggests no impact on property value.

I have also considered the recent sale of Parcel 13 that is located on Blacksnake Road south of the project. I was unable to find good land sales in the same 20-acre range, so I have considered sales of larger and smaller acreage. I adjusted each of those land sales for time. I then applied the price per acre to a trendline to show where the expected price per acre would be for 20 acres. As can be seen in the chart below, this lines up exactly with the purchase of the subject property. I therefore conclude that there is no impact on Parcel 13 due to proximity to the solar farm.

Adjoining Residential Land Sales After Solar Farm Approved						Adjoining Sales Adjusted		
Solar	Tax/Street	Acres	Date Sold	Sales Price	\$/Ac	Time	\$/Ac	
Adjoins	174339/Blacksnake	21.15	6/29/2018	\$160,000	\$7,565		\$7,565	
Not	227852/Abernathy	10.57	5/9/2018	\$97,000	\$9,177	\$38	\$9,215	
Not	17443/Legion	9.87	9/7/2018	\$64,000	\$6,484	-\$37	\$6,447	
Not	164243/Alexis	9.75	2/1/2019	\$110,000	\$11,282	-\$201	\$11,081	
Not	176884/Bowden	55.77	6/13/2018	\$280,000	\$5,021	\$7	\$5,027	

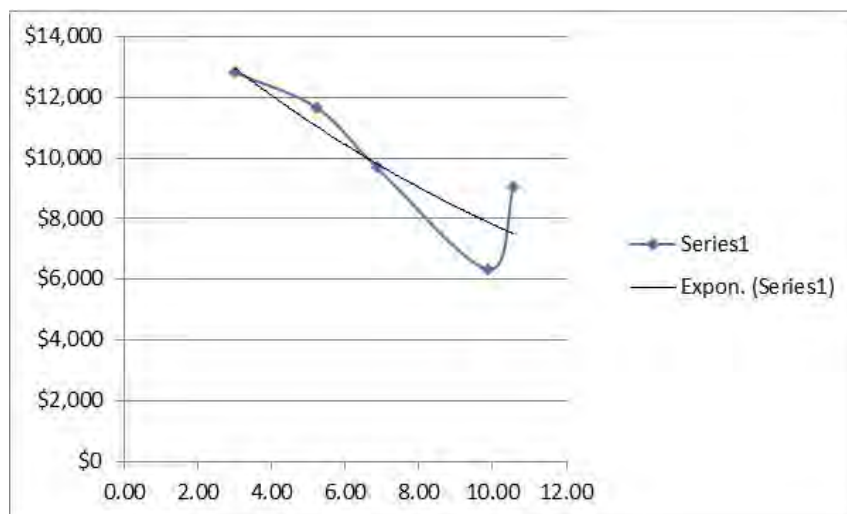


Finally, I have considered the recent sale of Parcel 17 that sold as vacant land. I was unable to find good land sales in the same 7-acre range, so I have considered sales of larger and smaller acreage. I adjusted each of those land sales for time. I then applied the price per acre to a trendline to show where the expected price per acre would be for 7 acres. As can be seen in the chart below, this lines up with the trendline running right through the purchase price for the subject property. I therefore conclude that there is no impact on Parcel 13 due to proximity to the solar farm. I note that this property was improved with a 3,196 square foot ranch built in 2018 following the land purchase, which shows that development near the solar farm was unimpeded.

Adjoining Residential Land Sales After Solar Farm Approved

Adjoining Sales Adjusted

Solar	Tax/Street	Acres	Date Sold	Sales Price	\$/Ac	Time	Location	\$/Ac
Adjoins	227039/Mariposa	6.86	12/6/2017	\$66,500	\$9,694			\$9,694
Not	227852/Abernathy	10.57	5/9/2018	\$97,000	\$9,177	-\$116		\$9,061
Not	17443/Legion	9.87	9/7/2018	\$64,000	\$6,484	-\$147		\$6,338
Not	177322/Robinson	5.23	5/12/2017	\$66,500	\$12,715	\$217	-\$1,272	\$11,661
Not	203386/Carousel	2.99	7/13/2018	\$43,500	\$14,548	-\$262	-\$1,455	\$12,832



10. Matched Pair – Clarke County Solar, Clarke County, VA



This project is a 20 MW facility located on a 234-acre tract that was built in 2017.

11. Matched Pair – Simon Solar, Social Circle, GA



This 30 MW solar farm is located off Hawkins Academy Road and Social Circle Fairplay Road. I identified three adjoining sales to this tract after development of the solar farm. However, one of those is shown as Parcel 12 in the map above and includes a powerline easement encumbering over a third of the 5 acres and adjoins a large substation as well. It would be difficult to isolate those impacts from any potential solar farm impact and therefore I have excluded that sale. I also excluded the recent sale of Parcel 17, which is a farm with conservation restrictions on it that similarly would require a detailed examination of those conservation restrictions in order to see if there was any impact related to the solar farm. I therefore focused on the recent sale of Parcel 7 and the adjoining parcel to the south of that. They are technically not adjoining due to the access road for the flag-shaped lot to the east. Furthermore, there is an apparent access easement serving the two rear lots that encumber these two parcels which is a further limitation on these sales. This analysis assumes that the access easement does not negatively impact the subject property, though it may.

The landscaping buffer relative to this parcel is considered medium.

Adjoining Land Sales After Solar Farm Approved

Parcel	Solar	Address	Acres	Date Sold	Sales Price	\$/AC	Type	Other
7+	Adjoins	4514 Hawkins	36.86	3/31/2016	\$180,000	\$4,883	Pasture	Esmts
	Not	HD Atha	69.95	12/20/2016	\$357,500	\$5,111	Wooded	N/A
	Not	Pannell	66.94	11/8/2016	\$322,851	\$4,823	Mixed	*
	Not	1402 Roy	123.36	9/29/2016	\$479,302	\$3,885	Mixed	**

* Adjoining 1 acre purchased by same buyer in same deed. Allocation assigned on the County Tax Record.

** Dwelling built in 1996 with a 2016 tax assessed value of \$75,800 deducted from sales price to reflect land value

Adjoining Sales Adjusted

Time	Size	Type	Other	Total/Ac	% Diff	Avg % Diff
				\$4,883		
\$89	\$256			\$5,455	-12%	
-\$90	\$241			\$4,974	-2%	
-\$60	\$389			\$4,214	14%	
						0%

The range of impact identified by these matched pairs are -12% to +14%, with an average of 0% impact due to the solar farm. The best matched pair with the least adjustment supports a -2% impact due to the solar farm. I note again that this analysis considers no impact for the existing access easements that meander through this property and it may be having an impact. Still at -2% impact as the best indication for the solar farm, I consider that to be no impact given that market fluctuations support +/- 5%.

12. Matched Pair – Candace Solar, Princeton, NC



This 5 MW solar farm is located at 4839 US 70 Highway just east of Herring Road. This solar farm was completed on October 25, 2016.

I identified three adjoining sales to this tract after development of the solar farm with frontage on US 70. I did not attempt to analyze those sales as they have exposure to an adjacent highway and railroad track. Those homes are therefore problematic for a matched pair analysis unless I have similar homes fronting on a similar corridor.

I did consider a land sale and a home sale on adjoining parcels without those complications.

The lot at 499 Herring Road sold to Paradise Homes of Johnston County of NC, Inc. for \$30,000 in May 2017 and a modular home was placed there and sold to Karen and Jason Toole on September 29, 2017. I considered the lot sale first as shown below and then the home sale that followed. The landscaping buffer relative to this parcel is considered medium.

Adjoining Land Sales After Solar Farm Approved						Adjoining Sales Adjusted					
Parcel	Solar	Address	Acres	Date Sold	Sales Price	Other	Time	Site	Other	Total	% Diff
16	Adjoins	499 Herring	2.03	5/1/2017	\$30,000					\$30,000	
	Not	37 Becky	0.87	7/23/2019	\$24,500	Sub/Pwr	-\$1,679	\$4,900		\$27,721	8%
	Not	5858 Bizzell	0.88	8/17/2016	\$18,000		\$390	\$3,600		\$21,990	27%
	Not	488 Herring	2.13	12/20/2016	\$35,000		\$389			\$35,389	-18%
Average											5%

Following the land purchase, the modular home was placed on the site and sold. I have compared this modular home to the following sales to determine if the solar farm had any impact on the purchase price.

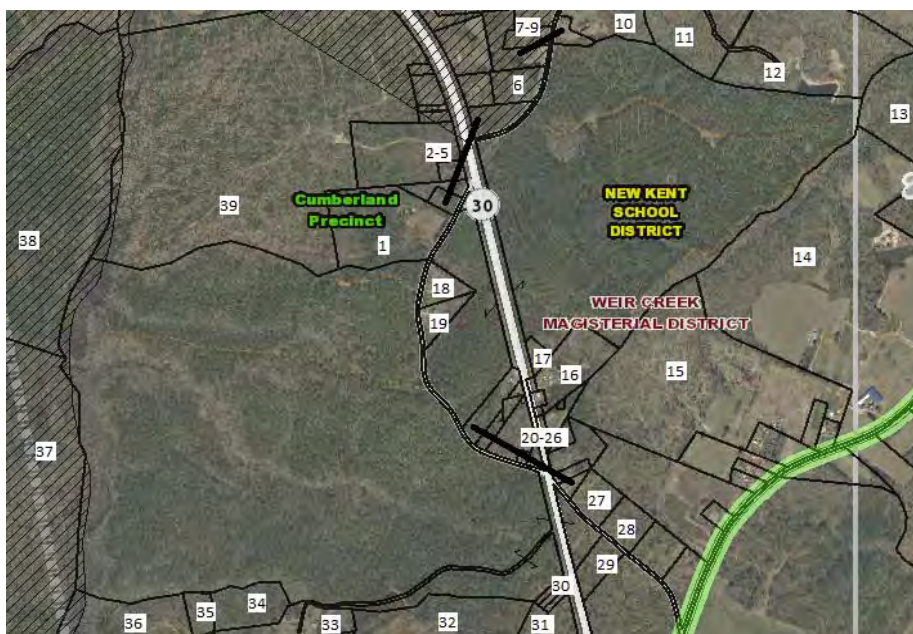
Adjoining Residential Sales After Solar Farm Approved												
Parcel	Solar	Address	Acres	Date Sold	Sales Price	Built	GBA	\$/GBA	BR/BA	Park	Style	Other
16	Adjoins	499 Herring	2.03	9/27/2017	\$215,000	2017	2,356	\$91.26	4/3	Drive	Modular	
	Not	678 WC	6.32	3/8/2019	\$226,000	1995	1,848	\$122.29	3/2.5	Det Gar	Mobile	Ag bldgs
	Not	1810 Bay V	8.70	3/26/2018	\$170,000	2003	2,356	\$72.16	3/2	Drive	Mobile	Ag bldgs
	Not	1795 Bay V	1.78	12/1/2017	\$194,000	2017	1,982	\$97.88	4/3	Drive	Modular	

Adjoining Residential Sales Af Adjoining Sales Adjusted												Avg	
Parcel	Solar	Address	Time	Site	YB	GLA	BR/BA	Park	Other	Total	% Diff	% Diff	Distance
16	Adjoins	499 Herring								\$215,000			488
	Not	678 WC	-\$10,037	-\$25,000	\$24,860	\$37,275	-\$5,000	-\$7,500	-\$20,000	\$220,599	-3%		
	Not	1810 Bay V	-\$2,579	-\$20,000	\$11,900	\$0				\$159,321	26%		
	Not	1795 Bay V	-\$1,063		\$0	\$21,964				\$214,902	0%		
Average												8%	

The best comparable is 1795 Bay Valley as it required the least adjustment and was therefore most similar, which shows a 0% impact. This signifies no impact related to the solar farm.

The range of impact identified by these matched pairs ranges are therefore -3% to +26% with an average of +8% for the home and an average of +4% for the lot, though the best indicator for the lot shows a \$5,000 difference in the lot value due to the proximity to the solar farm or a -12% impact.

13. Matched Pair – Walker-Correctional Solar, Barham Road, Barhamsville, VA



This project was built in 2017 and located on 484.65 acres for a 20 MW with the closest home at 110 feet from the closest solar panel with an average distance of 500 feet.

I considered the recent sale identified on the map above as Parcel 19, which is directly across the street and based on the map shown on the following page is 250 feet from the closest panel. A

limited buffering remains along the road with natural growth being encouraged, but currently the panels are visible from the road. Alex Uminski, SRA with MGMiller Valuations in Richmond VA confirmed this sale with the buying and selling broker. The selling broker indicated that the solar farm was not a negative influence on this sale and in fact the buyer noticed the solar farm and then discovered the listing. The privacy being afforded by the solar farm was considered a benefit by the buyer. I used a matched pair analysis with a similar sale nearby as shown below and found no negative impact on the sales price. Property actually closed for more than the asking price. The landscaping buffer is considered light.

Adjoining Residential Sales After Solar Farm Approved

Solar	Address	Acres	Date Sold	Sales Price	Built	GBA	\$/GBA	BR/BA	Park	Style	Other
Adjoins	5241 Barham	2.65	10/18/2018	\$264,000	2007	1,660	\$159.04	3/2	Drive	Ranch	Modular
Not	17950 New Kent	5.00	9/5/2018	\$290,000	1987	1,756	\$165.15	3/2.5	3 Gar	Ranch	
Not	9252 Ordinary	4.00	6/13/2019	\$277,000	2001	1,610	\$172.05	3/2	1.5-Gar	Ranch	
Not	2416 W Miller	1.04	9/24/2018	\$299,000	1999	1,864	\$160.41	3/2.5	Gar	Ranch	

Adjoining Sales Adjusted

Solar	Address	Time	Ac/Loc	YB	GLA	BR/BA	Park	Other	Total	% Diff	Dist
Adjoins	5241 Barham								\$264,000		250
Not	17950 New Kent		-\$8,000	\$29,000	-\$4,756	-\$5,000	-\$20,000	-\$15,000	\$266,244	-1%	
Not	9252 Ordinary	-\$8,310	-\$8,000	\$8,310	\$2,581		-\$10,000	-\$15,000	\$246,581	7%	
Not	2416 W Miller		\$8,000	\$11,960	-\$9,817	-\$5,000	-\$10,000	-\$15,000	\$279,143	-6%	

Average Diff 0%

I also spoke with Patrick W. McCrerey of Virginia Estates who was marketing a property that sold at 5300 Barham Road adjoining the Walker-Correctional Solar Farm. He indicated that this property was unique with a home built in 1882 and heavily renovated and updated on 16.02 acres. The solar farm was through the woods and couldn't be seen by this property and it had no impact on marketing this property. This home sold on April 26, 2017 for \$358,000. I did not set up any matched pairs for this property since it is a unique property that any such comparison would be difficult to rely on. The broker's comments do support the assertion that the adjoining solar farm had no impact on value. The home in this case was 510 feet from the closest panel.

