

Appendix A

PROPERTY VALUE IMPACT ANALYSIS

Lost City Renewables LLC

Muhlenberg County, Kentucky



Kirkland Appraisals, LLC

Richard C. Kirkland, Jr., MAI
9408 Northfield Court
Raleigh, North Carolina 27603
Phone (919) 414-8142
rkirkland2@gmail.com
www.kirklandappraisals.com

January 29, 2025

Marty Marchaterre
Copperhead Environmental Consulting, Inc.
133 Walton Avenue
Lexington, KY 40508

RE: Lost City Solar, near Penrod, Muhlenburg, KY

Mr. Marchaterre

At your request, I have considered the impact of a 250 MW solar farm proposed to be constructed on a portion of a 1,413-acre assemblage of land located near Penrod, Muhlenburg, Kentucky. Specifically, I have been asked to give my professional opinion on 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 Kentucky 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. My client is Copperhead Environmental Consulting, Inc, represented to me by Mr. Marty Marchaterre. My findings support the Kentucky Siting Board Application. The effective date of this consultation is January 29, 2025.

Conclusion

The adjoining properties are well set back from the proposed solar panels with supplemental landscaping as needed to provide a landscaped buffer.

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 is quiet, and there is minimal traffic.

If you have any questions please contact me.

Sincerely,



Richard C. Kirkland, Jr., MAI
NC Certified General Appraiser A4359
KY Certified General Appraiser #5522

Table of Contents

Conclusion	1
I. Proposed Project and Adjoining Uses	5
II. Demographics	10
III. Methodology and Discussion of Issues	14
IV. Research on Solar Farms	17
A. Appraisal Market Studies	17
B. Articles	19
C. Broker Commentary	20
V. University Studies	21
A. University of Texas at Austin, May 2018	21
B. University of Rhode Island, September 2020	22
C. University of Rhode Island, 2023	23
D. Georgia Institute of Technology, October 2020	24
E. Master's Thesis: ECU by Zachary Dickerson July 2018	24
F. Lawrence Berkeley National Lab, March 2023	25
G. Loyola University Chicago by Simeng Hao and Gilbert Michaud, 2024	30
H. Purdue University by Binayak Kunwar, 2024	31
Summary of University Studies	31
VI. Assessor Surveys	32
VII. Summary of Solar Projects in Kentucky	33
610: Bowling Green Solar, Bowling Green, KY	35
611: Cooperative Solar I, Winchester, KY	36
612: Walton 2 Solar, Walton, KY	37
613: Crittenden Solar, Crittenden, KY	38
617: Glover Creek Solar, Summer Shade, Metcalfe County, KY	39
618: Turkey Creek Solar, Lancaster, Garrard County, KY	40
656: Mount Olive Creek Solar, Russell Springs, Russell County, KY	41
657: Horseshoe Bend Solar, Greensburg, Green County, KY	42
658: Flat Run Solar, Campbellsville, Taylor County, KY	43
659: Cooperative Shelby Solar, Simpsonville, KY	44
660: E.W. Brown Solar, Harrodsburg, KY	45
696: AEUG Fleming Solar, Elizaville, Fleming County, KY	46
700: Ashwood Solar, Fredonia, Lyon County, KY	47
720: Fleming Solar, Flemingsburg, Fleming County, KY	48
722: Henderson County Solar, Henderson, Henderson County, KY	49
770: Bluebird Solar, Cynthia, Harrison County, KY	50
771: Martin County Solar, Threeforks, Martin County, KY	51
794: Logan County Solar, Russelville, Logan County, KY	52

- VIII. Market Analysis of the Impact on Value from Solar Farms** 54
 - Kentucky and Adjoining States Data..... 55
- IX. Conclusions from Market Research** 124
 - A. Demographic Data from Solar Projects Identified..... 124
 - B. Sale/Resale Analysis 125
 - C. Paired Sale/Matched Pair Analysis..... 126
 - D. Summary of Broker Opinions from Research 129
- X. Supporting Data** 130
 - A. Southeast Data 130
 - B. National Data 131
 - C. Larger Solar Farms Data 133
- D. Distance Between Homes and Panels**..... 135
- E. Topography**..... 135
- F. Potential Impacts During Construction**..... 135
- G. Scope of Research** 136
- H. Specific Factors Related To Impacts on Value** 137
- I. Conclusion** 140
- J. Certification**..... 141

I. Proposed Project and Adjoining Uses

Proposed Use Description

This 250 MW solar farm is proposed to be constructed on a portion of a 1,413-acre assemblage of land located near Penrod, Muhlenburg, Kentucky.

Adjoining Properties

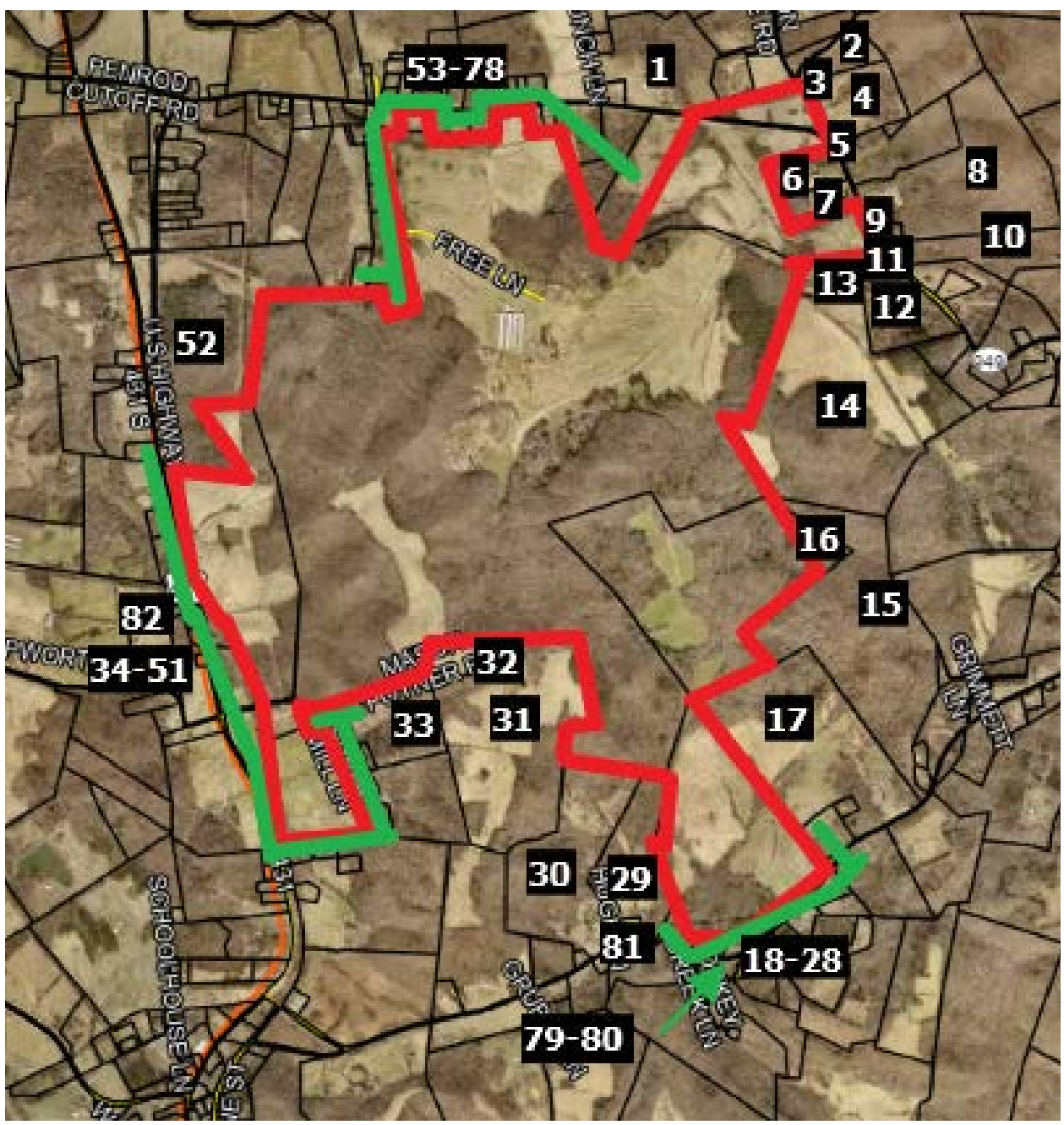
I have considered adjoining uses and included a map to identify each parcel's location. Based on the current site plan the closest adjoining home will be 204 feet from the closest solar panel and the average distance to adjoining homes will be 936 feet to the nearest solar panel.

Adjoining land is primarily a mix of residential and agricultural uses, which is very typical of solar farm sites.

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

Adjoining Use Breakdown		
	Acreage	Parcels
Residential	21.47%	81.36%
Agricultural	67.22%	13.56%
Agri/Res	11.31%	5.08%
Total	100.00%	100.00%

Aerial Image from GIS



Surrounding Uses

#	MAP ID	Owner	GIS Data		Adjoin	Adjoin	Distance (ft)	L.F
			Acres	Present Use	Acres	Parcels	Home/Panel	Adjacent
1	225-00-00-019.000	Mitchell	63.90	Agri/Res	4.68%	1.22%	765	1560
2	224-00-00-020.001	Newman	15.58	Agri/Res	1.14%	1.22%	1,615	1
3	225-00-00-022.000	Mallory	1.50	Residential	0.11%	1.22%	1,600	190
4	225-00-00-021.000	Mallory	28.00	Agricultural	2.05%	1.22%	1,655	810
5	225-00-00-035.005	Mallory	0.35	Residential	0.03%	1.22%	N/A	120
6	225-00-00-036.000	Reed	10.00	Residential	0.73%	1.22%	204	1545
7	225-00-00-035.004	Reed	10.00	Residential	0.73%	1.22%	N/A	1460
8	235-00-00-001.001	Richards	71.45	Agricultural	5.23%	1.22%	N/A	215
9	235-00-00-001.002	Wood	2.55	Cemetary	0.19%	1.22%	N/A	345
10	235-00-00-001.003	Thresher	29.25	Agri/Res	2.14%	1.22%	1,575	165
11	225-00-00-035.001	Hawkins	0.86	Residential	0.06%	1.22%	N/A	300
12	235-00-00-001.004	Reed	25.41	Agricultural	1.86%	1.22%	N/A	50
13	225-00-00-037.000	Hawkins	7.50	Residential	0.55%	1.22%	945	545
14	225-00-00-038.000	Hawkins	161.28	Agricultural	11.80%	1.22%	N/A	3550
15	226-00-00-024.001	Bevan	81.08	Agricultural	5.93%	1.22%	N/A	1885
16	225-00-00-039.000	Edwards	13.00	Residential	0.95%	1.22%	N/A	1360
17	226-00-00-024.000	Saye	95.01	Agricultural	6.95%	1.22%	N/A	3685
18	226-00-00-024.004	Saye	7.47	Residential	0.55%	1.22%	608	550
19	226-00-00-029.004	Boatwright	0.55	Residential	0.04%	1.22%	N/A	140
20	226-00-00-029.004	Gates	26.10	Residential	1.91%	1.22%	1,050	1
21	226-00-00-023.003	Crafton	3.54	Residential	0.26%	1.22%	368	545
22	226-00-00-023.002	Crafton	3.54	Residential	0.26%	1.22%	N/A	365
23	226-00-00-029.011	Buchanan	0.47	Residential	0.03%	1.22%	N/A	740
24	226-00-00-028.000	Millette	1.00	Residential	0.07%	1.22%	N/A	470
25	226-00-00-028.002	Millette	1.00	Residential	0.07%	1.22%	N/A	175
26	226-00-00-028.001	Powell	2.73	Residential	0.20%	1.22%	N/A	1
27	226-00-00-027.000	Buchanan	0.50	Residential	0.04%	1.22%	N/A	170
28	226-00-00-026.000	Dearmond	14.80	Residential	1.08%	1.22%	N/A	600
29	226-00-00-021.000	Johnson	32.52	Agri/Res	2.38%	1.22%	915	2225
30	226-00-00-006.000	Gibson	61.56	Agri/Res	4.51%	1.22%	1,350	1140
31	226-00-00-005.002	Cottongim	106.98	Agricultural	7.83%	1.22%	N/A	2965
32	226-00-00-005.000	Cottongim	11.89	Residential	0.87%	1.22%	380	1625
33	226-00-00-001.001	Cornelius	31.94	Agricultural	2.34%	1.22%	N/A	1065
34	226-00-00-002.000	Latham	1.94	Residential	0.14%	1.22%	N/A	305
35	226-00-00-002.001	Latham	1.00	Residential	0.07%	1.22%	349	285
36	213-00-00-029.003	Reynolds	2.13	Residential	0.16%	1.22%	607	270
37	226-00-00-003.000	Schaal	3.80	Residential	0.28%	1.22%	1,045	410
38	226-00-00-001.000	Burchett	31.94	Agri/Res	2.34%	1.22%	1,290	395
39	226-00-00-004.000	Rice	3.90	Residential	0.29%	1.22%	1,825	320
40	226-00-00-004.000	Conkwright	67.73	Agri/Res	4.96%	1.22%	3,490	455
41	226-00-00-009.001	Conkwright	2.00	Residential	0.15%	1.22%	N/A	310
42	226-00-00-007.000	Conkwright	1.71	Residential	0.13%	1.22%	2,320	380

Surrounding Uses

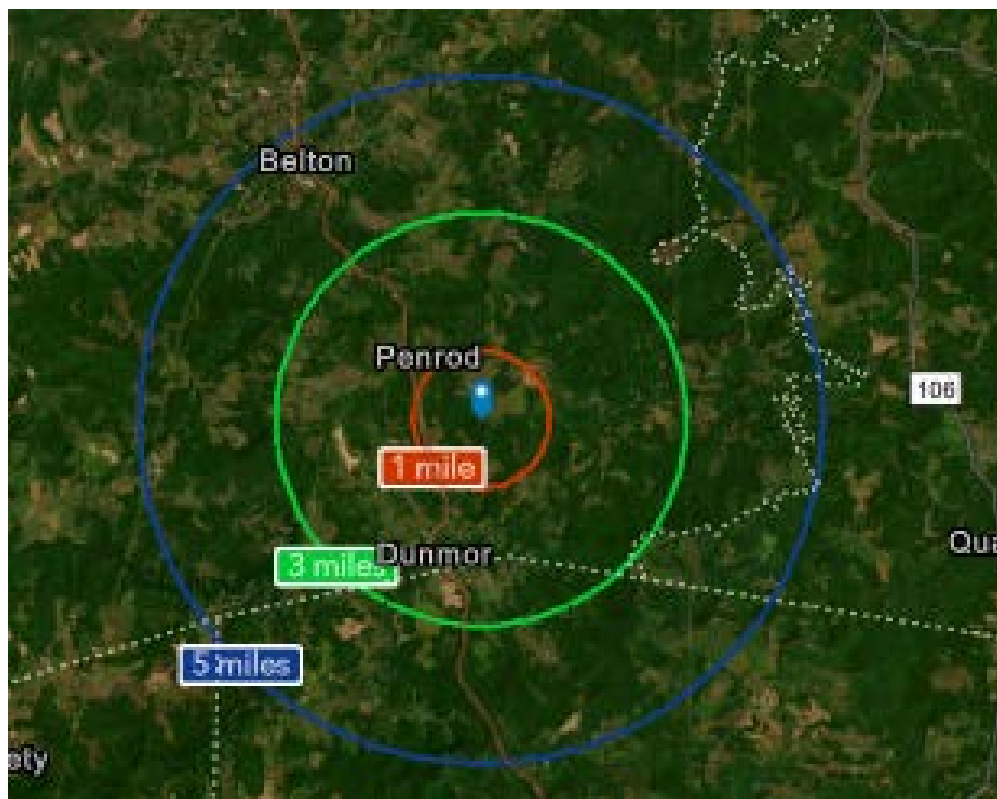
#	MAP ID	Owner	GIS Data		Adjoin	Adjoin	Distance (ft)	L.F
			Acres	Present Use	Acres	Parcels	Home/Panel	Adjacent
43	213-00-00-034.000	Williams	1.00	Residential	0.07%	1.22%	2,490	1
44	213-00-00-029.004	Johnson	45.03	Agri/Res	3.30%	1.22%	1,850	270
45	213-00-00-029.006	Skipworth	10.00	Residential	0.73%	1.22%	N/A	1
46	213-00-00-029.005	Skipworth	8.00	Residential	0.59%	1.22%	N/A	775
47	213-00-00-028.000	Simpson	2.00	Residential	0.15%	1.22%	N/A	1080
48	212-00-00-033.000	Toomey	8.00	Residential	0.59%	1.22%	353	860
49	212-00-00-032.000	Wheaton	1.90	Residential	0.14%	1.22%	379	395
50	212-00-00-031.000	Cottongim	7.52	Residential	0.55%	1.22%	424	120
51	212-00-00-034.000	Brewer	0.50	Residential	0.04%	1.22%	330	465
52	212-00-00-064.000	Wood	97.18	Agricultural	7.11%	1.22%	N/A	5195
53	225-00-00-023.000	Naiper	32.40	Agricultural	2.37%	1.22%	N/A	445
54	225-00-00-023.005	Naiper	3.50	Residential	0.26%	1.22%	N/A	220
55	225-00-00-023.002	Naiper	10.60	Residential	0.78%	1.22%	604	1550
56	225-00-00-028.002	Gardner	2.19	Residential	0.16%	1.22%	339	915
57	225-00-00-023.006	Naiper	2.12	Residential	0.16%	1.22%	545	345
58	225-00-00-023.004	Naiper	1.30	Residential	0.10%	1.22%	568	280
59	225-00-00-023.001	Napier	1.43	Residential	0.10%	1.22%	738	295
60	212-00-00-071.002	Farley	0.50	Residential	0.04%	1.22%	905	75
61	212-00-00-071.000	Ashby	1.50	Residential	0.11%	1.22%	1,065	160
62	212-00-00-069.000	Arnold	6.50	Residential	0.48%	1.22%	1,220	35
63	225-00-00-024.000	Mulhelenberg	7.25	Residential	0.53%	1.22%	755	380
64	225-00-00-007.000	Harper	2.00	Residential	0.15%	1.22%	1,140	145
65	225-00-00-009.001	Jones	2.00	Residential	0.15%	1.22%	960	310
66	225-00-00-026.000	Underwood	1.61	Residential	0.12%	1.22%	650	230
67	225-00-00-027.001	Lear	2.08	Residential	0.15%	1.22%	640	335
68	225-00-00-027.000	Kirtley	2.91	Residential	0.21%	1.22%	500	615
69	225-00-00-013.001	Spurlock	8.55	Residential	0.63%	1.22%	N/A	220
70	225-00-00-013.000	Hunt	0.50	Residential	0.04%	1.22%	835	140
71	225-00-00-015.000	Hunt	1.00	Residential	0.07%	1.22%	850	135
72	225-00-00-016.000	Napier	2.40	Residential	0.18%	1.22%	890	15
73	225-00-00-029.000	Spurlock	1.13	Residential	0.08%	1.22%	625	500
74	225-00-00-030.000	Spurlock	1.00	Residential	0.07%	1.22%	775	170
75	225-00-00-031.000	Spurlock	1.58	Residential	0.12%	1.22%	N/A	120
76	225-00-00-032.000	Spurlock	7.00	Residential	0.51%	1.22%	820	510
77	225-00-00-033.000	Mitchell	10.00	Residential	0.73%	1.22%	N/A	800
78	225-00-00-034.000	Hoagland	26.00	Agri/Res	1.90%	1.22%	458	850
79	226-00-00-029.010	Boren	1.16	Residential	0.08%	1.22%	367	0
80	226-00-00-029.012	Sumner	1.10	Residential	0.08%	1.22%	358	0
81	226-00-00-025.000	Whitney	2.61	Residential	0.19%	1.22%	841	0
82	213-00-00-027.000	Kelly	1.87	Residential	0.14%	1.22%	506	0
Total			1366.375		100.00%	100.00%	936	

The chart above shows the adjoining parcels. In that chart, N/A indicates that there is no adjoining home to which to measure. Linear feet of adjacency listed in red means that the property is across a right of way from the subject property. Linear feet of adjacency of 1 foot is assigned where properties meet at a corner.

II. Demographics

I have pulled the following demographics for a 1-mile, 3-mile and 5-mile radius around the proposed solar farm project.

I note that there is a projected a decline in population projected in all three of these rings.





Housing Profile

42339
 42339, Dunmor, Kentucky
 Ring: 1 mile radius

Prepared by Esri
 Latitude: 37.10266
 Longitude: -86.98370

Population		Households	
2020 Total Population	173	2023 Median Household Income	\$51,965
2023 Total Population	170	2028 Median Household Income	\$60,354
2028 Total Population	166	2023-2028 Annual Rate	3.04%
2023-2028 Annual Rate	-0.48%		

Housing Units by Occupancy Status and Tenure	Census 2020		2023		2028	
	Number	Percent	Number	Percent	Number	Percent
Total Housing Units	79	100.0%	78	100.0%	76	100.0%
Occupied	61	77.2%	58	74.4%	57	75.0%
Owner	51	64.6%	54	69.2%	53	69.7%
Renter	10	12.7%	4	5.1%	4	5.3%
Vacant	10	12.7%	20	25.6%	19	25.0%

Owner Occupied Housing Units by Value	2023		2028	
	Number	Percent	Number	Percent
Total	54	100.0%	52	100.0%
<\$50,000	7	13.0%	6	11.5%
\$50,000-\$99,999	13	24.1%	11	21.2%
\$100,000-\$149,999	6	11.1%	5	9.6%
\$150,000-\$199,999	8	14.8%	7	13.5%
\$200,000-\$249,999	4	7.4%	4	7.7%
\$250,000-\$299,999	3	5.6%	3	5.8%
\$300,000-\$399,999	6	11.1%	7	13.5%
\$400,000-\$499,999	3	5.6%	4	7.7%
\$500,000-\$749,999	1	1.9%	1	1.9%
\$750,000-\$999,999	2	3.7%	3	5.8%
\$1,000,000-\$1,499,999	1	1.9%	1	1.9%
\$1,500,000-\$1,999,999	0	0.0%	0	0.0%
\$2,000,000+	0	0.0%	0	0.0%
Median Value	\$156,250		\$178,571	
Average Value	\$224,074		\$255,769	

Census 2020 Housing Units	Number	Percent
Total	79	100.0%
Housing Units In Urbanized Areas	0	0.0%
Rural Housing Units	79	100.0%

Census 2020 Owner Occupied Housing Units by Mortgage Status	Number	Percent
Total	51	100.0%
Owned with a Mortgage/Loan	26	51.0%
Owned Free and Clear	25	49.0%

Data Note: Persons of Hispanic Origin may be of any race.
Source: Esri forecasts for 2023 and 2028. U.S. Census Bureau 2020 decennial Census data.



Housing Profile

42339
 42339, Dunmor, Kentucky
 Ring: 3 mile radius

Prepared by Esri
 Latitude: 37.10266
 Longitude: -86.98370

Population		Households	
2020 Total Population	1,014	2023 Median Household Income	\$58,914
2023 Total Population	996	2028 Median Household Income	\$67,421
2028 Total Population	975	2023-2028 Annual Rate	2.73%
2023-2028 Annual Rate	-0.43%		

Housing Units by Occupancy Status and Tenure	Census 2020		2023		2028	
	Number	Percent	Number	Percent	Number	Percent
Total Housing Units	480	100.0%	474	100.0%	467	100.0%
Occupied	404	84.2%	397	83.8%	389	83.3%
Owner	342	71.2%	367	77.4%	361	77.3%
Renter	62	12.9%	30	6.3%	28	6.0%
Vacant	84	17.5%	77	16.2%	78	16.7%

Owner Occupied Housing Units by Value	2023		2028	
	Number	Percent	Number	Percent
Total	365	100.0%	362	100.0%
<\$50,000	39	10.7%	34	9.4%
\$50,000-\$99,999	77	21.1%	66	18.2%
\$100,000-\$149,999	49	13.4%	42	11.6%
\$150,000-\$199,999	43	11.8%	39	10.8%
\$200,000-\$249,999	29	7.9%	30	8.3%
\$250,000-\$299,999	19	5.2%	21	5.8%
\$300,000-\$399,999	40	11.0%	47	13.0%
\$400,000-\$499,999	19	5.2%	25	6.9%
\$500,000-\$749,999	14	3.8%	17	4.7%
\$750,000-\$999,999	17	4.7%	21	5.8%
\$1,000,000-\$1,499,999	17	4.7%	19	5.2%
\$1,500,000-\$1,999,999	2	0.5%	1	0.3%
\$2,000,000+	0	0.0%	0	0.0%

Median Value	\$170,349	\$200,000
Average Value	\$282,397	\$311,050

Census 2020 Housing Units	Number	Percent
Total	480	100.0%
Housing Units In Urbanized Areas	0	0.0%
Rural Housing Units	480	100.0%

Census 2020 Owner Occupied Housing Units by Mortgage Status	Number	Percent
Total	342	100.0%
Owned with a Mortgage/Loan	182	53.2%
Owned Free and Clear	160	46.8%

Data Note: Persons of Hispanic Origin may be of any race.
Source: Esri forecasts for 2023 and 2028. U.S. Census Bureau 2020 decennial Census data.



Housing Profile

42339
 42339, Dunmor, Kentucky
 Ring: 5 mile radius

Prepared by Esri
 Latitude: 37.10266
 Longitude: -86.98370

Population		Households	
2020 Total Population	2,382	2023 Median Household Income	\$58,738
2023 Total Population	2,360	2028 Median Household Income	\$66,792
2028 Total Population	2,316	2023-2028 Annual Rate	2.60%
2023-2028 Annual Rate	-0.38%		

Housing Units by Occupancy Status and Tenure	Census 2020		2023		2028	
	Number	Percent	Number	Percent	Number	Percent
Total Housing Units	1,353	100.0%	1,342	100.0%	1,329	100.0%
Occupied	979	72.4%	972	72.4%	956	71.9%
Owner	825	61.0%	885	65.9%	873	65.7%
Renter	154	11.4%	87	6.5%	83	6.2%
Vacant	308	22.8%	370	27.6%	373	28.1%

Owner Occupied Housing Units by Value	2023		2028	
	Number	Percent	Number	Percent
Total	886	100.0%	874	100.0%
<\$50,000	98	11.1%	84	9.6%
\$50,000-\$99,999	190	21.4%	163	18.6%
\$100,000-\$149,999	119	13.4%	104	11.9%
\$150,000-\$199,999	106	12.0%	98	11.2%
\$200,000-\$249,999	84	9.5%	88	10.1%
\$250,000-\$299,999	49	5.5%	54	6.2%
\$300,000-\$399,999	84	9.5%	98	11.2%
\$400,000-\$499,999	43	4.9%	54	6.2%
\$500,000-\$749,999	33	3.7%	39	4.5%
\$750,000-\$999,999	34	3.8%	42	4.8%
\$1,000,000-\$1,499,999	41	4.6%	47	5.4%
\$1,500,000-\$1,999,999	4	0.5%	3	0.3%
\$2,000,000+	1	0.1%	0	0.0%

Median Value	\$166,981	\$193,878
Average Value	\$273,279	\$300,744

Census 2020 Housing Units	Number	Percent
Total	1,353	100.0%
Housing Units In Urbanized Areas	0	0.0%
Rural Housing Units	1,353	100.0%

Census 2020 Owner Occupied Housing Units by Mortgage Status	Number	Percent
Total	824	100.0%
Owned with a Mortgage/Loan	434	52.7%
Owned Free and Clear	390	47.3%

Data Note: Persons of Hispanic Origin may be of any race.
Source: Esri forecasts for 2023 and 2028. U.S. Census Bureau 2020 decennial Census data.

III. 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 Kentucky 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 first type of analysis employed is a Sale/Resale Analysis. This methodology is outlined in **Real Estate Damages**, Third Edition, Pages 35-36 by Randall Bell PhD, MAI and published by the Appraisal Institute. This is a type of Paired Sales Analysis (see next paragraph) that compares the sale of the same property Before and After a change in the market to see if there is any impact on the property value due to that change. In this analysis I have used the Federal Housing Finance Agency Home Price Index to identify typical appreciation in the property market and compared that to the change in value on a home Before a solar farm was announced and After the solar farm was built. No other adjustments were required as I have attempted to focus on homes without renovations and with typical upkeep during the intervening period.

The second 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 33-35 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 tend 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. A wide range of noise studies that have been completed have found them consistent with agricultural and residential areas. The noise is even less 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.

Market Imperfection

Throughout this analysis, I have specifically considered the influence of market imperfection on data analysis. Market imperfection is the term that refers to the fact that unlike a can of soup at the supermarket or in your online shopping cart, real estate cannot be comparison shopped for the best price and purchased at the best price for that same identical product. Real estate products are always similar and never identical. Even two adjacent lots that are identical in almost every way, have a slight difference in location. Once those lots are developed with homes, the number of differences begin to multiply, whether it is size of the home, landscaping, layout, age of interior upfit, quality of interior upfit, quality of maintenance and so on.

Neoclassical economics indicates a perfectly competitive market as having the following: A large number of buyers and sellers (no one person dominates the market), no barriers or transaction costs, homogeneous product, and perfect information about the product and pricing. Real estate is clearly not homogeneous. The number of buyers and sellers for a particular product in a particular location is limited by geography, financing, and the limited time period within a property is listed. There are significant barriers that limit the liquidity in terms of time, costs and financing. Finally, information on real estate is often incomplete or partial – especially at the time that offers are made and prices set, which is prior to appraisals and home inspections. So real estate is very imperfect based on this definition and the impact of this are readily apparent in the real estate market.

What appear to be near-identical homes that are in the same subdivision will often sell with slight variations in price. When multiple appraisers approach the same property, there is often a slight variation among all of those conclusions of value, due to differences in comparables used or analysis of those comparables. This is common and happens all of the time. In fact, within each appraisal, after making adjustments to the comparables, the appraiser will typically have a range of values that are supported that often vary more than +/-5% from the median or average adjusted value.

Based on this understanding of market imperfection, it is important to note that very minor differences in value within an impact study do not necessarily indicate either a negative or positive

impact. When the impacts measured fall within that +/-5%, I consider this to be within typical market variation/imperfection. Therefore it may be that there is a negative or positive impact identified if the impact is within that range, but given that it is indistinguishable from what amounts to the background noise or static within the real estate data, I do not consider indications of +/-5% to support a finding of a negative or positive impact.

Impacts greater than that range are however, considered to be strong indications of impacts that fall outside of typical market imperfection. I have used this as a guideline while considering the impacts identified within this report.

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 you are 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. I note that I have matched pairs adjoining solar farms over 600 MWs in size showing no impact on property value.

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.

IV. 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 Assessor's 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, North Carolina, 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."

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.” Mr. Beck indicated in the interview if landscaping screens were employed he would not see any drop in value.

NorthStar Appraisal Company – Impact Analysis for Nichomus Run Solar, Pilesgrove, New Jersey, 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 – New Jersey, 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, Kentucky, 2021

Ms. Mary Clay, MAI reviewed a report by Kirkland Appraisals in this case and also provided a differing opinion of impact. Having testified opposite Ms. Clay, she has stated that she does not confirm her data and does not use an appropriate method for time adjustments.

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

Kevin T. Meeks, MAI – Corcoran Solar Impact Study, Minnesota, 2017

Mr. Kevin Meeks, MAI reviewed a report by Kirkland Appraisals in this case and also provided additional research on the topic with additional paired sales. The sales he considered are well presented and show that they were confirmed by third parties and all of the broker commentary is aligned with the conclusion that the adjoining solar farms considered had no impact on the adjoining home values.

Mr. Meeks also researched a 100 MW project in Chisago County, known as North Star Solar Garden in MN. He interviewed local appraisers and a broker who was actively marketing homes adjoining that solar farm to likewise support a finding of no impact on property value.

John Keefe, Chisago County Assessor, Chisago County Minnesota Assessor’s Office, 2017

This study was completed by the Chisago County Minnesota Assessor’s Office on property prices adjacent to and in close vicinity of a 1,000-acre North Star solar farm in Minnesota. The study concluded that the North Star solar farm had “no adverse impact” on property values. Mr. Keefe further stated that, “It seems conclusive that valuation has not suffered.”

Tim Connelly, MAI – Solar Impact Study of Proposed Solar Facility, New Mexico, 2023

This study is a detailed review of an Impact Study completed by Kirkland Appraisals, LLC for Rancho Viejo Solar. It goes through all of the analysis and confirms the applicability and reliability of the methods and conclusions. Mr. Connelly, MAI concurs that “the proposed solar project will not have a negative impact on market value, marketability, or enjoyment of property in the immediate vicinity of the proposed project.”

Donald Fisher, ARA, 2021

Donald Fisher has completed a number of studies on solar farms and was quoted in February 15, 2021 stating, “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 the installation of solar farms went up higher than time trends.”

Jennifer N. Pitts, MAI - Study of Residential Market Trends Surrounding Six Utility-Scale Solar Projects in Texas, 2023

This study was completed by Real Property Analytics with Ms. Pitts along with Erin M. Kiella, PhD, and Chris Yost-Bremm, PhD. This analysis considered these solar farms through different stages of the market from announcement of the project, during construction, and after construction. They found no indication of a negative impact on sales price, the ratio of sales price to listing price, or the number of Days on Market. They also researched individual sales and interviewed local brokers who confirmed that market participants were knowledgeable of the solar projects and did not result in a negative impact on sales price or marketing time.

Michael S. MaRous, MAI, CRE – Market Impact Analysis Langdon Mills Solar, Columbia County, Wisconsin, 2023

This study was completed by MaRous & Company and signed by Michael S. MaRous. This analysis included consideration of solar projects in 13 states and including 7 solar projects in Wisconsin. This includes 22 matched pairs with a conclusion on Page 70 that states “there does not appear to have been any measurable negative impact on surrounding residential property values due to the proximity of a solar farm.”

This analysis was further supported by Assessor Surveys including assessors in Wisconsin which found no instance of an assessor in Wisconsin identifying any negative impacts from solar farms on adjoining property values.

Conclusion of Impact Studies

Of the 11 studies noted 9 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 initial 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, ASFMR (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 comments from

brokers noted within the solar farm write ups of this report 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.

V. 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*

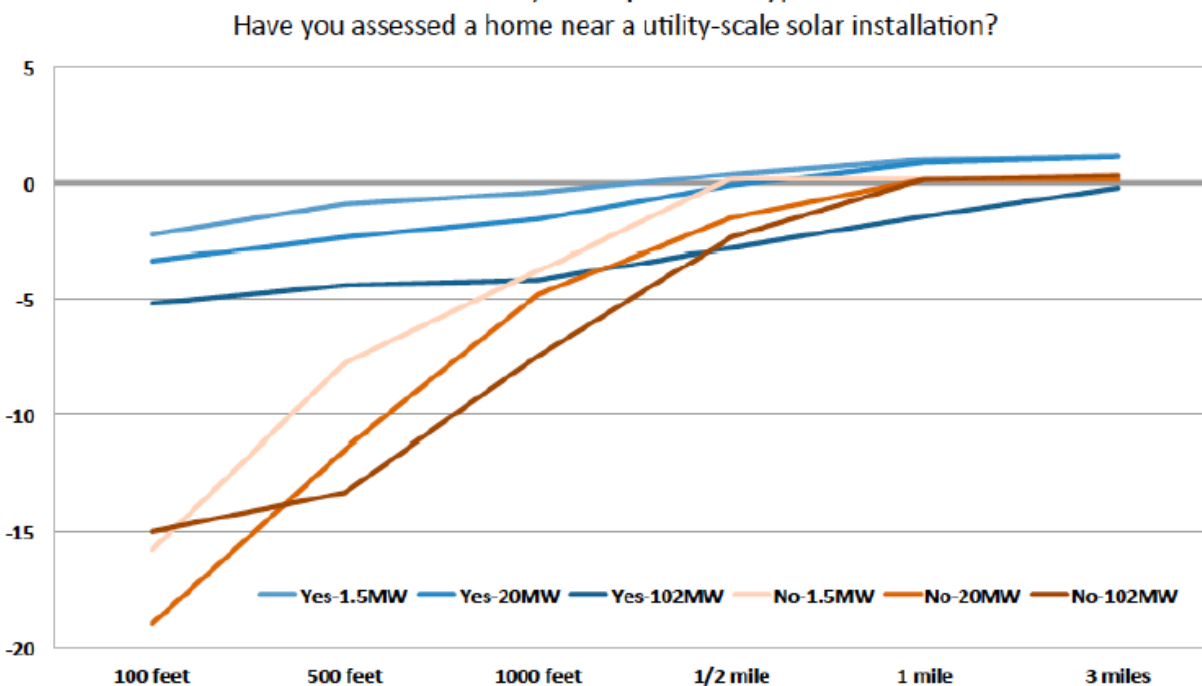
An Exploration of Property-Value Impacts Near Utility-Scale Solar Installations

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



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. The only impact suggested by this study is -5% if a home was within 100 feet of a 100 MW solar farm with little to no landscaping screening. The proposed project has a landscaping screening, is much further setback than 100 feet from adjoining homes, and is less than 100 MW.

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 per square mile.

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 the Penrod Division of Muhlenburg County, which has a population of 2,017 population for 2023 based on HomeTownLocator using Census Data and a total area of 65.06 square miles. This indicates a population density of 31 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 the indication of no impact on adjoining properties for the proposed solar farm project.

Penrod Division Data & Demographics (As of July 1, 2023)

POPULATION		HOUSING	
Total Population	2,017 (100%)	Total HU (Housing Units)	972 (100%)
Population in Households	2,017 (100.0%)	Owner Occupied HU	763 (78.5%)
Population in Families	1,758 (87.2%)	Renter Occupied HU	52 (5.3%)
Population in Group Quarters ¹	0	Vacant Housing Units	157 (16.2%)
Population Density	31	Median Home Value	\$170,833
Diversity Index ²	13	Average Home Value	\$288,270
		Housing Affordability Index ³	141

INCOME		HOUSEHOLDS	
Median Household Income	\$58,609	Total Households	815
Average Household Income	\$82,581	Average Household Size	2.4700000000
% of Income for Mortgage ⁴	18%	Family Households	609
Per Capita Income	\$33,368	Average Family Size	3
Wealth Index ⁵	75		

C. University of Rhode Island, 2023

House of the rising sun: The effect of utility-scale solar arrays on housing prices

The University of Rhode Island published this study completed by the same researchers as the prior Rhode Island study, Vasundhara Gaur and Corey Lang. This study focused on Massachusetts and Rhode Island and found the opposite of the prior study. This study indicates that they found 1.5% to 3.6% declines in property value within 0.5 miles of a solar array and that this is mostly driven by solar projects found on agricultural land.