14. Matched Pair – Innovative Solar 46, Roslin Farm Rd, Hope Mills, NC



This project was built in 2016 and located on 532 acres for a 78.5 MW solar farm with the closest home at 125 feet from the closest solar panel with an average distance of 423 feet.

I considered the recent sale of a home on Roslin Farm Road just north of Running Fox Road as shown below. This sale supports an indication of no impact on property value. The landscaping buffer is considered light.

Adjoining Residential Sales After Solar Farm Approved

Solar	Address	Acres	Date Sold	Sales Price	Built	GBA	\$/GBA	BR/BA	Park	Style	Other	Distance
Adjoins	6849 Roslin Farm	1.00	2/18/2019	\$155,000	1967	1,610	\$96.27	3/3	Drive	Ranch	Brick	435
Not	6592 Sim Canady	2.43	9/5/2017	\$185,000	1974	2,195	\$84.28	3/2	Gar	Ranch	Brick	
Not	1614 Joe Hall	1.63	9/3/2019	\$145,000	1974	1,674	\$86.62	3/2	Det Gar	Ranch	Brick	
Not	109 Bledsoe	0.68	1/17/2019	\$150,000	1973	1,663	\$90.20	3/2	Gar	Ranch	Brick	

Solar	Address	Time	Site	YB	GLA	BR/BA	Park	Other	Total	% Diff	Avg % Diff
Adjoins	6849 Roslin Farm								\$155,000		5%
Not	6592 Sim Canady	\$8,278		-\$6,475	-\$39,444	\$10,000	-\$5,000		\$152,359	2%	
Not	1614 Joe Hall	-\$2,407		-\$5,075	-\$3,881	\$10,000	-\$2,500		\$141,137	9%	
Not	109 Bledsoe	\$404	\$10,000	-\$4,500	-\$3,346		-\$5,000		\$147,558	5%	

15. Matched Pair – Innovative Solar 42, County Line Rd, Fayetteville, NC



This project was built in 2017 and located on 413.99 acres for a 71 MW with the closest home at 135 feet from the closest solar panel with an average distance of 375 feet.

I considered the recent sales identified on the map above as Parcels 2 and 3, which is directly across the street these homes are 330 and 340 feet away. Parcel 2 includes an older home built in 1976, while Parcel 3 is a new home built in 2019. So the presence of the solar farm had no impact on new construction in the area.

The matched pairs for each of these are shown below. The landscaping buffer relative to these parcels is considered light.

Adjoining Residential Sales After Solar Farm Approved

Solar	Address	Acres	Date Sold	Sales Price	Built	GBA	\$/GBA	BR/BA	Park	Style	Other	Distance
Adjoins	2923 County Ln	8.98	2/28/2019	\$385,000	1976	2,905	\$132.53	3/3	2-Car	Ranch	Brick/Pond	340
Not	1928 Shaw Mill	17.00	7/3/2019	\$290,000	1977	3,001	\$96.63	4/4	2-Car	Ranch	Brick/Pond/Rental	
Not	2109 John McM.	7.78	4/25/2018	\$320,000	1978	2,474	\$129.35	3/2	Det Gar	Ranch	Vinyl/Pool,Stable	

Solar	Address	Time	Site	YB	GLA	BR/BA	Park	Other	Total	% Diff	Avg % Diff
Adjoins	2923 County Ln								\$385,000		3%
Not	1928 Shaw Mill	-\$3,055	\$100,000	-\$1,450	-\$7,422	-\$10,000			\$368,074	4%	
Not	2109 John McM.	\$8,333		-\$3,200	\$39,023	\$10,000		\$5,000	\$379,156	2%	

Adjoining Residential Sales After Solar Farm Approved

Solar	Address	Acres	Date Sold	Sales Price	Built	GBA	\$/GBA	BR/BA	Park	Style	Other	Distance
Adjoins	2935 County Ln	1.19	6/18/2019	\$266,000	2019	2,401	\$110.79	4/3	Gar	2-Story		330
Not	3005 Hemingway	1.17	5/16/2019	\$269,000	2018	2,601	\$103.42	4/3	Gar	2-Story		
Not	7031 Glynn Mill	0.60	5/8/2018	\$255,000	2017	2,423	\$105.24	4/3	Gar	2-Story		
Not	5213 Bree Brdg	0.92	5/7/2019	\$260,000	2018	2,400	\$108.33	4/3	3-Gar	2-Story		

Solar	Address	Time	Site	YB	GLA	BR/BA	Park	Other	Total	% Diff	Avg % Diff
Adjoins	2935 County Ln								\$266,000		3%
Not	3005 Hemingway	\$748		\$1,345	-\$16,547				\$254,546	4%	
Not	7031 Glynn Mill	\$8,724		\$2,550	-\$1,852				\$264,422	1%	
Not	5213 Bree Brdg	\$920		\$1,300	\$76			-\$10,000	\$252,296	5%	

Both of these matched pairs adjust to an average of +3% on impact for the adjoining solar farm, meaning there is a slight positive impact due to proximity to the solar farm. This is within the standard +/- of typical real estate transactions, which strongly suggests no impact on property value. I noted specifically that for 2923 County Line Road, the best comparable is 2109 John McMillan as it does not have the additional rental unit on it. I made no adjustment to the other sale for the value of that rental unit, which would have pushed the impact on that comparable downward – meaning there would have been a more significant positive impact.

19. Matched Pair – Grandy Solar, Grandy, NC



This 20 MW project was built in 2019 and located on a portion of 121 acres.

Parcels 40 and 50 have sold since construction began on this solar farm. I have considered both in matched pair analysis below. I note that the marketing for Parcel 40 (120 Par Four) identified the lack of homes behind the house as a feature in the listing. The marketing for Parcel 50 (269 Grandy) identified the property as “very private.” Landscaping for both of these parcels is considered light.

Adjoining Residential Sales After Solar Farm Approved

Solar	Address	Acres	Date Sold	Sales Price	Built	GBA	\$/GLA	BR/BA	Park	Style	Other
Adjoins	120 Par Four	0.92	8/17/2019	\$315,000	2006	2,188	\$143.97	4/3	2-Gar	1.5 Story	Pool
Not	102 Teague	0.69	1/5/2020	\$300,000	2005	2,177	\$137.80	3/2	Det 3G	Ranch	
Not	112 Meadow Lk	0.92	2/28/2019	\$265,000	1992	2,301	\$115.17	3/2	Gar	1.5 Story	
Not	116 Barefoot	0.78	9/29/2020	\$290,000	2004	2,192	\$132.30	4/3	2-Gar	2 Story	

Adjoining Sales Adjusted

Address	Time	Site	YB	GLA	BR/BA	Park	Other	Total	% Diff	Avg % Diff	Distance
120 Par Four								\$315,000			405
102 Teague	-\$4,636		\$1,500	\$910	\$10,000		\$20,000	\$327,774	-4%		
112 Meadow Lk	\$4,937		\$18,550	-\$7,808	\$10,000	\$10,000	\$20,000	\$320,679	-2%		
116 Barefoot	-\$12,998		\$2,900	-\$318			\$20,000	\$299,584	5%		

0%

Adjoining Residential Sales After Solar Farm Approved

Solar	Address	Acres	Date Sold	Sales Price	Built	GBA	\$/GLA	BR/BA	Park	Style	Other
Adjoins	269 Grandy	0.78	5/7/2019	\$275,000	2019	1,535	\$179.15	3/2.5	2-Gar	Ranch	
Not	307 Grandy	1.04	10/8/2018	\$240,000	2002	1,634	\$146.88	3/2	Gar	1.5 Story	
Not	103 Branch	0.95	4/22/2020	\$230,000	2000	1,532	\$150.13	4/2	2-Gar	1.5 Story	
Not	103 Spring Lf	1.07	8/14/2018	\$270,000	2002	1,635	\$165.14	3/2	2-Gar	Ranch	Pool

Adjoining Sales Adjusted

Address	Time	Site	YB	GLA	BR/BA	Park	Other	Total	% Diff	% Diff	Distance
269 Grandy								\$275,000			477
307 Grandy	\$5,550		\$20,400	-\$8,725	\$5,000	\$10,000		\$272,225	1%		
103 Branch	-\$8,847		\$21,850	\$270				\$243,273	12%		
103 Spring Lf	\$7,871		\$22,950	-\$9,908	\$5,000		-\$20,000	\$275,912	0%		
										4%	

Both of these matched pairs support a finding of no impact on value. This is reinforced by the listings for both properties identifying the privacy due to no housing in the rear of the property as part of the marketing for these homes.

20. Matched Pair – Champion Solar, Lexington County, SC



This project is a 10 MW facility located on a 366.04-acre tract that was built in 2017.

I have considered the 2020 sale of an adjoining home located off 517 Old Charleston Road. Landscaping is considered light.

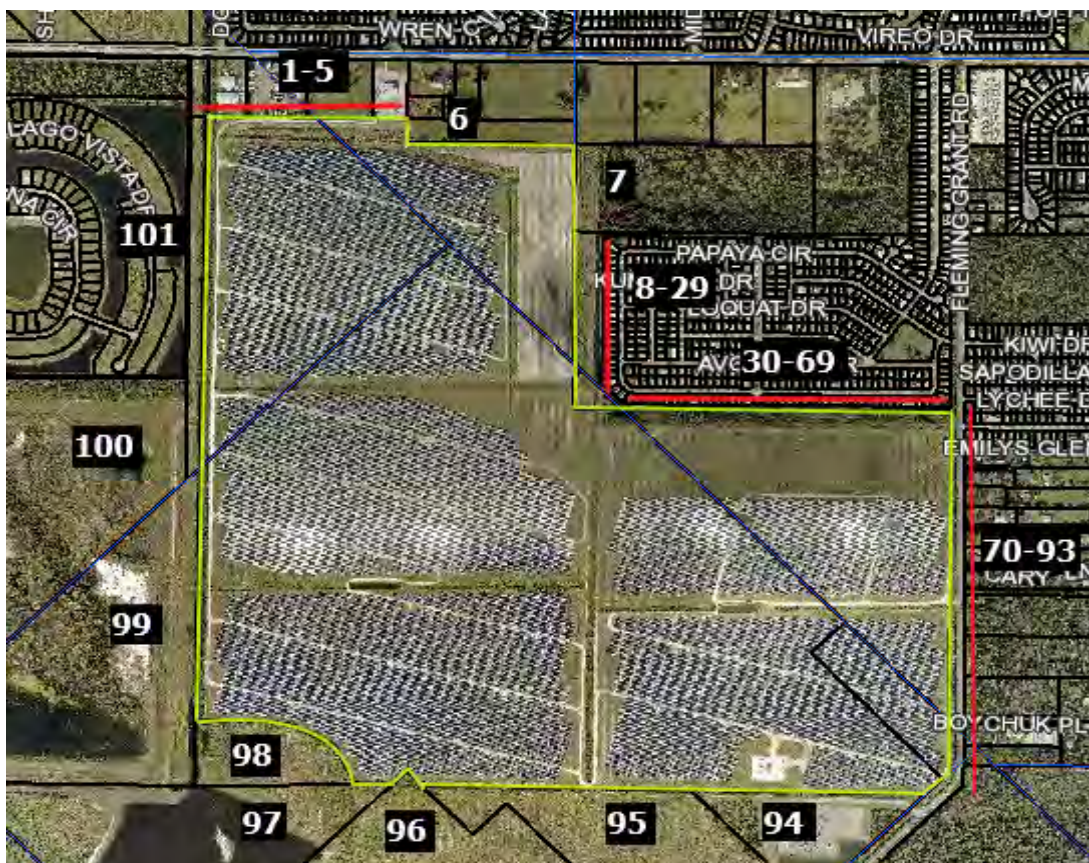
Adjoining Residential Sales After Solar Farm Approved

Solar	Address	Acres	Date Sold	Sales Price	Built	GBA	\$/GBA	BR/BA	Park	Style	Other
Adjoins	517 Old Charleston	11.05	8/25/2020	\$110,000	1962	925	\$118.92	3/1	Crport	Br Rnch	
Not	133 Buena Vista	2.65	6/21/2020	\$115,000	1979	1,104	\$104.17	2/2	Crport	Br Rnch	
Not	214 Crystal Spr	2.13	6/10/2019	\$102,500	1970	1,025	\$100.00	3/2	Crport	Rnch	
Not	1429 Laurel	2.10	2/21/2019	\$126,000	1960	1,250	\$100.80	2/1.5	Open	Br Rnch	3 Gar/Brn

Adjoining Sales Adjusted

Address	Time	Site	YB	GLA	BR/BA	Park	Other	Total	% Diff	Avg % Diff	Distance
517 Old Charleston								\$110,000			505
133 Buena Vista	\$410	\$17,000	-\$9,775	-\$14,917	-\$10,000			\$97,718	11%		
214 Crystal Spr	\$2,482	\$18,000	-\$4,100	-\$8,000	-\$10,000		\$10,000	\$110,882	-1%		
1429 Laurel	\$3,804	\$18,000	\$1,260	-\$26,208	-\$5,000	\$5,000	-\$15,000	\$107,856	2%	4%	

21. Matched Pair – Barefoot Bay Solar Farm, Barefoot Bay, FL



This project is located on 504 acres for a 704.5 MW facility. Most of the adjoining uses are medium density residential with some lower density agricultural uses to the southwest. This project was built in 2018. There is a new subdivision under development to the west.

I have considered a number of recent home sales from the Barefoot Bay Golf Course in the Barefoot Bay Recreation District. There are a number of sales of these mobile/manufactured homes along the eastern boundary and the lower northern boundary. I have compared those home sales to other similar homes in the same community but without the exposure to the solar farm. Staying within the same community keeps location and amenity impacts consistent. I did avoid any comparison with home sales with golf course or lakefront views as that would introduce another variable.

The six manufactured/double wide homes shown below were each compared to three similar homes in the same community and are consistently showing no impact on the adjoining property values. Based on the photos from the listings, there is limited but some visibility of the solar farm to the east, but the canal and landscaping between are providing a good visual buffer and actually are commanding a premium over the non-canal homes.

Landscaping for these adjoining homes is considered light, though photographs from the listings show that those homes on Papaya that adjoin the solar farm from east/west have no visibility of the solar farm and is effectively medium density due to the height differential. The homes that adjoin the solar farm from north/south along Papaya have some filtered view of the solar farm through the trees.

Adjoining Residential Sales After Solar Farm Approved

Parcel	Solar	Address	Acres	Date Sold	Sales Price	Built	GBA	\$/GLA	BR/BA	Park	Style	Other
14	Adjoins	465 Papaya Cr	0.12	7/21/2019	\$155,000	1993	1,104	\$140.40	2/2	Drive	Manuf	Canal
	Not	1108 Navajo	0.14	2/27/2019	\$129,000	1984	1,220	\$105.74	2/2	Crprt	Manuf	Canal
	Not	1007 Barefoot	0.11	9/3/2020	\$168,000	2005	1,052	\$159.70	2/2	Crprt	Manuf	Canal
	Not	1132 Waterway	0.11	7/10/2020	\$129,000	1982	1,012	\$127.47	2/2	Crprt	Manuf	Canal

Adjoining Sales Adjusted

Address	Time	YB	GLA	BR/BA	Park	Other	Total	% Diff	Avg % Diff	Distance
465 Papaya Cr							\$155,000			765
1108 Navajo	\$1,565	\$5,805	-\$9,812				\$126,558	18%		
1007 Barefoot	-\$5,804	-\$10,080	\$6,643				\$158,759	-2%		
1132 Waterway	-\$3,859	\$7,095	\$9,382				\$141,618	9%	8%	

Adjoining Residential Sales After Solar Farm Approved

Parcel	Solar	Address	Acres	Date Sold	Sales Price	Built	GBA	\$/GLA	BR/BA	Park	Style	Other
19	Adjoins	455 Papaya	0.12	9/1/2020	\$183,500	2005	1,620	\$113.27	3/2	Crprt	Manuf	Canal
	Not	938 Waterway	0.11	2/12/2020	\$160,000	1986	1,705	\$93.84	2/2	Crprt	Manuf	Canal
	Not	719 Barefoot	0.12	4/14/2020	\$150,000	1996	1,635	\$91.74	3/2	Crprt	Manuf	Canal
	Not	904 Fir	0.17	9/27/2020	\$192,500	2010	1,626	\$118.39	3/2	Crprt	Manuf	Canal

Adjoining Sales Adjusted

Address	Time	YB	GLA	BR/BA	Park	Other	Total	% Diff	Avg % Diff	Distance
455 Papaya							\$183,500			750
938 Waterway	\$2,724	\$15,200	-\$6,381				\$171,542	7%		
719 Barefoot	\$1,770	\$6,750	-\$1,101				\$157,419	14%		
904 Fir	-\$422	-\$4,813	-\$568				\$186,697	-2%	6%	

Adjoining Residential Sales After Solar Farm Approved

Parcel	Solar	Address	Acres	Date Sold	Sales Price	Built	GBA	\$/GLA	BR/BA	Park	Style	Other
37	Adjoins	419 Papaya	0.09	7/16/2019	\$127,500	1986	1,303	\$97.85	2/2	Crprt	Manuf	Green
	Not	865 Tamarind	0.12	2/4/2019	\$133,900	1995	1,368	\$97.88	2/2	Crprt	Manuf	Green
	Not	501 Papaya	0.10	6/15/2018	\$109,000	1986	1,234	\$88.33	2/2	Crprt	Manuf	
	Not	418 Papaya	0.09	8/28/2019	\$110,000	1987	1,248	\$88.14	2/2	Crprt	Manuf	

Adjoining Sales Adjusted

Address	Time	YB	GLA	BR/BA	Park	Other	Total	% Diff	Avg % Diff	Distance
419 Papaya							\$127,500			690
865 Tamarind	\$1,828	-\$6,026	-\$5,090				\$124,613	2%		
501 Papaya	\$3,637	\$0	\$4,876			\$5,000	\$122,513	4%		
418 Papaya	-\$399	-\$550	\$3,878			\$5,000	\$117,930	8%	5%	

Adjoining Residential Sales After Solar Farm Approved

Parcel	Solar	Address	Acres	Date Sold	Sales Price	Built	GBA	\$/GLA	BR/BA	Park	Style	Other
39	Adjoins	413 Papaya	0.09	7/16/2020	\$130,000	2001	918	\$141.61	2/2	Crprt	Manuf	Grn/Upd
	Not	341 Loquat	0.09	2/3/2020	\$118,000	1985	989	\$119.31	2/2	Crprt	Manuf	Full Upd
	Not	1119 Pocatella	0.19	1/5/2021	\$120,000	1993	999	\$120.12	2/2	Crprt	Manuf	Green
	Not	1367 Barefoot	0.10	1/12/2021	\$130,500	1987	902	\$144.68	2/2	Crprt	Manuf	Green/Upd

Adjoining Sales Adjusted

Address	Time	YB	GLA	BR/BA	Park	Other	Total	% Diff	Avg % Diff	Distance
413 Papaya							\$130,000			690
341 Loquat	\$1,631	\$9,440	-\$6,777				\$122,294	6%		
1119 Pocatella	-\$1,749	\$4,800	-\$7,784			\$5,000	\$120,267	7%		
1367 Barefoot	-\$1,979	\$9,135	\$1,852				\$139,507	-7%	2%	

Adjoining Residential Sales After Solar Farm Approved

Parcel	Solar	Address	Acres	Date Sold	Sales Price	Built	GBA	\$/GLA	BR/BA	Park	Style	Other
48	Adjoins	343 Papaya	0.09	12/17/2019	\$145,000	1986	1,508	\$96.15	3/2	Crprt	Manuf	Gn/Fc/Upd
	Not	865 Tamarind	0.12	2/4/2019	\$133,900	1995	1,368	\$97.88	2/2	Crprt	Manuf	Green
	Not	515 Papaya	0.09	3/22/2018	\$145,000	2005	1,376	\$105.38	3/2	Crprt	Manuf	Green
	Not	849 Tamarind	0.15	6/26/2019	\$155,000	1997	1,716	\$90.33	3/2	Crprt	Manuf	Grn/Fnce

Adjoining Sales Adjusted

Address	Time	YB	GLA	BR/BA	Park	Other	Total	% Diff	Avg % Diff	Distance
343 Papaya							\$145,000			690
865 Tamarind	\$3,566	-\$6,026	\$10,963				\$142,403	2%		
515 Papaya	\$7,759	-\$13,775	\$11,128				\$150,112	-4%		
849 Tamarind	\$2,273	-\$8,525	-\$15,030			\$5,000	\$138,717	4%		
									1%	

Adjoining Residential Sales After Solar Farm Approved

Parcel	Solar	Address	Acres	Date Sold	Sales Price	Built	GBA	\$/GLA	BR/BA	Park	Style	Other
52	Nearby	335 Papaya	0.09	4/17/2018	\$110,000	1987	1,180	\$93.22	2/2	Crprt	Manuf	Green
	Not	865 Tamarind	0.12	2/4/2019	\$133,900	1995	1,368	\$97.88	2/2	Crprt	Manuf	Green
	Not	501 Papaya	0.10	6/15/2018	\$109,000	1986	1,234	\$88.33	2/2	Crprt	Manuf	
	Not	604 Puffin	0.09	10/23/2018	\$110,000	1988	1,320	\$83.33	2/2	Crprt	Manuf	

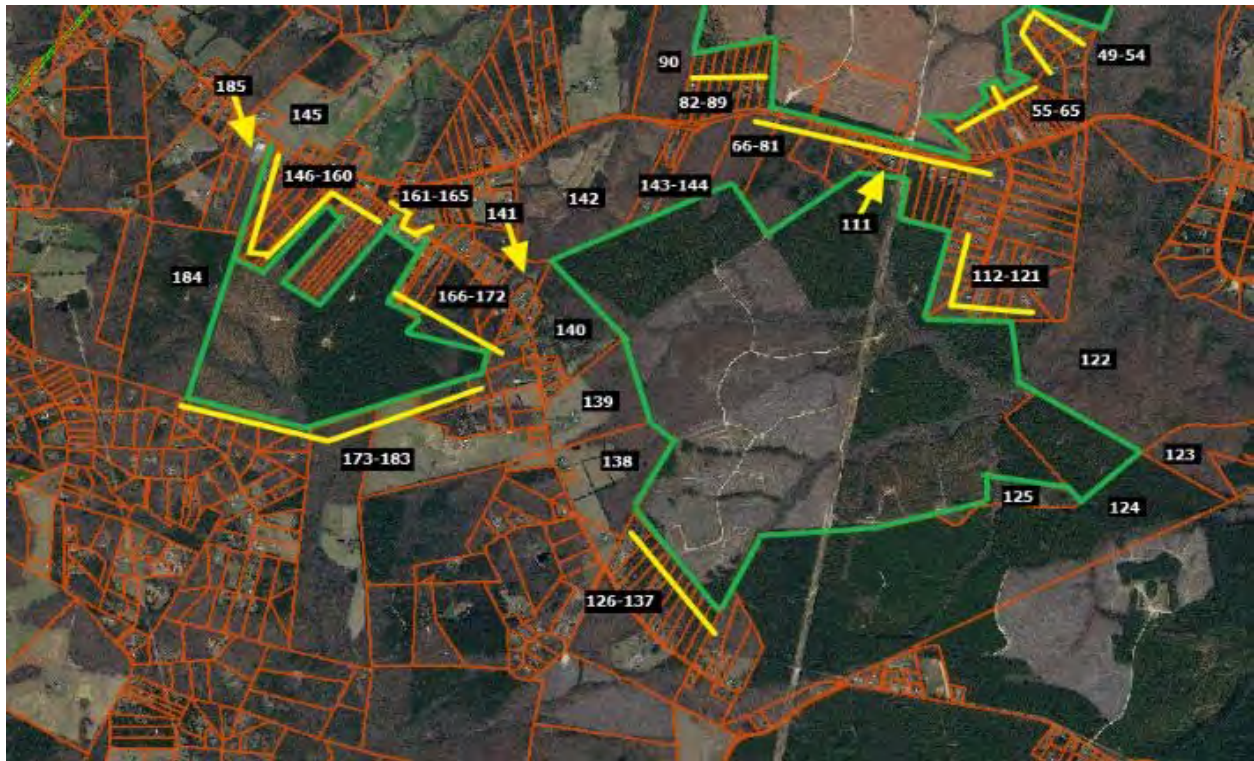
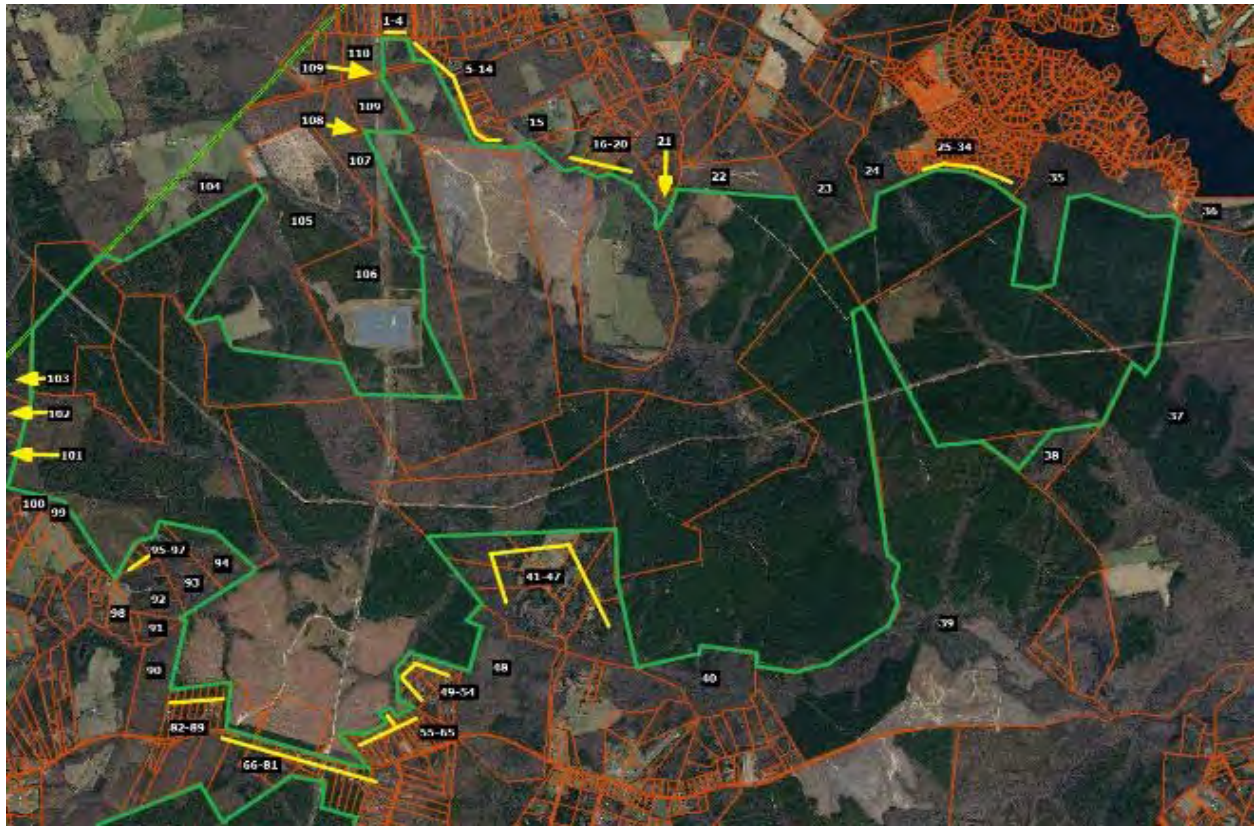
Adjoining Sales Adjusted

Address	Time	YB	GLA	BR/BA	Park	Other	Total	% Diff	Avg % Diff	Distance
335 Papaya							\$110,000			710
865 Tamarind	-\$3,306	-\$5,356	-\$14,721			\$0	\$110,517	0%		
501 Papaya	-\$542	\$545	-\$3,816			\$5,000	\$110,187	0%		
604 Puffin	-\$1,752	-\$550	-\$9,333			\$5,000	\$103,365	6%		
									2%	

I also identified a new subdivision being developed just to the west of this solar farm called The Lakes at Sebastian Preserve. These are all canal-lot homes that are being built with homes starting at \$271,000 based on the website and closed sales showing up to \$342,000. According to Monique, the onsite broker with Holiday Builders, the solar farm is difficult to see from the lots that back up to that area and she does not anticipate any difficulty in selling those future homes or lots or any impact on the sales price. The closest home that will be built in this development will be approximately 340 feet from the nearest panel.