D. 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.

E. 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.

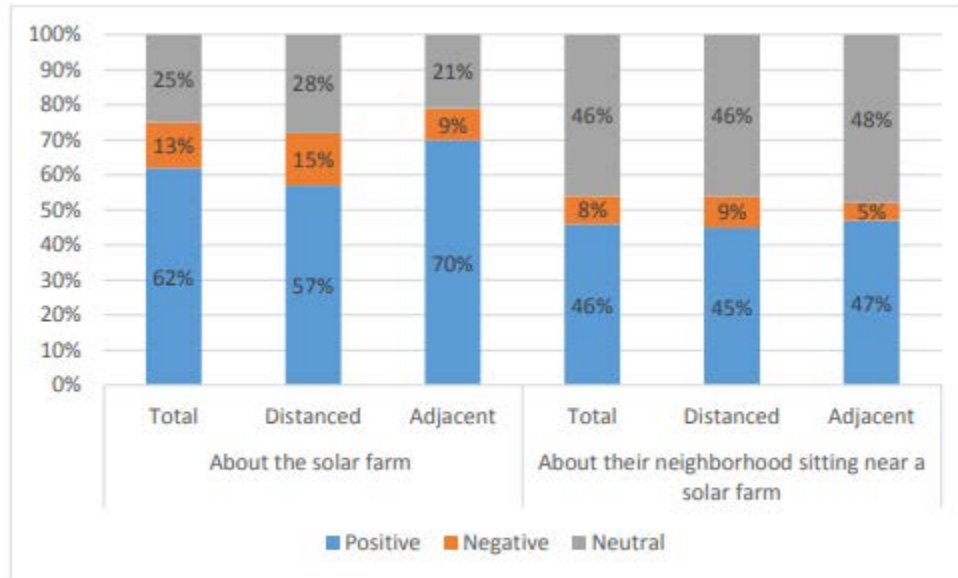
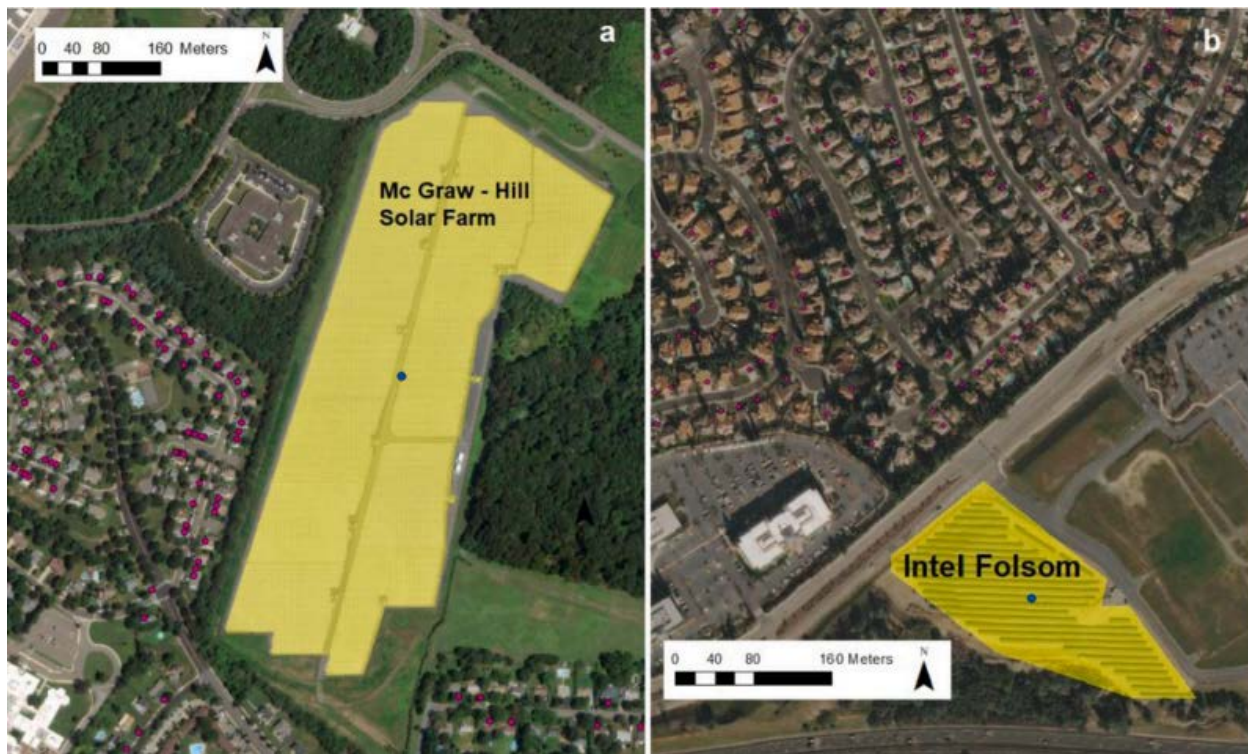


Figure 11: Residents' positive/negative word choices by geographic setting for both questions

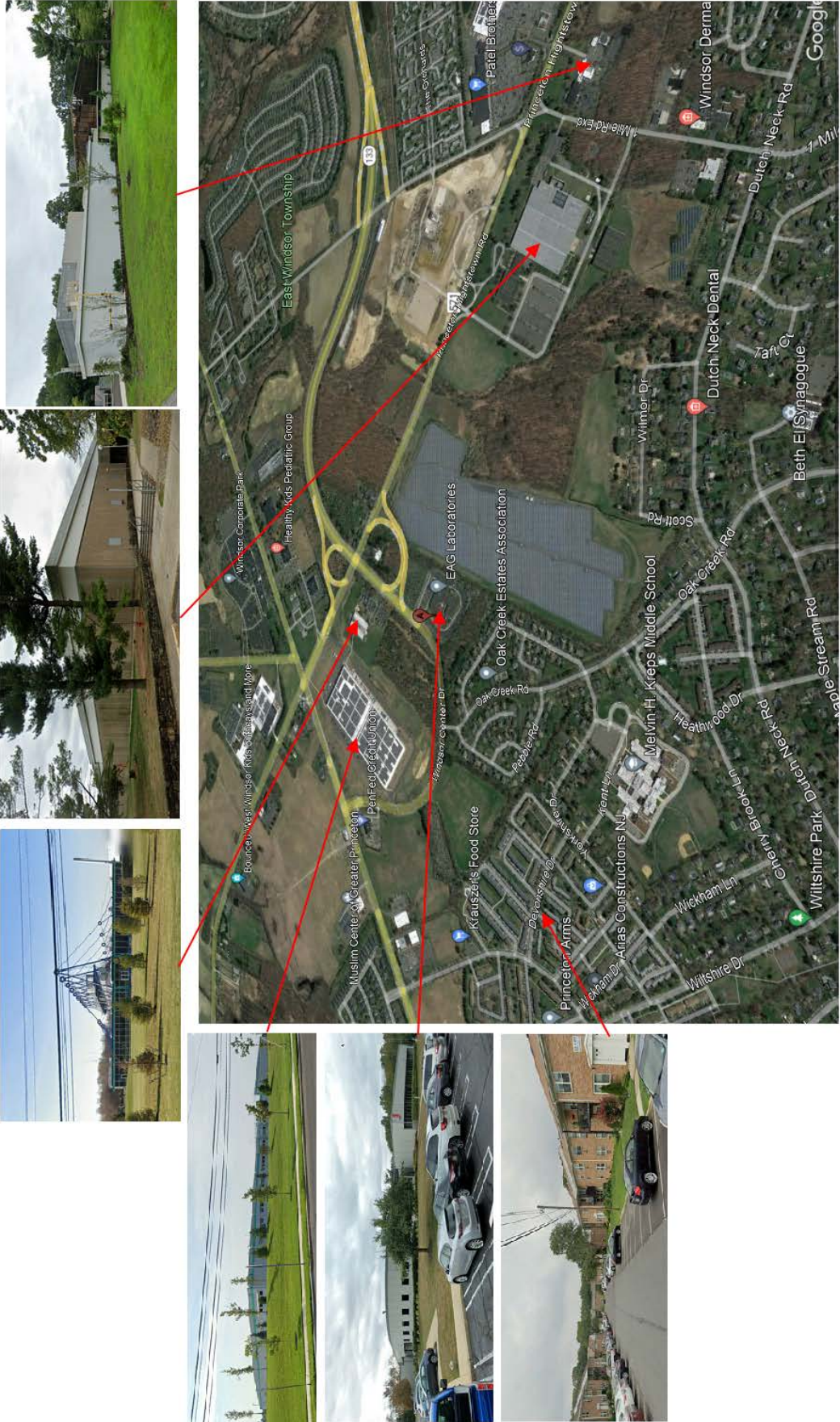
F. Lawrence Berkeley National Lab, March 2023

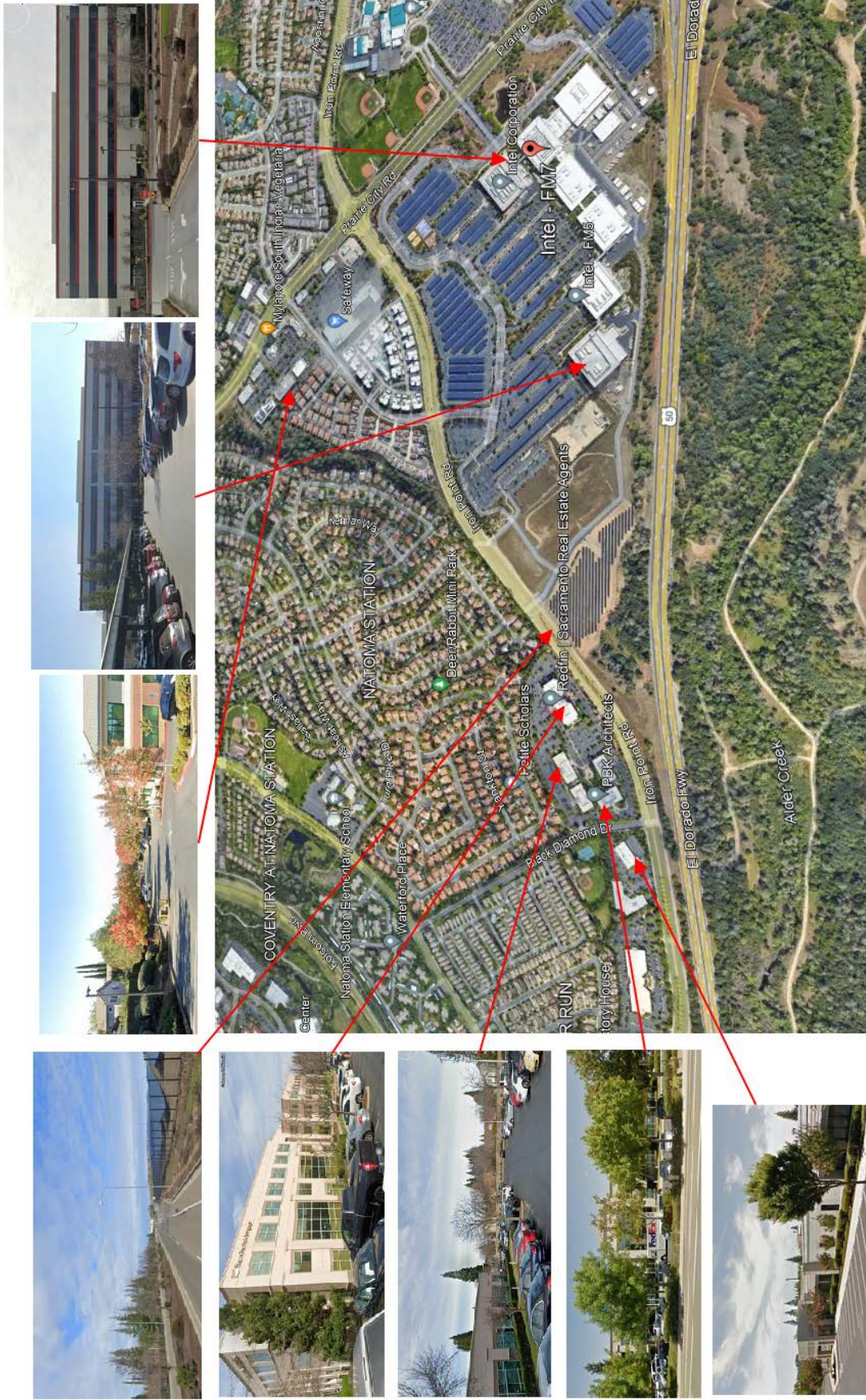
Shedding light on large-scale solar impacts: An analysis of property values and proximity to photovoltaics across six U.S. states

This study was completed by researchers including Salma Elmallah, Ben Hoen, K. Sydney Fujita, Dana Robson, and Eric Brunner. This analysis considers home sales before and after solar farms were installed within a 1-mile radius and compared them to home sales before and after the solar farms at a 2-4-mile radius. The conclusion found a 1.5% impact within 0.5 mile of a solar farm as compared to homes 2-4 miles from solar farms. This is the largest study of this kind on solar and addresses a number of issues, but also does not address a number of items that could potentially skew these results. First of all, the study found no impact in the three states with the most solar farm activity and only found impacts in smaller sets of data. The data does not in any way discuss actual visibility of solar farms or address existing vegetation screens. This lack of addressing this is highlighted by the fact that they suggest in the abstract that vegetative shading may be needed to address possible impacts. Another notable issue is the fact that they do not address other possible impacts within the radii being considered. This lack of consideration is well illustrated within the study on Figure A.1 where they show satellite images of McGraw Hill Solar Farm in NJ and Intel Folsom in CA. The Folsom image clearly shows large highways separating the solar farm from nearby housing, but with tower office buildings located closer to the housing being considered. In no place do they address the presence of these towers that essentially block those homes from the solar farm in some places. An excerpt of Fig. A.1. is shown below.



For each of these locations, I have panned out a little further on Google Earth to show the areas illustrated to more accurately reflect the general area. For the McGraw Hill Solar Farm you can see there is a large distribution warehouse to the west along with a large offices and other industrial uses. Further to the west is a large/older apartment complex (Princeton Arms). To the east there are more large industrial buildings. However, it is even more notable that 1.67 miles away to the west is Cranbury Golf Club. Given how this analysis was set up, these homes around the industrial buildings are being compared to homes within this country club to help establish impacts from the solar farm. Even considering the idea that each set is compared to itself before and after the solar farm, it is not a reasonable supposition that homes in each area would appreciate at the same rates even if no solar farm was included. Furthermore the site where the solar farm is located an all of the surrounding uses not improved with residential housing to the south is zoned Research Office (RO) which allows for: manufacturing, preparation, processing or fabrication of products, with all activities and product storage taking place within a completely enclosed building, scientific or research laboratories, warehousing, computer centers, pharmaceutical operations, office buildings, industrial office parks among others. Homes adjoining such a district would likely have impacts and influences not seen in areas zoned and surrounded by zoning strictly for residential uses.





On the Intel Folsom map I have shown the images of two of the Intel Campus buildings, but there are roughly 8 such buildings on that site with additional solar panels installed in the parking lot as shown in that image. I included two photos that show the nearby housing having clear and close views of adjoining office parking lots. This illustrates that the homes in that 0.5-mile radius are significantly more impacted by the adjoining office buildings than a solar farm located distantly that are not within the viewshed of those homes. Also, this solar farm is located on land adjoining the Intel Campus on a tract that is zoned M-1 PD, which is a Light Industrial/Manufacturing zoning. Nearby homes. Furthermore, the street view at the solar farm shows not only the divided four-lane highway that separates the office buildings and homes from the solar farm, but also shows that there is no landscaping buffer at this location. All of these factors are ignored by this study. Below is another image of the Folsom Solar at the corner of Iron Point Road and Intel West Driveway which shows just how close and how unscreened this project is.



Compare that image from the McGraw Hill Street view facing south from County Rte 571. There is a distant view and much of the project is hidden by a mix of berms and landscaping. The analysis makes no distinction between these projects.



The third issue with this study is that it identifies impacts following development in areas where they note that “more adverse home price impacts might be found where LSPVPS (large-scale photovoltaic project) displace green space (consistent with results that show higher property values

near green space.” The problem with this statement is that it assumes that the greenspace is somehow guaranteed in these areas, when in fact, they could just as readily be developed as a residential subdivision and have the same impacts. They have made no effort to differentiate loss of greenspace through other development purposes such as schools, subdivisions, or other uses versus the impact of solar farms. In other words, they may have simply identified the impact of all forms of development on property value. This would in fact be consistent with the comments in the Rhode Island study where the researchers noted that the loss of greenspace in the highly urban areas was likely due to the loss of greenspace in particular and not due to the addition of solar panels.

Despite these three shortcomings in the analysis – the lack of differentiating landscape screening, the lack of consideration of other uses within the area that could be impacting property values, and the lack of consideration of alternative development impacts – the study still only found impacts between 0 and 5% with a conclusion of 1.5% within a 0.5-mile radius. As discussed later in this report, real estate is an imperfect market and real estate transactions typically sell for much wider variability than 5% even where there are no external factors operating on property value.

I therefore conclude that the minor impacts noted in this study support a finding of no impact on property value. Most appraisals show a variation between the highest and lowest comparable sale that is substantially greater than 1.5% and this measured impact for all its flaws would just be lost in the static of normal real estate transactions.

**G. *Loyola University Chicago by Simeng Hao and Gilbert Michaud, 2024*
Assessing Property Value Impacts Near Utility-Scale Solar in the Midwest**

This was originally part of the Master’s Thesis by Simeng Hao in 2023 but updated for publication.

This study considered 70 utility-scale facilities built in the Midwest from 2009 to 2022 using data from the Lawrence Berkley National Laboratory. Using the difference-in-differences, method he found that proximity to solar project increased property values by 0.5% to 2.0%.

Furthermore, the research in this project shows that solar farms tend to be located in places with lower average home values by 2 to 3% compared to other random adjoining zip codes. This is not to say those areas are depressed, but those rural areas on average have lower prices than more suburban or urban areas nearby. This highlights the problem with a number of the studies on this issue in that they compare home values near the solar project to homes further from the solar project, but they are largely identifying the difference between rural and less-rural areas. The impact range identified by the Berkeley Study for example is exactly in line with that random difference identified by Simeng Hao.

The original Master’s Thesis included a summary of seven other studies including many of those noted above that considered a total of 3,296 projects with results ranging from 1.7% decline in value to no impact. Only 2 of the studies identified found negative results that ranged from 0.82% to 1.7% impact on property value, while the other five studies found no consistent negative impact.

Given that 5 of the 7 studies identified show no negative impact and the analysis by Mr. Hao shows a positive relationship up to 2%, I consider this analysis to support my conclusions on no impact on property value. While statistical studies note impacts of +/- 2%, as noted earlier in this report, market imperfection is generally greater than that rate and supports a conclusion of no impact. Essentially, while the statistical studies are showing minor variation, applying that to any one particular property whether plus or minus, would be unsupportable given that market imperfection is greater than that purported adjustment.

H. Purdue University by Binayak Kunwar, 2024
Impact of Commercial and Utility-Scale Solar Energy on Farmland Price

This was completed as part of the Master of Science Thesis by the author to the Department of Agricultural Economics at Purdue University. This study focuses on farmland prices between 2015 and 2020 in Indiana. This study identified a premium up to 2.1% for higher priced farmland in proximity to solar projects. The study further identified adjustments for size, crop productivity and proximity to urban areas. The study interestingly notes that the higher priced farmland is both with high productivity and closer to urban areas, while the enhancement from adjoining or nearby solar is greatest on those types of farmland.

Summary of University Studies

I have shown in the chart below a breakdown of the conclusions from these studies. The Low end of the range is showing the greatest negative or lowest positive while the High end is the lowest negative and highest positive. Where the impacts are positive they are showing an increase in value from proximity to a solar project.

The overall range is -5.60% to a +5.00% with an average between -1.69% and +0.79%. These ranges are clearly hovering in a nominal range that correspond with Market Imperfection as identified earlier in this report. With a range that tight, it is not a significant impact shown by these studies and is suggesting a positive potential that is almost as great as the negative potential.

These generalized studies do not address landscaping screens, differences in school districts, physical conditions of the homes, considerations for higher priced subdivisions near lower priced subdivisions, ages of homes, renovations or updates, whether the homes were on gravel or paved roads, lot size differences, amenity differences, lot premiums for river or conservation adjacency, and there was no data verification to identify atypical motivations of buyers and sellers. These generalized studies suggest a level of precision that should be considered with caution by appraisers for adjustments as they do not account for those other factors and they fall within typical market imperfection.

	Source	Type	Year	Low	High	Conclusion Note on Proximity
A	UTA	Published Study	2018	-5.00%	1.00%	1000 feet
B	URI	Published Study	2020	-1.70%	0.00%	-1.70% 1 mile 0.00% 1mile rural
C	URI	Published Study	2023	-3.60%	-1.50%	1/2 mile
D	GATech	Published Study	2020	0.00%	0.00%	Farmland
E	ECU	Masters Thesis	2018			
F	Lawrence	Published Study	2023	-5.60%	0.00%	-2.30% 1/4 mile -1.50% 1/2 mile -0.80% 1/2 to 1 mile
G	Loyola	Published Study	2024	2.00%	5.00%	Proximity
H	Purdue	Masters Thesis	2024	2.10%	0.80%	Proximity
			Average	-1.69%	0.76%	
			Median	-1.70%	0.00%	
			High	2.10%	5.00%	
			Low	-5.60%	-1.50%	

VI. Assessor Surveys

I have completed a survey of assessors in Kentucky, I have excluded responses from assessors with no existing and no pending solar farms in those counties. The breakdown is shown below.

Kentucky Property Valuation Administrator				
		Existing	Proposed	
County	Assessor	Solar	Solar	Impact on Adjacent?
Breckinridge	Dana Bland	0	2	No
Caldwell	Ronald Wood	0	2	No
Christian	Angie Strader	4	n/a	No
Clark	Jada Brady	1	n/a	No response
Green	Sean Curry	0	2	No
Martin	Bobby Hale, Jr.	0	1	No response/hasn't come up yet
Mercer	Jessica Elliott	1	0	No
Russell	Tim Popplewell	0	1	No response/depends on sales after built
Webster	Jeffrey Kelley	0	1	No response/depends on sales after built
Whitley	Ronnie Moses	0	1	No
	Total Responses	10		
	No Impact Responses	6		
	No Response on Impact	4		

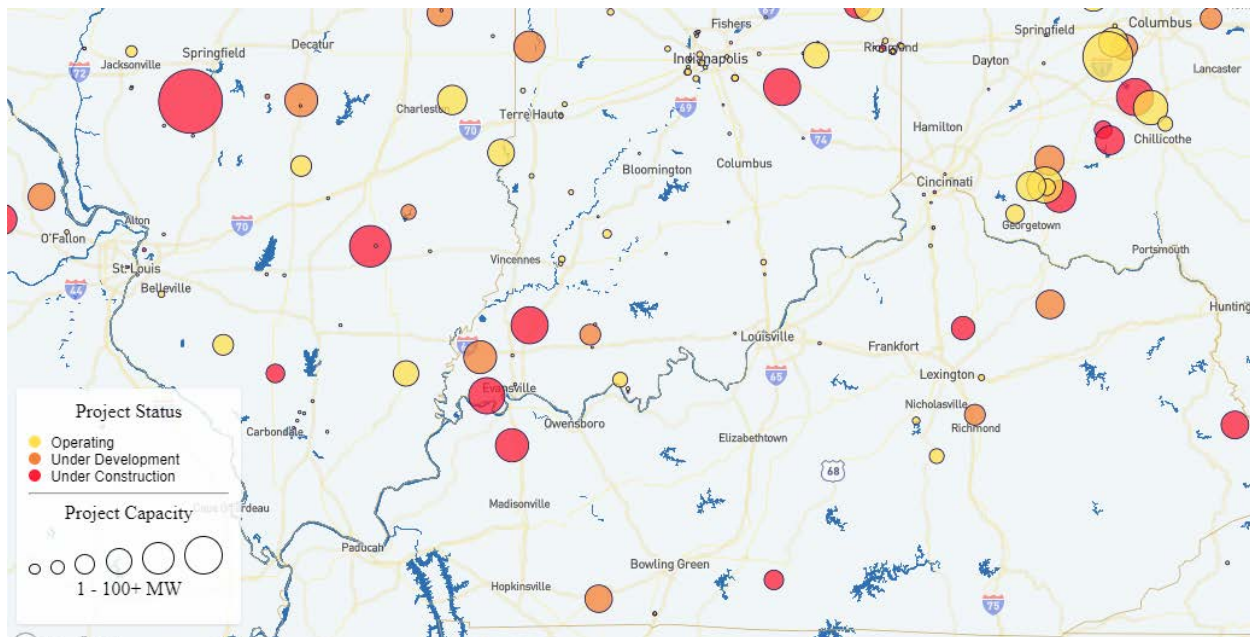
I have not had any assessor indicate a negative adjustment due to adjacency to a solar farm in any state. These responses total 189 with 172 definitively indicating no negative adjustments are made to adjoining property values, 17 providing no response to the question, and 0 indicating that they do address a negative impact on adjoining property value.

Summary of Assessor Surveys

State	Responses	No Impact	Yes Impact	No	Comment
North Carolina	39	39			
Virginia	17	17			
Indiana	31	31			
Colorado	15	8			7
Georgia	33	33			
Kentucky	10	6			4
Mississippi	4	2			2
New Mexico	5	5			
Ohio	24	20			4
South Carolina	11	11			
Totals	189	172	0	17	

VII. Summary of Solar Projects in Kentucky

I have researched the solar projects in Kentucky. I identified the solar farms through the Solar Energy Industries Association (SEIA) Major Projects List and then excluded the roof mounted facilities. This leaves only six solar farms in Kentucky for analysis at this time. Below is a map pulled from SEIA on Major Projects and it shows projects under development in orange and under construction in red, with yellow dots representing existing solar farms. It was from this map that I have identified a list of existing and under construction solar farms researched in Kentucky.



I have provided a summary of projects below and additional detailed information on the projects on the following pages. I specifically note the similarity in most of the sites in Kentucky in terms of mix of adjoining uses, topography, and distances to adjoining homes to each other as well as to the data identified throughout the southeast. The list includes a number of built solar projects as well as a number of proposed or approved projects that are still to be built. The data on these projects that are not built are consistent with the data on the built projects in terms of mix of adjoining uses and distances to homes.

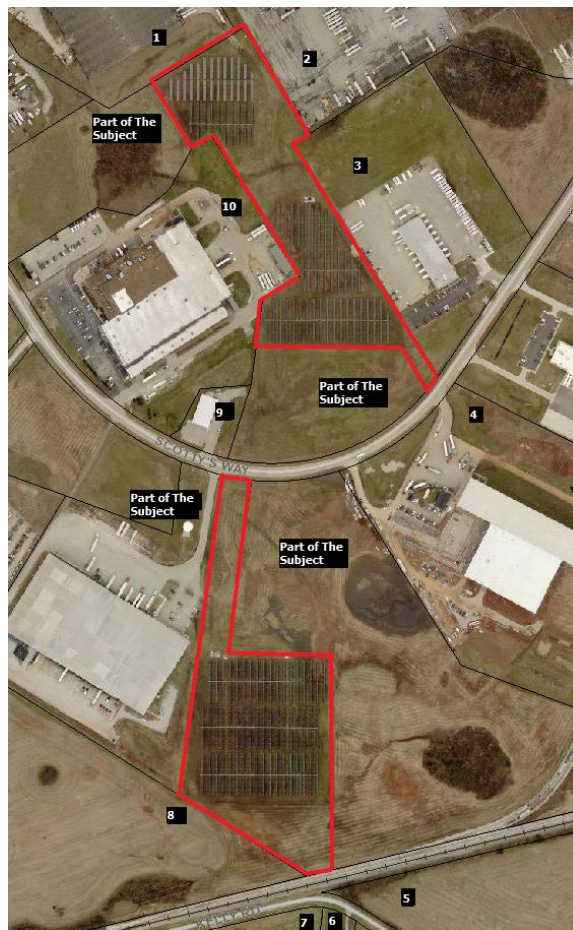
The number of solar farms currently in Kentucky is low compared to a number of other states and North Carolina in particular. I have looked at solar farms in Kentucky for sales activity, but the small number of sites coupled with the relatively short period of time these solar farms have been in place has not provided as many examples of sales adjoining a solar farm as I am able to pull from other places. I have therefore also considered sales in other states, but I have shown in the summary how the demographics around the solar farms in other locations relate to the demographics around the proposed solar farm to show that generally similar locations are being considered. The similarity of the sites in terms of adjoining uses and surrounding demographics makes it reasonable to compare the lack of significant impacts in other areas would translate into a similar lack of significant impacts at the subject site.

Solar # Name	State	County	Output (MW)	Total Acres	Used Acres	Avg. Dist to home	Closest Home	Adjoining Use by Acre				Built
								Res	Agri	Agri/Res Com	Com	
610 Bowling Green	KY	Warren	2	17.36	17.36	720	720	1%	64%	0%	36%	2011
611 Cooperative Solar I	KY	Clarky	8.5	181.47	63	2,110	2,040	0%	96%	3%	0%	2017
612 Walton 2	KY	Kenton	2	58.03	58.03	891	120	21%	0%	60%	19%	2017
613 Crittenden	KY	Grant	2.7	181.7	34.1	1,035	345	22%	27%	51%	0%	2017
617 Glover Creek	KY	Metcalfe	55	968.2	322.44	1,731	375	6%	25%	69%	0%	2024
618 Turkey Creek	KY	Garrard	50	752.8	297.05	976	240	8%	36%	51%	5%	2022
656 Mount Olive Creek	KY	Russell		526.02	420.82	759	150	24%	28%	47%	0%	
657 Horseshoe Bend	KY	Greene	60	585.65	395	1,140	285	8%	51%	41%	0%	
658 Flat Run	KY	Taylor	55	518.94	518.94	540	220	11%	70%	18%	0%	
659 Cooperative Shelby	KY	Shelby	4	35	35			6%	11%	32%	52%	2020
660 E.W. Brown	KY	Mercer	10	50	50	1,026	565	3%	44%	29%	25%	2016
665 Northern Bobwhite	KY	Marion	121	1539.9	1281	1,162	200	5%	38%	56%	0%	
695 Madison	KY	Madison	100	1357	1357	575	90	17%	51%	32%	0%	
696 Fleming	KY	Fleming	188	2350	2350	1,036	175	12%	37%	50%	0%	
699 Mercer County	KY	Mercer	175	1827.6	1500	1,413	230	5%	33%	62%	0%	
700 Ashwood	KY	Lyon	86	1537.7	1537.7	785	170	4%	46%	23%	27%	2024
716 Horus	KY	Simpson	74.36	592.06	547.6	551	110	4%	46%	47%	3%	
717 Meade County	KY	Meade		2087.1	830	-	-	5%	76%	19%	0%	
720 Fleming 1	KY	Fleming	98	764.5	598.6	585	150	3%	48%	49%	0%	
721 McCracken	KY	McCracken	60	615	615	1,696	535	3%	92%	5%	0%	
722 Henderson KY	KY	Henderson		1113	725.13	1,395	180	14%	57%	28%	1%	
770 Bluebird KY	KY	Harrison	90	1943.2	1345	2,056	350	3%	21%	76%	0%	
771 Martin County	KY	Martin	111	4122		4,029	1,450	5%	94%	2%	0%	2025
783 Rhudes Creek	KY	Hardin	100	1078	1078	1,007	305	8%	62%	30%	0%	
794 Logan County	KY	Logan	145	1612	1100	1,058	250	4%	51%	45%	0%	2025
796 Blue Moon	KY	Harrison	74.9	949.87	949.87	1,545	250	6%	55%	39%	0%	
804 Hardin KY	KY	Hardin	85			1,056	470	8%	37%	55%	0%	
808 Stonefield	KY	Hardin	120	902.16	902.16	1,780	300	1%	47%	52%	0%	
855 Pine Grove	KY	Madison	50	475	475	1,207	155	15%	31%	54%	0%	
857 Telesto	KY	Hardin	110	1180	1180	941	500	15%	58%	27%	0%	
859 Hummingbird	KY	Fleming	200	3115	3115	885	290	5%	37%	58%	0%	
868 Keeneland	KY	Barren	38	613	613	906	105	6%	46%	48%	0%	
893 Dogwood KY	KY	Christian	125	1565	1565	1,628	350	8%	61%	31%	0%	
905 Ragland	KY	McCracken	125	4158	4158	1,162	225	9%	83%	7%	0%	
958 Clover Creek KY	KY	Breckinridge	200	3908	3908	1,777	300	6%	64%	19%	11%	
973 Mantle Rock	KY	Livingston	65	562	562	1,836	360	1%	25%	74%	0%	
977 Wood Duck	KY	Barren	100	2259.4	1126.7	1,297	280	6%	35%	59%	0%	
988 LGE-KU	KY	Shelby	2.1	35.51	35.51	1,003	595	5%	34%	9%	52%	
989 Banjo Creek	KY	Graves	120	1270	1270	824	180	21%	56%	23%	0%	
997 Gage	KY	Balard	240	1748	1748	704	150	4%	65%	31%	0%	
1022 Frontier	KY	Washington, M	120	921.72	921.72	2,050	275	3%	26%	71%	0%	
1046 Starfire	KY	Breathitt, Knott, Perry		7860	7860	2456	850	1%	95%	4%	0%	
1066 Bluegrass	KY	Fayette	40	388	315	920	285	32%	15%	51%	2%	
1073 Lynn Barker	KY	Martin	200	2353	2353	3122	1575	3%	96%	1%	0%	
1074 Pleasant Valley	KY	Lyon & Caldwell	125	732.31	732.31	544	230	3%	81%	16%	0%	
1075 Pike	KY	Pike		2023	2023	2654	1395	16%	72%	7%	5%	
1111 Lost City	KY	Muhlenburg	250	1085.2	1085.2	688	175	15%	77%	9%	0%	

Identified 47

	Output (MW)	Total Acres	Used Acres	Avg. Dist to home	Closest Home	Res	Agri	Agri/Res Com	Com
Average	94.9	1402.6	1199.4	1317	412	8%	51%	36%	5%
Median	94.0	1023.1	902.2	1056	280	6%	48%	32%	0%
High	250.0	7860.0	7860.0	4029	2040	32%	96%	76%	52%
Low	2.0	17.4	17.4	540	90	0%	0%	0%	0%

610: Bowling Green Solar, Bowling Green, KY



This project was built in 2011 and located on 17.36 acres for a 2 MW project on Scotty's Way with the adjoining uses being primarily industrial. The closest dwelling is 720 feet from the nearest panel.

Adjoining Use Breakdown

	Acreage	Parcels
Residential	0.58%	10.00%
Agricultural	63.89%	30.00%
Industrial	35.53%	60.00%
Total	100.00%	100.00%

611: Cooperative Solar I, Winchester, KY



This project was built in 2017 on 63 acres of a 181.47-acre parent tract for an 8.5 MW project with the closest home at 2,040 feet from the closest solar panel.

Adjoining Use Breakdown

	Acreage	Parcels
Residential	0.15%	11.11%
Agricultural	96.46%	77.78%
Agri/Res	3.38%	11.11%
Total	100.00%	100.00%

612: Walton 2 Solar, Walton, KY

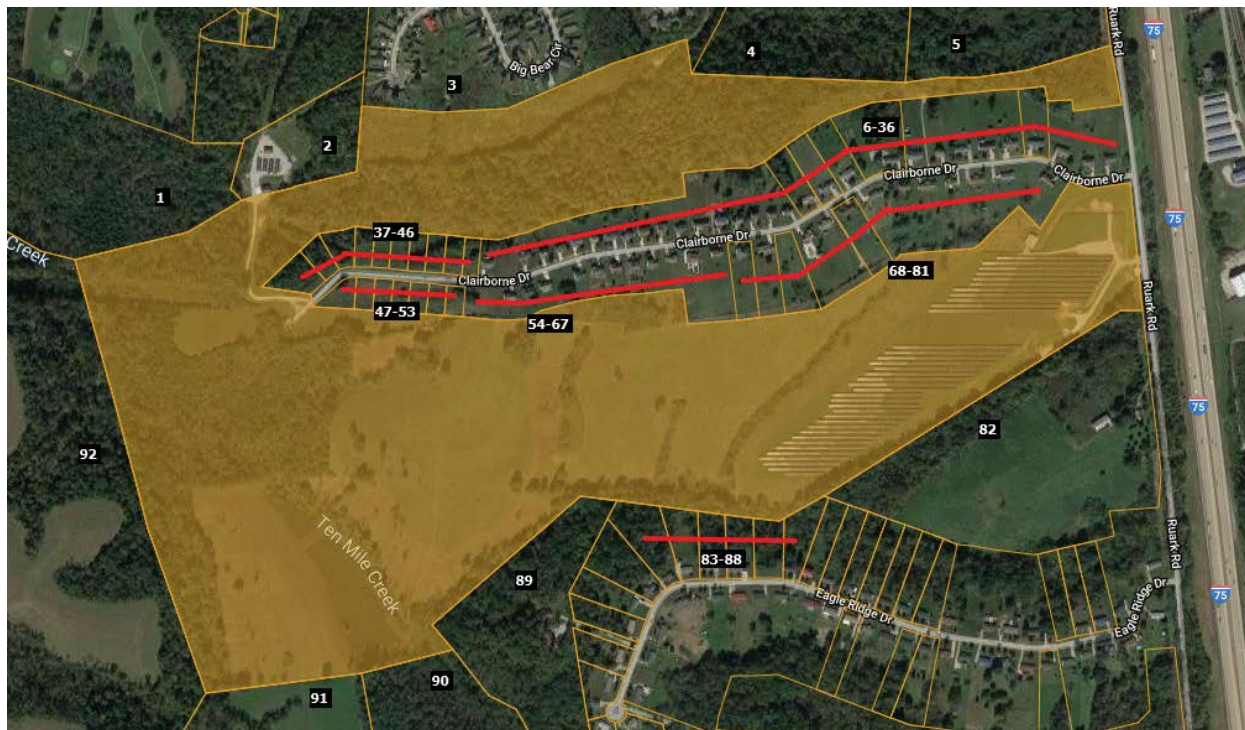


This project was built in 2017 on 58.03 acres for a 2 MW project with the closest home 120 feet from the closest panel.