Based on the closed home prices in Barefoot Bay as well as the broker comments and activity at The Lakes at Sebastian Preserve, the data around this solar farm strongly indicates no negative impact on property value.

23. Matched Pair – Spotsylvania Solar, Paytes, VA



This solar farm is being built in four phases with the area known as Site C having completed construction in November 2020 after the entire project was approved in April 2019. Site C, also known as Pleinmont 1 Solar, includes 99.6 MW located in the southeast corner of the project and shown on the maps above with adjoining parcels 111 through 144. The entire Spotsylvania project totals 617 MW on 3500 acres out of a parent tract assemblage of 6,412 acres.

I have identified three adjoining home sales that occurred during construction and development of the site in 2020.

The first is located on the north side of Site A on Orange Plank Road. The second is located on Nottoway Lane just north of Caparthin Road on the south side of Site A and east of Site C. The third is located on Post Oak Road for a home that backs up to Site C that sold in September 2020 near the completion of construction for Site C.

Spotsylvania Solar Farm

Solar	Address	Acres	Date Sold	Sales Price	Built	GBA	\$/GBA	BR/BA	Park	Style	Other
Adjoins	12901 Orng Plnk	5.20	8/27/2020	\$319,900	1984	1,714	\$186.64	3/2	Drive	1.5	Un Bsmt
Not	8353 Gold Dale	3.00	1/27/2021	\$415,000	2004	2,064	\$201.07	3/2	3 Gar	Ranch	
Not	6488 Southfork	7.26	9/9/2020	\$375,000	2017	1,680	\$223.21	3/2	2 Gar	1.5	Barn/Patio
Not	12717 Flintlock	0.47	12/2/2020	\$290,000	1990	1,592	\$182.16	3/2.5	Det Gar	Ranch	

Adjoining Sales Adjusted

Address	Time	Ac/Loc	YB	GLA	BR/BA	Park	Other	Total	% Diff	Dist
12901 Orng Plnk								\$319,900		1270
8353 Gold Dale	-\$5,219	\$20,000	-\$41,500	-\$56,298		-\$20,000		\$311,983	2%	
6488 Southfork	-\$401	-\$20,000	-\$61,875	\$6,071		-\$15,000		\$283,796	11%	
12717 Flintlock	-\$2,312	\$40,000	-\$8,700	\$17,779	-\$5,000	-\$5,000		\$326,767	-2%	
Average Diff									4%	

Solar	Address	Acres	Date Sold	Sales Price	Built	GBA	\$/GBA	BR/BA	Park	Style	Other
Adjoins	9641 Nottoway	11.00	5/12/2020	\$449,900	2004	3,186	\$141.21	4/2.5	Garage	2-Story	Un Bsmt
Not	26123 Lafayette	1.00	8/3/2020	\$390,000	2006	3,142	\$124.12	3/3.5	Gar/DtG	2-Story	
Not	11626 Forest	5.00	8/10/2020	\$489,900	2017	3,350	\$146.24	4/3.5	2 Gar	2-Story	
Not	10304 Pny Brnch	6.00	7/27/2020	\$485,000	1998	3,076	\$157.67	4/4	2Gar/Dt2	Ranch	Fn Bsmt

Adjoining Sales Adjusted

Address	Time	Ac/Loc	YB	GLA	BR/BA	Park	Other	Total	% Diff	Dist
9641 Nottoway								\$449,900		1950
26123 Lafayette	-\$2,661	\$45,000	-\$3,900	\$4,369	-\$10,000	-\$5,000		\$417,809	7%	
11626 Forest	-\$3,624		-\$31,844	-\$19,187		-\$5,000		\$430,246	4%	
10304 Pny Brnch	-\$3,030		\$14,550	\$13,875	-\$15,000	-\$15,000	-\$10,000	\$470,396	-5%	
Average Diff									2%	

Solar	Address	Acres	Date Sold	Sales Price	Built	GBA	\$/GBA	BR/BA	Park	Style	Other
Adjoins	13353 Post Oak	5.20	9/21/2020	\$300,000	1992	2,400	\$125.00	4/3	Drive	2-Story	Fn Bsmt
Not	9609 Logan Hgt	5.86	7/4/2019	\$330,000	2004	2,352	\$140.31	3/2	2Gar	2-Story	
Not	12810 Catharpian	6.18	1/30/2020	\$280,000	2008	2,240	\$125.00	4/2.5	Drive	2-Story Bsmt/Nd Pnt	
Not	10725 Rbrt Lee	5.01	10/26/2020	\$295,000	1995	2,166	\$136.20	4/3	Gar	2-Story	Fn Bsmt

Adjoining Sales Adjusted

Address	Time	Ac/Loc	YB	GLA	BR/BA	Park	Other	Total	% Diff	Dist
13353 Post Oak								\$300,000		1171
9609 Logan Hgt	\$12,070		-\$19,800	\$5,388		-\$15,000	\$15,000	\$327,658	-9%	
12810 Catharpian	\$5,408		-\$22,400	\$16,000	\$5,000		\$15,000	\$299,008	0%	
10725 Rbrt Lee	-\$849		-\$4,425	\$25,496		-\$10,000		\$305,222	-2%	
Average Diff									-4%	

All three of these homes are well set back from the solar panels at distances over 1,000 feet and are well screened from the project. All three show no indication of any impact on property value.

There are a couple of recent lot sales located along Southview Court that have sold since the solar farm was approved. The most recent lot sales include 11700 Southview Court that sold on December 29, 2021 for \$140,000 for a 0.76-acre lot. This property was on the market for less than 2 months before closing within 6% of the asking price. This lot sold earlier in September 2019 for \$55,000 based on a liquidation sale from NTS to an investor.

A similar 0.68-acre lot at 11507 Stonewood Court within the same subdivision located away from the solar farm sold on March 9, 2021 for \$109,000. This lot sold for 18% over the asking price within 1 month of listing suggesting that this was priced too low. Adjusting this lot value upward by 12% for very strong growth in the market over 2021, the adjusted indicated value is \$122,080 for this lot. This is still showing a 15% premium for the lot backing up to the solar farm.

The lot at 11009 Southview Court sold on August 5, 2019 for \$65,000, which is significantly lower than the more recent sales. This lot was sold by NTS the original developer of this subdivision, who was in the process of liquidating lots in this subdivision with multiple lot sales in this time period throughout the subdivision being sold at discounted prices. The home was later improved by the buyer with a home built in 2020 with 2,430 square feet ranch, 3.5 bathrooms, with a full basement, and a current assessed value of \$492,300.

I spoke with Chris Kalia, MAI, Mark Doherty, local real estate investor, and Alex Doherty, broker, who are all three familiar with this subdivision and activity in this neighborhood. All three indicated that there was a deep sell off of lots in the neighborhood by NTS at discounted prices under \$100,000 each. Those lots since that time are being sold for up to \$140,000. The prices paid for the lots below \$100,000 were liquidation values and not indicative of market value. Homes are being built in the neighborhood on those lots with home prices ranging from \$600,000 to \$800,000 with no sign of impact on pricing due to the solar farm according to all three sources.

Conclusion – SouthEast Over 5 MW

Southeast USA Over 5 MW Matched Pair Summary

	Name	City	State	Acres	MW	Adj. Uses By Acreage					1 mile Radius (2010-2020 Data)			Veg. Buffer
						Topo Shift	Res	Ag	Ag/Res	Com/Ind	Pop.	Med. Income	Avg. Housing Unit	
1	AM Best	Goldsboro	NC	38	5.00	2	38%	0%	23%	39%	1,523	\$37,358	\$148,375	Light
2	Mulberry	Selmer	TN	160	5.00	60	13%	73%	10%	3%	467	\$40,936	\$171,746	Lt to Med
3	Leonard	Hughesville	MD	47	5.00	20	18%	75%	0%	6%	525	\$106,550	\$350,000	Light
4	Gastonia SC	Gastonia	NC	35	5.00	48	33%	0%	23%	44%	4,689	\$35,057	\$126,562	Light
5	Summit	Moyock	NC	2,034	80.00	4	4%	0%	94%	2%	382	\$79,114	\$281,731	Light
6	Tracy	Bailey	NC	50	5.00	10	29%	0%	71%	0%	312	\$43,940	\$99,219	Heavy
7	Manatee	Parrish	FL	1,180	75.00	20	2%	97%	1%	0%	48	\$75,000	\$291,667	Heavy
8	McBride	Midland	NC	627	75.00	140	12%	10%	78%	0%	398	\$63,678	\$256,306	Lt to Med
9	Mariposa	Stanley	NC	36	5.00	96	48%	0%	52%	0%	1,716	\$36,439	\$137,884	Light
10	Clarke Cnty	White Post	VA	234	20.00	70	14%	39%	46%	1%	578	\$81,022	\$374,453	Light
11	Simon	Social Circle	GA	237	30.00	71	1%	63%	36%	0%	203	\$76,155	\$269,922	Medium
12	Candace	Princeton	NC	54	5.00	22	76%	24%	0%	0%	448	\$51,002	\$107,171	Medium
13	Walker	Barhamsville	VA	485	20.00	N/A	12%	68%	20%	0%	203	\$80,773	\$320,076	Light
14	Innov 46	Hope Mills	NC	532	78.50	0	17%	83%	0%	0%	2,247	\$58,688	\$183,435	Light
15	Innov 42	Fayetteville	NC	414	71.00	0	41%	59%	0%	0%	568	\$60,037	\$276,347	Light
16	Sunfish	Willow Spring	NC	50	6.40	30	35%	35%	30%	0%	1,515	\$63,652	\$253,138	Light
17	Sappony	Stony Crk	VA	322	20.00	N/A	2%	98%	0%	0%	74	\$51,410	\$155,208	Light
18	Camden Dam	Camden	NC	50	5.00	0	17%	72%	11%	0%	403	\$84,426	\$230,288	Light
19	Grandy	Grandy	NC	121	20.00	10	55%	24%	0%	21%	949	\$50,355	\$231,408	Light
20	Champion	Pelion	SC	100	10.00	N/A	4%	70%	8%	18%	1,336	\$46,867	\$171,939	Light
21	Barefoot Bay	Barefoot Bay	FL	504	74.50	0	11%	87%	0%	3%	2,446	\$36,737	\$143,320	Lt to Med
22	Miami-Dade	Miami	FL	347	74.50	0	26%	74%	0%	0%	127	\$90,909	\$403,571	Light
23	Spotyslvania	Paytes	VA	3,500	617.00	160	37%	52%	11%	0%	74	\$120,861	\$483,333	Md to Hvy
	Average			485	57.04	38	24%	48%	22%	6%	923	\$63,955	\$237,700	
	Median			234	20.00	20	17%	59%	11%	0%	467	\$60,037	\$231,408	
	High			3,500	617.00	160	76%	98%	94%	44%	4,689	\$120,861	\$483,333	
	Low			35	5.00	0	1%	0%	0%	0%	48	\$35,057	\$99,219	

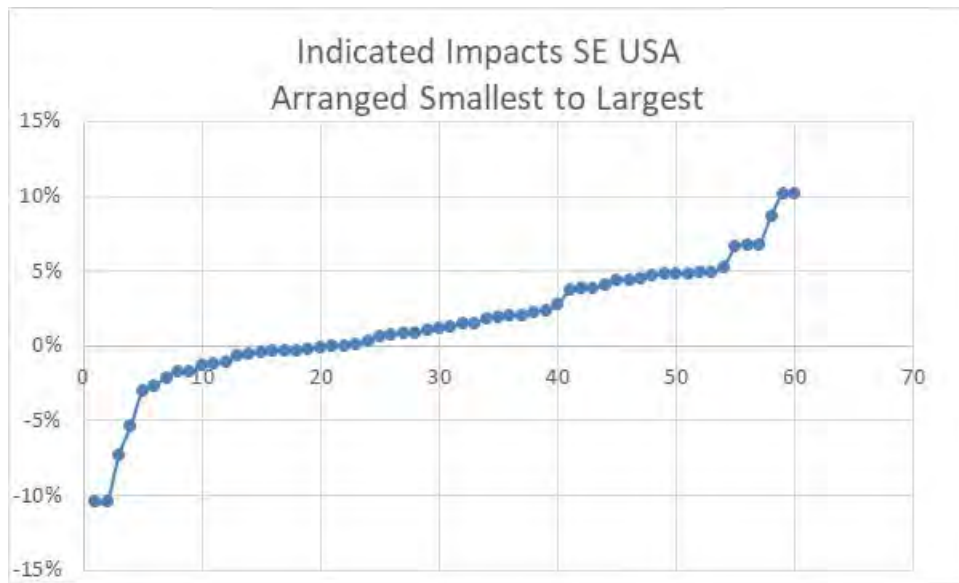
The solar farm matched pairs shown above have similar characteristics to each other in terms of population, but with several outliers showing solar farms in farm more urban areas. The median income for the population within 1 mile of a solar farm is \$60,037 with a median housing unit value of \$231,408. Most of the comparables are under \$300,000 in the home price, with \$483,333 being the high end of the set, though I have matched pairs in multiple states over \$1,000,000 adjoining solar farms. The adjoining uses show that residential and agricultural uses are the predominant adjoining uses. These figures are in line with the larger set of solar farms that I have looked at with the predominant adjoining uses being residential and agricultural and similar to the solar farm breakdown shown for Georgia and adjoining states as well as the proposed subject property.

Based on the similarity of adjoining uses and demographic data between these sites and the subject property, I consider it reasonable to compare these sites to the subject property.

I have pulled 56 matched pairs from the above referenced solar farms to provide the following summary of home sale matched pairs and land sales next to solar farms. The summary shows that the range of differences is from -10% to +10% with an average of +1% and median of +1%. This means that the average and median impact is for a slight positive impact due to adjacency to a solar farm. However, this +1 to rate is within the typical variability I would expect from real estate. I therefore conclude that this data shows no negative or positive impact due to adjacency to a solar farm.

While the range is seemingly wide, the graph below clearly shows that the vast majority of the data falls between -5% and +5% and most of those are clearly in the 0 to +5% range. This data strongly supports an indication of no impact on adjoining residential uses to a solar farm.

I therefore conclude that these matched pairs support a finding of no impact on value at the subject property for the proposed project, which as proposed will include a landscaped buffer to screen adjoining residential properties.



Residential Dwelling Matched Pairs Adjoining Solar Farms

Pair	Solar Farm	City	State	MW	Approx		Date	Adj. Sale		Veg.
					Distance	Tax ID/Address		Sale Price	Price	
1	AM Best	Goldsboro	NC	5	280	3600195570	Sep-13	\$250,000		Light
						3600198928	Mar-14	\$250,000	\$250,000	
2	AM Best	Goldsboro	NC	5	280	3600195361	Sep-13	\$260,000		Light
						3600194813	Apr-14	\$258,000	\$258,000	
3	AM Best	Goldsboro	NC	5	280	3600199891	Jul-14	\$250,000		Light
						3600198928	Mar-14	\$250,000	\$250,000	
4	AM Best	Goldsboro	NC	5	280	3600198632	Aug-14	\$253,000		Light
						3600193710	Oct-13	\$248,000	\$248,000	
5	AM Best	Goldsboro	NC	5	280	3600196656	Dec-13	\$255,000		Light
						3601105180	Dec-13	\$253,000	\$253,000	
6	AM Best	Goldsboro	NC	5	280	3600182511	Feb-13	\$247,000		Light
						3600183905	Dec-12	\$240,000	\$245,000	
7	AM Best	Goldsboro	NC	5	280	3600182784	Apr-13	\$245,000		Light
						3600193710	Oct-13	\$248,000	\$248,000	
8	AM Best	Goldsboro	NC	5	280	3600195361	Nov-15	\$267,500		Light
						3600195361	Sep-13	\$260,000	\$267,800	
9	Mulberry	Selmer	TN	5	400	0900A011	Jul-14	\$130,000		Light
						099CA043	Feb-15	\$148,900	\$136,988	
10	Mulberry	Selmer	TN	5	400	099CA002	Jul-15	\$130,000		Light
						0990NA040	Mar-15	\$120,000	\$121,200	
11	Mulberry	Selmer	TN	5	480	491 Dusty	Oct-16	\$176,000		Light
						35 April	Aug-16	\$185,000	\$178,283	
12	Mulberry	Selmer	TN	5	650	297 Country	Sep-16	\$150,000		Medium
						53 Glen	Mar-17	\$126,000	\$144,460	
13	Mulberry	Selmer	TN	5	685	57 Cooper	Feb-19	\$163,000		Medium
						191 Amelia	Aug-18	\$132,000	\$155,947	
14	Leonard Rd	Hughesville	MD	5.5	230	14595 Box Elder	Feb-16	\$291,000		Light
						15313 Bassford Rd	Jul-16	\$329,800	\$292,760	
15	Neal Hawkins	Gastonia	NC	5	225	609 Neal Hawkins	Mar-17	\$270,000		Light
						1418 N Modena	Apr-18	\$225,000	\$242,520	
16	Summit	Moyock	NC	80	1,060	129 Pinto	Apr-16	\$170,000		Light
						102 Timber	Apr-16	\$175,500	\$175,101	
17	Summit	Moyock	NC	80	980	105 Pinto	Dec-16	\$206,000		Light
						127 Ranchland	Jun-15	\$219,900	\$198,120	
18	Tracy	Bailey	NC	5	780	9162 Winters	Jan-17	\$255,000		Heavy
						7352 Red Fox	Jun-16	\$176,000	\$252,399	
19	Manatee	Parrish	FL	75	1180	13670 Highland	Aug-18	\$255,000		Heavy
						13851 Highland	Sep-18	\$240,000	\$255,825	
20	McBride Place	Midland	NC	75	275	4380 Joyner	Nov-17	\$325,000		Medium
						3870 Elkwood	Aug-16	\$250,000	\$317,523	
21	McBride Place	Midland	NC	75	505	5811 Kristi	Mar-20	\$530,000		Medium
						3915 Tania	Dec-19	\$495,000	\$504,657	
22	Mariposa	Stanley	NC	5	1155	215 Mariposa	Dec-17	\$249,000		Light
						110 Airport	May-16	\$166,000	\$239,026	
23	Mariposa	Stanley	NC	5	570	242 Mariposa	Sep-15	\$180,000		Light
						110 Airport	Apr-16	\$166,000	\$175,043	
24	Clarke Cnty	White Post	VA	20	1230	833 Nations Spr	Jan-17	\$295,000		Light
						6801 Middle	Dec-17	\$249,999	\$296,157	
25	Candace	Princeton	NC	5	488	499 Herring	Sep-17	\$215,000		Medium
						1795 Bay Valley	Dec-17	\$194,000	\$214,902	
26	Walker	Barhamsville	VA	20	250	5241 Barham	Oct-18	\$264,000		Light
						9252 Ordinary	Jun-19	\$277,000	\$246,581	
27	AM Best	Goldsboro	NC	5	385	103 Granville Pl	Jul-18	\$265,000		Light
						2219 Granville	Jan-18	\$260,000	\$265,682	
28	AM Best	Goldsboro	NC	5	315	104 Erin	Jun-17	\$280,000		Light
						2219 Granville	Jan-18	\$265,000	\$274,390	
29	AM Best	Goldsboro	NC	5	400	2312 Granville	May-18	\$284,900		Light
						2219 Granville	Jan-18	\$265,000	\$273,948	

Residential Dwelling Matched Pairs Adjoining Solar Farms

Pair	Solar Farm	City	State	MW	Approx		Date	Adj. Sale		Veg.
					Distance	Tax ID/Address		Sale Price	Price	
30	AM Best	Goldsboro	NC	5	400	2310 Granville	May-19	\$280,000		Light
						634 Friendly	Jul-19	\$267,000	\$265,291	5%
31	Summit	Moyock	NC	80	570	318 Green View	Sep-19	\$357,000		Light
						336 Green View	Jan-19	\$365,000	\$340,286	5%
32	Summit	Moyock	NC	80	440	164 Ranchland	Apr-19	\$169,000		Light
						105 Longhorn	Oct-17	\$184,500	\$186,616	-10%
33	Summit	Moyock	NC	80	635	358 Oxford	Sep-19	\$478,000		Light
						176 Providence	Sep-19	\$425,000	\$456,623	4%
34	Summit	Moyock	NC	80	970	343 Oxford	Mar-17	\$490,000		Light
						218 Oxford	Apr-17	\$525,000	\$484,064	1%
35	Innov 46	Hope Mills	NC	78.5	435	6849 Roslin Farm	Feb-19	\$155,000		Light
						109 Bledsoe	Jan-19	\$150,000	\$147,558	5%
36	Innov 42	Fayetteville	NC	71	340	2923 County Line	Feb-19	\$385,000		Light
						2109 John McMillan	Apr-18	\$320,000	\$379,156	2%
37	Innov 42	Fayetteville	NC	71	330	2935 County Line	Jun-19	\$266,000		Light
						7031 Glynn Mill	May-18	\$255,000	\$264,422	1%
38	Sunfish	Willow Sprng	NC	6.4	205	7513 Glen Willow	Sep-17	\$185,000		Light
						205 Pine Burr	Dec-17	\$191,000	\$172,487	7%
39	Neal Hawkins	Gastonia	NC	5	145	611 Neal Hawkins	Jun-17	\$288,000		Light
						1211 Still Forrest	Jul-18	\$280,000	\$274,319	5%
40	Clarke Cnty	White Post	VA	20	1230	833 Nations Spr	Aug-19	\$385,000		Light
						2393 Old Chapel	Aug-20	\$330,000	\$389,286	-1%
41	Sappony	Stony Creek	VA	20	1425	12511 Palestine	Jul-18	\$128,400		Medium
						6494 Rocky Branch	Nov-18	\$100,000	\$131,842	-3%
42	Camden Dam	Camden	NC	5	342	122 N Mill Dam	Nov-18	\$350,000		Light
						548 Trotman	May-18	\$309,000	\$352,450	-1%
43	Grandy	Grandy	NC	20	405	120 Par Four	Aug-19	\$315,000		Light
						116 Barefoot	Sep-20	\$290,000	\$299,584	5%
44	Grandy	Grandy	NC	20	477	269 Grandy	May-19	\$275,000		Light
						103 Spring Leaf	Aug-18	\$270,000	\$275,912	0%
45	Champion	Pelion	SC	10	505	517 Old Charleston	Aug-20	\$110,000		Light
						1429 Laurel	Feb-19	\$126,000	\$107,856	2%
46	Barefoot Bay	Barefoot Bay	FL	74.5	765	465 Papaya	Jul-19	\$155,000		Medium
						1132 Waterway	Jul-20	\$129,000	\$141,618	9%
47	Barefoot Bay	Barefoot Bay	FL	74.5	750	455 Papaya	Sep-20	\$183,500		Medium
						904 Fir	Sep-20	\$192,500	\$186,697	-2%
48	Barefoot Bay	Barefoot Bay	FL	74.5	690	419 Papaya	Jul-19	\$127,500		Medium
						865 Tamarind	Feb-19	\$133,900	\$124,613	2%
49	Barefoot Bay	Barefoot Bay	FL	74.5	690	413 Papaya	Jul-20	\$130,000		Medium
						1367 Barefoot	Jan-21	\$130,500	\$139,507	-7%
50	Barefoot Bay	Barefoot Bay	FL	74.5	690	343 Papaya	Dec-19	\$145,000		Light
						865 Tamarind	Feb-19	\$133,900	\$142,403	2%
51	Barefoot Bay	Barefoot Bay	FL	74.5	710	335 Papaya	Apr-18	\$110,000		Light
						865 Tamarind	Feb-19	\$133,900	\$110,517	0%
52	Miami-Dade	Miami	FL	74.5	1390	13600 SW 182nd	Nov-20	\$1,684,000		Light
						17950 SW 158th	Oct-20	\$1,730,000	\$1,713,199	-2%
53	Spotsylvania	Paytes	VA	617	1270	12901 Orange Plnk	Aug-20	\$319,900		Medium
						12717 Flintlock	Dec-20	\$290,000	\$326,767	-2%
54	Spotsylvania	Paytes	VA	617	1950	9641 Nottoway	May-20	\$449,900		Medium
						11626 Forest	Aug-20	\$489,900	\$430,246	4%
55	Spotsylvania	Paytes	VA	617	1171	13353 Post Oak	Sep-20	\$300,000		Heavy
						12810 Catharpin	Jan-20	\$280,000	\$299,008	0%
56	McBride Place	Midland	NC	75	470	5833 Kristi	Sep-20	\$625,000		Light
						4055 Dakeita	Dec-20	\$600,000	\$594,303	5%

MW	Avg. Distance	Average	Indicated Impact
64.91	612	Average	1%
20.00	479	Median	1%
617.00	1,950	High	10%
5.00	145	Low	-10%

I have further broken down these results based on the MWs, Landscaping, and distance from panel to show the following range of findings for these different categories.

Most of the findings are for homes between 201 and 500 feet. Most of the findings are for Light landscaping screens.

Light landscaping screens are showing no impact on value at any distances, including for solar farms over 75.1 MW.