Adjoining Use Breakdown

	Acreage	Parcels
Residential	20.84%	47.06%
Agri/Res	59.92%	17.65%
Commercial	19.25%	35.29%
Total	100.00%	100.00%

613: Crittenden Solar, Crittenden, KY



This project was built in late 2017 on 34.10 acres out of a 181.70-acre tract for a 2.7 MW project where the closest home is 345 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%

617: Glover Creek Solar, Summer Shade, Metcalfe County, KY



This project under construction in 2023 and 2024 on 322.44 acres out of a 968.20-acre parent tract assemblage for a 55 MW project where the closest home is 175 feet from the closest panel.

Adjoining Use Breakdown

	Acreage	Parcels
Residential	5.78%	37.50%
Agricultural	19.81%	12.50%
Agri/Res	74.41%	50.00%
Total	100.00%	100.00%

I identified a sale of 194 acres adjoining this solar farm on January 22, 2021 for \$430,000, or \$2,216 per acre. This land was improved with a dwelling from the early 1900s and while 74 acres were in timber, the timber was reserved. Given the reserved timber and the fact that this sold prior to the construction of the solar farm, it is difficult to analyze this sale for impact.

618: Turkey Creek Solar, Lancaster, Garrard County, KY

This project was built in 2022 on 297.05 acres out of a 752.80-acre parent tract assemblage for a 50 MW project where the closest home is 240 feet from the closest panel. This project was announced in 2019 with approvals in 2020.

656: Mount Olive Creek Solar, Russell Springs, Russell County, KY



This project is proposed to be built by 2025 on 420.82 acres out of a parent tract assemblage of 526.02 acres for this 60 MW project.

The closest adjoining home is 150 feet from the nearest panel.

657: Horseshoe Bend Solar, Greensburg, Green County, KY



This project is proposed to be built in 2025 on 395 acres out of a parent tract assemblage of 585.65 acres for this 60 MW project.

A home located at 2814 Highway 218, Greensburg sold on March 17, 2023 for \$199,500 for a 3BR, 3 bathroom brick range on 3.75 acres located across the Highway and 1,275 feet from the nearest panel. The home is very well screened by trees and very distant and across a highway from the project. It is not a great candidate for testing for solar farm values. Furthermore it was updated since it was purchased in 2018, which minimizes the potential for a Sale/Resale analysis. All I can say is that the home was purchased in 2018 for \$127,000 and sold 5 years later at a significantly higher price, though I don't know how much of that is attributable to the updates.

658: Flat Run Solar, Campbellsville, Taylor County, KY

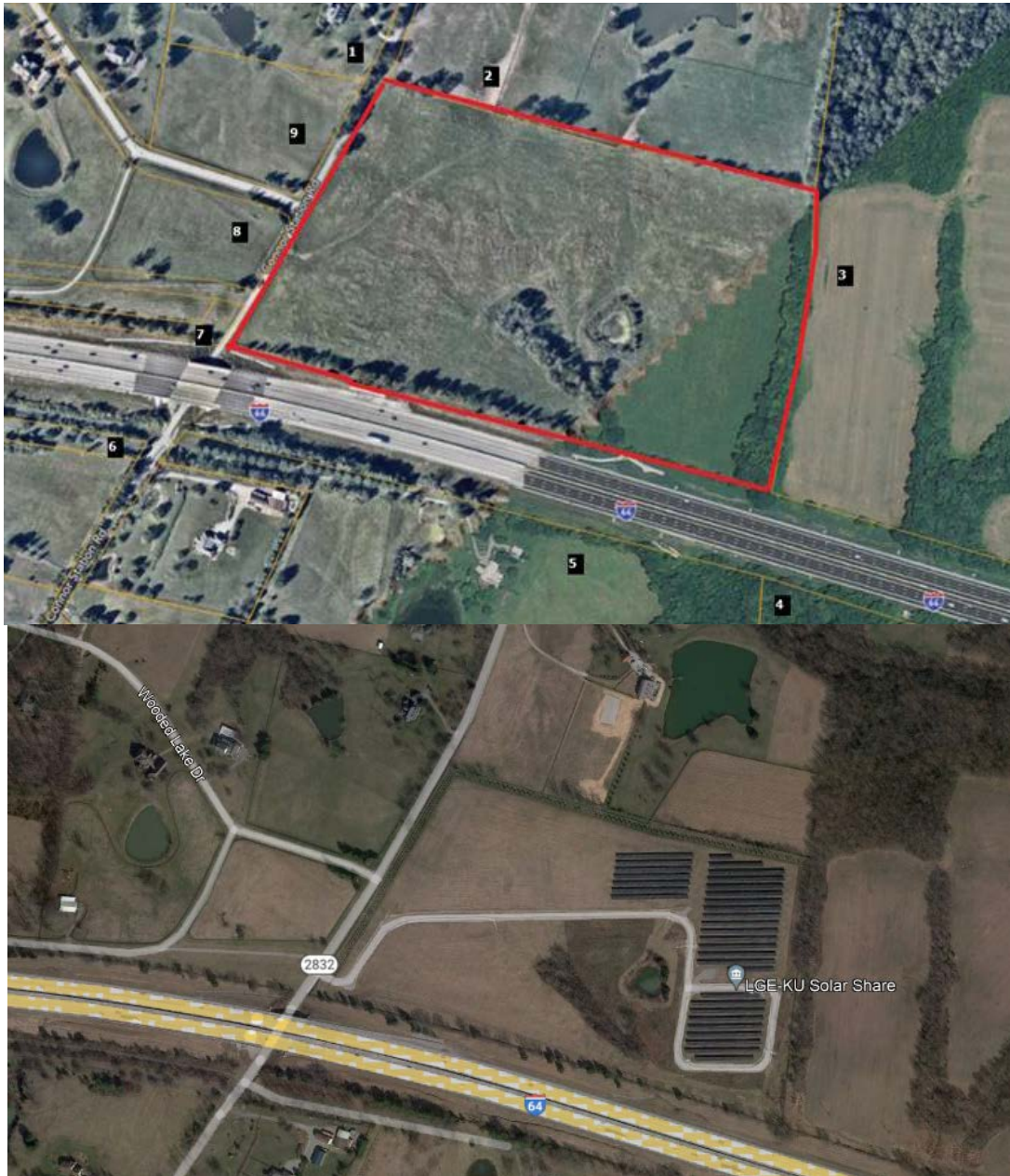


This project is currently proposed to begin commercial operation in 2025 and to be located on 518.94 acres for this 55 MW project. The closest dwelling was proposed to be 220 feet from the nearest panel.

Adjoining Use Breakdown

	Acreage	Parcels
Residential	11.11%	55.56%
Agricultural	70.45%	37.04%
Agri/Res	18.44%	7.41%
Total	100.00%	100.00%

659: Cooperative Shelby Solar, Simpsonville, KY



This project was built in 2020 on 35 acres for a 0.5 MW project that is approved for expansion up to 4 MW.

Adjoining Use Breakdown

	Acreage	Parcels
Residential	6.04%	44.44%
Agricultural	10.64%	11.11%
Agri/Res	31.69%	33.33%
Institutional	51.62%	11.11%
Total	100.00%	100.00%

660: E.W. Brown Solar, Harrodsburg, KY

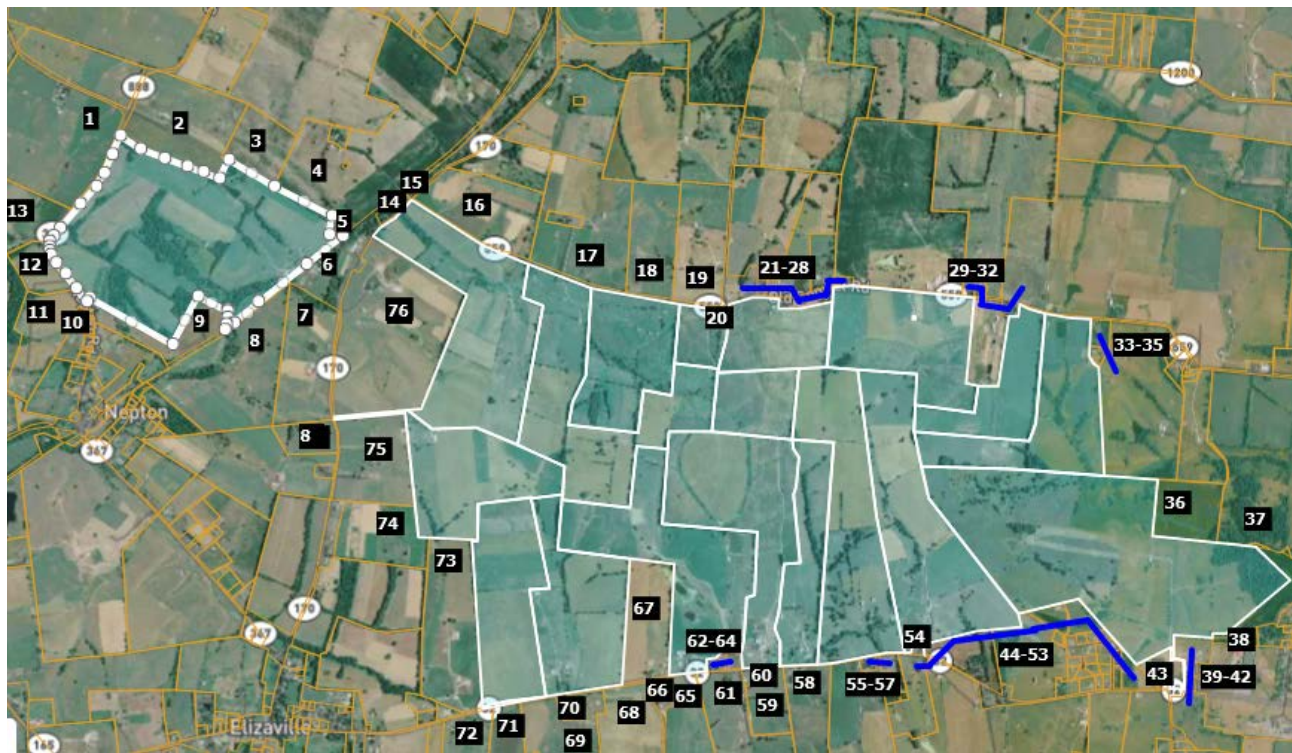


This project was built in 2016 on 50 acres for a 10 MW project. This solar facility adjoins three coal-fired units, which makes analysis of these nearby home sales problematic as it is impossible to extract the impact of the coal plant on the nearby homes especially given the lake frontage of the homes shown.

Adjoining Use Breakdown

	Acreage	Parcels
Residential	2.77%	77.27%
Agricultural	43.92%	9.09%
Agri/Res	28.56%	9.09%
Industrial	24.75%	4.55%
Total	100.00%	100.00%

696: AEUG Fleming Solar, Elizaville, Fleming County, KY



This project is proposed to be developed in 2026 for a 188 MW project on a parent tract of 2,350 acres. The closest adjoining home is to be 175 feet from the nearest panel.

Adjoining Use Breakdown

	Acreage	Parcels
Residential	11.80%	48.68%
Agricultural	37.47%	18.42%
Agri/Res	50.22%	30.26%
Religious	0.20%	1.32%
Commercial	0.30%	1.32%
Total	100.00%	100.00%

700: Ashwood Solar, Fredonia, Lyon County, KY

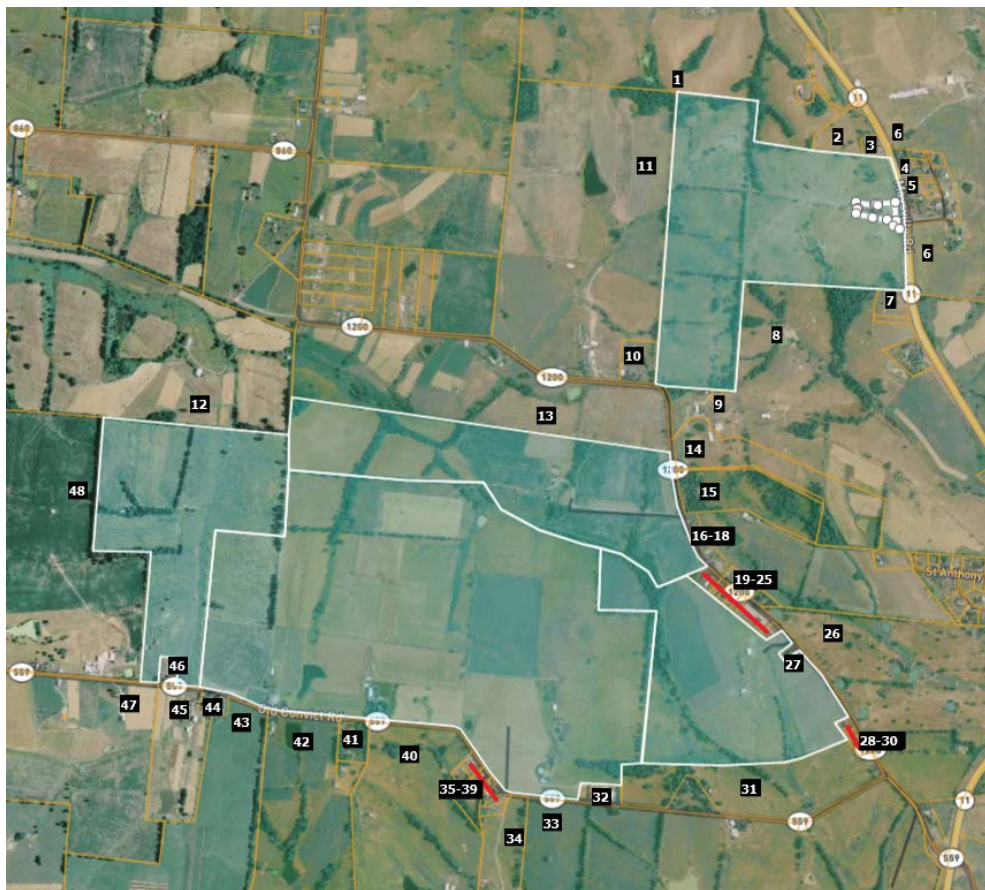


This project broke ground in 2023 and expected to be complete in 2024 according to RWE’s website. It is located on 1,537.70 acres for an 86 MW project on Coleman Doles Road near Fredonia. The closest dwelling was proposed to be 170 feet from the nearest panel.

Adjoining Use Breakdown

	Acreage	Parcels
Residential	3.70%	54.05%
Agricultural	46.11%	24.32%
Agri/Res	22.99%	18.92%
Correctional	27.20%	2.70%
Total	100.00%	100.00%

720: Fleming Solar, Flemingsburg, Fleming County, KY

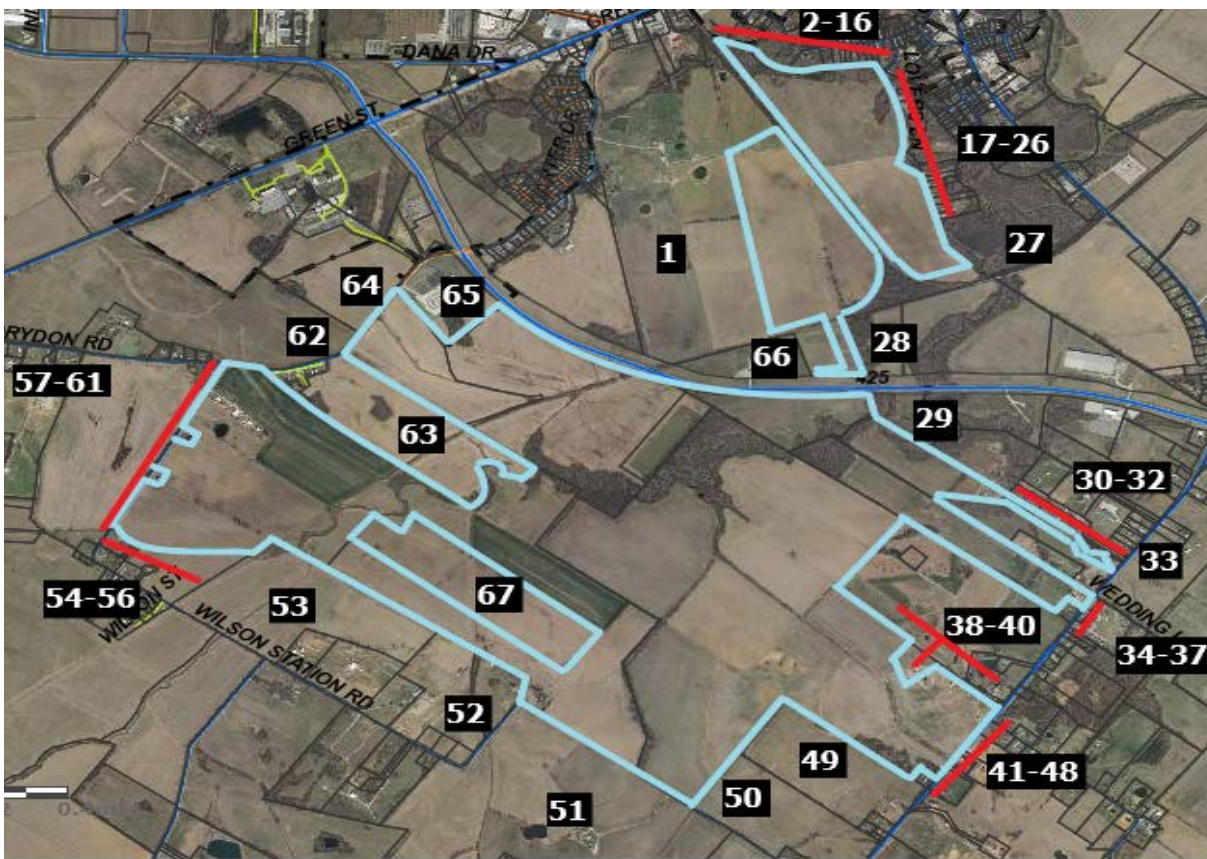


This project is proposed and located on 598.60 acres out of a 764.50-acre assemblage for a 98 MW project on Old Convict Road. The closest dwelling was proposed to be 150 feet from the nearest panel. This is part of the same project as the AEUG Fleming Solar located just north and east of the earlier reported section.

Adjoining Use Breakdown

	Acreage	Parcels
Residential	2.93%	56.25%
Agricultural	47.56%	20.83%
Agri/Res	49.27%	18.75%
Religious	0.12%	2.08%
Warehouse	0.12%	2.08%
Total	100.00%	100.00%

722: Henderson County Solar, Henderson, Henderson County, KY

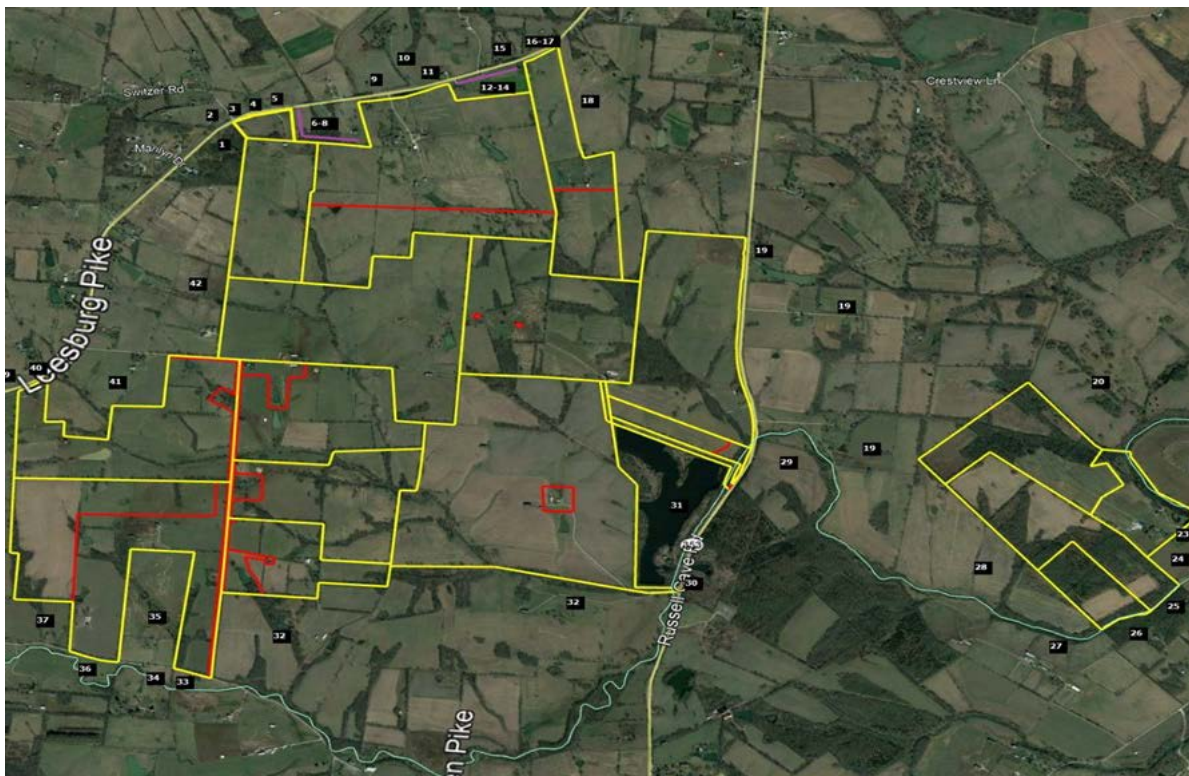


This project was originally proposed to be completed in 2023 and is located on 725.13 acres out of a 1,113.03-acre assemblage for a 50 MW project on Wilson Station Road. The original company Community Energy was acquired by AES in 2021 and this project was taken over by Stellar Renewable Power which projects to begin operations in December 2026. The closest dwelling was proposed to be 180 feet from the nearest panel.

Adjoining Use Breakdown

	Acreage	Parcels
Residential	12.77%	71.64%
Agricultural	56.98%	14.93%
Agri/Res	27.96%	7.46%
Religious	0.03%	1.49%
School	1.45%	1.49%
Substation	0.45%	1.49%
Cell Tower	0.35%	1.49%
Total	100.00%	100.00%

770: Bluebird Solar, Cynthia, Harrison County, KY

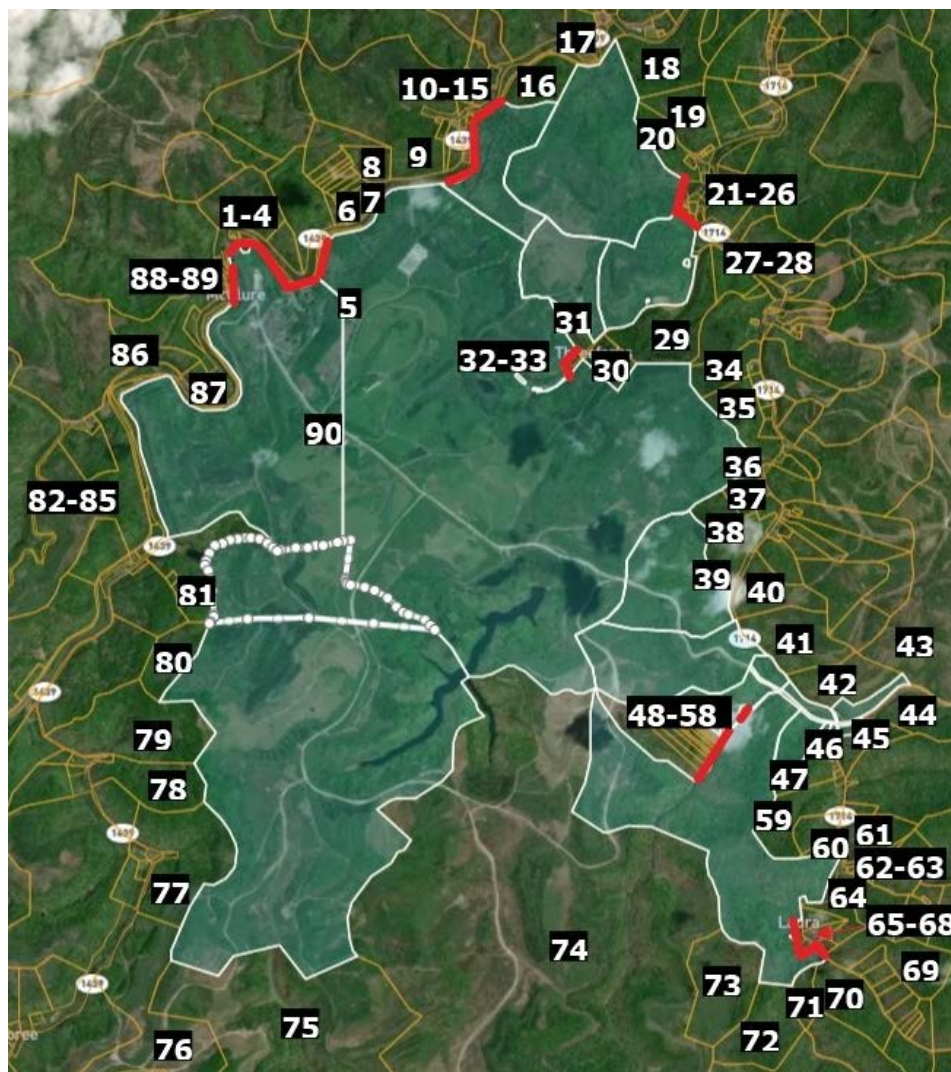


This project is currently under construction in early 2025 and is located on 1,345 acres out of a 1,943.24-acre assemblage for a 90 MW project on Hwy 32 W near Cynthia. The closest dwelling was proposed to be 350 feet from the nearest panel.

Adjoining Use Breakdown

	Acreage	Parcels
Residential	3.47%	47.62%
Agricultural	20.51%	26.19%
Agri/Res	76.01%	26.19%
Total	100.00%	100.00%

771: Martin County Solar, Threeforks, Martin County, KY

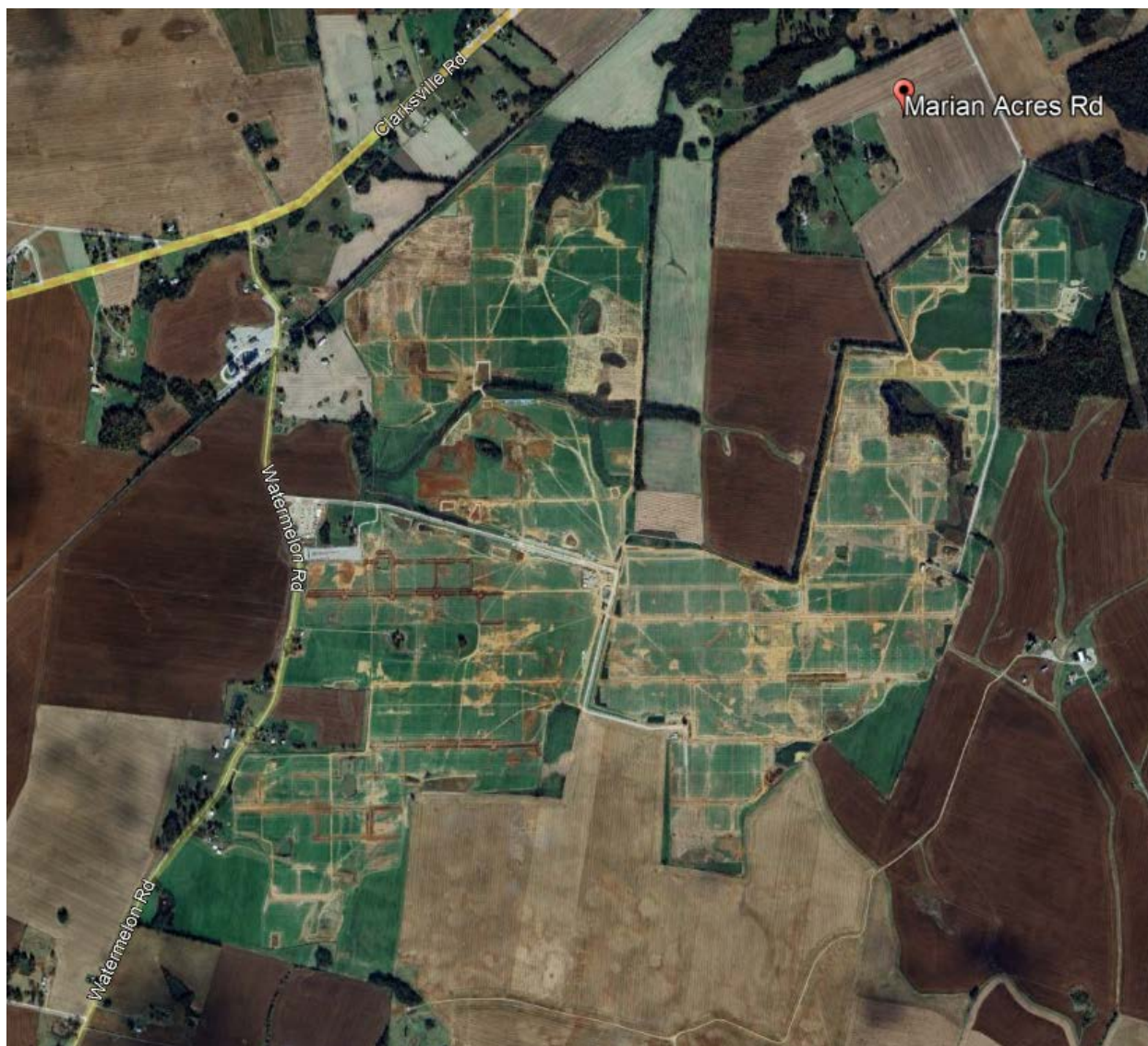


This project began construction in 2023 and completed in January 2025 on a 900-acre portion of a 2,500-acre assemblage for a 111 MW project. This was the former Martiki Coal Mine land. The closest dwelling is 1,450 feet from the nearest panel.

Adjoining Use Breakdown

	Acreage	Parcels
Residential	4.65%	60.44%
Agricultural	93.60%	31.87%
Agri/Res	1.69%	2.20%
Cemetery	0.06%	5.49%
Total	100.00%	100.00%

794: Logan County Solar, Russelville, Logan County, KY



This project began construction in 2023 and proposed to be complete in early 2025. It is located on 1,100 acres for a 173 MW project. The closest dwelling was proposed to be 225 feet from the nearest panel.

Adjoining Use Breakdown

	Acreage	Parcels
Residential	3.54%	45.71%
Agricultural	51.29%	37.14%
Agri/Res	45.05%	14.29%
Religious	0.12%	2.86%
Total	100.00%	100.00%

I identified a May 17, 2022 sale of 528 Watermelon Road for \$275,000 for a home on 1.29 acres with 2,370 s.f. with 3 BR and 2 BR built in 1940 with 2 carport spaces. This homes is 1,460 feet

from the nearest panel through an existing wooded patch. The distance and age makes it difficult to compare this home in this area to similar properties for a paired sale analysis. This home last sold on September 12, 2016 for \$149,000. Using the FHFA Home Price Index the anticipated appreciated value as of the date of the most recent sale was expected to be \$234,000. This Sale/Resale analysis suggests a 17.5% increase in value due to the solar farm.

I also identified 557 J Montgomery Road that sold on December 8, 2021 for \$185,000 for a 4 BR, 2 BA with 2,200 s.f. of living space on 1 acre that was built in 1980. This home has a pool that is noted as needing work, but was otherwise in average condition. I spoke with Dewayne Whittaker the listing agent who indicated that the proposed nearby solar farm had no impact on the sales price or marketing of the home. This home previously sold on May 5, 2016 for \$114,000 and also on June 17, 2008 for \$125,000. The 2008 sales price was higher than the 2016 due to the crash in the housing market in 2008. Adjusting each of these former sales to a December 2021 value expectation based on the FHFA Home Price Index, I derive expectations of \$174,000 from the 2016 sale and \$210,000 from the 2008 sale. The Sale/Resale difference from the 2008 sale is considered more reliable as it covers a shorter period of time. It shows a 6% increase in value over the expected value and supports a mild increase in value due to the adjacency to the solar farm. This home is over 1,900 feet to the nearest panel through existing woods. Given the distance involved this is not a strong indicator for properties closer to solar panels.

Similarly, 263 Donald Lane sold on October 3, 2022 for \$263,400 for a brick ranch with 4 BR, 2.5 BA with 1,704 s.f. of living area on 5 acres. This home is about 1400 feet from the nearest panel through existing woods. This home previously sold in May 2010 for \$141,000. Adjusting this for time using the FHFA HPI, I derive an expected value of \$262,000. This is within 1% of the actual closed price and strongly supports a finding of no impact at this distance. It is not a strong indicator for properties closer to panels.

VIII. 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 properties. 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, Kentucky, and New Jersey.

The data collection on the following pages will be used in the Sale/Resale Analysis, Paired Sales Analysis, and the Broker Comment Summary in the following sections of this report.

I have derived a breakdown of the adjoining uses to show where solar farms are located. 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 property 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.

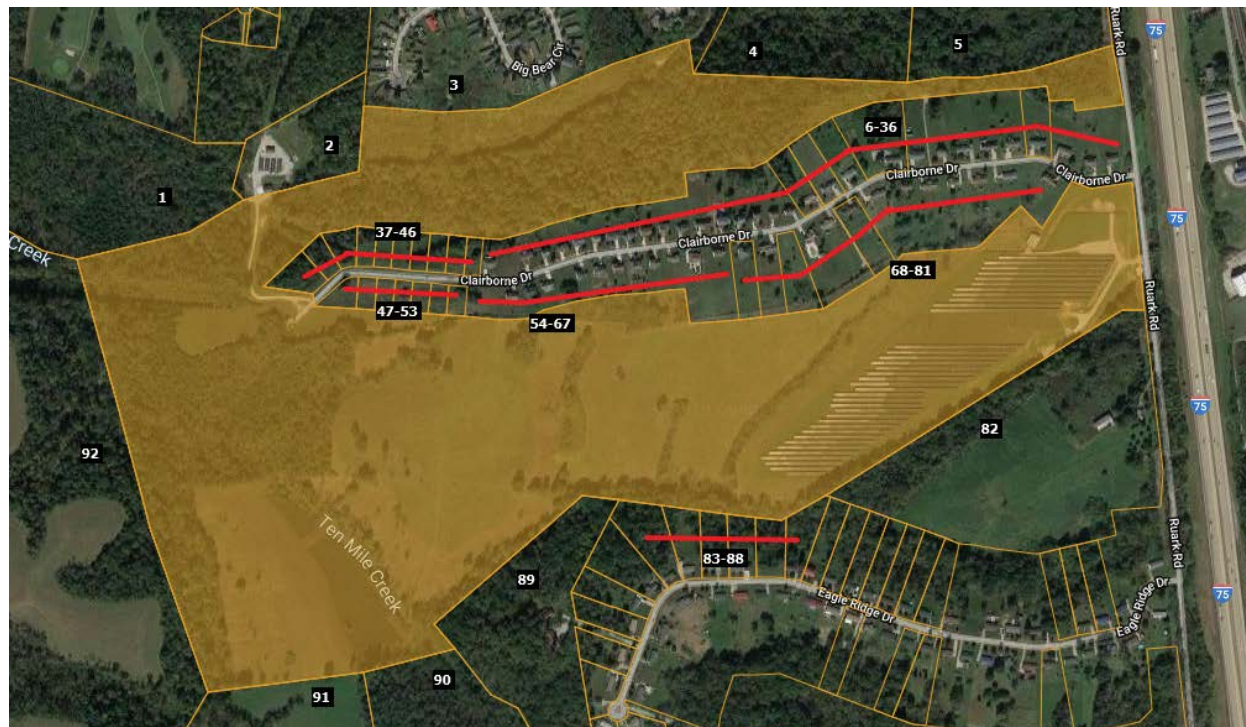
I have previously been asked by the Kentucky Siting Board about how the solar farms and the matched pair sets were chosen. This is the total of all the usable home sales adjoining the 900+ solar farms that I have looked at over the last 15 years. Most of the solar farms that I have looked at are only a few years old and have not been in place long enough for home or land sales to occur next to them for me to analyze. There is nothing unusual about this given the relatively rural locations of most of the solar farms where home and land sales occur much less frequently than they do in urban and suburban areas and the number of adjoining homes is relatively small.

I review the solar farms that I have looked at periodically to see if there are any new sales. If there is a sale I have to be sure it is not an inhouse sale or to a related family member. A great many of the rural sales that I find are from one family member to another, which makes analysis impossible given that these are not “arm’s length” transactions. There are also numerous examples of sales that are “arm’s length” but are still not usable due to other factors such as adjoining significant negative factors such as a coal fired plant or at a landfill or prison. I have looked at homes that require a driveway crossing a railroad spur, homes in close proximity to large industrial uses, as well as homes adjoining large state parks, or homes that are over 100 years old with multiple renovations. Such sales are not usable as they have multiple factors impacting the value that are tangled together. You can’t isolate the impact of the coal fired plant, the industrial building, or the railroad unless you are comparing that sale to a similar property with similar impacts. Matched pair analysis requires that you isolate properties that only have one differential to test for, which is why the type of sales noted above is not appropriate for analysis.

After my review of all sales and elimination of the family transactions and those sales with multiple differentials, I am left with the matched pairs shown in this report to analyze. I do have additional matched pair data in other areas of the United States that were not included in this report due to being states less comparable to Kentucky than those shown. The only other sales that I have eliminated from the analysis are home sales under \$100,000, which there haven’t been many such examples, but at that price range it is difficult to identify any impacts through matched pair analysis. I have not cherry picked the data to include just the sales that support one direction in value, but I have included all of them both positive and negative with a preponderance of the evidence supporting no impact to mild positive impacts.

Kentucky and Adjoining States Data

1. Crittenden Solar, Crittenden, Grant County, KY



This solar farm was built in December 2017 on a 181.70-acre tract but utilizing only 34.10 acres. This is a 2.7 MW facility with residential subdivisions to the north and south.

I have identified a number of home sales to the north of this solar farm on Clairborne Drive and a couple of home sales to the south on Eagle Ridge Drive since the completion of this solar farm. The home sales on Eagle Drive are challenging to consider given that local broker Steve Glacken with Cutler Real Estate indicated that these are the lowest price range/style home in the market. I have not analyzed those sale as it would unlikely provide significant data to other homes in the area.

Mr. Glacken has been selling lots at the west end of Clairborne for new home construction. He indicated in 2020 that the solar farm near the entrance of the development has been a complete non-factor and none of the home sales are showing any concern over the solar farm. Most of the homes are in the \$250,000 to \$335,000 price range. The vacant residential lots are being marketed for \$28,000 to \$30,000. The landscaping buffer is considered light, but the rolling terrain allows for distant views of the panels from the adjoining homes along Clairborne Drive.

The first home considered is a bit of an anomaly for this subdivision in that it is the only manufactured home that was allowed in the community. It sold on January 3, 2019. I compared that sale to three other manufactured home sales in the area making minor adjustments as shown on the next page to account for the differences. After all other factors are considered the adjustments show a -1% to +13% impact due to the adjacency of the solar farm. The best indicator is 1250 Cason, which shows a 3% impact. A 3% impact is within the normal static of real estate transactions and therefore not considered indicative of a positive impact on the property, but it strongly supports an indication of no negative impact.

Adjoining Residential Sales After Solar Farm Approved

Parcel	Solar	Address	Acres	Date Sold	Sales Price	Built	GBA	\$/GBA	BR/BA	Park	Style	Other
	Adjoins	250 Claiborne	0.96	1/3/2019	\$120,000	2000	2,016	\$59.52	3/2	Drive	Manuf	
	Not	1250 Cason	1.40	4/18/2018	\$95,000	1994	1,500	\$63.33	3/2	2-Det	Manuf	Carport
	Not	410 Reeves	1.02	11/27/2018	\$80,000	2000	1,456	\$54.95	3/2	Drive	Manuf	
	Not	315 N Fork	1.09	5/4/2019	\$107,000	1992	1,792	\$59.71	3/2	Drive	Manuf	

Adjustments

Solar	Address	Time	Site	YB	GLA	BR/BA	Park	Other	Total	% Diff	Avg % Diff	Distance
Adjoins	250 Claiborne								\$120,000			373
Not	1250 Cason	\$2,081		\$2,850	\$26,144		-\$5,000	-\$5,000	\$116,075	3%		
Not	410 Reeves	\$249		\$0	\$24,615				\$104,865	13%		
Not	315 N Fork	-\$1,091		\$4,280	\$10,700				\$120,889	-1%	5%	

I also looked at 350 Claiborne as shown below. These are stick-built homes and show a higher price range.

Adjoining Residential Sales After Solar Farm Approved

Parcel	Solar	Address	Acres	Date Sold	Sales Price	Built	GBA	\$/GBA	BR/BA	Park	Style	Other
	Adjoins	350 Claiborne	1.00	7/20/2018	\$245,000	2002	1,688	\$145.14	3/3	2-Car	Ranch	Brick
	Not	460 Claiborne	0.31	1/3/2019	\$229,000	2007	1,446	\$158.37	3/2	2-Car	Ranch	Brick
	Not	2160 Sherman	1.46	6/1/2019	\$265,000	2005	1,735	\$152.74	3/3	2-Car	R/FBsmt	Brick
	Not	215 Lexington	1.00	7/27/2018	\$231,200	2000	1,590	\$145.41	5/4	2-Car	Ranch	Brick

Adjustments

Solar	Address	Time	Site	YB	GLA	BR/BA	Park	Other	Total	% Diff	Avg % Diff	Distance
Adjoins	350 Claiborne								\$245,000			720
Not	460 Claiborne	-\$3,223		-\$5,725	\$30,660	\$5,000			\$255,712	-4%		
Not	2160 Sherman	-\$7,057		-\$3,975	-\$5,743				\$248,225	-1%		
Not	215 Lexington	-\$136		\$2,312	\$11,400	-\$5,000			\$239,776	2%	-1%	

The following photograph shows the light landscaping buffer and the distant view of panels that was included as part of the marketing package for this property. The panels are visible somewhat on the left and somewhat through the trees in the center of the photograph. The first photograph is from the home, with the second photograph showing the view near the rear of the lot.





This set of matched pairs shows no negative impact for this property. The range of adjusted impacts is -4% to +2%. The best indication is -1%, which as described above is within the typical market static and supports no impact on adjoining 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
	Adjoins	370 Claiborne	1.06	8/22/2019	\$273,000	2005	1,570	\$173.89	4/3	2-Car	2-Story	Brick
	Not	2160 Sherman	1.46	6/1/2019	\$265,000	2005	1,735	\$152.74	3/3	2-Car	R/FBsmt	Brick
	Not	2290 Dry	1.53	5/2/2019	\$239,400	1988	1,400	\$171.00	3/2.5	2-Car	R/FBsmt	Brick
	Not	125 Lexington	1.20	4/17/2018	\$240,000	2001	1,569	\$152.96	3/3	2-Car	Split	Brick

Adjustments

Solar	Address	Time	Site	YB	GLA	BR/BA	Park	Other	Total	% Diff	Avg % Diff	Distance
Adjoins	370 Claiborne								\$273,000			930
Not	2160 Sherman	\$1,831		\$0	-\$20,161				\$246,670	10%		
Not	2290 Dry	\$2,260		\$20,349	\$23,256	\$2,500			\$287,765	-5%		
Not	125 Lexington	\$9,951		\$4,800					\$254,751	7%	4%	

This set of matched pairs shows a general positive impact for this property. The range of adjusted impacts is -5% to +10%. The best indication is +7%. I typically consider measurements of +/-5% to be within the typical variation in real estate transactions. This indication is higher than that and suggests a positive relationship.

The photograph from the listing shows panels visible between the home and the trampoline shown in the picture.



Adjoining Residential Sales After Solar Farm Approved

Solar	Address	Acres	Date Sold	Sales Price	Built	GBA	\$/GBA	BR/BA	Park	Style	Other
Adjoins	330 Claiborne	1.00	12/10/2019	\$282,500	2003	1,768	\$159.79	3/3	2-Car	Ranch	Brick/pool
Not	895 Osborne	1.70	9/16/2019	\$249,900	2002	1,705	\$146.57	3/2	2-Car	Ranch	Brick/pool
Not	2160 Sherman	1.46	6/1/2019	\$265,000	2005	1,735	\$152.74	3/3	2-Car	R/FBsmt	Brick
Not	215 Lexington	1.00	7/27/2018	\$231,200	2000	1,590	\$145.41	5/4	2-Car	Ranch	Brick

Solar	Address	Time	Site	YB	GLA	BR/BA	Park	Other	Total	% Diff	Avg % Diff	Distance
Adjoins	330 Claiborne								\$282,500			665
Not	895 Osborne	\$1,790		\$1,250	\$7,387	\$5,000		\$0	\$265,327	6%		
Not	2160 Sherman	\$4,288		-\$2,650	\$4,032			\$20,000	\$290,670	-3%		
Not	215 Lexington	\$9,761		\$3,468	\$20,706	-\$5,000		\$20,000	\$280,135	1%		

1%

This set of matched pairs shows a general positive impact for this property. The range of adjusted impacts is -3% to +6%. The best indication is +6%. I typically consider measurements of +/-5% to be within the typical variation in real estate transactions. This indication is higher than that and suggests a positive relationship. The landscaping buffer on these is considered light with a fair visibility of the panels from most of these comparables and only thin landscaping buffers separating the homes from the solar panels.

I also looked at four sales that were during a rapid increase in home values around 2021, which required significant time adjustments based on the FHFA Housing Price Index. Sales in this time frame are less reliable for impact considerations as the peak buyer demand allowed for homes to sell with less worry over typical issues such as repairs.

The home at 250 Claiborne Drive sold with no impact from the solar farm according to the buyer's broker Lisa Ann Lay with Keller Williams Realty Service. As noted earlier, this is the only manufactured home in the community and is a bit of an anomaly. There was an impact on this sale due to an appraisal that came in low likely related to the manufactured nature of the home. Ms. Lay indicated that there was significant back and forth between both brokers and the appraiser to address the low appraisal, but ultimately, the buyers had to pay \$20,000 out of pocket to cover the difference in appraised value and the purchase price. The low appraisal was not attributed to the solar farm, but the difficulty in finding comparable sales and likely the manufactured housing.

Adjoining Residential Sales After Solar Farm Built

Solar	Address	Acres	Date Sold	Sales Price	Built	GBA	\$/GBA	BR/BA	Park	Style	Other
Adjoins	250 Claiborne	1.05	1/5/2022	\$210,000	2002	1,592	\$131.91	4/2	Drive	Ranch	Manuf
Not	255 Spillman	0.64	3/4/2022	\$166,000	1991	1,196	\$138.80	3/1	Drive	Ranch	Remodel
Not	546 Waterworks	0.28	4/29/2021	\$179,500	2007	1,046	\$171.61	4/2	Drive	Ranch	3/4 Fin B
Not	240 Shawnee	1.18	6/7/2021	\$180,000	1977	1,352	\$133.14	3/2	Gar	Ranch	N/A

Solar	Address	Time	YB	GLA	BR/BA	Park	Other	Total	% Diff	Avg % Diff	Distance
Adjoins	250 Claiborne							\$210,000			365
Not	255 Spillman	-\$379	\$9,130	\$43,971	\$10,000		-\$20,000	\$208,722	1%		
Not	546 Waterworks	\$1,772	-\$4,488	\$74,958			-\$67,313	\$184,429	12%		
Not	240 Shawnee	\$1,501	\$22,500	\$25,562		-\$10,000		\$219,563	-5%		

3%

The photograph of the rear view from the listing is shown below.



The home at 260 Claiborne Drive sold with no impact from the solar farm according to the buyer's broker Jim Dalton with Ashcraft Real Estate Services. He noted that there was significant wood rot and a heavy smoker smell about the house, but even that had no impact on the price due to high demand in the market.

Adjoining Residential Sales After Solar Farm Built

Solar	Address	Acres	Date Sold	Sales Price	Built	GBA	\$/GBA	BR/BA	Park	Style	Other
Adjoins	260 Claiborne	1.00	10/13/2021	\$175,000	2001	1,456	\$120.19	3/2	Drive	Ranch	N/A
Not	355 Oakwood	0.58	10/27/2020	\$186,000	2002	1,088	\$170.96	3/2	Gar	Ranch	3/4 Fin B
Not	30 Ellen Kay	0.50	1/30/2020	\$183,000	1988	1,950	\$93.85	3/2	Gar	2-Story	N/A
Not	546 Waterworks	0.28	4/29/2021	\$179,500	2007	1,046	\$171.61	4/2	Drive	Ranch	3/4 Fin B

Solar	Address	Time	YB	GLA	BR/BA	Park	Other	Total	% Diff	Avg % Diff	Distance
Adjoins	260 Claiborne							\$175,000			390
Not	355 Oakwood	\$18,339	-\$930	\$50,329		-\$10,000	-\$69,750	\$173,988	1%		
Not	30 Ellen Kay	\$31,974	\$11,895	-\$37,088		-\$10,000		\$179,781	-3%		
Not	546 Waterworks	\$8,420	-\$5,385	\$56,287			-\$67,313	\$171,510	2%	0%	

The photograph of the rear view from the listing is shown below.



These next two were brick and with unfinished basements which made them easier to compare and therefore more reliable.

For 300 Claiborne I found a sale in 2022, a sale in 2021, and a sale in 2018. All three were after the solar project was completed. I also considered the 2014 sale of the home prior to the announcement of the solar project for a Sale/Resale analysis.

The July 2014 sales price was \$173,000 and then it sold after the solar project in 2018 for \$212,720. The FHFA HPI shows an expected increase over that time period for an expected home value of \$208,183. This is very similar to the actual sales price in 2018 and supports a finding of no impact due to the solar project.

The photograph of the rear view from the 2021 listing is shown below.



This same home, 300 Claiborne sold again on October 14, 2022 for \$332,000, or \$42,000 higher or 15% higher than it had just 10 months earlier. The FHFA Home Price Index indicates an 8.3% increase over that time for the overall market, suggesting that this home is actually increasing in value faster than other properties in the area.

Adjoining Residential Sales After Solar Farm Built

Solar	Address	Acres	Date Sold	Sales Price	Built	GBA	\$/GBA	BR/BA	Park	Style	Other
Adjoins	300 Claiborne	0.89	10/14/2022	\$332,000	2002	1,568	\$211.73	3/3	2-Car	Br Rnch	Bsmt
Not	202 Shady	0.94	4/20/2023	\$300,000	1980	1,620	\$185.19	4/2.5	2-Det	Br Rnch	Bsmt
Not	145 Liza	0.31	8/5/2022	\$325,000	2015	1,650	\$196.97	3/2	2-Car	Br Rnch	
Not	120 Sheffield	0.21	7/26/2023	\$344,900	2023	1,570	\$219.68	3/2	2-Car	Rnch	Bsmt

Solar	Address	Time	YB	GLA	BR/BA	Park	Other	Total	% Diff	Avg % Diff	Distance
Adjoins	300 Claiborne							\$332,000			570
Not	202 Shady	-\$14,258	\$33,000	-\$3,852	-\$5,000	\$5,000		\$314,890	5%		
Not	145 Liza	\$5,751	-\$21,125	-\$6,461			\$10,000	\$313,166	6%		
Not	120 Sheffield	-\$24,850	-\$36,215	-\$176			\$17,245	\$300,905	9%	7%	

An updated photo from the 2022 listing is shown below.



The home at 410 Claiborne included an inground pool with significant landscaping around it that was a challenge. Furthermore, two of the comparables had finished basements. I made no adjustment for the pool on those two comparables and considered the two factors to cancel out

Adjoining Residential Sales After Solar Farm Built

Solar	Address	Acres	Date Sold	Sales Price	Built	GBA	\$/GBA	BR/BA	Park	Style	Other
Adjoins	410 Claiborne	0.31	2/10/2021	\$275,000	2006	1,595	\$172.41	3/2	2-Car	Br Rnch	Bsmt/Pool
Not	114 Austin	1.40	12/23/2020	\$248,000	1994	1,650	\$150.30	3/2	2-Car	Br Rnch	Bsmt
Not	125 Liza	0.29	6/25/2021	\$315,000	2005	1,913	\$164.66	4/3	2-Car	Br Rnch	Ktchn Bsmt
Not	130 Hannahs	0.42	2/9/2021	\$295,000	2007	1,918	\$153.81	3/3	2-Car	Br Rnch	Fin Bsmt

Solar	Address	Time	YB	GLA	BR/BA	Park	Other	Total	% Diff	Avg % Diff	Distance
Adjoins	410 Claiborne							\$275,000			1080
Not	114 Austin	\$3,413	\$14,880	-\$6,613			\$20,000	\$279,680	-2%		
Not	125 Liza	-\$11,945	\$1,575	-\$41,890	-\$10,000			\$252,740	8%		
Not	130 Hannahs	\$83	-\$1,475	-\$39,743	-\$10,000			\$243,864	11%		
										6%	

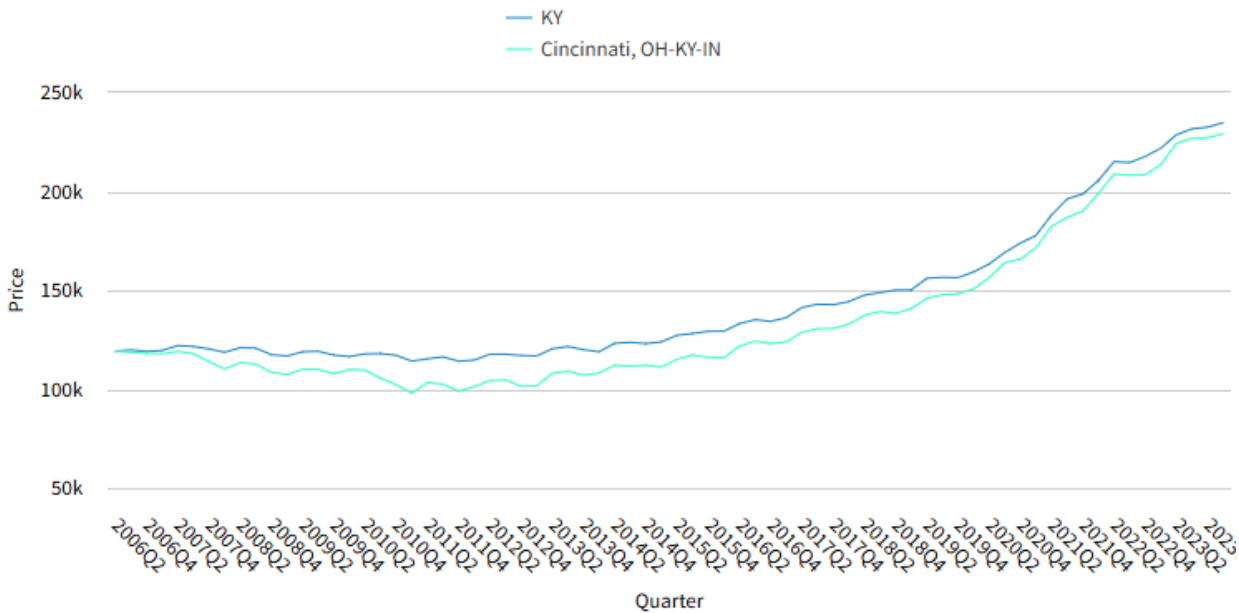
Another home sale was identified at 280 Claiborne which sold on March 27, 2024 for \$295,500 for this 2,100 s.f. 1.5-story home built in 1998 with 3 BR, 2.5 BA, on 1.05 acres. In the listing photographs you can see the solar panels in the background as shown below. The closest panel is 500 feet from the home.



This home last sold on April 28, 2006 for \$119,200 before the solar farm was built. Using the FHFA HPI over that time period, that home was expected to appreciate between those two sales to \$234,745, whereas it actually appreciated to \$295,500. This home was noted as having “neat additions” such as a storm shelter, fenced gardens, and tasteful décor. Some of this may explain the higher sales price, but this Sale/Resale strongly supports a finding of no impact on property value. A typical new roof adds \$6,000 to \$7,000 in resale value based on some online estimates. A new kitchen typically adds around \$26,000 on average as of 2022. Adding an additional \$5,000 for the granite counter tops the total kitchen remodel estimate is \$31,000. Add in the new roof and you get an estimated value of the upfit at \$38,000. Even if I increase this estimate by 25% to \$47,500, the indicated adjusted value including the time adjustment is \$282,245, which supports a finding of no impact on property value.

The home was sold by Carol Jackson with The Realty Place (859-393-6282). Ms Jackson replied via text on 1/18/25 that this was an arm’s length transaction and that the solar project had no impact on the property value due to the distance involved. She indicated that they had multiple offers on this home.

Estimated Value for MSA: \$229,205	Estimated Value for State: \$234,745	MSA Percentage Change: 92.29%
--	--	---



Adjoining Residential Sales After Solar Farm Built

Solar	Address	Acres	Date Sold	Sales Price	Built	GBA	\$/GBA	BR/BA	Park	Style	Other
Adjoins	410 Claiborne	0.31	2/10/2021	\$275,000	2006	1,595	\$172.41	3/2	2-Car	Br Rnch	Bsmt/Pool
Not	114 Austin	1.40	12/23/2020	\$248,000	1994	1,650	\$150.30	3/2	2-Car	Br Rnch	Bsmt
Not	125 Liza	0.29	6/25/2021	\$315,000	2005	1,913	\$164.66	4/3	2-Car	Br Rnch	Ktchn Bsmt
Not	130 Hannahs	0.42	2/9/2021	\$295,000	2007	1,918	\$153.81	3/3	2-Car	Br Rnch	Fin Bsmt

Solar	Address	Time	YB	GLA	BR/BA	Park	Other	Total	% Diff	Avg % Diff	Distance
Adjoins	410 Claiborne							\$275,000			1080
Not	114 Austin	\$3,413	\$14,880	-\$6,613			\$20,000	\$279,680	-2%		
Not	125 Liza	-\$11,945	\$1,575	-\$41,890	-\$10,000			\$252,740	8%		
Not	130 Hannahs	\$83	-\$1,475	-\$39,743	-\$10,000			\$243,864	11%	6%	

2. Walton 2, Walton, Kenton County, KY



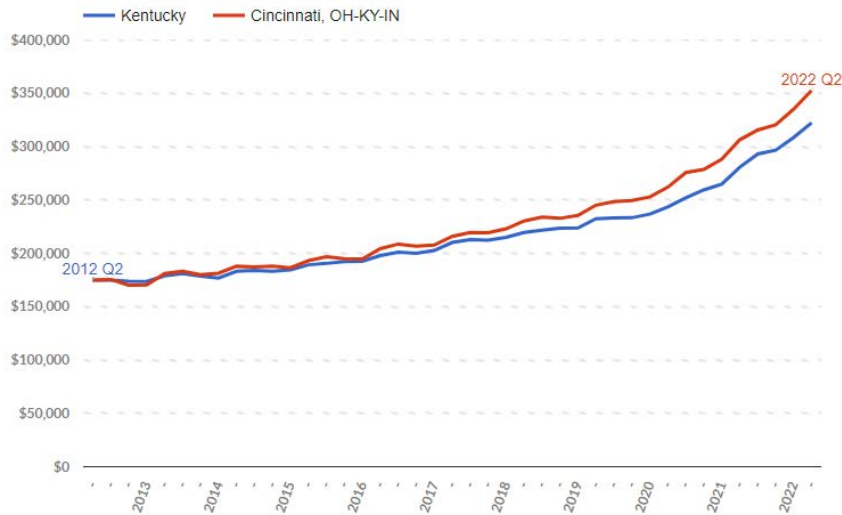
This project was built in 2017 on 58.03 acres for a 2 MW project with the closest home 120 feet from the closest panel.

The home located on Parcel 1 (783 Jones Road, Walton, KY) in the map above sold on May 4, 2022 for \$346,000. This home is 410 feet from the nearest solar panel. I have considered a Sale/Resale analysis of this home as it previously sold on May 7, 2012 for \$174,900. This analysis compares that 2012 purchase price and uses the FHFA House Price Index Calculator to identify what real estate values in the area have been appreciating at to determine where it was expected to appreciate to. I have then compared that to the actual sales price to determine if there is any impact attributable to the addition of the solar farm.

As can be seen on the calculator form, the expected value for \$174,900 home sold in 2nd quarter 2012 would be \$353,000 for 2nd quarter 2022. This is within 2% of the actual sales price and supports a finding of no impact on property value.

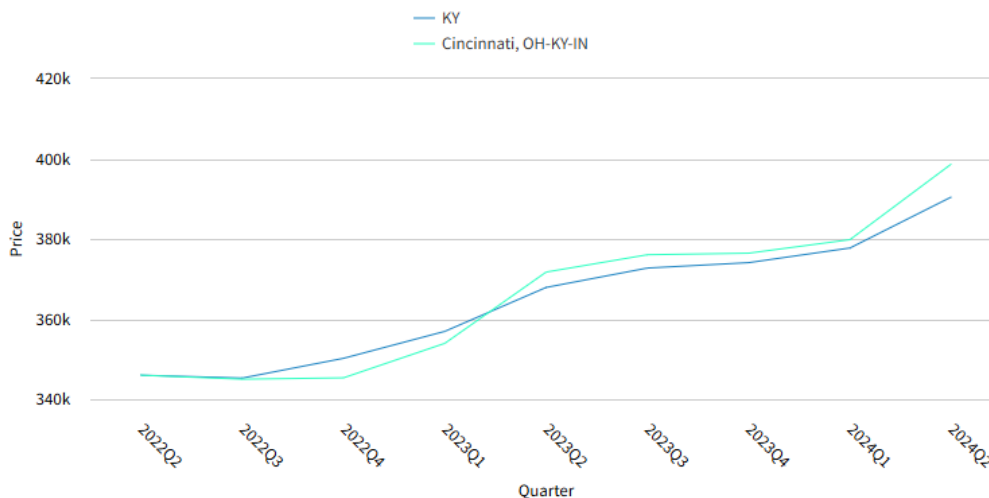
I have not attempted a paired sales analysis with other sales, as this property also has the nearby recycling and car lot that would be a potential factor in comparing to other sales. But based on aerial imagery, these same car lots were present in 2012 and therefore has no additional impact when comparing this home sale to itself.

Purchase Quarter	Valuation Quarter	X
2012 Quarter 2	2022 Quarter 2	Percentage Change
Purchase Value	Estimated Value for MSA	101.8%
\$174,900	\$353,000	



This same home was then renovated with a new roof, updated kitchen with granite counters and listed again on January 4, 2025 and went under contract for the asking price of \$428,500 on January 5, 2025. The property increased in value since 2022 by \$82,500, whereas the FHFA HPI indicates an increase in value to \$398,698. The additional increase over that is attributable to the recent updates, which makes it difficult to use this as a Sale/Resale analysis, but is suggestive.

Estimated Value for MSA: \$398,698	Estimated Value for State: \$390,471	MSA Percentage Change: 15.23%
--	--	---



3. Turkey Creek, Lancaster, Garrard County, KY



This project was built in 2022 on 297.05 acres out of a 752.80-acre parent tract assemblage for a 50 MW project where the closest home is 240 feet from the closest panel. This project was announced in 2019 with approvals in 2020.

I identified a sale at 166 Long Branch Drive, Lancaster that sold on November 25, 2020 after the solar farm was announced for \$180,000. The prior sale of the property on February 28, 2019 was for \$160,000. Adjusting the earlier sale by the FHFA Home Price Index, the anticipated increase in value was \$181,000. This is a difference of 1% which is within typical market deviation and supports a finding of no impact on property value due to the announcement of the solar farm. This home is approximately 250 feet from the nearest solar panel.

I also identified 209 Ashlock Drive that sold on June 14, 2022 near the time construction was to be begin at this solar project. This home sold for \$500,000 for a 3,968 s.f. home with 4 BR, 4.5 BA built in 1985 on 3.06 acres. This is a unique home and it is over 1,000 feet to the nearest solar panel. It was purchased out of a larger tract that now includes 5 additional lots and this home adjoins an industrial use to the northwest. All of these factors make it difficult to analyze this sale. I have therefore not attempted to do so as any result would be non-credible given these other factors.

I also identified 1439 Stanford Road that sold on June 27, 2023 for \$1,300,000 for this 3,400 s.f. historic home on 206 acres. The home is over 1,500 feet from the panels and the site includes acreage zoned for commercial use according to the listing. There are too many unique features to this for a valid paired sales analysis. I have not attempted one for this sale.

I identified 239 Ashlock Drive that sold on June 20, 2024 for \$329,900 for this 1,600 s.f. brick ranch with 3 BR, 2.5 BA, with 2-car garage built in 2024 on 1 acre. This home is approximately 700 feet from the nearest panel. It is located on the north side of Elmwood Court and therefore one lot away from adjoining the solar project. This home was sold by Hannah Hulett with Danny Ayres Realty & Auction. The home was listed on April 19, 204 for \$339,900 and then reduced to \$329,900 on May 1, 204. The home went under contract on May 16, 2024 and sold on June 20, 2024 for \$329,900. The purchase price works out to be \$206.19 per square foot.

There were not many new homes in that size range in the area for comparison. I considered 126 Bethany Trace that sold on April 14, 2023 for \$300,000 for a 1,385 s.f. home with 2 car garage, 3 BR and 2 BA built in 2023 on 0.26 acres. The purchase price works out to \$216.61 per s.f. This is a little higher than the subject property, but it is also 215 s.f. smaller, which would suggest a slightly higher price per s.f. This home is on a smaller lot but also sold for \$10,000 less than asking price and was on the market for 3 months before closing. I will not rely heavily on this comparison as I only found this one comparable sale of a new home in a similar time frame.

Merriwood Development, LLC purchased 15 lots along Elmwood Court on May 18, 2023 for \$750,000, or \$50,000 per lot. These lots were developed in 2022/2023 by Wimbledon Holdings and WRH Investments following the purchase of the raw land on March 25, 2022. The raw land was purchased for development after the solar farm was approved and the subdivision infrastructure was developed during the construction of the solar farm. The developer clearly foresaw no negative impact on the property from the solar farm or they would not have invested in the development. The sales price is not a good indication of market value as Wimbledon and Merriwood are noted as related entities.

I searched for recent lot sales in the area and found 1 to 3 acre lots to the northeast selling for \$15,000 to \$30,000 each. The lots at Merriwood are in close proximity to Garrard County High School off Industry Road.

Lot 96 sold to Robert and Avonda Noe on January 24, 2023 for \$44,900 and was subsequently developed with a single family home. This lot directly adjoins the solar farm with the nearest panel 625 feet away. The panels appear to be visible in the background of the tax card photo.



Lot 97 sold to Michael and Jill Stevens on July 28, 2023 for \$60,800. This lot directly adjoins the solar farm with a likely home site 820 feet from the nearest panel.

Lot 98 was sold to Walter and Hannah Hulett for \$1 as an entity related to Wimbledon Holdings. This is the home visible in the map just underneath the word Elmwood Court. The Hulett's are WRH Investments, LLC that developed the site with Wimbledon Holdings, LLC.

Lot 100 sold on July 28, 2023 to Jimmie McCulley for \$39,900. This lot does not directly adjoin the solar farm.

Lot 101 sold on November 22, 2023 to Willie and Tiffany Skeens for \$50,000. This lot directly adjoins the solar farm with a likely home site 450 feet from the nearest panel.

Additional lots were transferred to Elmwood Builders, LLC that is noted as affiliated with Merriwood Development, LLC for \$1 each.

The various lot prices range from \$39,900 to \$60,800 with the low end of the range being a lot non-adjacent to the solar farm and the high end being adjacent to the solar farm. The sales data on the lots do not support any finding of a negative impact on property value. Comparing the most common lot value of \$50,000 per lot suggests an impact range of -10% for Lot 96 that sold for \$44,900 to +22% for Lot 97 that sold for \$60,800. Those two lots are adjacent to each other. Blending the two impacts suggests a 12% enhancement for adjoining the solar farm. But given the wide ranges of lot values in this development, I consider this to simply support a finding of no impact on property value.



4. Mount Olive Creek Solar, Russell Springs, Russell County, KY



This project is proposed to be built by 2025 on 420.82 acres out of a parent tract assemblage of 526.02 acres for this 60 MW project.

I identified a home sale at 2985 KY-1729 that sold on December 2, 2022 for \$150,000. This home is around 1,250 feet from the nearest panel which is located to the northeast and through the intersection of Sano Road and Sulphur Creek Road (Highway 1729). It fronts on the highway and adjoins a church. Given these various issues, it would be difficult to complete a paired sales analysis on this home. However, this home did sell on September 18, 2018 for \$110,000 prior to the solar farm construction. Adjusting this purchase price upward by the FHFA Home Price Index for the area, this home would have been expected to appreciate to \$158,000. This was within 5% of the anticipated sales price and supports a finding of no impact on property value. Still given the distance to the solar farm and the other factors, I will not rely heavily on this indicator.

5. E. W. Brown Solar, Harrodsburg, KY

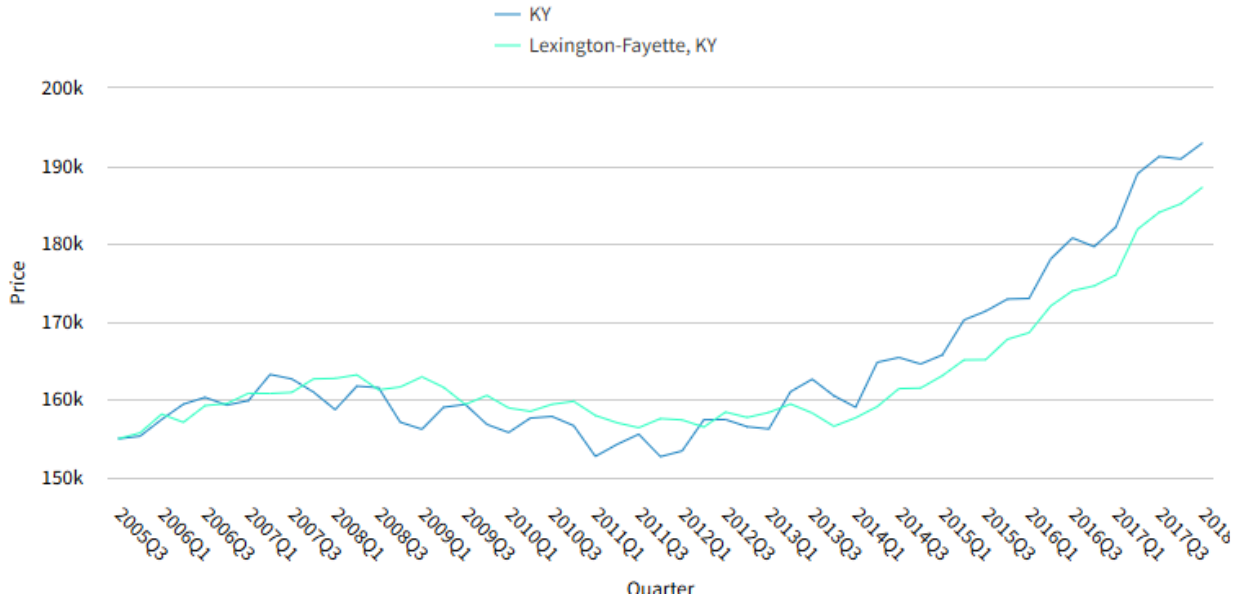


This project was built in 2016 on 50 acres for a 10 MW project. This solar facility adjoins three coal-fired units shown to the north which makes it difficult to do a paired sales analysis on the nearby homes. I have however considered Sale/Resale analysis as the impact of the nearby coal power plant as well as the impact of the river frontage is the same in both sales prices, which leaves the primary difference of the solar project as what we are testing for.

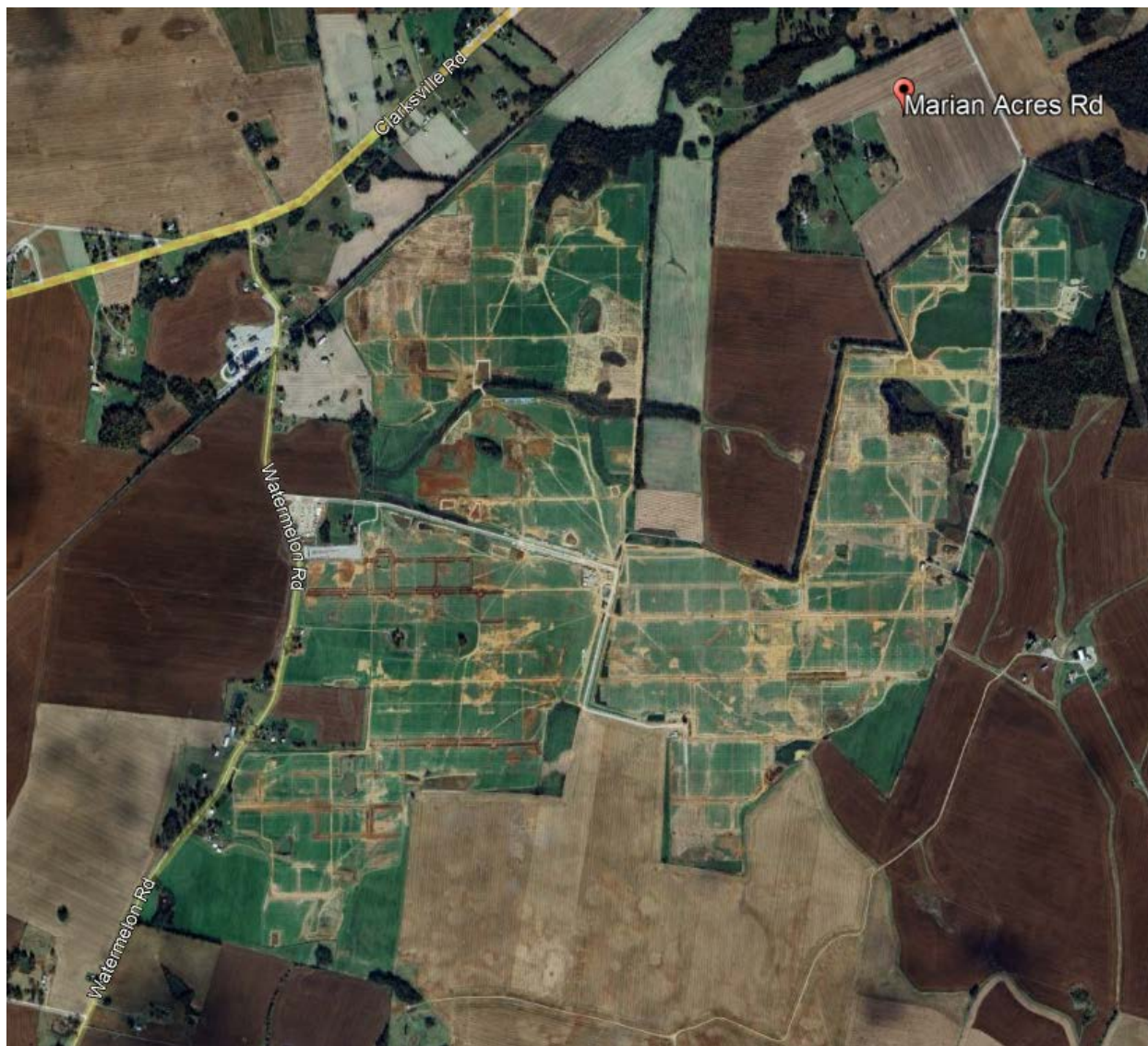
A home at 837 Hardin Hts sold on September 12, 2005 for \$155,000 before the solar project and sold again on March 29, 2018 for \$212,500 after the solar farm was built. The tax assessor identified both of these sales at Arms-Length transactions. Over that time period, the FHFA HPI indicates that a home that sold in 2005 in the area for \$155,000 would be expected to appreciate to \$187,274. This strongly supports a finding of no impact on this home value due to the solar project. The river frontage and the proximity to the power plant was the same in both the before and after. The solar panels are 1,015 feet from the nearest point on this home.

I will not rely heavily on this indicator, but it is included for additional information.

<p>Estimated Value for MSA: \$187,274</p>	<p>Estimated Value for State: \$192,956</p>	<p>MSA Percentage Change: 20.82%</p>
---	---	--



6. Logan County Solar, Russelville, Logan County, KY



This project began construction in 2023 and proposed to be complete in early 2025. It is located on 1,100 acres for a 173 MW project.