MW Range									
4.4 to 10									
Landscaping	Light	Light	Light	Medium	Medium	Medium	Heavy	Heavy	Heavy
Distance	100-200	201-500	500+	100-200	201-500	500+	100-200	201-500	500+
#	1	19	2	0	1	2	0	0	1
Average	5%	2%	3%	N/A	0%	4%	N/A	N/A	1%
Median	5%	1%	3%	N/A	0%	4%	N/A	N/A	1%
High	5%	10%	4%	N/A	0%	4%	N/A	N/A	1%
Low	5%	-5%	3%	N/A	0%	4%	N/A	N/A	1%
10.1 to 30									
Landscaping	Light	Light	Light	Medium	Medium	Medium	Heavy	Heavy	Heavy
Distance	100-200	201-500	500+	100-200	201-500	500+	100-200	201-500	500+
#	0	3	2	0	0	1	0	0	0
Average	N/A	4%	-1%	N/A	N/A	-3%	N/A	N/A	N/A
Median	N/A	5%	-1%	N/A	N/A	-3%	N/A	N/A	N/A
High	N/A	7%	0%	N/A	N/A	-3%	N/A	N/A	N/A
Low	N/A	0%	-1%	N/A	N/A	-3%	N/A	N/A	N/A
30.1 to 75									
Landscaping	Light	Light	Light	Medium	Medium	Medium	Heavy	Heavy	Heavy
Distance	100-200	201-500	500+	100-200	201-500	500+	100-200	201-500	500+
#	0	2	3	0	0	4	0	0	0
Average	N/A	1%	0%	N/A	N/A	0%	N/A	N/A	N/A
Median	N/A	1%	0%	N/A	N/A	0%	N/A	N/A	N/A
High	N/A	2%	2%	N/A	N/A	9%	N/A	N/A	N/A
Low	N/A	1%	-2%	N/A	N/A	-7%	N/A	N/A	N/A
75.1+									
Landscaping	Light	Light	Light	Medium	Medium	Medium	Heavy	Heavy	Heavy
Distance	100-200	201-500	500+	100-200	201-500	500+	100-200	201-500	500+
#	0	2	5	0	0	2	0	0	1
Average	N/A	-3%	2%	N/A	N/A	1%	N/A	N/A	0%
Median	N/A	-3%	4%	N/A	N/A	1%	N/A	N/A	0%
High	N/A	5%	5%	N/A	N/A	4%	N/A	N/A	0%
Low	N/A	-10%	-3%	N/A	N/A	-2%	N/A	N/A	0%

C. Summary of National Data on Solar Farms

I have worked in over 20 states related to solar farms and I have been tracking matched pairs in most of those states. On the following pages I provide a brief summary of those findings showing 37 solar farms over 5 MW studied with each one providing matched pair data supporting the findings of this report.

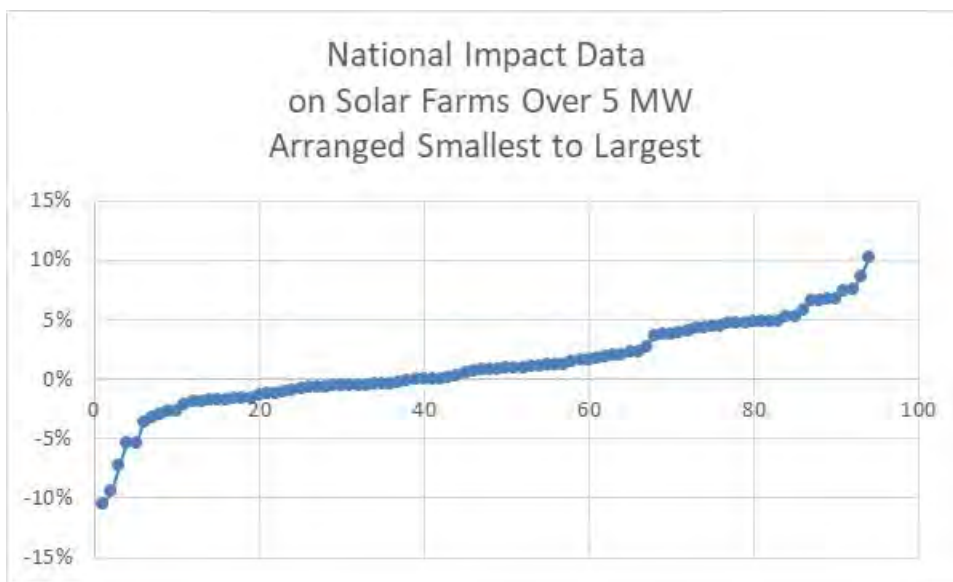
The solar farms summary is shown below with a summary of the matched pair data shown on the following page.

Matched Pair Summary						Adj. Uses By Acreage					1 mile Radius (2010-2020 Data)			Veg. Buffer
Name	City	State	Acres	MW	Topo	Shift	Res	Ag	Ag/Res	Com/Ind	Popl.	Income	Unit	
1	AM Best	Goldsboro	NC	38	5.00	2	38%	0%	23%	39%	1,523	\$37,358	\$148,375	Light
2	Mulberry	Selmer	TN	160	5.00	60	13%	73%	10%	3%	467	\$40,936	\$171,746	Lt to Med
3	Leonard	Hughesville	MD	47	5.00	20	18%	75%	0%	6%	525	\$106,550	\$350,000	Light
4	Gastonia SC	Gastonia	NC	35	5.00	48	33%	0%	23%	44%	4,689	\$35,057	\$126,562	Light
5	Summit	Moyock	NC	2,034	80.00	4	4%	0%	94%	2%	382	\$79,114	\$281,731	Light
7	Tracy	Bailey	NC	50	5.00	10	29%	0%	71%	0%	312	\$43,940	\$99,219	Heavy
8	Manatee	Parrish	FL	1,180	75.00	20	2%	97%	1%	0%	48	\$75,000	\$291,667	Heavy
9	McBride	Midland	NC	627	75.00	140	12%	10%	78%	0%	398	\$63,678	\$256,306	Lt to Med
10	Grand Ridge	Streator	IL	160	20.00	1	8%	87%	5%	0%	96	\$70,158	\$187,037	Light
11	Dominion	Indianapolis	IN	134	8.60	20	3%	97%	0%	0%	3,774	\$61,115	\$167,515	Light
12	Mariposa	Stanley	NC	36	5.00	96	48%	0%	52%	0%	1,716	\$36,439	\$137,884	Light
13	Clarke Cnty	White Post	VA	234	20.00	70	14%	39%	46%	1%	578	\$81,022	\$374,453	Light
14	Flemington	Flemington	NJ	120	9.36	N/A	13%	50%	28%	8%	3,477	\$105,714	\$444,696	Lt to Med
15	Frenchtown	Frenchtown	NJ	139	7.90	N/A	37%	35%	29%	0%	457	\$111,562	\$515,399	Light
16	McGraw	East Windsor	NJ	95	14.00	N/A	27%	44%	0%	29%	7,684	\$78,417	\$362,428	Light
17	Tinton Falls	Tinton Falls	NJ	100	16.00	N/A	98%	0%	0%	2%	4,667	\$92,346	\$343,492	Light
18	Simon	Social Circle	GA	237	30.00	71	1%	63%	36%	0%	203	\$76,155	\$269,922	Medium
19	Candace	Princeton	NC	54	5.00	22	76%	24%	0%	0%	448	\$51,002	\$107,171	Medium
20	Walker	Barhamsville	VA	485	20.00	N/A	12%	68%	20%	0%	203	\$80,773	\$320,076	Light
21	Innov 46	Hope Mills	NC	532	78.50	0	17%	83%	0%	0%	2,247	\$58,688	\$183,435	Light
22	Innov 42	Fayetteville	NC	414	71.00	0	41%	59%	0%	0%	568	\$60,037	\$276,347	Light
23	Demille	Lapeer	MI	160	28.40	10	10%	68%	0%	22%	2,010	\$47,208	\$187,214	Light
24	Turrill	Lapeer	MI	230	19.60	10	75%	59%	0%	25%	2,390	\$46,839	\$110,361	Light
25	Sunfish	Willow Spring	NC	50	6.40	30	35%	35%	30%	0%	1,515	\$63,652	\$253,138	Light
26	Picture Rocks	Tucson	AZ	182	20.00	N/A	6%	88%	6%	0%	102	\$81,081	\$280,172	None
27	Avra Valley	Tucson	AZ	246	25.00	N/A	3%	94%	3%	0%	85	\$80,997	\$292,308	None
28	Sappony	Stony Crk	VA	322	20.00	N/A	2%	98%	0%	0%	74	\$51,410	\$155,208	Medium
29	Camden Dam	Camden	NC	50	5.00	0	17%	72%	11%	0%	403	\$84,426	\$230,288	Light
30	Grandy	Grandy	NC	121	20.00	10	55%	24%	0%	21%	949	\$50,355	\$231,408	Light
31	Champion	Pelion	SC	100	10.00	N/A	4%	70%	8%	18%	1,336	\$46,867	\$171,939	Light
32	Eddy II	Eddy	TX	93	10.00	N/A	15%	25%	58%	2%	551	\$59,627	\$139,088	Light
33	Somerset	Somerset	TX	128	10.60	N/A	5%	95%	0%	0%	1,293	\$41,574	\$135,490	Light
34	DG Amp Piqua	Piqua	OH	86	12.60	2	26%	16%	58%	0%	6,735	\$38,919	\$96,555	Light
45	Barefoot Bay	Barefoot Bay	FL	504	74.50	0	11%	87%	0%	3%	2,446	\$36,737	\$143,320	Lt to Med
36	Miami-Dade	Miami	FL	347	74.50	0	26%	74%	0%	0%	127	\$90,909	\$403,571	Light
37	Spotyslvania	Paytes	VA	3,500	617.00	160	37%	52%	11%	0%	74	\$120,861	\$483,333	Med to Hvy
Average				362	42.05	32	24%	52%	19%	6%	1,515	\$66,292	\$242,468	
Median				150	17.80	10	16%	59%	7%	0%	560	\$62,384	\$230,848	
High				3,500	617.00	160	98%	98%	94%	44%	7,684	\$120,861	\$515,399	
Low				35	5.00	0	1%	0%	0%	0%	48	\$35,057	\$96,555	

From these 37 solar farms, I have derived 94 matched pairs. The matched pairs show no negative impact at distances as close as 105 feet between a solar panel and the nearest point on a home. The range of impacts is -10% to +10% with an average and median of +1%.

	MW	Avg. Distance	Indicated Impact
Average	44.80	569	1%
Median	14.00	400	1%
High	617.00	1,950	10%
Low	5.00	145	-10%

While the range is broad, the two charts below show the data points in range from lowest to highest. There is only 3 data points out of 94 that show a negative impact. The rest support either a finding of no impact or 9 of the data points suggest a positive impact due to adjacency to a solar farm. As discussed earlier in this report, I consider this data to strongly support a finding of no impact on value as most of the findings are within typical market variation and even within that, most are mildly positive findings.



D. Larger Solar Farms

I have also considered larger solar farms to address impacts related to larger projects. Projects have been increasing in size and most of the projects between 100 and 1000 MW are newer with little time for adjoining sales. I have included a breakdown of solar farms with 20 MW to 80 MW facilities with one 500 MW facility.

Matched Pair Summary - @20 MW And Larger						Adj. Uses By Acreage					1 mile Radius (2010-2019 Data)			Veg. Buffer
Name	City	State	Acres	MW	Topo Shift	Res	Ag	Ag/Res	Com/Ind	Popl.	Med. Income	Avg. Housing Unit		
1	Summit	Moyock	NC	2,034	80.00	4	4%	0%	94%	2%	382	\$79,114	\$281,731	Light
2	Manatee	Parrish	FL	1,180	75.00	20	2%	97%	1%	0%	48	\$75,000	\$291,667	Heavy
3	McBride	Midland	NC	627	75.00	140	12%	10%	78%	0%	398	\$63,678	\$256,306	Lt to Med
4	Grand Ridge	Streator	IL	160	20.00	1	8%	87%	5%	0%	96	\$70,158	\$187,037	Light
5	Clarke Cnty	White Post	VA	234	20.00	70	14%	39%	46%	1%	578	\$81,022	\$374,453	Light
6	Simon	Social Circle	GA	237	30.00	71	1%	63%	36%	0%	203	\$76,155	\$269,922	Medium
7	Walker	Barhamsville	VA	485	20.00	N/A	12%	68%	20%	0%	203	\$80,773	\$320,076	Light
8	Innov 46	Hope Mills	NC	532	78.50	0	17%	83%	0%	0%	2,247	\$58,688	\$183,435	Light
9	Innov 42	Fayetteville	NC	414	71.00	0	41%	59%	0%	0%	568	\$60,037	\$276,347	Light
10	Demille	Lapeer	MI	160	28.40	10	10%	68%	0%	22%	2,010	\$47,208	\$187,214	Light
11	Turrill	Lapeer	MI	230	19.60	10	75%	59%	0%	25%	2,390	\$46,839	\$110,361	Light
12	Picture Rocks	Tucson	AZ	182	20.00	N/A	6%	88%	6%	0%	102	\$81,081	\$280,172	Light
13	Avra Valley	Tucson	AZ	246	25.00	N/A	3%	94%	3%	0%	85	\$80,997	\$292,308	None
14	Sappony	Stony Crk	VA	322	20.00	N/A	2%	98%	0%	0%	74	\$51,410	\$155,208	None
15	Grandy	Grandy	NC	121	20.00	10	55%	24%	0%	21%	949	\$50,355	\$231,408	Medium
16	Barefoot Bay	Barefoot Bay	FL	504	74.50	0	11%	87%	0%	3%	2,446	\$36,737	\$143,320	Lt to Med
17	Miami-Dade	Miami	FL	347	74.50	0	26%	74%	0%	0%	127	\$90,909	\$403,571	Light
18	Spotyslvania	Paytes	VA	3,500	617.00	160	37%	52%	11%	0%	74	\$120,861	\$483,333	Med to Hvy
Average			640	76.03			19%	64%	17%	4%	721	\$69,501	\$262,659	
Median			335	29.20			12%	68%	2%	0%	293	\$72,579	\$273,135	
High			3,500	617.00			75%	98%	94%	25%	2,446	\$120,861	\$483,333	
Low			121	19.60			1%	0%	0%	0%	48	\$36,737	\$110,361	

The breakdown of adjoining uses, population density, median income and housing prices for these projects are very similar to those of the larger set. The matched pairs for each of these were considered earlier and support a finding of no negative impact on the adjoining home values.

I have included a breakdown of solar farms with 50 MW to 617 MW facilities adjoining.

Matched Pair Summary - @50 MW And Larger						Adj. Uses By Acreage					1 mile Radius (2010-2019 Data)			Veg. Buffer
Name	City	State	Acres	MW	Topo Shift	Res	Ag	Ag/Res	Com/Ind	Popl.	Med. Income	Avg. Housing Unit		
1	Summit	Moyock	NC	2,034	80.00	4	4%	0%	94%	2%	382	\$79,114	\$281,731	Light
2	Manatee	Parrish	FL	1,180	75.00	20	2%	97%	1%	0%	48	\$75,000	\$291,667	Heavy
3	McBride	Midland	NC	627	75.00	140	12%	10%	78%	0%	398	\$63,678	\$256,306	Lt to Med
4	Innov 46	Hope Mills	NC	532	78.50	0	17%	83%	0%	0%	2,247	\$58,688	\$183,435	Light
5	Innov 42	Fayetteville	NC	414	71.00	0	41%	59%	0%	0%	568	\$60,037	\$276,347	Light
6	Barefoot Bay	Barefoot Bay	FL	504	74.50	0	11%	87%	0%	3%	2,446	\$36,737	\$143,320	Lt to Med
7	Miami-Dade	Miami	FL	347	74.50	0	26%	74%	0%	0%	127	\$90,909	\$403,571	Light
8	Spotyslvania	Paytes	VA	3,500	617.00	160	37%	52%	11%	0%	74	\$120,861	\$483,333	Med to Hvy
Average			1,142	143.19			19%	58%	23%	1%	786	\$73,128	\$289,964	
Median			580	75.00			15%	67%	0%	0%	390	\$69,339	\$279,039	
High			3,500	617.00			41%	97%	94%	3%	2,446	\$120,861	\$483,333	
Low			347	71.00			2%	0%	0%	0%	48	\$36,737	\$143,320	

The breakdown of adjoining uses, population density, median income and housing prices for these projects are very similar to those of the larger set. The matched pairs for each of these were considered earlier and support a finding of no negative impact on the adjoining home values.

The data for these larger solar farms is shown in the SE USA and the National data breakdowns with similar landscaping, setbacks and range of impacts that fall mostly in the +/-5% range as can be seen earlier in this report.

On the following page I show 81 projects ranging in size from 50 MW up to 1,000 MW with an average size of 111.80 MW and a median of 80 MW. The average closest distance for an adjoining home is 263 feet, while the median distance is 188 feet. The closest distance is 57 feet. The mix of adjoining uses is similar with most of the adjoining uses remaining residential or agricultural in nature. This is the list of solar farms that I have researched for possible matched pairs and not a complete list of larger solar farms in those states.

Parcel #	State	City	Name	Output Total		Used Acres	Avg. Dist		Closest Adjoining Use by Acre			
				(MW)	Acres		to home	Home	Res	Agri	Ag/R	Com
78	NC	Moyock	Summit/Ranchland	80	2034		674	360	4%	94%	0%	2%
133	MS	Hattiesburg	Hattiesburg	50	1129	479.6	650	315	35%	65%	0%	0%
179	SC	Ridgeland	Jasper	140	1600	1000	461	108	2%	85%	13%	0%
211	NC	Enfield	Chestnut	75	1428.1		1,429	210	4%	96%	0%	0%
222	VA	Chase City	Grasshopper	80	946.25				6%	87%	5%	1%
226	VA	Louisa	Belcher	88	1238.1			150	19%	53%	28%	0%
305	FL	Dade City	Mountain View	55	347.12		510	175	32%	39%	21%	8%
319	FL	Jasper	Hamilton	74.9	1268.9	537	3,596	240	5%	67%	28%	0%
336	FL	Parrish	Manatee	74.5	1180.4		1,079	625	2%	50%	1%	47%
337	FL	Arcadia	Citrus	74.5	640				0%	0%	100%	0%
338	FL	Port Charlotte	Babcock	74.5	422.61				0%	0%	100%	0%
353	VA	Oak Hall	Amazon East(ern st	80	1000		645	135	8%	75%	17%	0%
364	VA	Stevensburg	Greenwood	100	2266.6	1800	788	200	8%	62%	29%	0%
368	NC	Warsaw	Warsaw	87.5	585.97	499	526	130	11%	66%	21%	3%
390	NC	Ellerbe	Innovative Solar 34	50	385.24	226	N/A	N/A	1%	99%	0%	0%
399	NC	Midland	McBride	74.9	974.59	627	1,425	140	12%	78%	9%	0%
400	FL	Mulberry	Alafia	51	420.35		490	105	7%	90%	3%	0%
406	VA	Clover	Foxhound	91	1311.8		885	185	5%	61%	17%	18%
410	FL	Trenton	Trenton	74.5	480		2,193	775	0%	26%	55%	19%
411	NC	Battleboro	Fern	100	1235.4	960.71	1,494	220	5%	76%	19%	0%
412	MD	Goldsboro	Cherrywood	202	1722.9	1073.7	429	200	10%	76%	13%	0%
434	NC	Conetoe	Conetoe	80	1389.9	910.6	1,152	120	5%	78%	17%	0%
440	FL	Debary	Debary	74.5	844.63		654	190	3%	27%	0%	70%
441	FL	Hawthorne	Horizon	74.5	684				3%	81%	16%	0%
484	VA	Newsoms	Southampton	100	3243.9		-	-	3%	78%	17%	3%
486	VA	Stuarts Draft	Augusta	125	3197.4	1147	588	165	16%	61%	16%	7%
491	NC	Misenheimer	Misenheimer 2018	80	740.2	687.2	504	130	11%	40%	22%	27%
494	VA	Shackelfords	Walnut	110	1700	1173	641	165	14%	72%	13%	1%
496	VA	Clover	Piney Creek	80	776.18	422	523	195	15%	62%	24%	0%
511	NC	Scotland Neck	American Beech	160	3255.2	1807.8	1,262	205	2%	58%	38%	3%
514	NC	Reidsville	Williamsburg	80	802.6	507	734	200	25%	12%	63%	0%
517	VA	Luray	Cape	100	566.53	461	519	110	42%	12%	46%	0%
518	VA	Emporia	Fountain Creek	80	798.3	595	862	300	6%	23%	71%	0%
525	NC	Plymouth	Macadamia	484	5578.7	4813.5	1,513	275	1%	90%	9%	0%
526	NC	Moorestown	Broad River	50	759.8	365	419	70	29%	55%	16%	0%
555	FL	Mulberry	Durrance	74.5	463.57	324.65	438	140	3%	97%	0%	0%
560	NC	Yadkinville	Sugar	60	477	357	382	65	19%	39%	20%	22%
561	NC	Enfield	Halifax 80mw 2019	80	1007.6	1007.6	672	190	8%	73%	19%	0%
577	VA	Windsor	Windsor	85	564.1	564.1	572	160	9%	67%	24%	0%
579	VA	Paytes	Spotsylvania	500	6412	3500			9%	52%	11%	27%
582	NC	Salisbury	China Grove	65	428.66	324.26	438	85	58%	4%	38%	0%
583	NC	Walnut Cove	Lick Creek	50	1424	185.11	410	65	20%	64%	11%	5%
584	NC	Enfield	Sweetleaf	94	1956.3	1250	968	160	5%	63%	32%	0%
586	VA	Aylett	Sweet Sue	77	1262	576	1,617	680	7%	68%	25%	0%
593	NC	Windsor	Sumac	120	3360.6	1257.9	876	160	4%	90%	6%	0%
599	TN	Somerville	Yum Yum	147	4000	1500	1,862	330	3%	32%	64%	1%
602	GA	Waynesboro	White Oak	76.5	516.7	516.7	2,995	1,790	1%	34%	65%	0%
603	GA	Butler	Butler GA	103	2395.1	2395.1	1,534	255	2%	73%	23%	2%
604	GA	Butler	White Pine	101.2	505.94	505.94	1,044	100	1%	51%	48%	1%
605	GA	Metter	Live Oak	51	417.84	417.84	910	235	4%	72%	23%	0%
606	GA	Hazelhurst	Hazelhurst II	52.5	947.15	490.42	2,114	105	9%	64%	27%	0%
607	GA	Bainbridge	Decatur Parkway	80	781.5	781.5	1,123	450	2%	27%	22%	49%
608	GA	Leslie-DeSoto	Americus	1000	9661.2	4437	5,210	510	1%	63%	36%	0%
616	FL	Fort White	Fort White	74.5	570.5	457.2	828	220	12%	71%	17%	0%
621	VA	Spring Grove	Loblolly	150	2181.9	1000	1,860	110	7%	62%	31%	0%
622	VA	Scottsville	Woodridge	138	2260.9	1000	1,094	170	9%	63%	28%	0%
625	NC	Middlesex	Phobos	80	754.52	734	356	57	14%	75%	10%	0%
628	MI	Deerfield	Carroll Road	200	1694.8	1694.8	343	190	12%	86%	0%	2%
633	VA	Emporia	Brunswick	150.2	2076.4	1387.3	1,091	240	4%	85%	11%	0%
634	NC	Elkin	Partin	50	429.4	257.64	945	155	30%	25%	15%	30%

Parcel #	State	City	Name	Output Total	Used	Avg. Dist	Closest	Adjoining Use by Acre				
				(MW)	Acres	Acres	to home	Home	Res	Agri	Ag/R	Com
638	GA	Dry Branch	Twiggs	200	2132.7	2132.7	-	-	10%	55%	35%	0%
639	NC	Hope Mills	Innovative Solar 46	78.5	531.87	531.87	423	125	17%	83%	0%	0%
640	NC	Hope Mills	Innovative Solar 42	71	413.99	413.99	375	135	41%	59%	0%	0%
645	NC	Stanley	Hornet	75	1499.5	858.4	663	110	30%	40%	23%	6%
650	NC	Grifton	Grifton 2	56	681.59	297.6	363	235	1%	99%	0%	0%
651	NC	Grifton	Buckleberry	52.1	367.67	361.67	913	180	5%	54%	41%	0%
657	KY	Greensburg	Horseshoe Bend	60	585.65	395	1,394	63	3%	36%	61%	0%
658	KY	Campbellsville	Flat Run	55	429.76	429.76	408	115	13%	52%	35%	0%
666	FL	Archer	Archer	74.9	636.94	636.94	638	200	43%	57%	0%	0%
667	FL	New Smyrna Beach	Pioneer Trail	74.5	1202.8	900	1,162	225	14%	61%	21%	4%
668	FL	Lake City	Sunshine Gateway	74.5	904.29	472	1,233	890	11%	80%	8%	0%
669	FL	Florahome	Coral Farms	74.5	666.54	580	1,614	765	19%	75%	7%	0%
672	VA	Appomattox	Spout Spring	60	881.12	673.37	836	335	16%	30%	46%	8%
676	TX	Stamford	Alamo 7	106.4	1663.1	1050	-	-	6%	83%	0%	11%
677	TX	Fort Stockton	RE Roserock	160	1738.2	1500	-	-	0%	100%	0%	0%
678	TX	Lamesa	Lamesa	102	914.5	655	921	170	4%	41%	11%	44%
679	TX	Lamesa	Ivory	50	706	570	716	460	0%	87%	2%	12%
680	TX	Uvalde	Alamo 5	95	830.35	800	925	740	1%	93%	6%	0%
684	NC	Waco	Brookcliff	50	671.03	671.03	560	150	7%	21%	15%	57%
689	AZ	Arlington	Mesquite	320.8	3774.5	2617	1,670	525	8%	92%	0%	0%
692	AZ	Tucson	Avalon	51	479.21	352	-	-	0%	100%	0%	0%
				81								
Average				111.80	1422.4	968.4	1031	263	10%	62%	22%	6%
Median				80.00	914.5	646.0	836	188	7%	64%	17%	0%
High				1000.00	9661.2	4813.5	5210	1790	58%	100%	100%	70%
Low				50.00	347.1	185.1	343	57	0%	0%	0%	0%

VIII. Distance Between Homes and Panels

I have measured distances at matched pairs as close as 105 feet between panel and home to show no impact on value. This measurement goes from the closest point on the home to the closest solar panel. This is a strong indication that at this distance there is no impact on adjoining homes.

However, in tracking other approved solar farms across Georgia, Virginia, North Carolina and other states, I have found that it is common for there to be homes within 100 to 150 feet of solar panels. Given the visual barriers in the form of privacy fencing or landscaping, there is no sign of negative impact.

I have also tracked a number of locations where solar panels are between 50 and 100 feet of single-family homes. In these cases the landscaping is typically a double row of more mature evergreens at time of planting. There are many examples of solar farms with one or two homes closer than 100-feet, but most of the adjoining homes are further than that distance.

IX. Topography

As shown on the summary charts for the solar farms, I have been identifying the topographic shifts across the solar farms considered. Differences in topography can impact visibility of the panels, though typically this results in distant views of panels as opposed to up close views. The topography noted for solar farms showing no impact on adjoining home values range from as much as 160-foot shifts across the project. Given that appearance is the only factor of concern and that distance plus landscape buffering typically addresses up close views, this leaves a number of potentially distant views of panels. I specifically note that in Crittenden in KY there are distant views of panels from the adjoining homes that showed no impact on value.

General rolling terrain with some distant solar panel views are showing no impact on adjoining property value.

X. Potential Impacts During Construction

Any development of a site will have a certain amount of construction, whether it is for a commercial agricultural use such as large-scale poultry operations or a new residential subdivision. Construction will be temporary and consistent with other development uses of the land and in fact dust from the construction will likely be less than most other construction projects given the minimal grading. I would not anticipate any impacts on property value due to construction on the site.

I note that in the matched pairs that I have included there have been a number of home sales that happened after a solar farm was approved but before the solar farm was built showing no impact on property value. Therefore the anticipated construction had no impact as shown by that data.