I identified a May 17, 2022 sale of 528 Watermelon Road for \$275,000 for a home on 1.29 acres with 2,370 s.f. with 3 BR and 2 BR built in 1940 with 2 carport spaces. This home is 1,460 feet from the nearest panel through an existing wooded patch. The distance and age makes it difficult to compare this home in this area to similar properties for a paired sale analysis. This home last sold on September 12, 2016 for \$149,000. Using the FHFA Home Price Index the anticipated appreciated value as of the date of the most recent sale was expected to be \$234,000. This Sale/Resale analysis suggests a 17.5% increase in value due to the solar farm.

I also identified 557 J Montgomery Road that sold on December 8, 2021 for \$185,000 for a 4 BR, 2 BA with 2,200 s.f. of living space on 1 acre that was built in 1980. This home has a pool that is noted as needing work but was otherwise in average condition. I spoke with Dewayne Whittaker the listing agent who indicated that the proposed nearby solar farm had no impact on the sales price or marketing of the home. This home previously sold on May 5, 2016 for \$114,000 and also on June 17, 2008 for \$125,000. The 2008 sales price was higher than the 2016 due to the crash in the

housing market in 2008. Adjusting each of these former sales to a December 2021 value expectation based on the FHFA Home Price Index, I derive expectations of \$174,000 from the 2016 sale and \$210,000 from the 2008 sale. The Sale/Resale difference from the 2008 sale is considered more reliable as it covers a shorter period of time. It shows a 6% increase in value over the expected value and supports a mild increase in value due to the adjacency to the solar farm. This home is over 1,900 feet to the nearest panel through existing woods. Given the distance involved this is not a strong indicator for properties closer to solar panels.

Similarly, 263 Donald Lane sold on October 3, 2022 for \$263,400 for a brick ranch with 4 BR, 2.5 BA with 1,704 s.f. of living area on 5 acres. This home is about 1400 feet from the nearest panel through existing woods. This home previously sold in May 2010 for \$141,000. Adjusting this for time using the FHFA HPI, I derive an expected value of \$262,000. This is within 1% of the actual closed price and strongly supports a finding of no impact at this distance. It is not a strong indicator for properties closer to panels.

7. Mulberry, Selmer, McNairy County, 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	Time	Site	YB	GLA	Park	Other	Total	% Diff	Distance	
3	Adjoins	491 Dusty							\$176,000		480	
	Not	820 Lake Trail	-\$8,324	\$12,000	-\$3,360	-\$4,890			\$163,426	7%		
	Not	262 Country	-\$5,450	\$12,000	\$6,525	-\$3,680			\$154,396	12%		
	Not	35 April	\$1,138	\$12,000	-\$6,475	-\$13,380			\$178,283	-1%		
									Average	6%		

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	Sales Price	Time	Site	YB	GLA	Park	Other	Total	% Diff	Distance
12	Adjoins	57 Cooper	\$163,000							\$163,000		685
	Not	191 Amelia	\$132,000	\$2,303		\$3,960	\$2,685	\$10,000	\$5,000	\$155,947	4%	
	Not	75 April	\$134,000	\$8,029	\$4,000	-\$670	-\$135	\$5,000	\$5,000	\$155,224	5%	
	Not	345 Woodland	\$131,000	\$8,710		\$5,895	\$9,811		\$5,000	\$160,416	2%	
										Average	4%	

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		4/18/2019	
						Adj for Time	\$/AC	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%		

8. Grand Ridge Solar, Streator, LaSalle County, IL



This solar farm has a 20 MW output and is located on a 160-acre tract. The project was built in 2012.

I have considered the recent sale of Parcel 13 shown above, which sold in October 2016 after the solar farm was built. I have compared that sale to a number of nearby residential sales not in proximity to the solar farm as shown below. Parcel 13 is 480 feet from the closest solar panel. The landscaping buffer is considered light.

Adjoining Residential Sales After Solar Farm Completed

#	TAX ID	Acres	Date Sold	Sales Price	Built	GBA	\$/GBA
13	34-21-237-000	2	Oct-16	\$186,000	1997	2,328	\$79.90

Not Adjoining Residential Sales After Solar Farm Completed

#	TAX ID	Acres	Date Sold	Sales Price	Built	GBA	\$/GBA
712 Columbus Rd	32-39-134-005	1.26	Jun-16	\$166,000	1950	2,100	\$79.05
504 N 2782 Rd	18-13-115-000	2.68	Oct-12	\$154,000	1980	2,800	\$55.00
7720 S Dwight Rd	11-09-300-004	1.14	Nov-16	\$191,000	1919	2,772	\$68.90
701 N 2050th Rd	26-20-105-000	1.97	Aug-13	\$200,000	2000	2,200	\$90.91
9955 E 1600th St	04-13-200-007	1.98	May-13	\$181,858	1991	2,600	\$69.95

TAX ID	Date Sold	Time	Adjustments	
			Total	\$/Sf
34-21-237-000	Oct-16		\$186,000	\$79.90
32-39-134-005	Jun-16		\$166,000	\$79.05
18-13-115-000	Oct-12	\$12,320	\$166,320	\$59.40
11-09-300-004	Nov-16		\$191,000	\$68.90
26-20-105-000	Aug-13	\$12,000	\$212,000	\$96.36
04-13-200-007	May-13	\$10,911	\$192,769	\$74.14

	Adjoins Solar Farm		Not Adjoin Solar Farm	
	Average	Median	Average	Median
Sales Price/SF	\$79.90	\$79.90	\$75.57	\$74.14
GBA	2,328	2,328	2,494	2,600

Based on the matched pairs I find no indication of negative impact due to proximity to the solar farm.

The most similar comparable is the home on Columbus that sold for \$79.05 per square foot. This is higher than the median rate for all of the comparables. Applying that price per square foot to the subject property square footage indicates a value of \$184,000.

There is minimal landscaping separating this solar farm from nearby properties and is therefore considered light.

9. Portage Solar, Portage, Porter County, IN



This solar farm has a 2 MW output and is located on a portion of a 56-acre tract. The project was built in 2012. As can be seen by the more recent map, Lennar Homes is now developing a new subdivision on the vacant land just west of this solar farm.

I have considered the recent sale of Parcels 5 and 12. Parcel 5 is an undeveloped tract, while Parcel 12 is a residential home. I have compared each to a set of comparable sales to determine if there was any impact due to the adjoining solar farm. This home is 1,320 feet from the closest solar panel. The landscaping buffer is considered light.

Adjoining Residential Sales After Solar Farm Completed

#	TAX ID	Acres	Date Sold	Sales Price	Built	GBA	\$/GBA
12	64-06-19-326-007.000-015	1.00	Sep-13	\$149,800	1964	1,776	\$84.35

Nearby Residential Sales After Solar Farm Completed

#	TAX ID	Acres	Date Sold	Sales Price	Built	GBA	\$/GBA
2501 Architect Dr	64-04-32-202-004.000-021	1.31	Nov-15	\$191,500	1959	2,064	\$92.78
336 E 1050 N	64-07-09-326-003.000-005	1.07	Jan-13	\$155,000	1980	1,908	\$81.24
2572 Pryor Rd	64-05-14-204-006.000-016	1.00	Jan-16	\$216,000	1960	2,348	\$91.99

Adjoining Land Sales After Solar Farm Completed

#	TAX ID	Acres	Date Sold	Sales Price	\$/AC
5	64-06-19-200-003.000-015	18.70	Feb-14	\$149,600	\$8,000

Nearby Land Sales After Solar Farm Completed

#	TAX ID	Acres	Date Sold	Sales Price	\$/AC
	64-07-22-401-001.000-005	74.35	Jun-17	\$520,450	\$7,000
	64-15-08-200-010.000-001	15.02	Jan-17	\$115,000	\$7,658

Residential Sale Adjustment Chart

TAX ID	Date Sold	Adjustments		\$/Sf
		Time	Total	
64-06-19-326-007.000-015	Sep-13	\$8,988	\$158,788	\$89.41
64-04-32-202-004.000-021	Nov-15	\$3,830	\$195,330	\$94.64
64-07-09-326-003.000-005	Jan-13	\$9,300	\$164,300	\$86.11
64-05-14-204-006.000-016	Jan-16		\$216,000	\$91.99

2% adjustment/year
Adjusted to 2017

Sales Price/SF	Adjoins Solar Farm		Not Adjoin Solar Farm	
	Average	Median	Average	Median
	\$89.41	\$89.41	\$90.91	\$91.99
GBA	1,776	1,776	2,107	2,064

After adjusting the price per square foot is 2.88% less for the home adjoining the solar farm versus those not adjoining the solar farm. This is within the typical range of variation to be anticipated in any real estate transaction and indicates no impact on property value.

Applying the price per square foot for the 336 E 1050 N sale, which is the most similar to the Parcel 12 sale, the adjusted price at \$81.24 per square foot applied to the Parcel 12 square footage yields a value of \$144,282.

The landscaping separating this solar farm from the homes is considered light.

Land Sale Adjustment Chart

TAX ID	Date Sold	Adjustments		\$/Acre
		Time	Total	
64-06-19-200-003.000-015	Feb-14	\$8,976	\$158,576	\$8,480
64-07-22-401-001.000-005	Jun-17		\$520,450	\$7,000
64-15-08-200-010.000-001	Jan-17		\$115,000	\$7,658

2% adjustment/year
Adjusted to 2017

Sales Price/Ac Acres	Adjoins Solar Farm		Not Adjoin Solar Farm	
	Average	Median	Average	Median
	\$8,480	\$8,480	\$7,329	\$7,329
	18.70	18.70	44.68	44.68

After adjusting the price per acre is higher for the property adjoining the solar farm, but the average and median size considered is higher which suggests a slight discount. This set of matched pair supports no indication of negative impact due to the adjoining solar farm.

Alternatively, adjusting the 2017 sales back to 2014 I derive an indicated price per acre for the comparables at \$6,580 per acre to \$7,198 per acre, which I compare to the unadjusted subject property sale at \$8,000 per acre.

10. Dominion Indy III, Indianapolis, Marion County, IN

This solar farm has an 8.6 MW output and is located on a portion of a 134-acre tract. The project was built in 2013.

There are a number of homes on small lots located along the northern boundary and I have considered several sales of these homes. I have compared those homes to a set of nearby not adjoining home sales as shown below. The adjoining homes that sold range from 380 to 420 feet from the nearest solar panel, with an average of 400 feet. The landscaping buffer is considered light.

Adjoining Residential Sales After Solar Farm Completed

#	TAX ID	Acres	Date Sold	Sales Price	Built	GBA	\$/GBA
2	2013249	0.38	12/9/2015	\$140,000	2006	2,412	\$58.04
4	2013251	0.23	9/6/2017	\$160,000	2006	2,412	\$66.33
5	2013252	0.23	5/10/2017	\$147,000	2009	2,028	\$72.49
11	2013258	0.23	12/9/2015	\$131,750	2011	2,190	\$60.16
13	2013260	0.23	3/4/2015	\$127,000	2005	2,080	\$61.06
14	2013261	0.23	2/3/2014	\$120,000	2010	2,136	\$56.18

Nearby Not Adjoining Residential Sales After Solar Farm Completed

#	TAX ID	Acres	Date Sold	Sales Price	Built	GBA	\$/GBA
5836 Sable Dr	2013277	0.14	Jun-16	\$141,000	2005	2,280	\$61.84
5928 Mosaic Pl	2013845	0.17	Sep-15	\$145,000	2007	2,280	\$63.60
5904 Minden Dr	2012912	0.16	May-16	\$130,000	2004	2,252	\$57.73
5910 Mosaic Pl	2000178	0.15	Aug-16	\$146,000	2009	2,360	\$61.86
5723 Minden Dr	2012866	0.26	Nov-16	\$139,900	2005	2,492	\$56.14

Adjustments

TAX ID	Date Sold	Time	Total	\$/Sf
2013249	12/9/2015	\$5,600	\$145,600	\$60.36
2013251	9/6/2017		\$160,000	\$66.33
2013252	5/10/2017		\$147,000	\$72.49
2013258	12/9/2015	\$5,270	\$137,020	\$62.57
2013260	3/4/2015	\$5,080	\$132,080	\$63.50
2013261	2/3/2014	\$7,200	\$127,200	\$59.55
2013277	6/1/2016	\$2,820	\$143,820	\$63.08
2013845	9/1/2015	\$5,800	\$150,800	\$66.14
2012912	5/1/2016	\$2,600	\$132,600	\$58.88
2000178	8/1/2016	\$2,920	\$148,920	\$63.10
2012866	11/1/2016	\$2,798	\$142,698	\$57.26

2% adjustment/year

Adjusted to 2017

	Adjoins Solar Farm		Not Adjoin Solar Farm	
	Average	Median	Average	Median
Sales Price/SF	\$64.13	\$63.03	\$61.69	\$63.08
GBA	2,210	2,163	2,333	2,280

This set of homes provides very strong indication of no impact due to the adjacency to the solar farm and includes a large selection of homes both adjoining and not adjoining in the analysis.

The landscaping screen is considered light in relation to the homes considered above.

11. Clarke County Solar, Double Tollgate Road, White Post, Clarke County, VA



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

I have considered a recent sale of Parcel 3. The home on this parcel is 1,230 feet from the closest panel as measured in the second map from Google Earth, which shows the solar farm under construction.

I've compared this home sale to a number of similar rural homes on similar parcels as shown below. I have used multiple sales that bracket the subject property in terms of sale date, year built, gross living area, bedrooms and bathrooms. Bracketing the parameters insures that all factors are well balanced out in the adjustments. The trend for these sales shows a positive value for the adjacency to the solar farm.

Adjoining Residential Sales After Solar Farm Approved

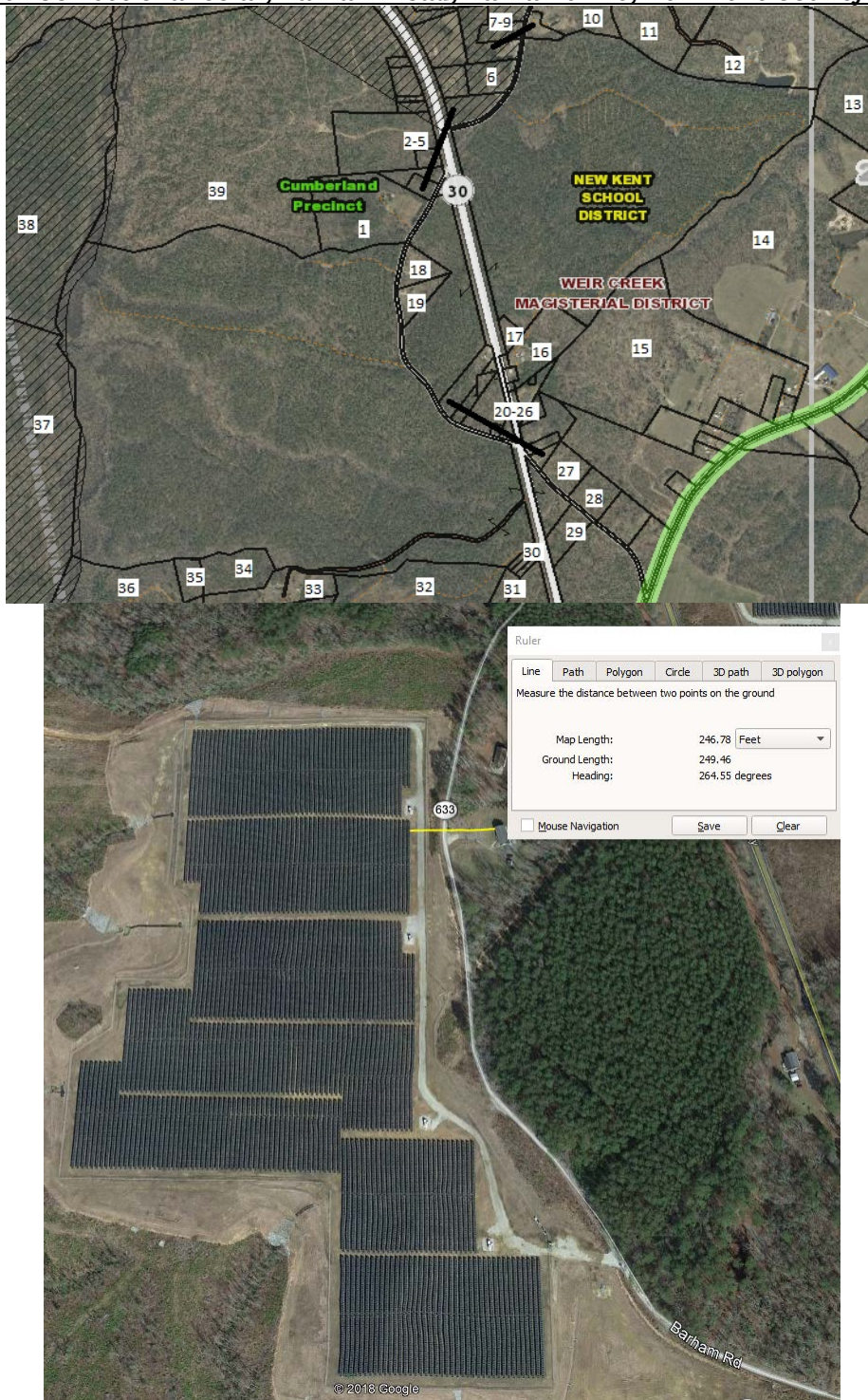
Solar	Address	Acres	Date Sold	Sales Price	Built	GBA	\$/GBA	BR/BA	Park	Style	Other
Adjoins	833 Nations Spr	5.13	1/9/2017	\$295,000	1979	1,392	\$211.93	3/2	Det Gar	Ranch	Unfin bsmt
Not	85 Ashby	5.09	9/11/2017	\$315,000	1982	2,333	\$135.02	3/2	2 Gar	Ranch	
Not	541 Old Kitchen	5.07	9/9/2018	\$370,000	1986	3,157	\$117.20	4/4	2 Gar	2 story	
Not	4174 Rockland	5.06	1/2/2017	\$300,000	1990	1,688	\$177.73	3/2	3 Gar	2 story	
Not	400 Sugar Hill	1.00	6/7/2018	\$180,000	1975	1,008	\$178.57	3/1	Drive	Ranch	

Adjoining Residential Sales After Solar Farm Approved

Adjoining Residential Sales After Solar Farm Approved				Adjoining Sales Adjusted										
Solar	Address	Acres	Date Sold	Sales Price	Time	Acres	YB	GLA	BR/BA	Park	Other	Total	% Diff	
Adjoins	833 Nations Spr	5.13	1/9/2017	\$295,000								\$295,000		
Not	85 Ashby	5.09	9/11/2017	\$315,000	-\$6,300			-\$6,615	-\$38,116		-\$7,000	\$15,000	\$271,969	8%
Not	541 Old Kitchen	5.07	9/9/2018	\$370,000	-\$18,500			-\$18,130	-\$62,057		-\$7,000	\$15,000	\$279,313	5%
Not	4174 Rockland	5.06	1/2/2017	\$300,000				-\$23,100	-\$15,782		-\$12,000	\$15,000	\$264,118	10%
Not	400 Sugar Hill	1.00	6/7/2018	\$180,000	-\$9,000	\$43,000	\$5,040	\$20,571	\$10,000	\$3,000	\$15,000	\$267,611	9%	
Average												8%		

The landscaping screen is primarily a newly planted buffer with a row of existing trees being maintained near the northern boundary and considered light.

12. Walker-Correctional Solar, Barham Road, Barhamsville, New Kent County, 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	

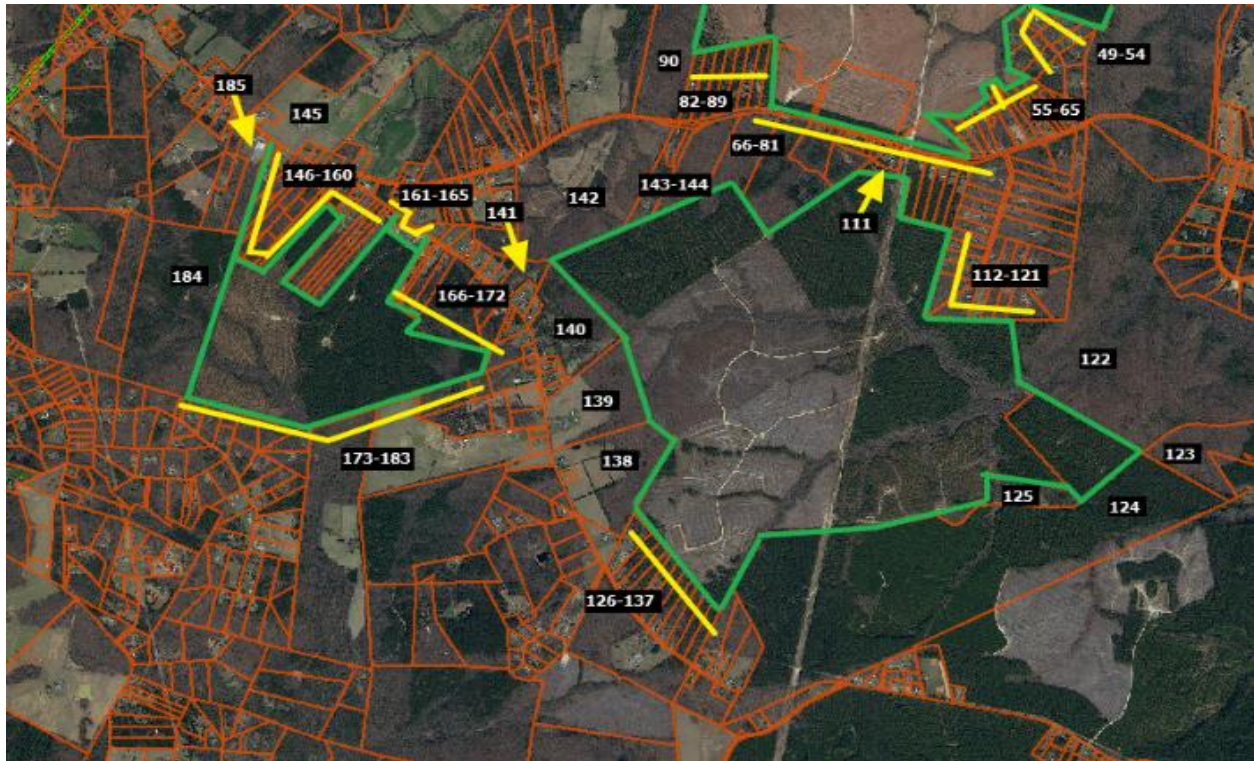
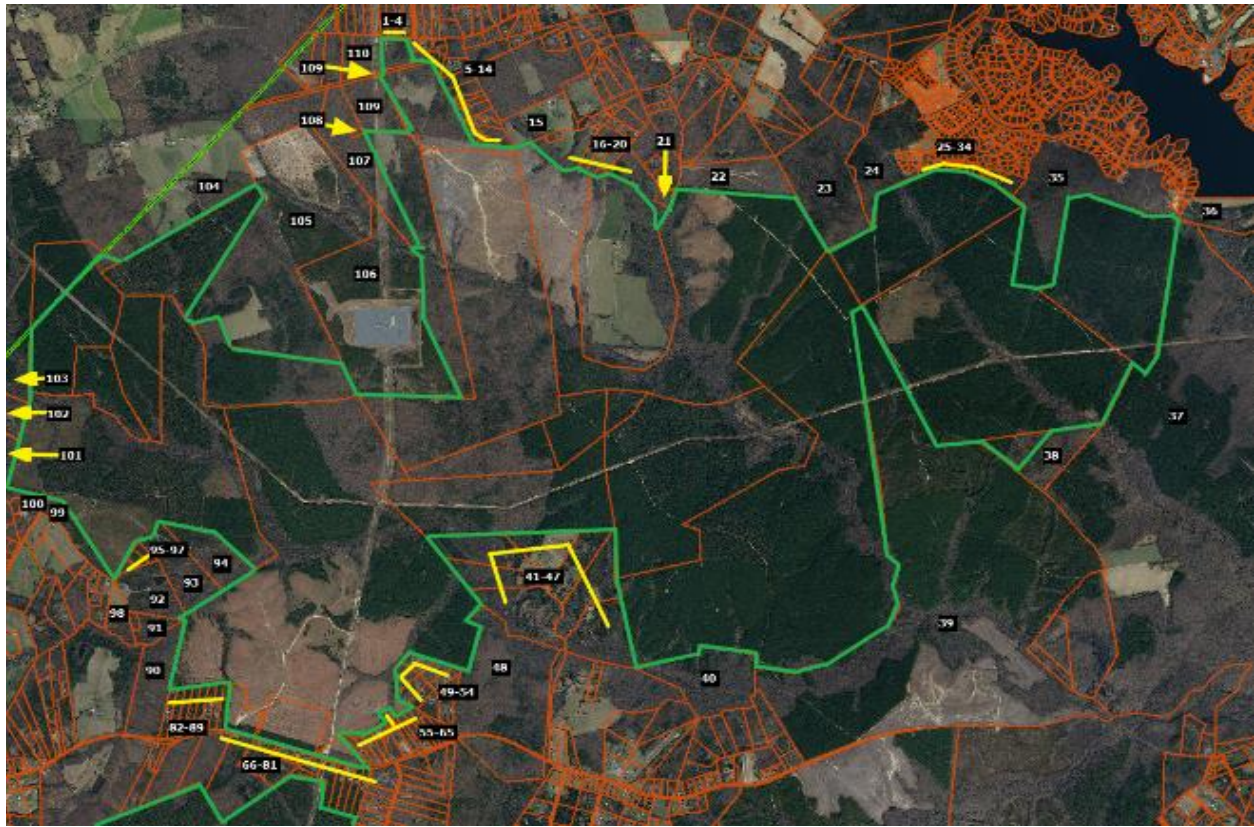
Adjoining Sales Adjusted

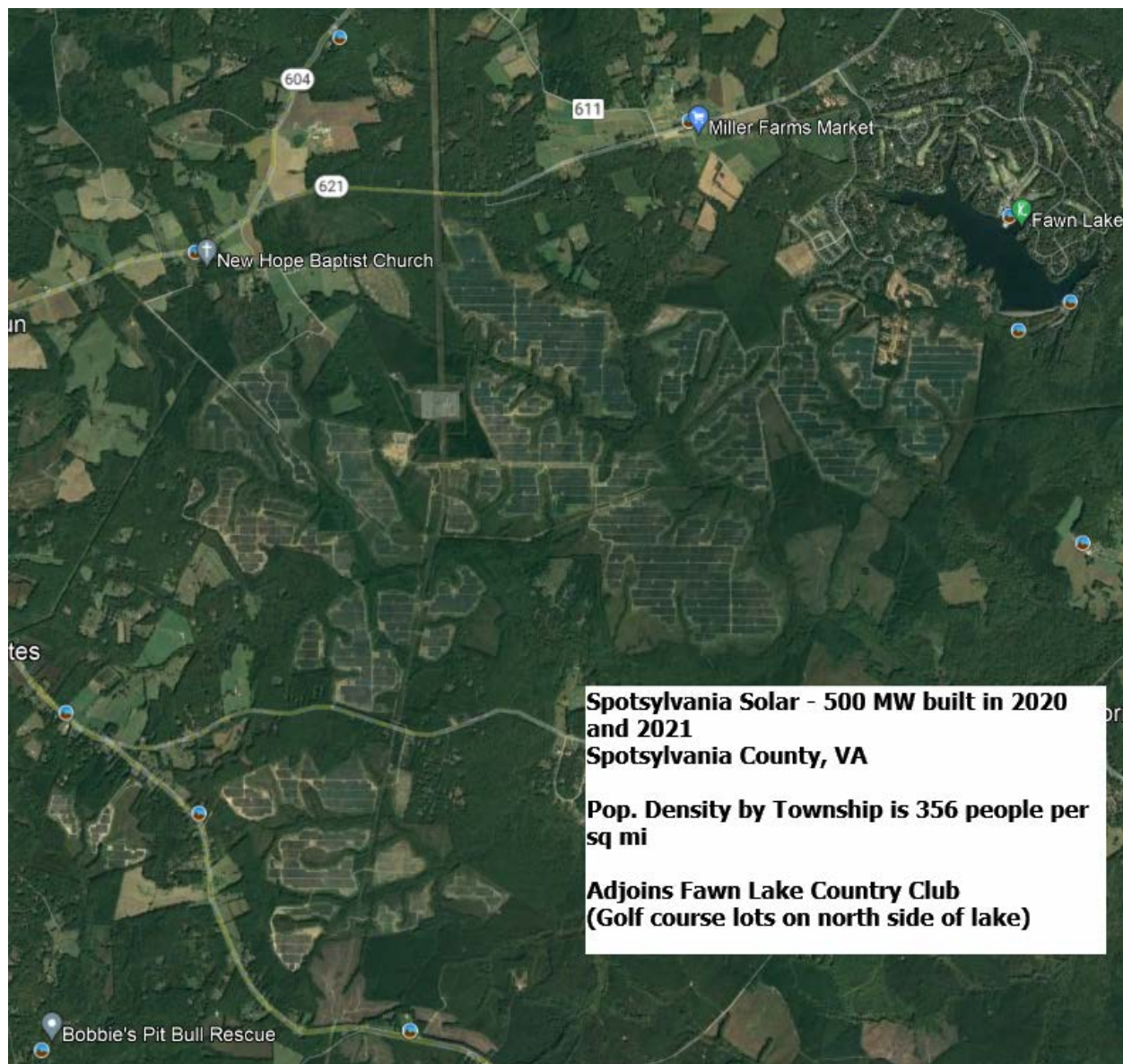
Solar	Address	Time	Ac/Loc	YB	GLA	BR/BA	Park	Other	Total	% Diff	Dist
Adjoins	5241 Barham								\$264,000		250
Not	17950 New Kent		-\$8,000	\$29,000	-\$4,756	-\$5,000	-\$20,000	-\$15,000	\$266,244	-1%	
Not	9252 Ordinary	-\$8,310	-\$8,000	\$8,310	\$2,581		-\$10,000	-\$15,000	\$246,581	7%	
Not	2416 W Miller		\$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 as it was such 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. Spotsylvania Solar, Paytes, Spotsylvania County, 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%

I contacted Keith Snider to confirm this sale. This is considered to have a medium landscaping screen.

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%

I contacted Annette Roberts with ReMax about this transaction. This is considered to have a medium landscaping screen.

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%

I contacted Joy Pearson with CTI Real Estate about this transaction. This is considered to have a heavy landscaping screen.

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.





Fawn Lake Lot Sales

Parcel	Solar?	Address	Acres	Sale Date	Sale Price	Ad. For Time	% Diff
A	Adjoins	11700 Southview Ct	0.76	12/29/2021	\$140,000		
1	1 parcel away	11603 Southview Ct	0.44	3/31/2022	\$140,000	\$141,960	-1.4%
2	Not adjoin	11507 Stonewood Ct	0.68	3/9/2021	\$109,000	\$118,374	15.4%
3	Not adjoin	11312 Westgate Wy	0.83	10/15/2020	\$125,000	\$142,000	-1.4%
4	Not adjoin	11409 Darkstone Pl	0.589	9/23/2021	\$118,000	\$118,000	15.7%
						Average	7.1%
						Median	7.0%
						Least Adjusted	15.7%
						2nd Least Adjusted (Parcel 1 off solar farm)	-1.4%

Time Adjustments are based on the FHFA Housing Price Index

I have identified additional home sales after construction was complete. I looked at 11710 Southview Court that sold on May 5, 2022. I have compared that to three similar homes built and

sold in the same time frame in the same community but not near the solar farm. The first two comparables are in close proximity to Fawn Lake and may have some mild enhancement from that proximity, but I made no adjustment for that factor.

Solar	Address	Acres	Date Sold	Sales Price	Built	GBA	\$/GLA	BR/BA	Park	Style	Other
Adjoins	11710 Soutview	0.89	5/5/2022	\$767,945	2022	3,740	\$205.33	5/4.5	2Gar	2-Story	UnBsmt
Not	11305 Hidden	0.57	2/18/2022	\$789,905	2022	3,750	\$210.64	4/3.5	2Gar	2-Story	PrtFinBsmt
Not	10501 Ridge Cv	0.57	12/30/2021	\$737,119	2021	3,535	\$208.52	6/4	2Gar	2-Story	UnBsmt
Not	10919 Grn Lf	0.39	6/16/2022	\$739,990	2022	3,768	\$196.39	4/4.5	2Gar	2-Story	UnBsmt

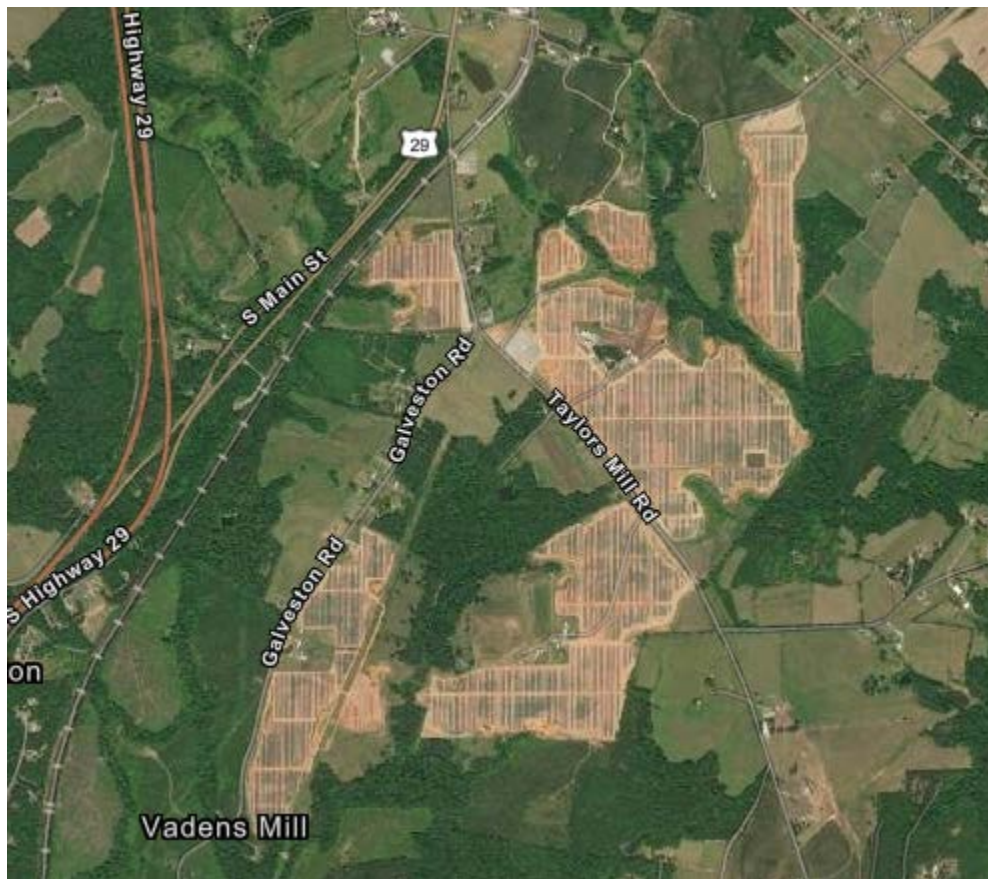
Adjoining Sales Adjusted											
Address	Time	Ac/Loc	YB	GLA	BR/BA	Park	Other	Total	% Diff	Dist	
11710 Soutview								\$767,945		435	
11305 Hidden	\$18,092		\$0	-\$843	\$15,000		-\$20,000	\$802,155	-4%		
10501 Ridge Cv	\$27,990		\$0	\$17,099	\$10,000			\$792,208	-3%		
10919 Grn Lf	-\$9,366		\$0	-\$2,200				\$728,424	5%		
Average Diff									-1%		

I identified a sale at 11708 Southview Court that sold on September 1, 2021 for \$623,345. The first comparable required a significant adjustment for the unfinished basement, but otherwise required the least adjusting. In this time of rapid home value increase, I consider the sale closest in time to be the best indicator for this paired sale.

Solar	Address	Acres	Date Sold	Sales Price	Built	GBA	\$/GLA	BR/BA	Park	Style	Other
Adjoins	11606 Aprils	0.73	9/7/2023	\$711,400	2023	2,745	\$259.16	4/3	2Gar	2-Story	UnBsmt
Not	11701 Quail Rn	0.44	7/26/2023	\$650,000	2020	2,588	\$251.16	3/2.5	2Gar	2-Story	
Not	11809 Pheasant	0.36	10/3/2022	\$629,510	2022	2,612	\$241.01	3/2	2Gar	2-Story	UnBsmt
Not	10908 Grn Lf	0.43	2/16/2023	\$774,760	2023	2,927	\$264.69	5/4	2Gar	2-Story	UnBsmt

Adjoining Sales Adjusted											
Address	Time	Ac/Loc	YB	GLA	BR/BA	Park	Other	Total	% Diff	Dist	
11606 Aprils								\$711,400		410	
11701 Quail Rn	\$5,360		\$9,750	\$15,773	\$10,000		\$32,500	\$723,383	-2%		
11809 Pheasant	\$40,927		\$0	\$12,822	\$15,000			\$698,258	2%		
10908 Grn Lf	\$30,163		\$0	-\$19,270	-\$15,000			\$770,653	-8%		
Average Diff									-3%		

15. Whitehorn Solar, Gretna, Pittsylvania County, VA



This project was built in 2021 for a solar project with 50 MW. Adjoining uses are residential and agricultural. There was a sale located at 1120 Taylors Mill Road that sold on December 20, 2021, which is about the time the solar farm was completed. This sold for \$224,000 for 2.02 acres with a 2,079 s.f. mobile home on it that was built in 2010. The property was listed for \$224,000 and sold for that same price within two months (went under contract almost exactly 30 days from listing). This sales price works out to \$108 per square foot. This home is 255 feet from the nearest panel.

I have compared this sale to an August 20, 2020 sale at 1000 Long Branch Drive that included 5.10 acres with a 1,980 s.f. mobile home that was built in 1993 and sold for \$162,000, or \$81.82 per square foot. Adjusting this upward for significant growth between this sale date and December 2021 relied on data provided by the FHFA House Pricing Index, which indicates that for homes in the Roanoke, VA MSA would be expected to appreciate from \$162,000 to \$191,000 over that period of time. Using \$191,000 as the effective value as of the date of comparison, the indicated value of this sale works out to \$96.46 per square foot. Adjusting this upward by 17% for the difference in year built, but downward by 5% for the much larger lot size at this comparable, I derive an adjusted indication of value of \$213,920, or \$108 per square foot.