XI. Scope of Research

I have researched over 1,000 solar farms and sites on which solar farms are existing and proposed in Georgia, Virginia, Illinois, Tennessee, North Carolina, Kentucky as well as other states to determine what uses are typically found in proximity with a solar farm. The data I have collected and provide in this report strongly supports the assertion that solar farms are having no negative consequences on adjoining agricultural and residential values.

Beyond these references, I have quantified the adjoining uses for a number of solar farm comparables to derive a breakdown of the adjoining uses for each solar farm. The chart below shows the breakdown of adjoining or abutting uses by total acreage.

Percentage By Adjoining Acreage									
	Res	Ag	Res/AG	Comm	Ind	Avg Home	Closest Home	All Res Uses	All Comm Uses
Average	19%	53%	20%	2%	6%	887	344	91%	8%
Median	11%	56%	11%	0%	0%	708	218	100%	0%
High	100%	100%	100%	93%	98%	5,210	4,670	100%	98%
Low	0%	0%	0%	0%	0%	90	25	0%	0%

Res = Residential, Ag = Agriculture, Com = Commercial

Total Solar Farms Considered: 705

I have also included a breakdown of each solar farm by number of adjoining parcels to the solar farm rather than based on adjoining acreage. Using both factors provide a more complete picture of the neighboring properties.

Percentage By Number of Parcels Adjoining									
	Res	Ag	Res/AG	Comm	Ind	Avg Home	Closest Home	All Res Uses	All Comm Uses
Average	61%	24%	9%	2%	4%	887	344	93%	6%
Median	65%	19%	5%	0%	0%	708	218	100%	0%
High	100%	100%	100%	60%	78%	5,210	4,670	105%	78%
Low	0%	0%	0%	0%	0%	90	25	0%	0%

Res = Residential, Ag = Agriculture, Com = Commercial

Total Solar Farms Considered: 705

Both of the above charts show a marked residential and agricultural adjoining use for most solar farms. Every single solar farm considered included an adjoining residential or residential/agricultural use.

XII. Specific Factors Related To Impacts on Value

I have completed a number of Impact Studies related to a variety of uses and I have found that the most common areas for impact on adjoining values typically follow a hierarchy with descending levels of potential impact. I will discuss each of these categories and how they relate to a solar farm.

1. Hazardous material
2. Odor
3. Noise
4. Traffic
5. Stigma
6. Appearance

1. Hazardous material

A solar farm presents no potential hazardous waste byproduct as part of normal operation. Any fertilizer, weed control, vehicular traffic, or construction will be significantly less than typically applied in a residential development and even most agricultural uses.

The various solar farms that I have inspected and identified in the addenda have no known environmental impacts associated with the development and operation.

2. Odor

The various solar farms that I have inspected produced no odor.

3. Noise

Whether discussing passive fixed solar panels, or single-axis trackers, there is no negative impact associated with noise from a solar farm. The transformer reportedly has a hum similar to an HVAC that can only be heard in close proximity to this transformer and the buffers on the property are sufficient to make emitted sounds inaudible from the adjoining properties. No sound is emitted from the facility at night.

The various solar farms that I have inspected were inaudible from the roadways.

4. Traffic

The solar farm will have no onsite employee's or staff. The site requires only minimal maintenance. Relative to other potential uses of the site (such as a residential subdivision), the additional traffic generated by a solar farm use on this site is insignificant.

5. Stigma

There is no stigma associated with solar farms and solar farms and people generally respond favorably towards such a use. While an individual may express concerns about proximity to a solar farm, there is no specific stigma associated with a solar farm. Stigma generally refers to things such as adult establishments, prisons, rehabilitation facilities, and so forth.

Solar panels have no associated stigma and in smaller collections are found in yards and roofs in many residential communities. Solar farms are adjoining elementary, middle and high schools as well as churches and subdivisions. I note that one of the solar farms in this report not only adjoins a church, but is actually located on land owned by the church. Solar panels on a roof are often cited as an enhancement to the property in marketing brochures.

I see no basis for an impact from stigma due to a solar farm.

6. Appearance

I note that larger solar farms using fixed or tracking panels are a passive use of the land that is in keeping with a rural/residential area. As shown below, solar farms are comparable to larger greenhouses. This is not surprising given that a greenhouse is essentially another method for collecting passive solar energy. The greenhouse use is well received in residential/rural areas and has a similar visual impact as a solar farm.



The solar panels are all less than 15 feet high, which means that the visual impact of the solar panels will be similar in height to a typical greenhouse and lower than a single-story residential dwelling. Were the subject property developed with single family housing, that development would have a much greater visual impact on the surrounding area given that a two-story home with attic could be three to four times as high as these proposed panels.

Whenever you consider the impact of a proposed project on viewshed or what the adjoining owners may see from their property it is important to distinguish whether or not they have a protected viewshed or not. Enhancements for scenic vistas are often measured when considering properties that adjoin preserved open space and parks. However, adjoining land with a preferred view today conveys no guarantee that the property will continue in the current use. Any consideration of the impact of the appearance requires a consideration of the wide variety of other uses a property already has the right to be put to, which for solar farms often includes subdivision development, agricultural business buildings such as poultry, or large greenhouses and the like.

Dr. Randall Bell, MAI, PhD, and author of the book **Real Estate Damages**, Third Edition, on Page 146 “Views of bodies of water, city lights, natural settings, parks, golf courses, and other amenities are considered desirable features, particularly for residential properties.” Dr. Bell continues on Page 147 that “View amenities may or may not be protected by law or regulation. It is sometimes argued that views have value only if they are protected by a view easement, a zoning ordinance, or covenants, conditions, and restrictions (CC&Rs), although such protections are relatively

uncommon as a practical matter. The market often assigns significant value to desirable views irrespective of whether or not such views are protected by law.”

Dr. Bell concludes that a view enhances adjacent property, even if the adjacent property has no legal right to that view. He then discusses a “borrowed” view where a home may enjoy a good view of vacant land or property beyond with a reasonable expectation that the view might be partly or completely obstructed upon development of the adjoining land. He follows that with “This same concept applies to potentially undesirable views of a new development when the development conforms to applicable zoning and other regulations. Arguing value diminution in such cases is difficult, since the possible development of the offending property should have been known.” In other words, if there is an allowable development on the site then arguing value diminution with such a development would be difficult. This further extends to developing the site with alternative uses that are less impactful on the view than currently allowed uses.

This gets back to the point that if a property has development rights and could currently be developed in such a way that removes the viewshed such as a residential subdivision, then a less intrusive use such as a solar farm that is easily screened by landscaping would not have a greater impact on the viewshed of any perceived value adjoining properties claim for viewshed. Essentially, if there are more impactful uses currently allowed, then how can you claim damages for a less impactful use.

7. Conclusion

On the basis of the factors described above, it is my professional opinion that the proposed solar farm will not negatively impact adjoining property values. The only category of impact of note is appearance, which is addressed through setbacks and landscaping buffers. The matched pair data supports that conclusion.

XIII. Conclusion

The matched pair analysis shows no negative impact in home values due to abutting or adjoining a solar farm as well as no impact to abutting or adjacent vacant residential or agricultural land. The criteria that typically correlates with downward adjustments on property values such as noise, odor, and traffic all support a finding of no impact on property value.

Very similar solar farms in very similar areas have been found by hundreds of towns and counties not to have a substantial injury to abutting or adjoining properties, and many of those findings of no impact have been upheld by appellate courts. Similar solar farms have been approved adjoining agricultural uses, schools, churches, and residential developments.

I have found no difference in the mix of adjoining uses or proximity to adjoining homes based on the size of a solar farm and I have found no significant difference in the matched pair data adjoining larger solar farms versus smaller solar farms. The data in the Southeast is consistent with the larger set of data that I have nationally, as is the more specific data located in Georgia.

Based on the data and analysis in this report, it is my professional opinion that the solar farm proposed at the subject property will have no negative impact on the value of adjoining or abutting property. I note that some of the positive implications of a solar farm that have been expressed by people living next to solar farms include protection from future development of residential developments or other more intrusive uses, reduced dust, odor and chemicals from former farming operations, protection from light pollution at night, it's quiet, and there is no traffic.

XIV. Certification

I certify that, to the best of my knowledge and belief:

1. The statements of fact contained in this report are true and correct;
2. The reported analyses, opinions, and conclusions are limited only by the reported assumptions and limiting conditions, and are my personal, unbiased professional analyses, opinions, and conclusions;
3. I have no present or prospective interest in the property that is the subject of this report and no personal interest with respect to the parties involved;
4. I have no bias with respect to the property that is the subject of this report or to the parties involved with this assignment;
5. My engagement in this assignment was not contingent upon developing or reporting predetermined results;
6. My compensation for completing this assignment is not contingent upon the development or reporting of a predetermined value or direction in value that favors the cause of the client, the amount of the value opinion, the attainment of a stipulated result, or the occurrence of a subsequent event directly related to the intended use of the appraisal;
7. The reported analyses, opinions, and conclusions were developed, and this report has been prepared, in conformity with the requirements of the Code of Professional Ethics and Standards of Professional Appraisal Practice of the Appraisal Institute;
8. My analyses, opinions and conclusions were developed, and this report has been prepared, in conformity with the Uniform Standards of Professional Appraisal Practice.
9. The use of this report is subject to the requirements of the Appraisal Institute relating to review by its duly authorized representatives;
10. I have not made a personal inspection of the property that is the subject of this report, and;
11. No one provided significant real property appraisal assistance to the person signing this certification.
12. As of the date of this report I have completed the continuing education program for Designated Members of the Appraisal Institute;
13. I provided an earlier analysis on this project with a slightly different layout on November 11, 2019. I have not completed any other appraisal related assignments regarding this project within the three years prior to engagement in this current assignment.

Disclosure of the contents of this appraisal report is governed by the bylaws and regulations of the Appraisal Institute and the National Association of Realtors.

Neither all nor any part of the contents of this appraisal report shall be disseminated to the public through advertising media, public relations media, news media, or any other public means of communications without the prior written consent and approval of the undersigned.




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Professional Experience

Kirkland Appraisals, LLC , Raleigh, N.C. Commercial appraiser	2003 – Present
Hester & Company , Raleigh, N.C. Commercial appraiser	1996 – 2003

Professional Affiliations

MAI (Member, Appraisal Institute) designation #11796	2001
NC State Certified General Appraiser # A4359	1999
VA State Certified General Appraiser # 4001017291	
SC State Certified General Appraiser # 6209	
FL State Certified General Appraiser # RZ3950	
GA State Certified General Appraiser # 321885	
MI State Certified General Appraiser # 1201076620	
PA State Certified General Appraiser # GA004598	
OH State Certified General Appraiser # 2021008689	
IN State Certified General Appraiser # CG42100052	

Education

Bachelor of Arts in English , University of North Carolina, Chapel Hill	1993
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Continuing Education

Uniform Standards of Professional Appraisal Practice Update	2022
Sexual Harassment Prevention Training	2021
Appraisal of Land Subject to Ground Leases	2021
Florida Appraisal Laws and Regulations	2020
Michigan Appraisal Law	2020
Uniform Standards of Professional Appraisal Practice Update	2020
Uniform Appraisal Standards for Federal Land Acquisitions (Yellow Book)	2019
The Cost Approach	2019
Income Approach Case Studies for Commercial Appraisers	2018
Introduction to Expert Witness Testimony for Appraisers	2018
Appraising Small Apartment Properties	2018
Florida Appraisal Laws and Regulations	2018
Uniform Standards of Professional Appraisal Practice Update	2018
Appraisal of REO and Foreclosure Properties	2017
Appraisal of Self Storage Facilities	2017
Land and Site Valuation	2017
NCDOT Appraisal Principles and Procedures	2017
Uniform Standards of Professional Appraisal Practice Update	2016
Forecasting Revenue	2015
Wind Turbine Effect on Value	2015

Supervisor/Trainee Class	2015
Business Practices and Ethics	2014
Subdivision Valuation	2014
Uniform Standards of Professional Appraisal Practice Update	2014
Introduction to Vineyard and Winery Valuation	2013
Appraising Rural Residential Properties	2012
Uniform Standards of Professional Appraisal Practice Update	2012
Supervisors/Trainees	2011
Rates and Ratios: Making sense of GIMs, OARs, and DCFs	2011
Advanced Internet Search Strategies	2011
Analyzing Distressed Real Estate	2011
Uniform Standards of Professional Appraisal Practice Update	2011
Business Practices and Ethics	2011
Appraisal Curriculum Overview (2 Days – General)	2009
Appraisal Review - General	2009
Uniform Standards of Professional Appraisal Practice Update	2008
Subdivision Valuation: A Comprehensive Guide	2008
Office Building Valuation: A Contemporary Perspective	2008
Valuation of Detrimental Conditions in Real Estate	2007
The Appraisal of Small Subdivisions	2007
Uniform Standards of Professional Appraisal Practice Update	2006
Evaluating Commercial Construction	2005
Conservation Easements	2005
Uniform Standards of Professional Appraisal Practice Update	2004
Condemnation Appraising	2004
Land Valuation Adjustment Procedures	2004
Supporting Capitalization Rates	2004
Uniform Standards of Professional Appraisal Practice, C	2002
Wells and Septic Systems and Wastewater Irrigation Systems	2002
Appraisals 2002	2002
Analyzing Commercial Lease Clauses	2002
Conservation Easements	2000
Preparation for Litigation	2000
Appraisal of Nonconforming Uses	2000
Advanced Applications	2000
Highest and Best Use and Market Analysis	1999
Advanced Sales Comparison and Cost Approaches	1999
Advanced Income Capitalization	1998
Valuation of Detrimental Conditions in Real Estate	1999
Report Writing and Valuation Analysis	1999
Property Tax Values and Appeals	1997
Uniform Standards of Professional Appraisal Practice, A & B	1997
Basic Income Capitalization	1996