This indicates no impact on value attributable to the new solar farm located across from the home on Taylors Mill Road.

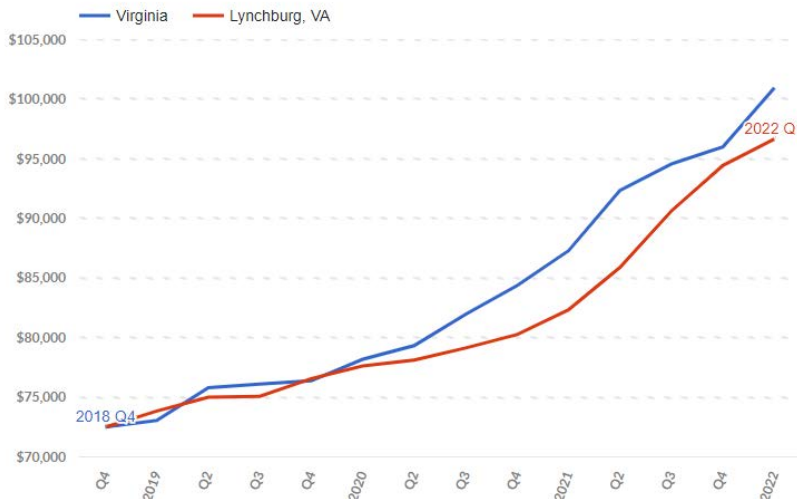
16. Altavista Solar, Altavista, Campbell County, VA



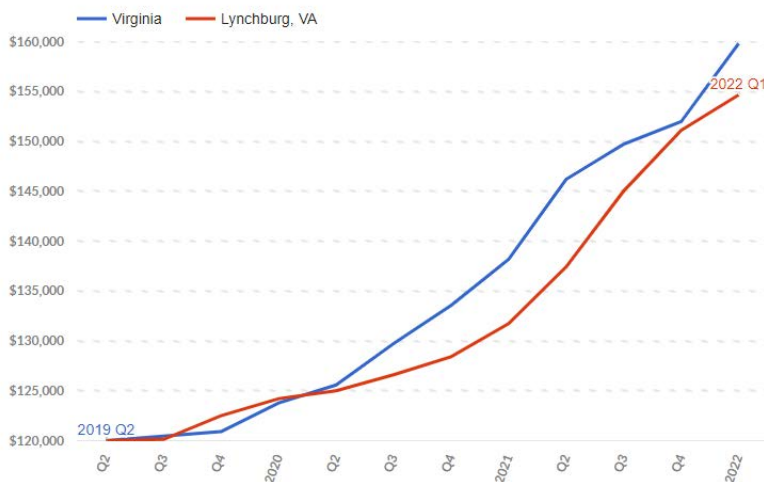
This project was mostly built in 2021 with final construction finished in 2022. This is an 80 MW facility on 720 acres just north of Roanoke River and west of Altavista. Adjoining uses are residential and agricultural.

I have done a Sale/Resale analysis of 3211 Leesville Road which is approximately 540 feet from the nearest solar panel. There was an existing row of trees between this home and the panels that was supplemented with additional screening for a narrow landscaped buffer between the home and the solar panels.

This home sold in December 2018 for \$72,500 for this 1,451 s.f. home built in 1940 with a number of additional outbuildings on 3.35 acres. This was before any announcement of a solar farm. This home sold again on March 28, 2022 for \$124,048 after the solar farm was constructed. This shows a 71% increase in value on this property since 2018. There was significant growth in the market between these dates and to accurately reflect that I have considered the FHFA House Price Index that is specific for the Lynchburg area of Virginia (the closest regional category), which shows an expected increase in home values over that same time period of 33.8%, which would suggest a normal growth in value up to \$97,000. The home sold for significantly more than this which certainly does not support a finding of a negative impact and in fact suggests a significant positive impact. However, I was not able to discuss this sale with the broker and it is possible that the home also was renovated between 2018 and 2022, which may account for that additional increase in value. Still given that the home increased in value so significantly over the initial amount there is no sign of any negative impact due to the solar farm adjacency, but I have not included this datapoint in the charts as it shows a substantial outlier enhancement due to adjoining a solar project which is likely attributable to renovations and not an actual enhancement.



Similarly, I looked at 3026 Bishop Creek Road that is approximately 600 feet from the nearest solar panel. This home sold on July 16, 2019 for \$120,000, which was before construction of the solar farm. This home sold again on February 23, 2022 for \$150,000. This shows a 25% increase in value over that time period. Using the same FHFA House Price Index Calculator, the expected increase in value was 29.2% for an indicated expected value of \$155,000. This is within 3% of the actual closed price, which supports a finding of no impact from the solar farm. This home has a dense wooded area between it and the adjoining solar farm.

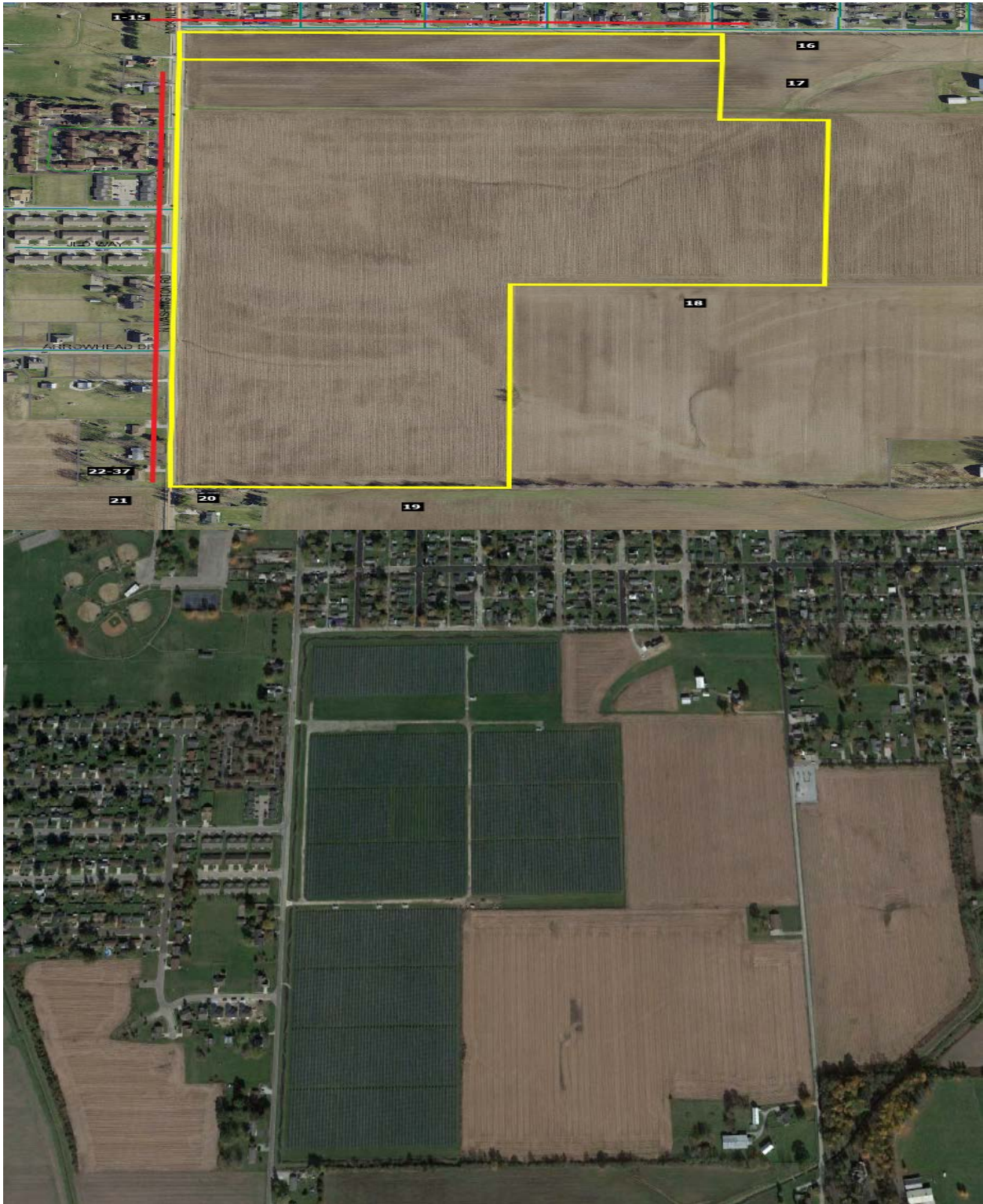


I also considered 2049 Bishop Creek Road that sold on July 3, 2023. This home included a pool and in the analysis I made no consideration positive or negative for the pool among the comparables. The comparable at 3270 Wards has a partially finished basement instead of a fully finished basement, but I was unable to determine how much that partial indicated. I will focus on the other two paired sales which range from -5% to +4% impacts and support a finding of no impact on property value.

Solar	Address	Acres	Date Sold	Sales Price	Built	GBA	\$/GBA	BR/BA	Park	Style	Other
Nearby	2049 Bishop Crk	3.72	7/3/2023	\$375,000	1970	3,966	\$94.55	3/3	2Gar	Br Rnch FinBsmt/Pool	
Not	56 Whisper. Pn	1.02	2/29/2024	\$375,000	1988	3,548	\$105.69	5/3	2Gar	Br Rnch	FinBsmt
Not	1900 Woodhaven	1.90	8/31/2022	\$355,000	1969	3,643	\$97.45	3/2/2	2Gar	Br Rnch	FinBsmt
Not	3270 Wards	3.60	9/21/2023	\$325,000	1960	3,564	\$91.19	3/2.5	2Gar	Br Rnch	PrtFn Bsmt

Adjoining Sales Adjusted

Address	Time	Ac/Loc	YB	GLA	BR/BA	Park	Other	Total	% Diff	Dist
2049 Bishop Crk								\$375,000		745
56 Whisper. Pn	-\$17,332	\$20,000	-\$33,750	\$17,672				\$361,590	4%	
1900 Woodhaven	\$20,833	\$10,000	\$1,775	\$12,590	-\$5,000			\$395,198	-5%	
3270 Wards	-\$4,986		\$16,250	\$14,663	\$10,000			\$360,927	4%	
Average Diff									1%	

17. DG Amp Piqua, Piqua, Miami County, OH

This project is located on the southeast corner of Manier Street and N Washington Road, Piqua, OH. There are a number of nearby homes to the north, south and west of this solar farm.

I considered one adjoining sale and one nearby sale (one parcel off) that happened since the project was built in 2019. I did not consider the sale of a home located at Parcel 20 that happened in that time period as that property was marketed with damaged floors in the kitchen and bathroom, rusted baseboard heaters and generally was sold in an As-Is condition that makes it difficult to compare to move-in ready homes. I also did not consider some sales to the north that sold for prices significantly under \$100,000. The homes in that community includes a wide range of smaller, older homes that have been selling for prices ranging from \$25,000 to \$80,000. I have not been tracking home sales under \$100,000 as homes in that price range are less susceptible to external factors.

The adjoining sale at 6060 N Washington is a brick range fronting on a main road. I did not adjust the comparables for that factor despite the subdivision exposure on those comparables was superior. I considered the difference in lot size to be balancing factors. If I adjusted further for that main road frontage, then it would actually show a positive impact for adjoining the solar farm.

Adjoining Residential Sales After Solar Farm Approved

Parcel	Solar	Address	Acres	Date Sold	Sales Price	Built	GBA	\$/GLA	BR/BA	Park	Style	Other
22	Adjoins	6060 N Washington	0.80	10/30/2019	\$119,500	1961	1,404	\$85.11	3/1	2 Gar	Br Rnch	Updates
	Not	1523 Amesbury	0.25	5/7/2020	\$119,900	1973	1,316	\$91.11	3/2	Gar	Br Rnch	Updates
	Not	1609 Haverhill	0.17	10/17/2019	\$114,900	1974	1,531	\$75.05	3/1	Gar	Br Rnch	Updates
	Not	1511 Sweetbriar	0.17	8/6/2020	\$123,000	1972	1,373	\$89.58	4/2	Gar	Br Rnch	Updates

Adjoining Sales Adjusted

Time	Site	YB	GLA	BR/BA	Park	Other	Total	% Diff	Avg % Diff	Distance
							\$119,500			155
-\$1,920		-\$7,194	\$6,414	-\$5,000	\$7,500	\$0	\$119,700	0%		
\$126		-\$7,469	-\$7,625		\$7,500	\$0	\$107,432	10%		
-\$2,913		-\$6,765	\$2,222	-\$5,000	\$7,500	\$0	\$118,044	1%	4%	

I also considered a home fronting on Plymouth Avenue which is one lot to the west of the solar farm with a rear view towards the solar farm. After adjustments this set of matched pairs shows no impact on the value of the property due to proximity to the solar farm.

Adjoining Residential Sales After Solar Farm Approved

Parcel	Solar	Address	Acres	Date Sold	Sales Price	Built	GBA	\$/GLA	BR/BA	Park	Style	Other
	Nearby	1011 Plymouth	0.21	2/24/2020	\$113,000	1973	1,373	\$82.30	4/2	Gar	1.5 Stry	Fnce/Shd
	Not	1630 Haverhill	0.32	8/18/2019	\$94,900	1973	1,373	\$69.12	4/2	Gar	1.5 Stry	N/A
	Not	1720 Williams	0.17	12/4/2019	\$119,900	1968	1,682	\$71.28	4/1	2Gar	1.5 Br	Fnce/Shd
	Not	1710 Cambridge	0.17	1/22/2018	\$116,000	1968	1,648	\$70.39	4/2	Det 2	1.5 Br	Fnce/Shd

Adjoining Sales Adjusted

Time	Site	YB	GLA	BR/BA	Park	Other	Total	% Diff	Avg % Diff	Distance
							\$113,000			585
\$1,519		\$0	\$0			\$10,000	\$106,419	6%		
\$829		\$2,998	-\$17,621	\$5,000			\$111,105	2%		
\$7,459		\$2,900	-\$15,485				\$110,873	2%	3%	

I considered a home located at 6010 N Washington that sold on August 3, 2021. This property was sold with significant upgrades that made it more challenging to compare, but I focused on similar older brick ranches with updates in the analysis. The comparables suggest an enhancement to this property due to proximity from the solar farm, but it is more likely that the upgrades at the subject were superior. Still this strongly supports a finding of no impact on the value of the property due to proximity to the solar farm.

Adjoining Residential Sales After Solar Farm Built

Parcel	Solar	Address	Acres	Date Sold	Sales Price	Built	GBA	\$/GLA	BR/BA	Park	Style	Other
24	Adjoins	6010 N Washington	0.80	8/3/2021	\$176,900	1961	1,448	\$122.17	4/2	2 Gar	Br Ranch	Updates
	Not	1244 Severs	0.19	10/29/2021	\$149,900	1962	1,392	\$107.69	3/2	Gar	Br Ranch	Updates
	Not	1515 Amesbury	0.19	5/5/2022	\$156,500	1973	1,275	\$122.75	3/2	2 Gar	Br Ranch	Updates
	Not	1834 Wilshire	0.21	12/3/2021	\$168,900	1979	1,265	\$133.52	3/2	2 Gar	Br Ranch	Updates

Adjoining Sales Adjusted

Time	Site	YB	GLA	BR/BA	Park	Other	Total	% Diff	Avg % Diff	Distance
							\$176,900			155
-\$1,099		-\$750	\$4,221		\$7,000		\$159,273	10%		
-\$3,627		-\$9,390	\$16,988				\$160,471	9%		
-\$1,736		-\$14,357	\$19,547				\$172,354	3%		
									7%	

I considered a home located at 6240 N Washington that sold on October 15, 2021. The paired sale located at 532 Wilson included a sunroom that I did not adjust for. The -4% impact from that sale is related to that property having a superior sunroom and not related to proximity to the solar farm. The other two comparables strongly support that assertion as well as a finding of no impact on the value of the property due to proximity to the solar farm.

Adjoining Residential Sales After Solar Farm Built

Parcel	Solar	Address	Acres	Date Sold	Sales Price	Built	GBA	\$/GLA	BR/BA	Park	Style	Other
	Adjoins	6240 N Washington	1.40	10/15/2021	\$155,000	1962	1,582	\$97.98	2/1	Det 3	Ranch	
	Not	1408 Brooks	0.13	8/20/2021	\$105,000	1957	1,344	\$78.13	3/1	Drive	Ranch	
	Not	532 Wilson	0.14	7/29/2021	\$159,900	1948	1,710	\$93.51	3/2	Det Gar	Ranch	Sunroom
	Not	424 Pinewood	0.17	5/20/2022	\$151,000	1960	1,548	\$97.55	4/2	Gar	Ranch	

Adjoining Sales Adjusted

Time	Site	YB	GLA	BR/BA	Park	Other	Total	% Diff	Avg % Diff	Distance
							\$155,000			160
\$496		\$2,625	\$13,016		\$15,000		\$136,136	12%		
\$1,051		\$11,193	-\$9,575	-\$10,000	\$8,000		\$160,569	-4%		
-\$2,761		-\$2,265	\$2,653	-\$10,000	\$7,000		\$145,627	6%		
									5%	

Based on these four matched pairs, the data at this solar farm supports a finding of no impact on property value due to the proximity of the solar farm for homes as close as 155 feet.

I also identified three new construction home sales on Arrowhead Drive that sold in 2022. I have reached out to the builder regarding those homes, but these homes sold between \$250,000 and \$275,000 each and were located within 350 feet of the solar farm. These sales show that the presence of the solar farm is not inhibiting new home construction in proximity to the solar farm.

18. Solidago Solar, Windsor, Isle of Wight County, VA

This 20 MW solar farm was completed in March 2024. The closest adjoining home is 350 feet away.



The home located just north of this solar farm at 17479 Courthouse Highway, Windsor on December 28, 2023 for \$555,000 for this 4 BR, 2.5 BA with 2,775 s.f. built in 2001 on 3.62 acres with a 2-car garage. This also includes a 4 bay barn and large metal storage building, which complicates using this home for paired sales analysis. The purchase price works out to \$200 per s.f. The tax card allocates \$23,000 to the two outbuildings (assessed value), which I will use in adjusting the comparables. This home is 610 feet from the nearest solar panel.

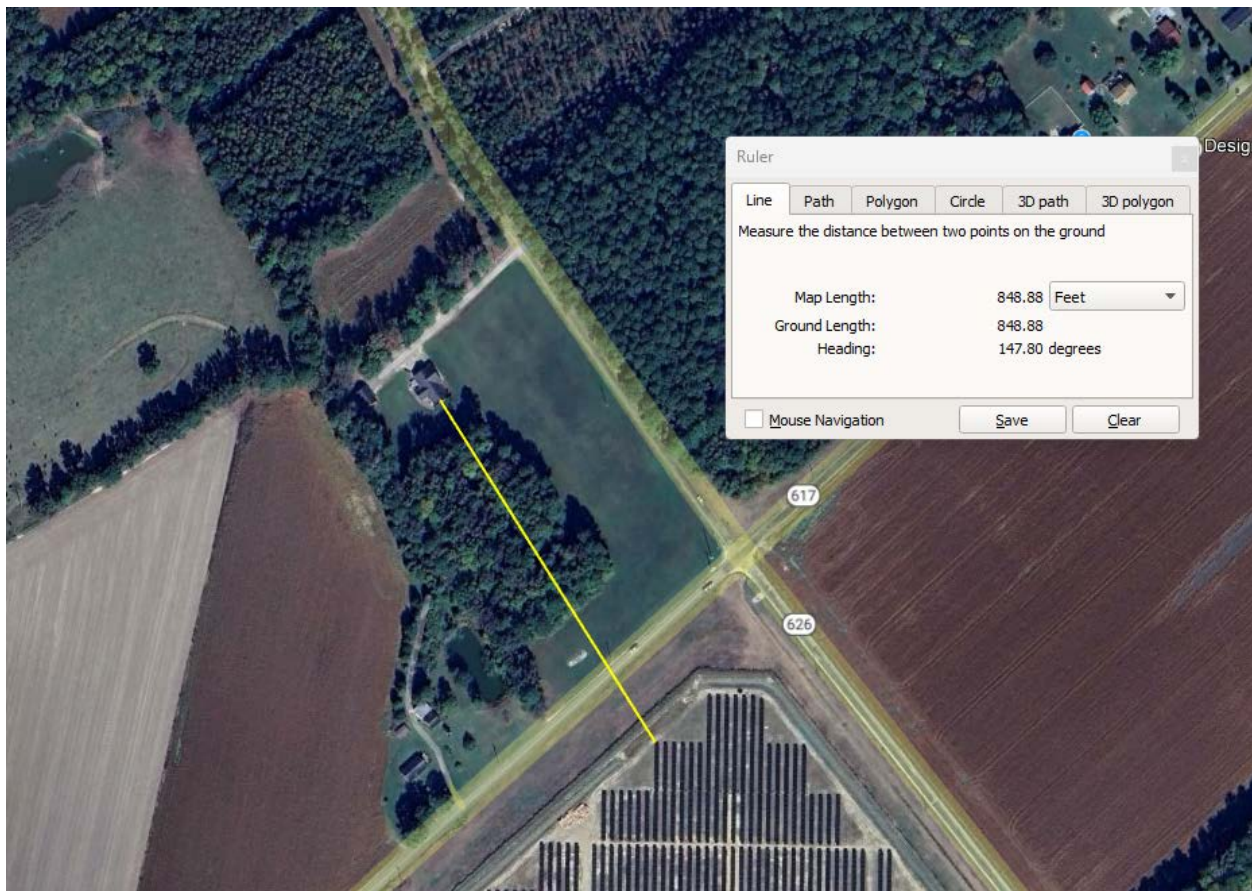
I have compared this to 15414 Trump Town Road, Windsor that sold on September 22, 2023 for \$463,000 for a 4 BR, 2.5 BA home with 2,583 s.f. built in 1998 on 1.88 acres with a 2-car garage. The purchase price works out to \$179.25 per s.f. Adjusting the price upward by \$18,000 for the additional acreage and \$23,000 for the outbuildings, the indicated price becomes \$514,000, or \$198.99 per s.f. I made no adjustment for the difference in frontage but Courthouse Highway is a busier road than Trump Town Road, which is inferior. If I adjusted for that road frontage difference, the Trump Town Road sales price would go even lower. The adjusted sales price is 1% less than the price of the home next to the solar farm sold for and supports a finding of no impact on property value. Applying that per s.f. rate to the home size at Courthouse Highway indicates an adjusted value of \$552,197, which is also just 1% less than the sales price of the home adjoining the solar farm.

I also considered 11497 Dews Plantation Road, Ivor, which the broker Anna Boyer suggested was a good comparable. This home sold on October 19, 2023 for \$640,000 for a 3 BR, 2.5 BA with 2,684

s.f., built in 2003 with a 2-car garage on 15.20 acres. This home includes a powered horse barn with 4 stalls and a tack room, an additional 2-car detached garage with a finished room over it and fenced pasture. Adjusting the price downward by \$58,000 for the much larger acreage and \$41,000 for the outbuildings (difference in assessed value of relative outbuildings) the adjusted sales price is \$541,000, or \$201.56 per s.f. This is 1% more than the home at Courthouse Highway without making any adjustment for the difference in frontage, which supports a finding of no impact on property value. Applying that per s.f. rate to the home size at Courthouse Highway indicates an adjusted value of \$559,329, which is also just 1% more than the sales price of the home adjoining the solar farm. I consider both of these reasonable comparisons, but the Trump Town Road comparable is closer and required less adjusting, which makes it a more reliable comparable.

I reached out to Anna Boyer with Howard Hanna Smithfield as the listing broker for this home. She indicated that she believed that the solar farm was a big issue for a number of folks who came to look at this home and it could have impacted the sales price. However, she also indicated that while she initially listed the property for \$625,000, her internal analysis suggested a value of \$550,000 and she only listed it at the higher price due to the owner's insistence. She noted that \$550,000 was her opinion assuming no impact from the solar farm. When they later dropped the asking price to \$559,000, they received an offer quickly and the property appraised and sold for \$555,000. She noted that the appraiser indicated that the solar farm would not impact the value and assigned no impact on the appraisal. The closing price was slightly above the broker's opinion of value and supported by the appraisal with no impact from the adjoining solar farm.

Ms. Boyer indicated that she currently has a listing at 6568 Beechland Road, Elberon that is asking \$585,000 for a 4 BR, 3.5 BA with 2,800 s.f. built in 2000 on 9.33 acres with a 2-car garage and a detached garage with a workshop. This home adjoins Cavalier Solar in Surry County which was under construction during this time period for a 240 MW project and the home is 848 feet from the nearest panel with a large wooded area separating it. During the listing she had a number of potential buyers express concern over the adjoining solar farm. This illustrates that for some buyers the solar farm will be a deterrent, but she also noted that some potential buyers have indicated that the solar farm is protection from future development nearby. This home sold in June 2024 for \$535,000, or \$191 per s.f. The last sale of this home was in 1999 which was for the land only so I could not do a Sale/Resale analysis.

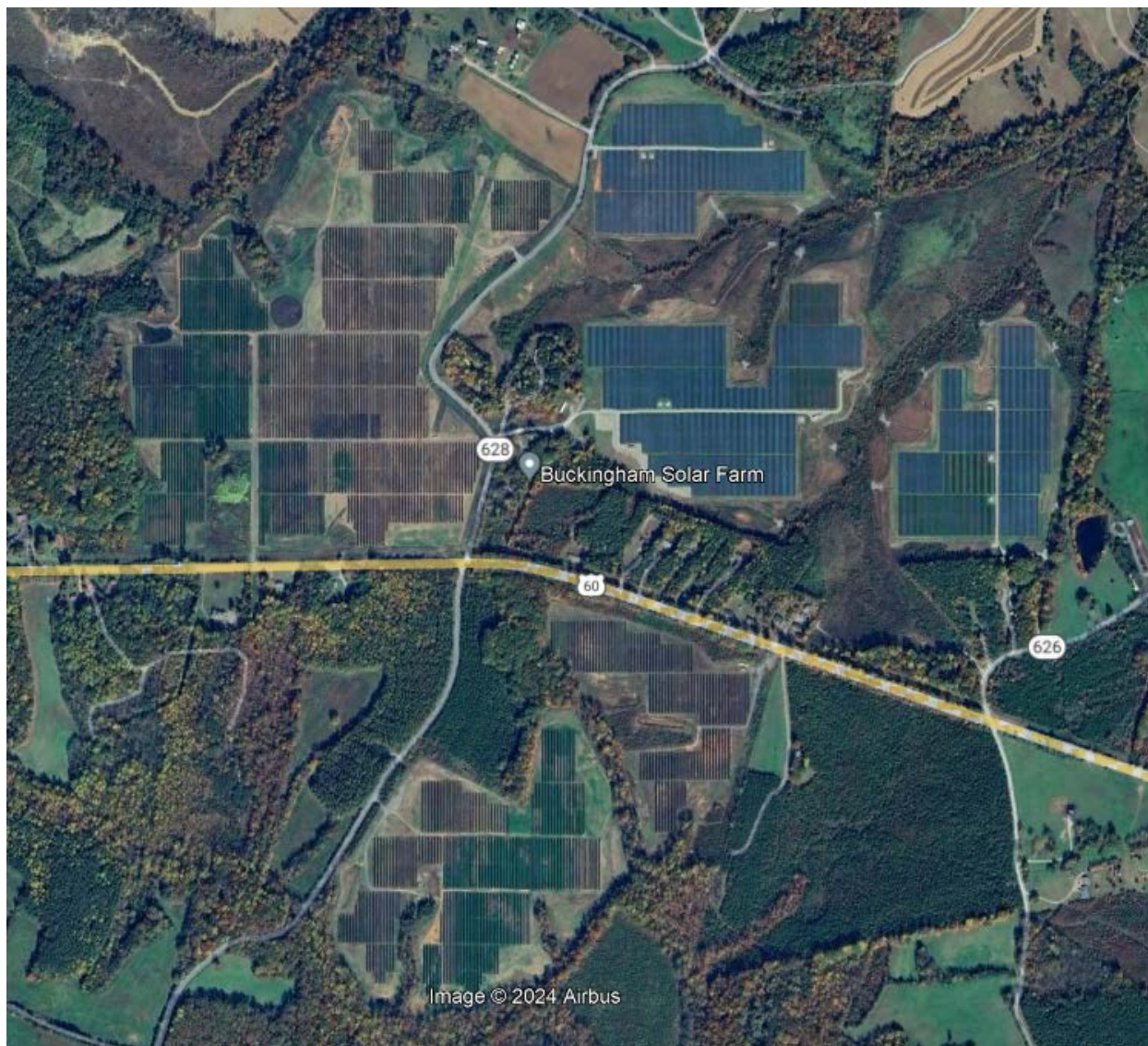


The home located at 12256 Redhouse Road sold on February 8, 2024 for \$671,650 for this 2,640 s.f. home with 3 BR, 2 full BA and 2 half BA built in 2002 on 21 acres, or \$254.41 per s.f. Given that this home includes an updated kitchen, bar/entertainment room, 4-stall barn with feed and wash stalls and stable room with electrical fencing for pastures, riding ring and other horse features this becomes a difficult home to use for a paired sales analysis. I reached out to Anna Hansen with Surry Side Realty about this sale. She said that while she expected a certain amount of pushback from the solar farm she did not have any negative comments or impacts from the solar farm and it therefore did not impact the sales price or marketing of this home. This home is 640 feet from the nearest panel.

While it is challenging to find a good comparable, I considered 11497 Dews Plantation Road, Ivor, which has similar pasture and a horse features. This home sold on October 19, 2023 for \$640,000 for a 3 BR, 2.5 BA with 2,684 s.f., built in 2003 with a 2-car garage on 15.20 acres. This home includes a powered horse barn with 4 stalls and a tack room, an additional 2-car detached garage with a finished room over it and fenced pasture. Adjusting the price upward by \$25,000 for the smaller acreage and assuming that the horse features balance out, the adjusted sales price is \$665,000, or \$247.76 per s.f. This is 3% less than the home at Redhouse Road, which supports a finding of no impact on property value.

Interestingly, Ms. Anna Boyer indicated that she did bring a prospective buyer to view 12256 Redhouse Road. That buyer visited the site 3 times before deciding that the solar farm would be the reason she did not want to purchase that home. So while there clearly are purchasers in the market that would not purchase a home next to a solar farm, there are enough other buyers that do not see it as a negative to keep the prices stable as illustrated by the paired sales above.

19. Buckingham Solar, Cumberland, Buckingham County, VA



Buckingham Solar is a 19.8 MW project east of 628 shown above, while Energix Buckingham is a 20 MW project west of 628 shown above.

The closest adjoining home is 125 feet from the nearest panel.

1 - I identified 24081 E James Anderson Highway sold on June 2, 2023 for \$160,000 for a 3 BR, 2BA, 1,248 s.f. manufactured home built in 1999 on 1 acre. This home is 380 feet from the solar panels south of US 60 and 760 feet from the solar panels to the north. The sales price works out to \$128.21 per s.f.

I compared that to 755 High School Road that sold on September 8, 2023 for \$190,000 for a 3 BR, 2BA, 1,296 s.f. manufactured home built in 2007 on 2.04 acres and including a detached workshop with power. Adjusting this sale downward by \$5,000 for the difference in lot size, \$7,600 for difference in building age (based on 0.5% per year difference in age), and \$15,000 for the detached workshop for an adjusted indication of value of \$162,400, or \$125.31 per s.f. This supports a finding of no impact on property value for the home at 24081 E James Anderson Highway due to the solar farm proximity.

2 - I also identified 23225 E James Anderson Highway that sold on June 30, 2023 for \$180,000 for a 2 BR, 1 BA, 1,076 s.f. home built in 1958 on 1.50 acres with a 2-car garage and a full unfinished basement. This home is 560 feet from the nearest solar panel.

I compared that to 17534 E James Anderson Highway that sold on January 24, 2024 for \$205,000 for a 3 BR, 2 BA, 1,218 s.f. home built in 1968 on 2 acres with a carport and detached 2 car garage and a full unfinished basement. Adjusting this sale downward by \$10,000 for the extra bathroom and \$9,560 for the larger size of this home (based on 40% of the per s.f. value for the difference in s.f.), the adjusted indication of value is \$185,440, which is within 3% of the property next to the solar farm. This difference is more likely attributable to the extra 0.50 acres at this site that I did not adjust for, but either way is within typical market imperfection and supports a finding of no impact on property value.

20. Anderson 6 Solar, Andreson, Madison County, IN

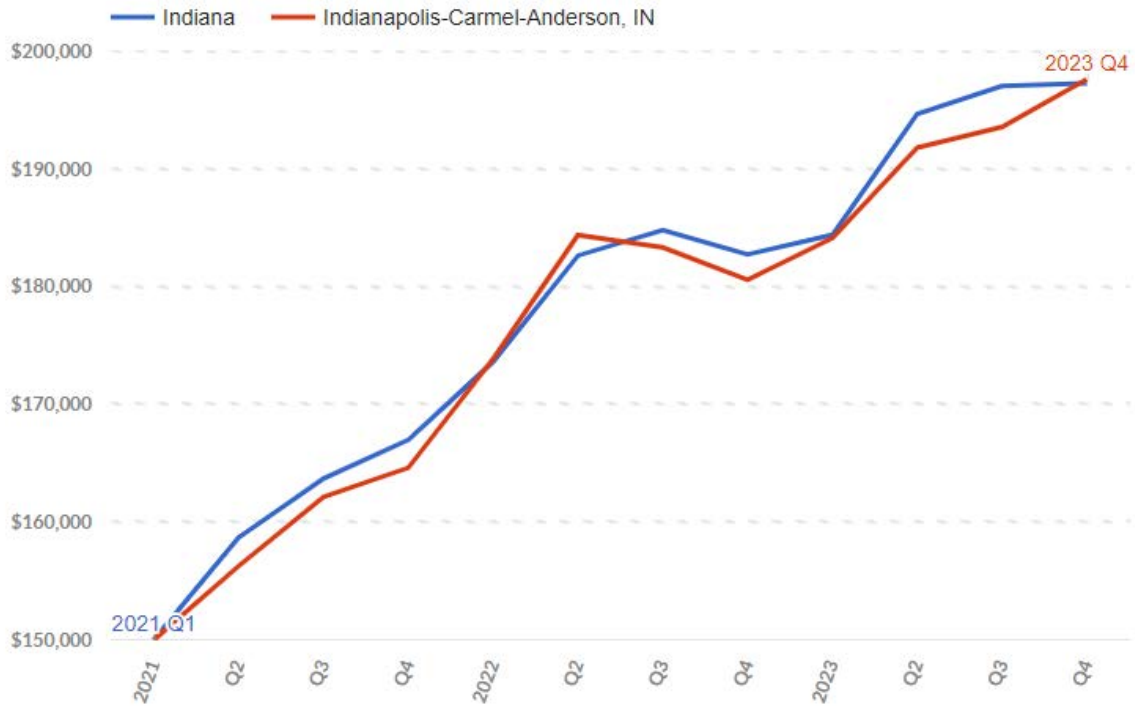


This 6.8 MW solar project was built in 2022. The homes to the east are within 75 feet of the solar panels shown. The closest home to the south is 155 feet from the nearest panel. The closest home to the west is 115 feet from the nearest panel. The closest home to the north is 85 feet from the nearest panel.

A home located at 2819 S Layton Road, Anderson, IN located to the northwest of this solar farm sold in October 6, 2023 after construction was complete on the solar farm. This home is 345 feet from the nearest panel. This home is a 3 BR, 2 BA 2-story frame construction built in 1899 with significant updates, a detached 2-car garage and 1,946 s.f. on 1.38 acres. The sales price was \$210,000 or \$107.91 per s.f. This home sold in just over 30 days and at a price well above the asking price of \$194,500. I reached out to Dawn Rusk with Keller Williams-Morrison, the broker who listed the property for sale.

This same home sold for \$150,000 in February 2021. Typical appreciation in this market based on the FHFA House Price Index for the Indianapolis-Carmel-Anderson MSA would be 32% over that period, or \$198,000. The actual sales price after the construction of the solar farm was higher than the value before the solar farm. Comparing the sales price of \$210,000 to the anticipated \$198,000 from typical appreciation shows a difference of 6%, suggesting a mild enhancement from the solar farm. However, given the rapid increases in this time frame, this mild difference could be attributable to the minor shifts in months within each quarter as the FHFA HPI is only by quarter. I therefore consider this to be a strong indication of no impact on property value.

Purchase Quarter	Valuation Quarter	X
2021 Quarter 1	2023 Quarter 4	Percentage Change
Purchase Value	Estimated Value for MSA	32.0%
\$150,000	\$198,000	



21. Logansport Solar, Logansport, Cass County, IN

This is a 16 MW solar project built in 2022. The closest adjoining home to the west is 170 feet. The closest adjoining home to the north is 225 feet. The closest adjoining home to the east is 90 feet. The uses to the south are commercial or industrial.

A nearby home at 1015 Pink Street (260 feet to the east of the nearest solar panel) sold on December 28, 2021. This was during construction of the solar farm. This home sold for \$135,000 after being listed for sale for \$129,900. It sold within 30 days. This was a 2,048 s.f. home with 4 BR, 2 BA, built in 1954 with 4 garage spaces on 0.49 acres. I spoke with the broker Cindy J Heinzman with Galloway, Murray & Scheetz who indicated that the sellers were simply downsizing and that the solar farm had no impact on the marketing or the sales price of the home.

22. Dunn's Bridge 1, Wheatfield, Jasper and Starke Counties, IN

This is a 435 MW solar project with a 75 MW BESS was under construction in 2023 and expected to be operational by the end of 2024. Based on the current aerial image, the closest adjoining home to the west is 205 feet. The closest adjoining home to the north is 260 feet. The closest adjoining home to the east is 90 feet. The closest home to the south is 260 feet.

I located a nearby sale at 1546 E 1225 N, Wheatfield, IN that sold on February 11, 2022, which would have been after approval of the project, but likely before construction began. This home is 3,130 s.f. home on 15.90 acres built in 2004 and is 910 feet from the nearest panel. The unique size and features make it difficult to compare this home as a paired sale. I reached out to Dan Walstra with Countryside Realty, the buyer's agent for this home, for comments. This home went on the market in December 2021 for \$499,900 and sold in February 2022 for the asking price. According to Mr. Walstra the sales price was not impacted by the solar farm and the buyers were happy with that as an adjoining neighbor as they would be quiet and would not include any new residential development.

23. Crane Solar Facility, Burns City, Martin County, IN



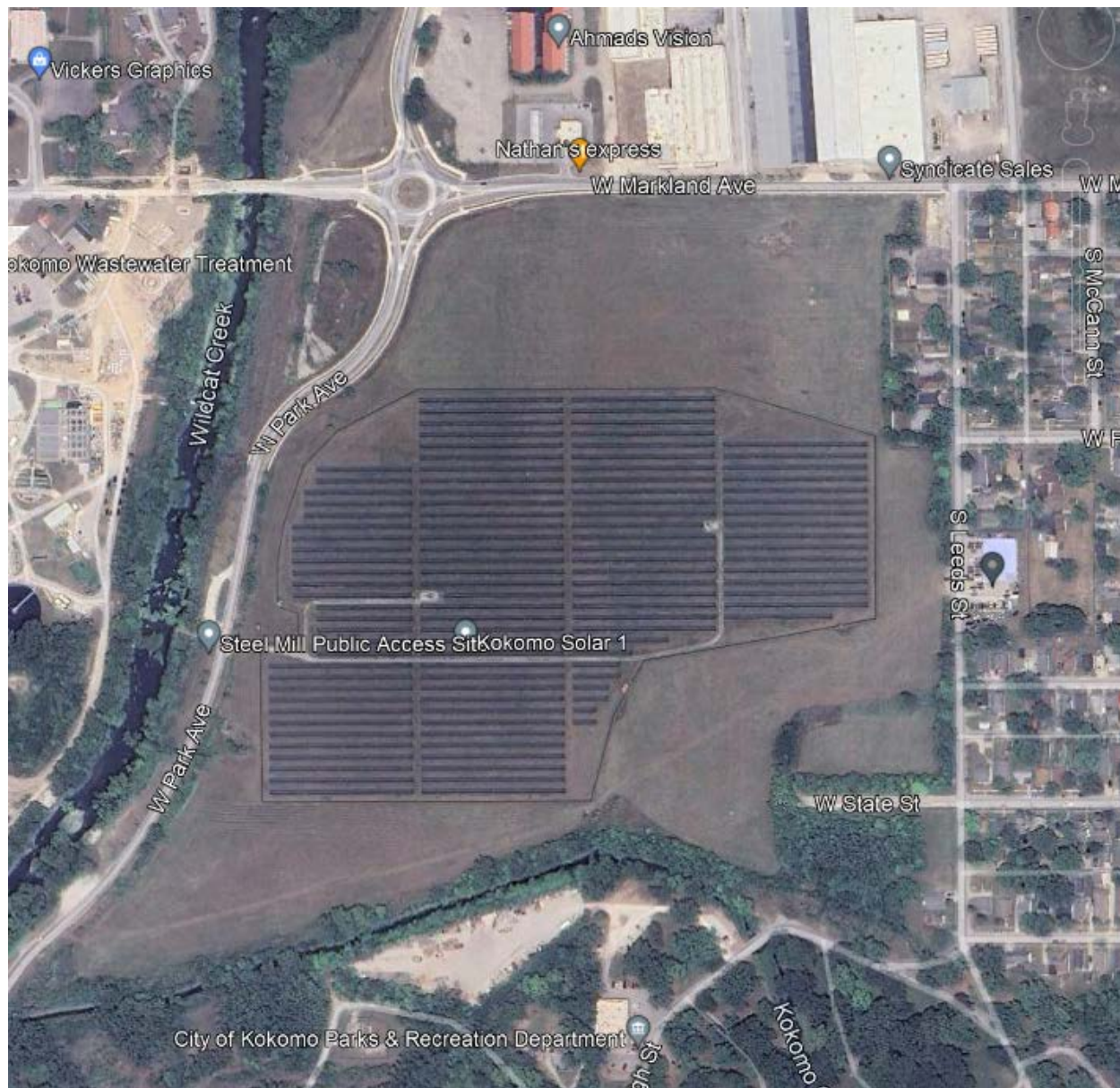
This 24.3 MW solar project built in 2017 is located on the former front nine holes at Eagle View Golf Course at Naval Support Activity Crane.

A home located at 21893 Golf Club Lane, Loogootee sold on September 26, 2022 for \$296,000 for a 2,232 s.f. ranch with 2 BR, 2 BA, with a 3-car garage, built in 1992 on 10 acres. The purchase price works out to \$132.62 per s.f. The assessed land value is 11% of the overall assessed value. This home is 440 feet from the nearest solar panel.

I have compared this to 12889 N US 231, Odon that sold on July 27, 2022 for \$325,000 for a 2,640 s.f. home with 5 BR, 3 BA, with a 3-car garage, built in 1992 on 2.65 acres. The purchase price works out to \$123.11 per s.f. This home is slightly larger which typically has a slightly lower price per square foot. It is also on a smaller lot, which also supports a lower price point. However, this home has 5 BR and 3 BA, which is significantly superior to the comparable. The assessed land value is 7% of the overall assessed value. I have adjusted this upward by \$16,000 for the difference in land value for an adjusted indication of value of \$341,000, or \$129.17 per s.f. Adjusting this downward for size by \$21,081 and downward for the bathroom by \$15,000, the total adjusted value is \$304,919. This indicates a -3% impact on property value, which is within the margin of typical variation. I also did not adjust for the difference in 3 bedrooms. Typically, a 2 BR house sells for less than a 3 BR, so there likely is an impact associated with that difference from 5.

Comparing these two sales, the proximity to the solar farm shows no impact on the property value.

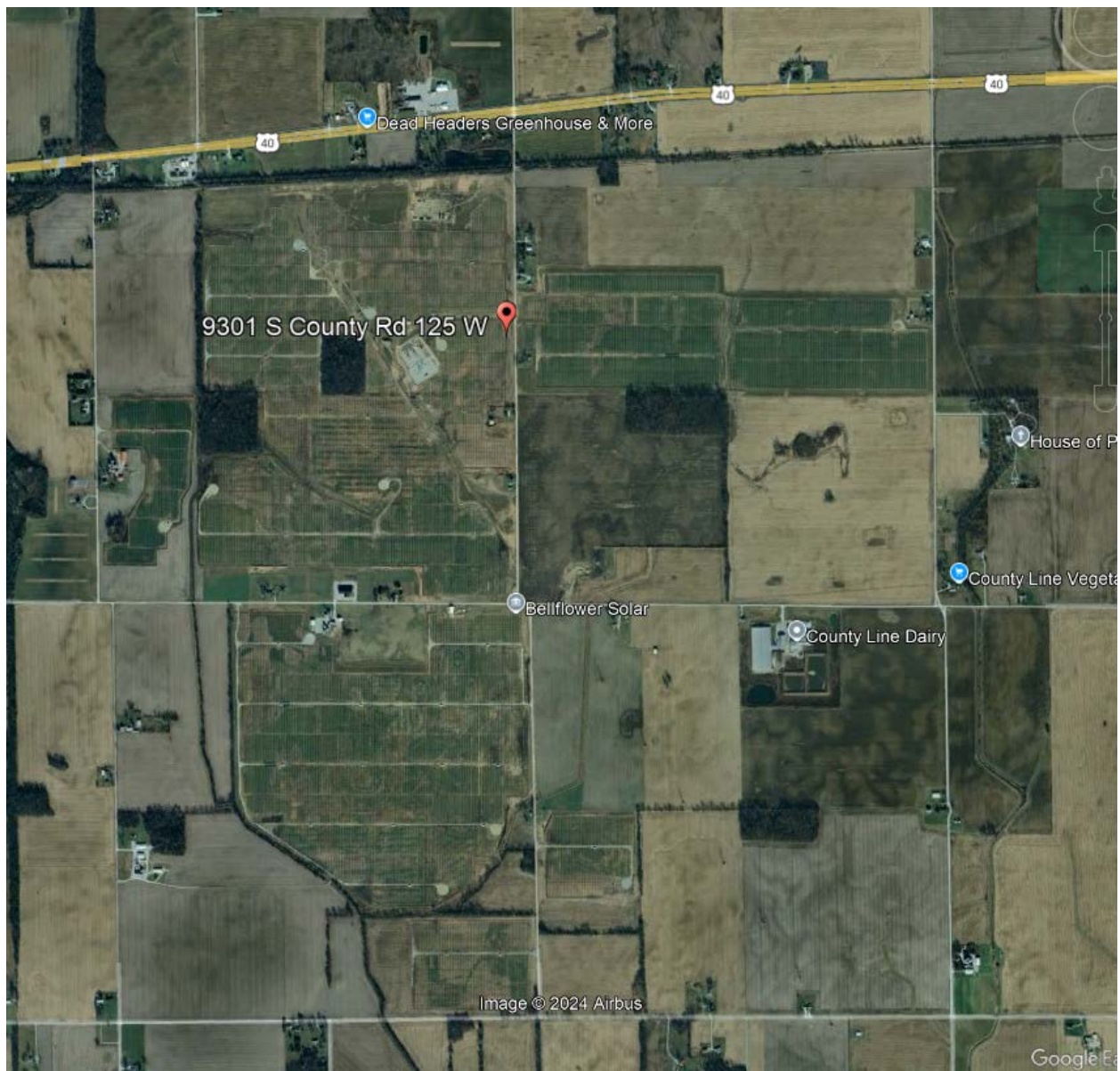
24. Kokomo Solar 1, Kokomo, Howard County, IN



This is a 5.4 MW solar project built in 2016. The closest adjoining home is 145 feet from the closest panel.

That closest home sold on December 21, 2023 for \$129,900 for this 1,252 s.f. ranch at 1049 S. Leeds Street with 2 BR, 1 BA, 2 car garage, built in 1925 on 0.19 acres. This home has a new roof and was fully updated. I reached out to the broker Jennifer Lane with Keller Williams who indicated that the proximity to the solar farm had no impact on the property value or the marketing. She noted that the floorplan was a limitation to the marketing of the home as it only had 2 BR and 1 BA.

25. Bellflower Solar 1, Henry & Rush County, IN



This 152.5 MW solar project is located on the south side of US 40 Highway east of State Road 3. This was built in 2023.

I identified the sale of a home at 2312 W US Highway 40, Spiceland that sold on April 19, 2024 for \$155,000 for a 4 BR, 1 BA, 2,760 s.f. two-story home with a 3-car garage built in 1900 on 4.82 acres. I reached out to Jason Loveless with F.C. Tucker/Crossroads Real Estate who indicated that the marketing and sales price were not negatively impacted by the adjoining solar project. This home is 2,200 feet from the nearest solar panel and were not visible according to the broker. Given the age of the improvements this was a difficult home to complete a paired sales analysis. I have relied on the broker comments for this.

I also looked at the sale of a home located at 9559 S County Road 225 W, Lewisville. This custom built timber/log home sold on January 4, 2024 for \$650,000 for this 3,409 s.f. 3 BR, 3.5 BA, 2 car garage, finished basement home built in 2018 on 3.39 acres. This home is 360 feet from the nearest solar panel. I reached out to Kayla Walker with F.C. Tucker/Crossroads Real Estate about this sale.

She indicated that this home had sold several times in the last few years due to some unfortunate life circumstances for the original owner. That owner apparently tried to buy the home back 6 months after this most recent sale once those issues were resolved but the current owners were not interested. She noted that there was one social media post saying “there is a solar panel project across the road good luck selling,” but no one else responded to that comment. The home sold quickly and the solar project had no impact on the sales price or marketing of this property.

I considered a Sale/Resale analysis on this property due to the unique nature of this home. The most recent sale prior to the solar farm construction was on December 30, 2022 for \$634,000, which would have been after the solar farm was approved and possibly during construction. I therefore have not completed a Sale/Resale analysis on this property. The home sold again on May 17, 2023 for \$635,721 before finally selling on January 4, 2024 for \$650,000.

I have completed the following paired sales analysis on this home.

Adjoining Residential Sales After Solar Farm Built					Eff.						
Solar	Address	Acres	Date Sold	Sales Price	Built	GBA	\$/GLA	BR/BA	Park	Style	
Adjoins	9559 S CR 225 W	3.88	1/4/2024	\$650,000	2018	3,409	\$190.67	3/3.5	Det. 2 Gar	Timber	
Not	9582 S CR 125 E	5.10	7/8/2024	\$725,000	1979	3,851	\$188.26	5/4	2 Gar		
Not	1068 Landmark	1.87	7/17/2023	\$565,900	2020	3,550	\$159.41	4/3.5	3 Gar		
Not	5520 W Riley	5.01	12/8/2022	\$520,500	1998	3,080	\$168.99	3/2.5	3 Gar	Brick	

Adjoining Sales Adjusted										Avg	
Address	Time	Site	YB	GLA	BR/BA	Park	Total	% Diff	% Diff	Distance	
9559 S CR 225 W							\$650,000			360	
9582 S CR 125 E	-\$14,778	-\$10,000	\$28,275	-\$33,285	-\$10,000	-\$10,000	\$675,212	-4%			
1068 Landmark	\$10,605	\$20,000	-\$1,132	-\$8,991		-\$15,000	\$571,382	12%			
5520 W Riley	\$22,360	-\$10,000	\$10,410	\$22,240	\$20,000	-\$15,000	\$570,510	12%			
									7%		

These comparables required a fair bit of adjustment, but two of them indicate a positive impact on property value and that includes the comparable requiring the least amount of adjustment. Relying on the average from these three comparables, I derive an impact of +7%.

26. Riverstart Solar, Winchester, Randolph County, IN

This 200 MW solar farm was completed in January 2022.



The home located to the west of the solar farm between the western and eastern side at 6535 S 500 West sold for \$129,900 4BR, 1BA house with a tax card year built of 1900. This 1,592 s.f. dwelling sold February 10, 2022 and is a 2-story house. This property is in close proximity to the solar farm and is 1,205 feet away from the closest panel.

I have compared this to 3 nearby sales to compare them to this property. I have utilized the actual year built per the tax cards for each of these.

Adjoining Residential Sales After Solar Farm Built												
Pa	Solar	Address	Acres	Date Sold	Sales Price	Built	GLA	\$/GLA	BR/BA	Park	Style	Other
Adjoins		6535 S 500 W	2.00	2/10/2022	\$129,900	1900	1,592	\$81.60	4/1	Park	2 Stry	No wind nearby
Not		1076 N Old Hwy 27	0.80	2/11/2022	\$149,900	1880	1,719	\$87.20	4/1.5	Det. 2 Gar	1.5 Stry	No solar/wind nearby
Not		113 N Main St	0.34	10/24/2022	\$142,900	1900	1,872	\$76.34	3/2	2 Gar	2 Stry	No solar/wind nearby
Not		109 S Main St	0.16	1/23/2023	\$111,000	1860	1,716	\$64.69	3/2	Det. 1 Gar	2 Stry	No solar/wind nearby

Adjoining Sales Adjusted											Avg	
Address	Time	Site	YB	GLA	BR/BA	Park	Total	% Diff	% Diff	Distance		
6535 S 500 W							\$129,900			1205		
1076 N Old Hwy 27	\$0	\$10,000	\$8,994	-\$4,430	-\$5,000	-\$10,000	\$149,464	-15%				
113 N Main St	-\$5,716	\$10,000	\$0	-\$8,550	-\$10,000	-\$10,000	\$118,634	9%				
109 S Main St	-\$9,990	\$20,000	\$13,320	-\$3,208	-\$10,000	-\$5,000	\$116,122	11%				
									1%			

This matched pair indicates no impact for being in close proximity to the solar farm.

I have also identified 3928 W 600 South which sold adjoining the solar farm to the north which sold for \$250,000 for a 5BR, 2BA house with a tax card effective year built of 2000. This 2,305 s.f. dwelling sold February 17, 2022 and is a ranch with a detached 2 car garage. This property is in close proximity to the solar farm and is 677 feet away from the closest panel.

Adjoining Residential Sales After Solar Farm Built						Eff.						
Solar	Address	Acres	Date Sold	Sales Price	Built	GBA	\$/GLA	BR/BA	Park	Style	Other	
Adjoins	3928 W 600 S	3.00	2/17/2022	\$250,000	2000	2,305	\$108.46	5/2	Det. 2 Gar	Ranch	Wind nearby	
Not	1614 S Old Hwy 27	1.10	8/31/2021	\$250,000	2014	2,148	\$116.39	3/2	3 Gar	BR Rnch	No solar/wind	
Not	4095 N 1000	2.13	1/14/2022	\$281,250	2010	2,579	\$109.05	3/2.5	2 Gar	BR Rnch	Basement No S/W	
Not	3432 S Indian Trail	1.37	3/14/2023	\$280,000	2002	1,927	\$145.30	3/2.5	2 Gar	BR Rnch	No solar/wind	

Adjoining Sales Adjusted											Avg	
Address	Time	Site	YB	GLA	BR/BA	Park	Other	Total	% Diff	% Diff	Distance	
3928 W 600 S								\$250,000			677	
1614 S Old Hwy 27	\$9,315		-\$10,500	\$7,309			-\$10,000	-\$10,000	\$236,124	6%		
4095 N 1000	\$2,096		-\$8,438	-\$11,952	-\$10,000	-\$5,000	-\$10,000	\$237,956	5%			
3432 S Indian Trail	-\$23,934		-\$1,680	\$21,970	-\$5,000	-\$5,000	-\$10,000	\$256,356	-3%			
										3%		

I also considered a Sale/Resale Analysis looking at an earlier sale of this same property prior to the solar farm on July 6, 2020 for \$180,000 and an earlier sale on March 1, 2021 for \$219,000.

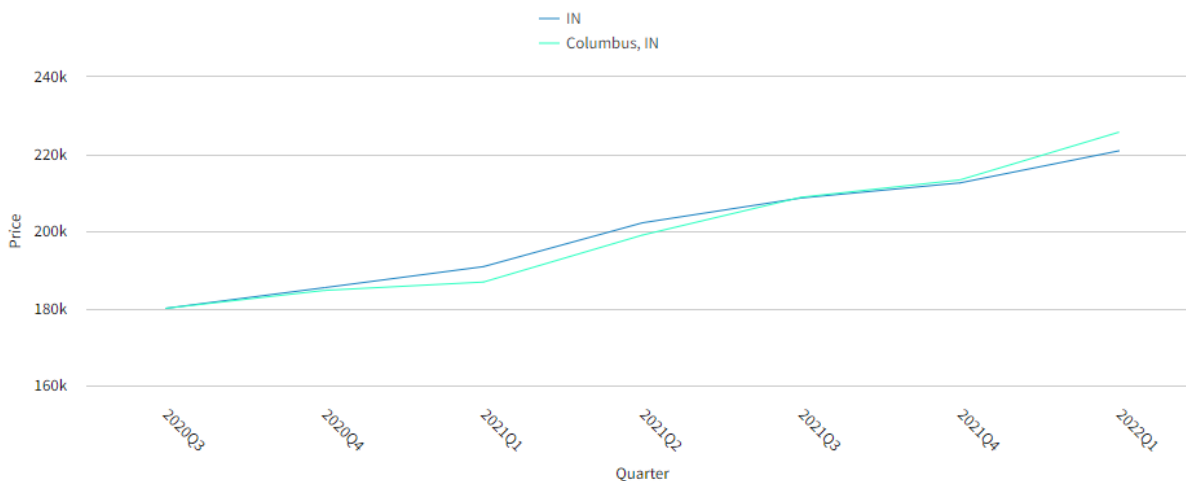
Adjusting the 2020 sale upward based on the FHFA HPI, I derive an expected value as of February 2022 of \$225,677, which is lower than the actual closed sales price and shows a 10% premium for the sales price. This strongly supports a finding of no impact on property value.

Adjusting the 2021 sale upward based on the FHFA HPI, I derive an expected value as of February 2022 of \$264,556. This is 6% less than the actual sales price and suggests a mild negative impact.

However blending the two indicators, it suggests a +2% increase in value. Using the blended rate is a better indicator as the increase between 2020 and 2021 was disproportionately higher than typical for the market. This suggests that the 2020 sale may have been a little low for that time, but it is just as likely that the 2021 sale was a little high. Using the average helps to blend these potential market imperfections. In the comparables chart I have blended these sales to reflect that 2% impact.

The Sale/Resale analysis as well as the paired sales analysis support a finding of no impact on property value due to the solar farm.

Estimated Value for MSA: \$225,677	Estimated Value for State: \$220,836	MSA Percentage Change: 25.38%
------------------------------------	--------------------------------------	-------------------------------

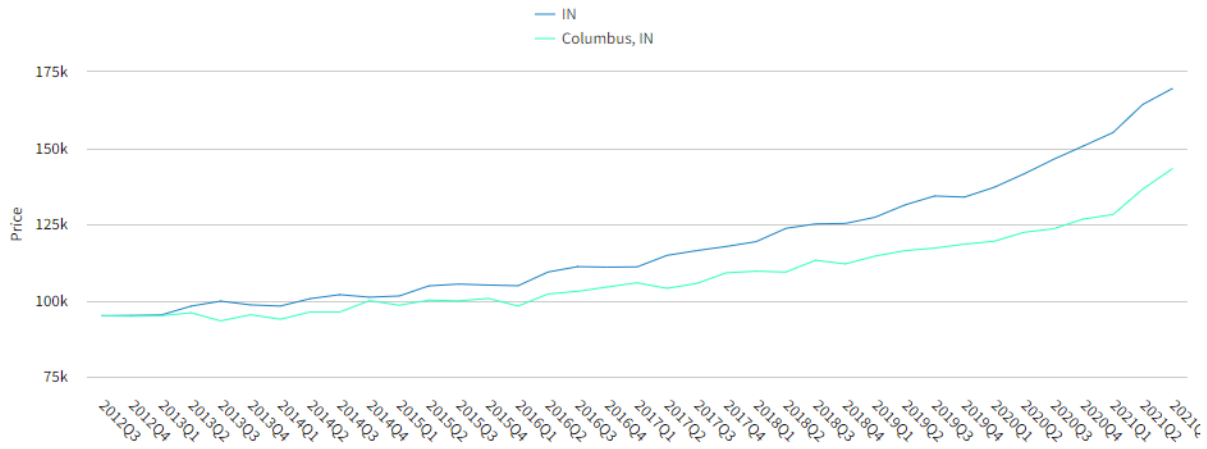


I have also identified 7141 S State Road 1 which sold in close proximity to the solar farm to the west which sold on September 24, 2021 for \$165,000 for a 4BR, 2BA house with a tax card year built of 1900. This 2,040 s.f. dwelling sold September 24, 2021 and is a 2-story house with a 2-car garage. The home includes a 3,240 s.f. pole barn with 3 stalls and fenced pasture. This home is 1,070 feet away from the closest panel. This sold during the construction process of the solar farm. I attempted a paired sales analysis, but the horse improvements on the subject property complicated this. I therefore focused on a Sale/Resale analysis. This home last sold on October 12, 2012 for \$95,000. Adjusting this upward based on the FHFA HPI, the anticipated value of the home as of 9/24/2021 would be \$143,287 based on the MSA or \$169,551 based on the state average. This strongly supports a finding of no impact on property value and actually suggests a positive impact on property value.

Purchase Quarter * Valuation Quarter * Purchase Price *

2012Q3 2021Q3 95000 [Submit](#)

Estimated Value for MSA: \$143,287 Estimated Value for State: \$169,551 MSA Percentage Change: 50.83%



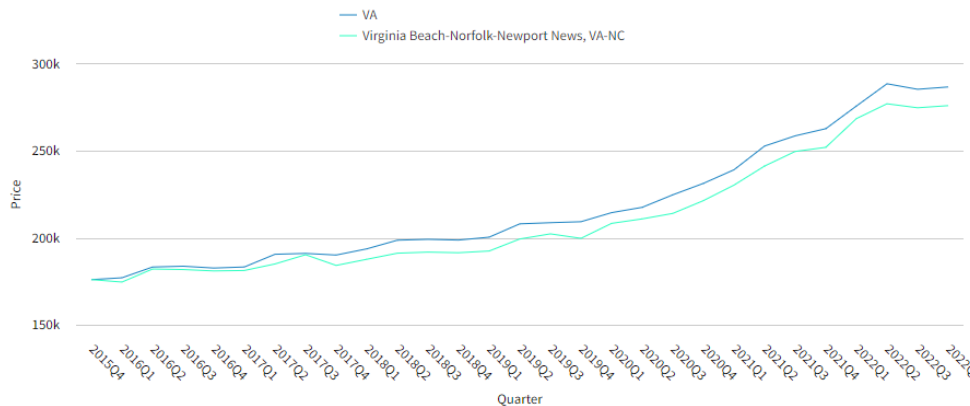
27. Bedford Solar, Chesapeake, Chesapeake County, VA



This is a 70MW solar facility located in Chesapeake that went operational in 2021. The closest adjoining home is 390 feet from the nearest panel.

I identified 1407 Whittamore Road sold on December 22, 2022 for \$293,500 or \$214 per square foot, for a 3 BR, 2BA, 1,372 s.f. one-story, single family home built in 1962 on a 0.69 acre lot. This home is 560 feet from the closest panel. This home last sold on December 14, 2015 for \$176,000. Using the FHFA HPI to increase the earlier sale based on the typical appreciation, that home price was expected to appreciate to \$276,145. Based on this sale/resale analysis, the solar farm is showing no impact on the property value or appreciation of this home adjoining the solar project.

Estimated Value for MSA: \$276,145	Estimated Value for State: \$286,899	MSA Percentage Change: 56.9%
------------------------------------	--------------------------------------	------------------------------



IX. Conclusions from Market Research

A. *Demographic Data from Solar Projects Identified*

The solar developments identified in the earlier section are not all of the ones that I looked at, but all of the ones where I found usable data of some sort. In the following sections, I will address the analysis conclusions based on Sale/Resale Analysis, Paired Sale Analysis, and Broker Comments.

Below I have simply summarized the demographic data around the solar projects identified to illustrate the mix of uses and demographics around these projects.

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.

Matched Pair Summary						Adj. Uses By Acreage					1 mile Radius (2010-2024 Data)		
Name	City	State	Acres	MW	Topo Shift	Res	Ag	Ag/Res	Com/Ind	Population	Med. Income	Avg. Housing Unit	
1	Crittenden	Crittenden	KY	34	2.70	40	22%	51%	27%	0%	1,419	\$60,198	\$178,643
2	Walton 2	Walton	KY	58	2.00	90	21%	0%	60%	19%	880	\$81,709	\$277,717
3	Turkey Crk	Lancaster	KY	753	50.00	120	7%	36%	51%	6%	257	\$52,892	\$221,809
4	Mt. Olive Crk	Russell Spr	KY	421	60.00	N/A	N/A	N/A	N/A	N/A	149	\$60,646	\$152,778
5	EW Brown	Harrodsburg	KY	50	10.00	N/A	3%	44%	29%	25%	182	\$68,772	\$294,444
6	Logan Cnty	Russellville	KY	1,100	173.00	N/A	N/A	N/A	N/A	N/A	177	\$54,545	\$284,459
7	Mulberry	Selmer	TN	160	5.00	60	13%	73%	10%	3%	467	\$40,936	\$171,746
8	Grand Ridge	Streator	IL	160	20.00	1	8%	87%	5%	0%	96	\$70,158	\$187,037
9	Portage	Portage	IN	56	2.00	0	19%	81%	0%	0%	6,642	\$65,695	\$186,463
10	Dominion	Indianapolis	IN	134	8.60	20	3%	97%	0%	0%	3,774	\$61,115	\$167,515
11	Clarke Cnty	White Post	VA	234	20.00	70	14%	39%	46%	1%	578	\$81,022	\$374,453
12	Walker	Barhamsville	VA	485	20.00	N/A	12%	68%	20%	0%	203	\$80,773	\$320,076
13	Sappony	Stony Crk	VA	322	20.00	N/A	2%	98%	0%	0%	74	\$51,410	\$155,208
14	Spotsylvania	Paytes	VA	3,500	615.00	160	37%	52%	11%	0%	74	\$120,861	\$483,333
15	Whitehorn	Gretna	VA	N/A	50.00	N/A	N/A	N/A	N/A	N/A	166	\$43,179	\$168,750
16	Altavista	Altavista	VA	720	80.00	N/A	N/A	N/A	N/A	N/A	7	\$50,000	\$341,667
17	DG Amp Piqua	Piqua	OH	86	12.60	2	26%	16%	58%	0%	6,735	\$38,919	\$96,555
18	Solidago	Isle of Wight	VA	193	20.00	N/A	N/A	N/A	N/A	N/A	62	\$88,375	\$312,500
19	Buckingham	Cumberland	VA	240	39.80	50	4%	6%	90%	0%	120	\$59,445	\$251,562
20	Anderson 6	Anderson	IN	N/A	6.80	N/A	N/A	N/A	N/A	N/A	736	\$77,343	\$181,635
21	Logansport	Logansport	IN	N/A	6.80	N/A	N/A	N/A	N/A	N/A	4,534	\$51,694	\$122,099
22	Dunns Bdrge	Wheatfield	IN	N/A	435.00	N/A	N/A	N/A	N/A	N/A	208	\$71,098	\$203,986
23	Crane	Burns City	IN	182	24.30	100	N/A	N/A	N/A	N/A	114	\$68,227	\$273,077
24	Kokomo 1	Kokomo	IN	83	5.40	5	30%	36%	0%	34%	8,656	\$50,193	\$168,723
25	Bellflower 1	Lewisville	IN	N/A	152.50	N/A	N/A	N/A	N/A	N/A	45	\$78,261	\$215,789
26	Riverstart	Winchester	IN	N/A	200.00	N/A	N/A	N/A	N/A	N/A	47	\$75,000	\$169,565
27	Bedford	Chesapeake	VA	N/A	70.00	N/A	N/A	N/A	N/A	N/A	993	\$127,047	\$509,365
Average				449	78.20	55	15%	52%	27%	6%	1,385	\$67,760	\$239,665
Median				188	20.00	50	13%	51%	20%	0%	203	\$65,695	\$203,986
High				3,500	615.00	160	37%	98%	90%	34%	8,656	\$127,047	\$509,365
Low				34	2.00	0	2%	0%	0%	0%	7	\$38,919	\$96,555

B. Sale/Resale Analysis

In the market data I was able to identify a number of home sales where I was able to complete a Sale/Resale Analysis. The summary of that data is shown below.

Residential Dwelling Sale/Resale Analysis

Pair	Solar Farm	City	State	Area	MW	Approx		Date	Adj. Sale		
						Distance	Tax ID/Address		Sale Price	Price	% Diff
1	Crittenden	Crittenden	KY	Suburban	2.7	500	280 Clairborne	Mar-24	\$295,500		
							280 Clairborne	Apr-06	\$119,200	\$282,245	4%
2	Crittenden	Crittenden	KY	Suburban	2.7	488	300 Clairborne	Sep-18	\$212,720		
							300 Clairborne	Jul-14	\$173,000	\$208,183	2%
3	Walton 2	Walton	KY	Suburban	2	410	783 Jones	May-22	\$346,000		
							783 Jones	May-12	\$174,900	\$353,000	-2%
4	Turkey Crk	Lancaster	KY	Rural	50	250	166 Long Branch	Nov-20	\$180,000		
							166 Long Branch	Feb-19	\$160,000	\$181,000	-1%
5	Turkey Crk	Lancaster	KY	Rural	50	1050	209 Ashlock	Jun-22	\$180,000		
							209 Ashlock	Feb-19	\$160,000	\$181,000	-1%
6	Mt Olive Crk	Russell Spng	KY	Rural	60	1250	2985 KY 1729	Dec-22	\$150,000		
							2985 KY 1729	Sep-18	\$110,000	\$158,000	-5%
7	EW Brown	Harrodsburg	KY	Rural	10	1015	837 Hardin Hts	Mar-18	\$212,500		
							837 Hardin Hts	Sep-05	\$155,000	\$187,274	12%
8	Logan Cnty	Russellville	KY	Rural	173	1460	528 Watermelon	May-22	\$275,000		
							528 Watermelon	Sep-16	\$149,000	\$234,000	15%
9	Logan Cnty	Russellville	KY	Rural	173	1900	557 J Montgomery	Dec-21	\$185,000		
							557 J Montgomery	May-16	\$114,000	\$174,000	6%
10	Logan Cnty	Russellville	KY	Rural	173	1400	263 Donald	Oct-22	\$263,400		
							263 Donald	May-10	\$141,000	\$262,000	1%
11	Altavista	Altavista	VA	Rural	80	600	3026 Bishop Crk	Feb-22	\$150,000		
							3026 Bishop Crk	Jul-19	\$120,000	\$155,000	-3%
12	Bremen	Bremen	IN	Suburban	6.8	310	1141 Gilbert	May-23	\$186,000		
							1141 Gilbert	Jan-22	\$160,000	\$189,000	-2%
13	Riverstart	Winchester	IN	Rural	200	677	3928 W 600 S	Feb-22	\$250,000		
							3928 W 600 S	Mar-21	\$219,000	\$245,000	2%
14	Riverstart	Winchester	IN	Rural	200	1070	7141 S SR 1	Sep-21	\$165,000		
							7141 S SR 1	Oct-12	\$95,000	\$143,287	13%
15	Anderson 6	Anderson	IN	Suburban	6.8	345	2819 S Layton	Oct-23	\$210,000		
							2819 S Layton	Feb-21	\$150,000	\$198,000	6%
16	Bedford	Chesapeake	VA	Rural	70	560	1407 Whittamore	Dec-22	\$293,500		
							1407 Whittamore	Dec-15	\$176,000	\$276,145	6%

	MW	Avg. Distance	Indicated Impact
Average	78.75	830	3%
Median	55.00	639	2%
High	200.00	1,900	15%
Low	2.00	250	-5%

The Sale/Resale Analysis includes 16 examples with impacts ranging from -5% to +15% with an average impact of +3% and a median impact of +2%.

The closest adjoining home is 250 feet and the range of solar projects range from 2 MW up to 200 MW.

The Sale/Resale Analysis uses no appraiser judgement and links the consideration of appreciation to the FHFA Home Price Index. The advantage of this approach is that there is only one factor to address and it is linked to a national source. The disadvantage is that there is generally a more

limited pool of homes that are usable in this type of analysis. Homes with significant updates or renovations between sales are less reliable and extended periods of time between the sales could lead to less reliable results.

I have attempted to minimize any usage of homes with updates, though there are a few examples of those as discussed in the data. I have also attempted to minimize the usage of homes with extended period of time between the first and second sale.

C. *Paired Sale/Matched Pair Analysis*

In the market data I was able to identify a number of home sales where I was able to complete a Paired Sale or Matched Pair Analysis. The summary of that data is shown on the next page.

The Matched Pairs includes 47 examples with impacts ranging from -7% to +12% with an average impact of +1% and a median impact of +0%.

The closest adjoining home is 155 feet and the range of solar projects range from 2.7 MW up to 617 MW.

The Matched Pair Analysis includes numerous examples and many were also supported with supporting broker data, which strengthens the reliability of these results. Furthermore, these results show a very similar breakdown of values to the Sale/Resale Analysis.

Residential Dwelling Matched Pairs Adjoining Solar Farms

Pair	Solar Farm	City	State	Area	MW	Approx		Adj. Sale			
						Distance	Tax ID/Address	Date	Sale Price	Price	% Diff
1	Crittenden	Crittenden	KY	Suburban	2.7	373	250 Clairborne	Jan-19	\$120,000		
							315 N Fork	May-19	\$107,000	\$120,889	-1%
2	Crittenden	Crittenden	KY	Suburban	2.7	488	300 Clairborne	Sep-18	\$213,000		
							1795 Bay Valley	Dec-17	\$231,200	\$228,180	-7%
3	Crittenden	Crittenden	KY	Suburban	2.7	720	350 Clairborne	Jul-18	\$245,000		
							2160 Sherman	Jun-19	\$265,000	\$248,225	-1%
4	Crittenden	Crittenden	KY	Suburban	2.7	930	370 Clairborne	Aug-19	\$273,000		
							125 Lexington	Apr-18	\$240,000	\$254,751	7%
5	Crittenden	Crittenden	KY	Suburban	2.7	365	250 Clairborne	Jan-22	\$210,000		
							240 Shawnee	Jun-21	\$166,000	\$219,563	-5%
6	Crittenden	Crittenden	KY	Suburban	2.7	390	260 Clairborne	Oct-21	\$175,000		
							355 Oakwood	Oct-20	\$186,000	\$173,988	1%
7	Crittenden	Crittenden	KY	Suburban	2.7	570	300 Clairborne	Dec-21	\$290,000		
							39 Pinhook	Mar-22	\$299,000	\$289,352	0%
8	Crittenden	Crittenden	KY	Suburban	2.7	1080	410 Clairborne	Feb-21	\$275,000		
							114 Austin	Dec-20	\$248,000	\$279,680	-2%
9	Mulberry	Selmer	TN	Rural	5	400	0900A011	Jul-14	\$130,000		
							099CA043	Feb-15	\$148,900	\$136,988	-5%
10	Mulberry	Selmer	TN	Rural	5	400	099CA002	Jul-15	\$130,000		
							0990NA040	Mar-15	\$120,000	\$121,200	7%
11	Mulberry	Selmer	TN	Rural	5	480	491 Dusty	Oct-16	\$176,000		
							35 April	Aug-16	\$185,000	\$178,283	-1%
12	Mulberry	Selmer	TN	Rural	5	650	297 Country	Sep-16	\$150,000		
							53 Glen	Mar-17	\$126,000	\$144,460	4%
13	Mulberry	Selmer	TN	Rural	5	685	57 Cooper	Feb-19	\$163,000		
							191 Amelia	Aug-18	\$132,000	\$155,947	4%
14	Dominion	Indianapolis	IN	Rural	8.6	400	2013249 (Tax ID)	Dec-15	\$140,000		
							5723 Minden	Nov-16	\$139,900	\$132,700	5%
15	Dominion	Indianapolis	IN	Rural	8.6	400	2013251 (Tax ID)	Sep-17	\$160,000		
							5910 Mosaic	Aug-16	\$146,000	\$152,190	5%
16	Dominion	Indianapolis	IN	Rural	8.6	400	2013252 (Tax ID)	May-17	\$147,000		
							5836 Sable	Jun-16	\$141,000	\$136,165	7%
17	Dominion	Indianapolis	IN	Rural	8.6	400	2013258 (Tax ID)	Dec-15	\$131,750		
							5904 Minden	May-16	\$130,000	\$134,068	-2%
18	Dominion	Indianapolis	IN	Rural	8.6	400	2013260 (Tax ID)	Mar-15	\$127,000		
							5904 Minden	May-16	\$130,000	\$128,957	-2%
19	Dominion	Indianapolis	IN	Rural	8.6	400	2013261 (Tax ID)	Feb-14	\$120,000		
							5904 Minden	May-16	\$130,000	\$121,930	-2%
20	Clarke Cnty	White Post	VA	Rural	20	1230	833 Nations Spr	Jan-17	\$295,000		
							6801 Middle	Dec-17	\$249,999	\$296,157	0%
21	Walker	Barhamsville	VA	Rural	20	250	5241 Barham	Oct-18	\$264,000		
							9252 Ordinary	Jun-19	\$277,000	\$246,581	7%
22	Clarke Cnty	White Post	VA	Rural	20	1230	833 Nations Spr	Aug-19	\$385,000		
							2393 Old Chapel	Aug-20	\$330,000	\$389,286	-1%
23	Sappony	Stony Creek	VA	Rural	20	1425	12511 Palestine	Jul-18	\$128,400		
							6494 Rocky Branch	Nov-18	\$100,000	\$131,842	-3%
24	DG Amp	Piqua	OH	Suburban	12.6	155	6060 N Washington	Oct-19	\$119,500		
							1511 Sweetbriar	Aug-20	\$123,000	\$118,044	1%
25	DG Amp	Piqua	OH	Suburban	12.6	585	1011 Plymouth	Feb-20	\$113,000		
							1720 Williams	Dec-19	\$119,900	\$111,105	2%
26	DG Amp	Piqua	OH	Suburban	12.6	155	6010 N Washington	Aug-21	\$176,900		
							1834 Wilshire	Dec-21	\$168,900	\$172,354	3%

Solar Farm	City	State	Area	Approx		Tax ID/Address	Date	Adj. Sale		% Diff
				MW	Distance			Sale Price	Price	
27 DG Amp	Piqua	OH	Suburban	12.6	160	6240 N Washington	Oct-21	\$155,000		
						424 Pinewood	May-22	\$151,000	\$145,627	6%
28 Spotsylvania	Paytes	VA	Rural	617	1270	12901 Orange Plnk	Aug-20	\$319,900		
						12717 Flintlock	Dec-20	\$290,000	\$326,767	-2%
29 Spotsylvania	Paytes	VA	Rural	617	1950	9641 Nottoway	May-20	\$449,900		
						11626 Forest	Aug-20	\$489,900	\$430,246	4%
30 Spotsylvania	Paytes	VA	Rural	617	1171	13353 Post Oak	Sep-20	\$300,000		
						12810 Catharpin	Jan-20	\$280,000	\$299,008	0%
31 Whitehorn	Gretna	VA	Rural	50	255	1120 Taylors Mill	Dec-21	\$224,000		
						100 Long Branch	Aug-20	\$162,000	\$213,920	5%
32 Solidago	Windsor	VA	Rural	20	610	17479 Courthouse	Dec-23	\$555,000		
						15414 Trump Towr	Sep-23	\$463,000	\$552,197	1%
33 Solidago	Windsor	VA	Rural	20	630	6568 Beechland	Feb-24	\$671,500		
						11497 Dews Plant.	Oct-23	\$640,000	\$665,000	1%
34 Spotsylvania	Spotsylvania	VA	Rural	617	435	11710 Southview	May-22	\$767,945		
						10919 Green Leaf	Jun-22	\$739,990	\$728,424	5%
35 Spotsylvania	Spotsylvania	VA	Rural	617	410	11606 Aprils	Sep-23	\$711,400		
						11701 Quail Run	Jul-23	\$650,000	\$723,383	-2%
36 Altavista	Altavista	VA	Rural	80	745	2049 Bishop Crk	Jul-23	\$375,000		
						1900 Woodhaven	Aug-22	\$355,000	\$395,198	-5%
37 Buckingham	Cumberland	VA	Rural	40	380	24081 E James An	Jun-23	\$160,000		
						755 High Sch	Sep-23	\$190,000	\$162,400	-2%
38 Buckingham	Cumberland	VA	Rural	40	560	23225 E James An	Jun-23	\$180,000		
						17534 E James An	Jan-24	\$205,000	\$185,440	-3%
39 Spotsylvania	Spotsylvania	VA	Rural	617	1252	9811 Deer Park	Jun-22	\$455,000		
						8109 Newton	Mar-22	\$450,000	\$447,900	2%
40 Spotsylvania	Spotsylvania	VA	Rural	617	1020	13000 W Catharpi	Jun-22	\$450,000		
						14207 Cedar Plant	Jul-23	\$473,800	\$472,015	-5%
41 Spotsylvania	Spotsylvania	VA	Rural	617	1060	12819 Faulconers	Oct-23	\$538,000		
						9811 Catharpin	Nov-23	\$480,000	\$508,753	5%
42 Spotsylvania	Spotsylvania	VA	Rural	617	395	11239 Chancellor	Mar-23	\$499,900		
						9651 Meadows	Jul-23	\$515,000	\$506,012	-1%
43 Crane	Burns City	IN	Rural	24.3	440	21893 Golf Club	Sep-22	\$296,000		
						12889 N US 231	Jul-22	\$325,000	\$304,919	-3%
44 Bellflower 1	Lewisville	IN	Rural	152	360	9559 S CR 225 W	Jan-24	\$650,000		
						1068 Landmark	Jul-23	\$565,900	\$571,382	12%
45 Riverstart	Winchester	IN	Rural	200	1205	6535 S 500 W	Feb-22	\$129,900		
						113 N Main	Oct-22	\$142,900	\$118,634	9%
46 Riverstart	Winchester	IN	Rural	200	677	3928 W 600 S	Feb-22	\$250,000		
						4095 N 1000	Jan-22	\$281,250	\$237,956	5%
47 White House	Louisa	VA	Rural	20	1780	751 Chalklevel	Apr-24	\$260,000		
						1404 Jefferson	May-24	\$219,700	\$249,140	4%

	Avg.		Indicated
	MW	Distance	Impact
Average	141.02	675	1%
Median	20.00	488	0%
High	617.00	1950	12%
Low	2.70	155	-7%

D. Summary of Broker Opinions from Research

From the research identified in the earlier section, I was able to identify and speak with the brokers identified below. The full comments provided by the brokers are shown in the market research, but the summary below shows that 13 of the 14 brokers who had sold a home adjoining a solar development identified no impact on property value. The one broker who identified a sale that “maybe” was impacted also confirmed a different home that definitely was not impacted by the adjacent solar project that was even closer than the one where “maybe” it did.

Residential Dwelling Matched Pairs Adjoining Solar Farms

#	Solar Farm	City	State	MW	Approx		Date	Sale Price	Impact	Broker
					Distance	Tax ID/Address				
1	Crittenden	Crittenden	KY	2.7	365	250 Clairborne	Jan-22	\$210,000	No	Lisa Ann Lay
2	Crittenden	Crittenden	KY	2.7	390	260 Clairborne	Oct-21	\$175,000	No	Jim Dalton
3	Crittenden	Crittenden	KY	2.7	500	289 Clairborne	Mar-24	\$295,500	No	Carol Jackson
4	Crittenden	Logan Cnty	KY	173	1900	557 J Montgomery	Dec-21	\$185,000	No	Dewayne Whittaker
5	Kokomo 1	Kokomo	IN	5.4	145	1049 S. Leeds	Dec-23	\$129,900	No	Jennifer Lane
6	Logansport	Logansport	IN	16	260	1015 Pink	Dec-21	\$135,000	No	Cindy Heinzman
7	Dunns Bridge	Wheatfield	IN	435	910	1546 E 1225 N	Feb-22	\$499,900	No	Dan Walstra
8	Crittenden	Mulberry	TN	16	480	491 Dusty	Oct-16	\$176,000	No	Rhonda Wheeler
9	Walker-Corr.	Barhamsville	VA	20	250	5241 Barham	Oct-18	\$264,000	No	Alex Uminski, SRA
10	Walker-Corr.	Barhamsville	VA	20	510	5300 Barham	Apr-17	\$358,000	No	Patrick McCreary
11	Solidago	Windsor	VA	20	610	17479 Courthouse	Dec-23	\$555,000	No	Anna Boyer
12	Cavalier	Elberon	VA	20	850	6568 Beechland	Jun-24	\$535,000	Maybe	Anna Boyer
13	Bellflower	Spiceland	IN	152.5	2200	2312 US Hwy 40	Apr-24	\$155,000	No	Jason Loveless
14	Bellflower	Spiceland	IN	152.5	360	9559 S Cnty Rd 225	Jan-24	\$650,000	No	Kayla Walker
								Yes	0	
								No	13	
								Maybe	1	

X. Supporting Data

A. *Southeast Data*

I have been compiling data across numerous states and the following chart identifies the solar projects throughout the Southeast. I have focused on projects 5 MW or larger.

Southeast USA Over 5 MW

Matched Pair Summary

	Name	City	State	Acres	MW	Adj. Uses By Acreage					1 mile Radius (2010-2022 Data)		
						Topo	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
2	Mulberry	Selmer	TN	160	5.00	60	13%	73%	10%	3%	467	\$40,936	\$171,746
3	Leonard	Hughesville	MD	47	5.00	20	18%	75%	0%	6%	525	\$106,550	\$350,000
4	Gastonia SC	Gastonia	NC	35	5.00	48	33%	0%	23%	44%	4,689	\$35,057	\$126,562
5	Summit	Moyock	NC	2,034	80.00	4	4%	0%	94%	2%	382	\$79,114	\$281,731
6	Tracy	Bailey	NC	50	5.00	10	29%	0%	71%	0%	312	\$43,940	\$99,219
7	Manatee	Parrish	FL	1,180	75.00	20	2%	97%	1%	0%	48	\$75,000	\$291,667
8	McBride	Midland	NC	627	75.00	140	12%	10%	78%	0%	398	\$63,678	\$256,306
9	Mariposa	Stanley	NC	36	5.00	96	48%	0%	52%	0%	1,716	\$36,439	\$137,884
10	Clarke Cnty	White Post	VA	234	20.00	70	14%	39%	46%	1%	578	\$81,022	\$374,453
11	Candace	Princeton	NC	54	5.00	22	76%	24%	0%	0%	448	\$51,002	\$107,171
12	Walker	Barhamsville	VA	485	20.00	N/A	12%	68%	20%	0%	203	\$80,773	\$320,076
13	Innov 46	Hope Mills	NC	532	78.50	0	17%	83%	0%	0%	2,247	\$58,688	\$183,435
14	Innov 42	Fayetteville	NC	414	71.00	0	41%	59%	0%	0%	568	\$60,037	\$276,347
15	Sunfish	Willow Spring	NC	50	6.40	30	35%	35%	30%	0%	1,515	\$63,652	\$253,138
16	Sappony	Stony Crk	VA	322	20.00	N/A	2%	98%	0%	0%	74	\$51,410	\$155,208
17	Camden Dam	Camden	NC	50	5.00	0	17%	72%	11%	0%	403	\$84,426	\$230,288
18	Grandy	Grandy	NC	121	20.00	10	55%	24%	0%	21%	949	\$50,355	\$231,408
19	Champion	Pelion	SC	100	10.00	N/A	4%	70%	8%	18%	1,336	\$46,867	\$171,939
20	Barefoot Bay	Barefoot Bay	FL	504	74.50	0	11%	87%	0%	3%	2,446	\$36,737	\$143,320
21	Miami-Dade	Miami	FL	347	74.50	0	26%	74%	0%	0%	127	\$90,909	\$403,571
22	Spotsylvania	Paytes	VA	3,500	617.00	160	37%	52%	11%	0%	74	\$120,861	\$483,333
23	Whitehorn	Gretna	VA	N/A	50.00	N/A	N/A	N/A	N/A	N/A	166	\$43,179	\$168,750
24	Altavista	Altavista	VA	720	80.00	N/A	N/A	N/A	N/A	N/A	7	\$50,000	\$341,667
25	Hattiesburg	Hattiesburg	MS	400	50.00	N/A	10%	85%	5%	0%	1,065	\$28,545	\$129,921
26	Solidago	Isle of Wight	VA	193	20.00	N/A	N/A	N/A	N/A	N/A	62	\$88,375	\$312,500
27	Buckingham	Cumberland	VA	240	39.80	50	4%	6%	90%	0%	120	\$59,445	\$251,562
28	Twiggs	Dry Branch	GA	N/A	200.00	N/A	N/A	N/A	N/A	N/A	15	\$55,000	\$50,000
29	Kings Bay	Kings Bay	GA	N/A	30.00	N/A	N/A	N/A	N/A	N/A	721	\$102,293	\$364,808
30	Dougherty	Albany	GA	N/A	120.00	N/A	N/A	N/A	N/A	N/A	30	\$60,354	\$204,167
31	Mustang	Robbins	NC	50	5.00	N/A	N/A	N/A	N/A	N/A	941	\$54,430	\$369,398
32	Bedford	Chesapeake	VA	N/A	70.00	N/A	N/A	N/A	N/A	N/A	993	\$127,047	\$509,365
33	Mt. Olive Crk	Russell Spr	KY	421	60.00	N/A	N/A	N/A	N/A	N/A	149	\$60,646	\$152,778
34	EW Brown	Harrodsburg	KY	50	10.00	N/A	3%	44%	29%	25%	182	\$68,772	\$294,444
35	Logan Cnty	Russellville	KY	1,100	173.00	N/A	N/A	N/A	N/A	N/A	177	\$54,545	\$284,459
	Average			470	62.56	37	22%	47%	24%	6%	733	\$64,213	\$246,600
	Median			237	30.00	20	17%	52%	11%	0%	403	\$59,445	\$251,562
	High			3,500	617.00	160	76%	98%	94%	44%	4,689	\$127,047	\$509,365
	Low			35	5.00	0	2%	0%	0%	0%	7	\$28,545	\$50,000

From these solar projects I have identified 77 data points (combined Sale/Resale, Matched Pair and Broker Opinions) as summarized below.

	MW	Avg. Distance	Indicated Impact
Average	106.39	631	Average 1%
Median	30.00	505	Median 1%
High	617.00	1,950	High 10%
Low	5.00	145	Low -10%

B. National Data

Matched Pair Summary					Adj. Uses By Acreage						1 mile Radius (2020 Data)		
Name	City	State	Acres	MW	Topo Shift	Res	Ag	Ag/Res	Com/Ind	Population	Med. Income	Avg. Housing Unit	
1	AM Best	Goldsboro	NC	38	5.00	2	38%	0%	23%	39%	1,523	\$37,358	\$148,375
2	Mulberry	Selmer	TN	160	5.00	60	13%	73%	10%	3%	467	\$40,936	\$171,746
3	Leonard	Hughesville	MD	47	5.00	20	18%	75%	0%	6%	525	\$106,550	\$350,000
4	Gastonia SC	Gastonia	NC	35	5.00	48	33%	0%	23%	44%	4,689	\$35,057	\$126,562
5	Summit	Moyock	NC	2,034	80.00	4	4%	0%	94%	2%	382	\$79,114	\$281,731
6	Tracy	Bailey	NC	50	5.00	10	29%	0%	71%	0%	312	\$43,940	\$99,219
7	Manatee	Parrish	FL	1,180	75.00	20	2%	97%	1%	0%	48	\$75,000	\$291,667
8	McBride	Midland	NC	627	75.00	140	12%	10%	78%	0%	398	\$63,678	\$256,306
9	Grand Ridge	Streator	IL	160	20.00	1	8%	87%	5%	0%	96	\$70,158	\$187,037
10	Dominion	Indianapolis	IN	134	8.60	20	3%	97%	0%	0%	3,774	\$61,115	\$167,515
11	Mariposa	Stanley	NC	36	5.00	96	48%	0%	52%	0%	1,716	\$36,439	\$137,884
12	Clarke Cnty	White Post	VA	234	20.00	70	14%	39%	46%	1%	578	\$81,022	\$374,453
13	Flemington	Flemington	NJ	120	9.36	N/A	13%	50%	28%	8%	3,477	\$105,714	\$444,696
14	Frenchtown	Frenchtown	NJ	139	7.90	N/A	37%	35%	29%	0%	457	\$111,562	\$515,399
15	McGraw	East Windsor	NJ	95	14.00	N/A	27%	44%	0%	29%	7,684	\$75,417	\$362,428
16	Tinton Falls	Tinton Falls	NJ	100	16.00	N/A	98%	0%	0%	2%	4,667	\$92,346	\$343,492
17	Simon	Social Circle	GA	237	30.00	71	1%	63%	36%	0%	203	\$76,155	\$269,922
18	Candace	Princeton	NC	54	5.00	22	76%	24%	0%	0%	448	\$51,002	\$107,171
19	Walker	Barhamsville	VA	485	20.00	N/A	12%	68%	20%	0%	203	\$80,773	\$320,076
20	Innov 46	Hope Mills	NC	532	78.50	0	17%	83%	0%	0%	2,247	\$58,688	\$183,435
21	Innov 42	Fayetteville	NC	414	71.00	0	41%	59%	0%	0%	568	\$60,037	\$276,347
22	Demille	Lapeer	MI	160	28.40	10	10%	68%	0%	22%	2,010	\$47,208	\$187,214
23	Turrill	Lapeer	MI	230	19.60	10	75%	59%	0%	25%	2,390	\$46,839	\$110,361
24	Sunfish	Willow Spring	NC	50	6.40	30	35%	35%	30%	0%	1,515	\$63,652	\$253,138
25	Picture Rocks	Tucson	AZ	182	20.00	N/A	6%	88%	6%	0%	102	\$81,081	\$280,172
26	Avra Valley	Tucson	AZ	246	25.00	N/A	3%	94%	3%	0%	85	\$80,997	\$292,308
27	Sappony	Stony Crk	VA	322	20.00	N/A	2%	98%	0%	0%	74	\$51,410	\$155,208
28	Camden Dam	Camden	NC	50	5.00	0	17%	72%	11%	0%	403	\$84,426	\$230,288
29	Grandy	Grandy	NC	121	20.00	10	55%	24%	0%	21%	949	\$50,355	\$231,408
30	Champion	Pelion	SC	100	10.00	N/A	4%	70%	8%	18%	1,336	\$46,867	\$171,939
31	Eddy II	Eddy	TX	93	10.00	N/A	15%	25%	58%	2%	551	\$59,627	\$139,088
32	Somerset	Somerset	TX	128	10.60	N/A	5%	95%	0%	0%	1,293	\$41,574	\$135,490
33	DG Amp Piqua	Piqua	OH	86	12.60	2	26%	16%	58%	0%	6,735	\$38,919	\$96,555
34	Barefoot Bay	Barefoot Bay	FL	504	74.50	0	11%	87%	0%	3%	2,446	\$36,737	\$143,320
35	Miami-Dade	Miami	FL	347	74.50	0	26%	74%	0%	0%	127	\$90,909	\$403,571
36	Spotsylvania	Paytes	VA	3,500	617.00	160	37%	52%	11%	0%	74	\$120,861	\$483,333
37	Whitehorn	Gretna	VA	N/A	50.00	N/A	N/A	N/A	N/A	N/A	166	\$43,179	\$168,750
38	Altavista	Altavista	VA	720	80.00	N/A	N/A	N/A	N/A	N/A	7	\$50,000	\$341,667
39	Hattiesburg	Hattiesburg	MS	400	50.00	N/A	10%	85%	5%	0%	1,065	\$28,545	\$129,921
40	Bremen	Bremen	IN	37	6.80	15	40%	60%	0%	0%	388	\$62,855	\$232,857
41	North Rock	Fulton	WI	472	50.00	N/A	3%	40%	57%	0%	236	\$86,238	\$370,062
42	Wood County	Saratoga	WI	1,200	150.00	N/A	N/A	N/A	N/A	N/A	187	\$74,110	\$204,545
43	Solidago	Isle of Wight	VA	193	20.00	N/A	N/A	N/A	N/A	N/A	62	\$88,375	\$312,500
44	Buckingham	Cumberland	VA	240	39.80	50	4%	6%	90%	0%	120	\$59,445	\$251,562
45	Crane	Burns City	IN	182	24.30	100	N/A	N/A	N/A	N/A	114	\$68,227	\$273,077
46	Kokomo 1	Kokomo	IN	83	5.40	5	30%	36%	0%	34%	8,656	\$50,193	\$168,723
47	White Tail 1	Mowersville	PA	135	13.50	20	2%	73%	25%	0%	254	\$81,086	\$354,297
48	Twiggs	Dry Branch	GA	N/A	200.00	N/A	N/A	N/A	N/A	N/A	15	\$55,000	\$50,000
49	Kings Bay	Kings Bay	GA	N/A	30.00	N/A	N/A	N/A	N/A	N/A	721	\$102,293	\$364,808
50	Dougherty	Albany	GA	N/A	120.00	N/A	N/A	N/A	N/A	N/A	30	\$60,354	\$204,167
51	Whitetail 2	St Thomas	PA	293	20.00	N/A	N/A	N/A	N/A	N/A	107	\$85,844	\$274,265
52	Elk Hill 1	Mercersburg	PA	N/A	20.00	N/A	N/A	N/A	N/A	N/A	791	\$72,722	\$372,932
53	Elk Hill 2	Mercersburg	PA	N/A	15.00	N/A	N/A	N/A	N/A	N/A	454	\$81,208	\$484,672
54	Cottontail 1	York	PA	N/A	20.00	N/A	N/A	N/A	N/A	N/A	1,495	\$84,872	\$315,508
55	Cottontail 2	York	PA	N/A	20.00	N/A	N/A	N/A	N/A	N/A	707	\$61,415	\$383,896

Matched Pair Summary

			<u>Adj. Uses By Acreage</u>							<u>1 mile Radius (2020 Data)</u>			
Name	City	State	Acres	MW	Topo Shift	Res	Ag	Ag/Res	Com/Ind	Population	Med. Income	Avg. Housing Unit	
56	Grazing Yak	Calhan	CO	272	35.00	N/A	0%	97%	3%	0%	40	\$78,104	\$623,214
57	San Luis Vly	Hooper	CO	308	35.00	N/A	5%	95%	0%	0%	11	\$59,164	\$450,000
58	SR Jenkins	Ft. Lupton	CO	142	13.00	N/A	2%	90%	8%	0%	129	\$114,961	\$802,703
59	Big Horn 1	Pueblo	CO	2,760	240.00	N/A	0%	44%	2%	54%	20	\$75,000	\$400,000
60	Bison/Raw	Wellington	CO	1,160	52.00	N/A	0%	93%	7%	0%	0	\$0	\$0
61	Alamosa	Mosca	CO	163	30.00	N/A	0%	87%	13%	0%	7	\$0	\$0
62	Pioneer	Bennett	CO	611	110.00	N/A	3%	81%	16%	0%	67	\$82,329	\$497,991
63	Sandhill/SunE	Mosca	CO	N/A	10.00	N/A	N/A	N/A	N/A	N/A	4	\$0	\$0
64	Bellflower 1	Lewisville	IN	N/A	152.50	N/A	N/A	N/A	N/A	N/A	45	\$78,261	\$215,789
65	Riverstart	Winchester	IN	N/A	200.00	N/A	N/A	N/A	N/A	N/A	47	\$75,000	\$169,565
66	Mustang	Robbins	NC	50	5.00	N/A	N/A	N/A	N/A	N/A	941	\$54,430	\$369,398
67	North Star	North Branch	MN	1,099	100.00	N/A	18%	73%	7%	2%	218	\$119,700	\$323,413
68	Logansport	Logansport	IN	N/A	6.80	N/A	N/A	N/A	N/A	N/A	4,534	\$51,694	\$122,099
69	Anderson 6	Anderson	IN	N/A	6.80	N/A	N/A	N/A	N/A	N/A	736	\$77,343	\$181,635
70	Dunns Brdge	Wheatfield	IN	N/A	435.00	N/A	N/A	N/A	N/A	N/A	208	\$71,098	\$203,986
71	Bedford	Chesapeake	VA	N/A	70.00	N/A	N/A	N/A	N/A	N/A	993	\$127,047	\$509,365
72	Mt. Olive Crk	Russell Spr	KY	421	60.00	N/A	N/A	N/A	N/A	N/A	149	\$60,646	\$152,778
73	EW Brown	Harrodsburg	KY	50	10.00	N/A	3%	44%	29%	25%	182	\$68,772	\$294,444
74	Logan Cnty	Russellville	KY	1,100	173.00	N/A	N/A	N/A	N/A	N/A	177	\$54,545	\$284,459
Average				426	56.66	33	19%	56%	19%	7%	1,063	\$66,629	\$264,701
Median				182	20.00	18	12%	63%	7%	0%	385	\$65,953	\$254,722
High				3,500	617.00	160	98%	98%	94%	54%	8,656	\$127,047	\$802,703
Low				35	5.00	0	0%	0%	0%	0%	0	\$0	\$0

From these 74 solar developments I have identified 138 data points as summarized below.

	MW	Avg. Distance	Average	% Dif
Average	79.17	608	Average	1%
Median	20.00	440	Median	0%
High	617.00	2,020	High	14%
Low	5.00	145	Low	-10%

C. Larger Solar Farms Data

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 at 617 MW facility.

Matched Pair Summary - @20 MW And Larger						Adj. Uses By Acreage					1 mile Radius (2010-2020 Data)		
Name	City	State	Acres	MW	Topo Shift	Res	Ag	Ag/Res	Com/Ind	Population	Med. Income	Avg. Housing Unit	
1	Summit	Moyock	NC	2,034	80.00	4	4%	0%	94%	2%	382	\$79,114	\$281,731
2	Manatee	Parrish	FL	1,180	75.00	20	2%	97%	1%	0%	48	\$75,000	\$291,667
3	McBride	Midland	NC	627	75.00	140	12%	10%	78%	0%	398	\$63,678	\$256,306
4	Grand Ridge	Streator	IL	160	20.00	1	8%	87%	5%	0%	96	\$70,158	\$187,037
5	Clarke Cnty	White Post	VA	234	20.00	70	14%	39%	46%	1%	578	\$81,022	\$374,453
6	Simon	Social Circle	GA	237	30.00	71	1%	63%	36%	0%	203	\$76,155	\$269,922
7	Walker	Barhamsville	VA	485	20.00	N/A	12%	68%	20%	0%	203	\$80,773	\$320,076
8	Innov 46	Hope Mills	NC	532	78.50	0	17%	83%	0%	0%	2,247	\$58,688	\$183,435
9	Innov 42	Fayetteville	NC	414	71.00	0	41%	59%	0%	0%	568	\$60,037	\$276,347
10	Demille	Lapeer	MI	160	28.40	10	10%	68%	0%	22%	2,010	\$47,208	\$283,214
11	Turrill	Lapeer	MI	230	19.60	10	75%	59%	0%	25%	2,390	\$46,839	\$110,361
12	Picure Rocks	Tucson	AZ	182	20.00	N/A	6%	88%	6%	0%	102	\$81,081	\$280,172
13	Avra Valley	Tucson	AZ	246	25.00	N/A	3%	94%	3%	0%	85	\$80,997	\$292,308
14	Sappony	Stony Crk	VA	322	20.00	N/A	2%	98%	0%	0%	74	\$51,410	\$155,208
15	Grandy	Grandy	NC	121	20.00	10	55%	24%	0%	21%	949	\$50,355	\$231,408
16	Barefoot Bay	Barefoot Bay	FL	504	74.50	0	11%	87%	0%	3%	2,446	\$36,737	\$143,320
17	Miami-Dade	Miami	FL	347	74.50	0	26%	74%	0%	0%	127	\$90,909	\$403,571
18	Spotsylvania	Paytes	VA	3,500	617.00	160	37%	52%	11%	0%	74	\$120,861	\$483,333
19	Whitehorn	Gretna	VA	N/A	50.00	N/A	N/A	N/A	N/A	N/A	166	\$43,179	\$168,750
20	Altavista	Altavista	VA	720	80.00	N/A	N/A	N/A	N/A	N/A	7	\$50,000	\$341,667
21	Solidago	Isle of Wight	VA	193	20.00	N/A	N/A	N/A	N/A	N/A	62	\$88,375	\$312,500
22	Hattiesburg	Hattiesburg	MS	400	50.00	N/A	10%	85%	5%	0%	1,065	\$28,545	\$129,921
23	North Rock	Fulton	WI	472	50.00	N/A	3%	40%	57%	0%	236	\$86,238	\$370,062
24	Wood County	Saratoga	WI	1,200	150.00	N/A	N/A	N/A	N/A	N/A	187	\$74,110	\$204,545
25	Buckingham	Cumberland	VA	240	39.80	50	4%	6%	90%	0%	120	\$59,445	\$251,562
26	Crane	Burns City	IN	182	24.30	100	N/A	N/A	N/A	N/A	114	\$68,227	\$273,077
27	Twiggs	Dry Branch	GA	N/A	200.00	N/A	N/A	N/A	N/A	N/A	15	\$55,000	\$50,000
28	Kings Bay	Kings Bay	GA	N/A	30.00	N/A	N/A	N/A	N/A	N/A	721	\$102,293	\$364,808
29	Dougherty	Albany	GA	N/A	120.00	N/A	N/A	N/A	N/A	N/A	30	\$60,354	\$204,167
30	Whitetail 2	St Thomas	PA	293	20.00	N/A	N/A	N/A	N/A	N/A	107	\$85,844	\$274,265
31	Elk Hill 1	Mercersburg	PA	N/A	20.00	N/A	N/A	N/A	N/A	N/A	791	\$72,722	\$372,932
32	Cottontail 1	York	PA	N/A	20.00	N/A	N/A	N/A	N/A	N/A	1,495	\$84,872	\$315,508
33	Cottontail 2	York	PA	N/A	20.00	N/A	N/A	N/A	N/A	N/A	707	\$61,415	\$383,896
34	Grazing Yak	Calhan	CO	272	35.00	N/A	0%	97%	3%	0%	40	\$78,104	\$623,214
35	San Luis Vly	Hooper	CO	308	35.00	N/A	5%	95%	0%	0%	11	\$59,164	\$450,000
36	Big Horn 1	Pueblo	CO	2,760	240.00	N/A	0%	44%	2%	54%	20	\$75,000	\$400,000
37	Bison/Raw	Wellington	CO	1,160	52.00	N/A	0%	93%	7%	0%	0	\$0	\$0
38	Alamosa	Mosca	CO	163	30.00	N/A	0%	87%	13%	0%	7	\$0	\$0
39	Pioneer	Bennett	CO	611	110.00	N/A	3%	81%	16%	0%	67	\$82,329	\$497,991
40	Bellflower 1	Lewisville	IN	N/A	152.50	N/A	N/A	N/A	N/A	N/A	45	\$78,261	\$215,789
41	Riverstart	Winchester	IN	N/A	200.00	N/A	N/A	N/A	N/A	N/A	47	\$75,000	\$169,565
42	North Star	North Branch	MN	1,099	100.00	N/A	18%	73%	7%	2%	218	\$119,700	\$323,413
43	Dunns Brdge	Wheatfield	IN	N/A	435.00	N/A	N/A	N/A	N/A	N/A	208	\$71,098	\$203,986
44	Bedford	Chesapeake	VA	N/A	70.00	N/A	N/A	N/A	N/A	N/A	993	\$127,047	\$509,365
Average			654	84.59		14%	66%	18%	5%	465	\$69,031	\$275,883	
Median			347	50.00		7%	74%	5%	0%	147	\$73,416	\$275,306	
High			3,500	617.00		75%	98%	94%	54%	2,446	\$127,047	\$623,214	
Low			121	19.60		0%	0%	0%	0%	0	\$0	\$0	

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						Adj. Uses By Acreage					1 mile Radius (2010-2020 Data)		
Name	City	State	Acres	MW	Topo Shift	Res	Ag	Ag/Res	Com/Ind	Population	Med. Income	Avg. Housing Unit	
1	Summit	Moyock	NC	2,034	80.00	4	4%	0%	94%	2%	382	\$79,114	\$281,731
2	Manatee	Parrish	FL	1,180	75.00	20	2%	97%	1%	0%	48	\$75,000	\$291,667
3	McBride	Midland	NC	627	75.00	140	12%	10%	78%	0%	398	\$63,678	\$256,306
4	Innov 46	Hope Mills	NC	532	78.50	0	17%	83%	0%	0%	2,247	\$58,688	\$183,435
5	Innov 42	Fayetteville	NC	414	71.00	0	41%	59%	0%	0%	568	\$60,037	\$276,347
6	Barefoot Bay	Barefoot Bay	FL	504	74.50	0	11%	87%	0%	3%	2,446	\$36,737	\$143,320
7	Miami-Dade	Miami	FL	347	74.50	0	26%	74%	0%	0%	127	\$90,909	\$403,571
8	Spotylvania	Paytes	VA	3,500	617.00	160	37%	52%	11%	0%	74	\$120,861	\$483,333
9	Hattiesburg	Hattiesburg	MS	400	50.00	N/A	10%	85%	5%	0%	1,065	\$28,545	\$129,921
10	North Rock	Fulton	WI	472	50.00	N/A	3%	40%	57%	0%	236	\$86,238	\$370,062
11	Wood County	Saratoga	WI	1,200	150.00	N/A	N/A	N/A	N/A	N/A	187	\$74,110	\$204,545
12	Twiggs	Dry Branch	GA	N/A	200.00	N/A	N/A	N/A	N/A	N/A	15	\$55,000	\$50,000
13	Dougherty	Albany	GA	N/A	120.00	N/A	N/A	N/A	N/A	N/A	30	\$60,354	\$204,167
14	Big Horn 1	Pueblo	CO	2,760	240.00	N/A	0%	44%	2%	54%	20	\$75,000	\$400,000
15	Bison/Raw	Wellington	CO	1,160	52.00	N/A	0%	93%	7%	0%	0	\$0	\$0
16	Pioneer	Bennett	CO	611	110.00	N/A	3%	81%	16%	0%	67	\$82,329	\$497,991
17	Bellflower 1	Lewisville	IN	N/A	152.50	N/A	N/A	N/A	N/A	N/A	45	\$78,261	\$215,789
18	Riverstart	Winchester	IN	N/A	200.00	N/A	N/A	N/A	N/A	N/A	47	\$75,000	\$169,565
19	North Star	North Branch	MN	1,099	100.00	N/A	18%	73%	7%	2%	218	\$119,700	\$323,413
20	Dunns Brdge	Wheatfield	IN	N/A	435.00	N/A	N/A	N/A	N/A	N/A	208	\$71,098	\$203,986
21	Bedford	Chesapeake	VA	N/A	70.00	N/A	N/A	N/A	N/A	N/A	993	\$127,047	\$509,365
Average			1,123	146	41	13%	63%	20%	4%	449	\$72,272	\$266,596	
Median			627	80	2	11%	74%	6%	0%	187	\$75,000	\$256,306	
High			3,500	617	160	41%	97%	94%	54%	2,446	\$127,047	\$509,365	
Low			347	50	0	0%	0%	0%	0%	0	\$0	\$0	

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 a summary of 248 projects ranging in size from 50 MW up to 1,000 MW with an average size of 119.7 MW and a median of 80 MW. The average closest distance for an adjoining home is 365 feet, while the median distance is 220 feet. The closest distance is 50 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.

**Total Number of Solar Farms
Researched Over 50 MW**

238

	Output (MW)	Total Acres	Used Acres	Avg. Dist to home	Closest Home	Adjoining Use by Acre			
						Res	Agri	Agri/Res	Com
Average	119.7	1521.4	1223.3	1092	365	10%	68%	18%	4%
Median	80.0	987.3	805.5	845	220	7%	72%	12%	0%
High	1000.0	19000.0	9735.4	6835	6810	98%	100%	100%	70%
Low	50.0	3.0	3.0	241	50	0%	0%	0%	0%

D. 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 Kentucky, 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.

E. 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.

F. Potential Impacts During Construction

I have previously been asked by the Kentucky Siting Board about potential impacts during construction. This is not a typical question I get as 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.

G. Scope of Research

I have researched over 1,000 solar farms and sites on which solar farms are existing and proposed in Kentucky, Illinois, Tennessee, North Carolina, Virginia 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 provides 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.

H. 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 especially 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 has a hum similar to an HVAC that can only be heard in close proximity and the buffers on the property are sufficient to make emitted sounds effectively inaudible from the adjoining properties. A wide variety of noise studies have been conducted on solar farms to illustrate compatibility between solar properties and nearby residential uses. The noise factor is even less 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.

I. 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 proposed setbacks are further than those measured showing no impact for similar price ranges of homes and for areas with similar demographics to the subject area. 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. Similar paired sales showed no impact from adjoining battery storage facilities.

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 and around Kentucky.

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.

J. 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 have not performed services, regarding the property that is the subject of this report within the three-year period immediately preceding acceptance of this 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.




Richard C. Kirkland, Jr., MAI
State Certified General Appraiser



Kirkland Appraisals, LLC

Richard C. Kirkland, Jr., MAI
9408 Northfield Court
Raleigh, North Carolina 27603
Mobile (919) 414-8142
rkirkland2@gmail.com
www.kirklandappraisals.com

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	
KY State Certified General Appraiser # 5522	
TN State Certified General Appraiser # 6240	
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	
IL State Certified General Appraiser # 553.002633	
LA State Certified General Appraiser # APR.05049-CGA	
TX State Certified General Appraiser # 1380528 G	

EDUCATION

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

CONTINUING EDUCATION

Uniform Standards of Professional Appraisal Practice Update	2024
ASFMRA Integrated Approaches to Value (A360)	2024
ASFMRA Best in Business Ethics	2023
Appraising Natural Resources Series – Oil, Gas & Minerals	2023
Appraisal of Industrial and Flex Buildings	2023
Commercial Land Valuation	2023
Fair Housing, Bias and Discrimination	2023
Pennsylvania State Mandated Law for Appraisers	2023
What NOT to Do (NCDOT Course)	2023
The Income Approach – A Scope of Work Decision	2023
Valuation of Residential Solar	2022
Residential Property Measurement and ANSI	2022
Business Practices and Ethics	2022
Uniform Standards of Professional Appraisal Practice Update	2022

Sexual Harassment Prevention Training	2021
Appraisal of Land Subject to Ground Leases	2021
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