Kirkland Appraisals, LLC

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September 8, 2023

Ms. Lindsey Hesch, PWS
BrightNight, LLC
GGSO, LLC
13124 E Emerald Coast Parkway, Suite B #1
Inlet Beach, Florida 32461

RE: Gage Solar, Paducah Road, La Center, Ballard County, KY

Ms. Hesch,

At your request, I have considered the impact of a 240 MW solar farm proposed to be constructed on a portion of a 1,748-acre assemblage of land off Paducah Road, La Center, Ballard County, Kentucky. Specifically, I have been asked to give my professional opinion on whether the proposed solar farm will have any impact on adjoining property value and whether "the location and character of the use, if developed according to the plan as submitted and approved, will be in harmony with the area in which it is to be located."

To form an opinion on these issues, I have researched and visited existing and proposed solar farms in 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 BrightNight LLC and GGSO, LLC represented to me by Ms. Lindsey Hesch, PWS. My findings support the Kentucky Siting Board Application. The effective date of this consultation is September 8, 2023.

While based in NC, I am also a Kentucky State Certified General Appraiser #5522.

Conclusion

The adjoining properties are well set back from the proposed solar panels and supplemental vegetation is proposed to enhance the areas where the existing trees do not currently provide a proper screen. The closest non-participating home will be 250 feet from the nearest panel and the average distance will be 705 feet.

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

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I. Proposed Project and Adjoining Uses

Proposed Use Description

This 240 MW solar farm is proposed to be constructed on a portion of a 1,748-acre assemblage of land off Paducah Road, La Center, Ballard County, Kentucky.

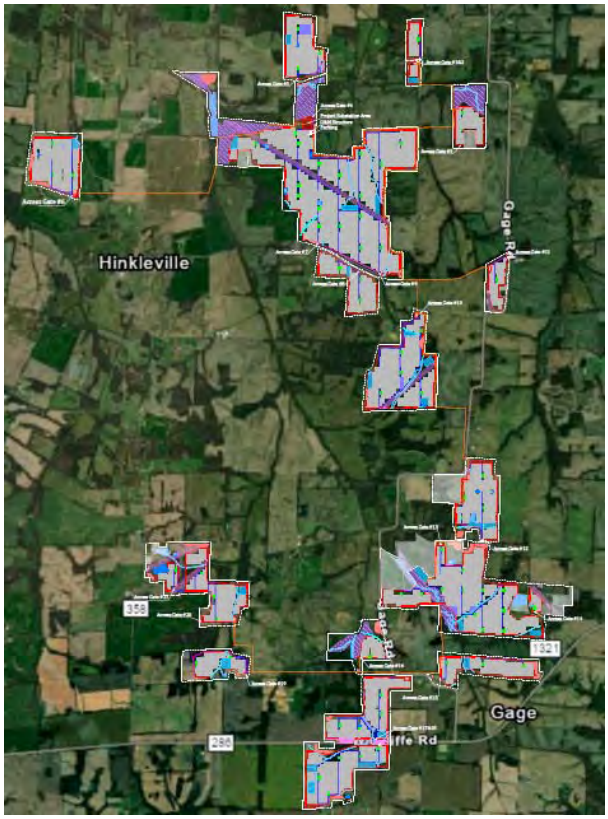
Adjoining Properties

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 250 feet from the closest solar panel and the average distance to adjoining homes will be 705 feet to the nearest solar panel. There were three instances where I measured a distance closer than 250 feet from the kmz file and adjusted those measurements to the minimum setback of 250 feet as identified on the site plan in blue type.

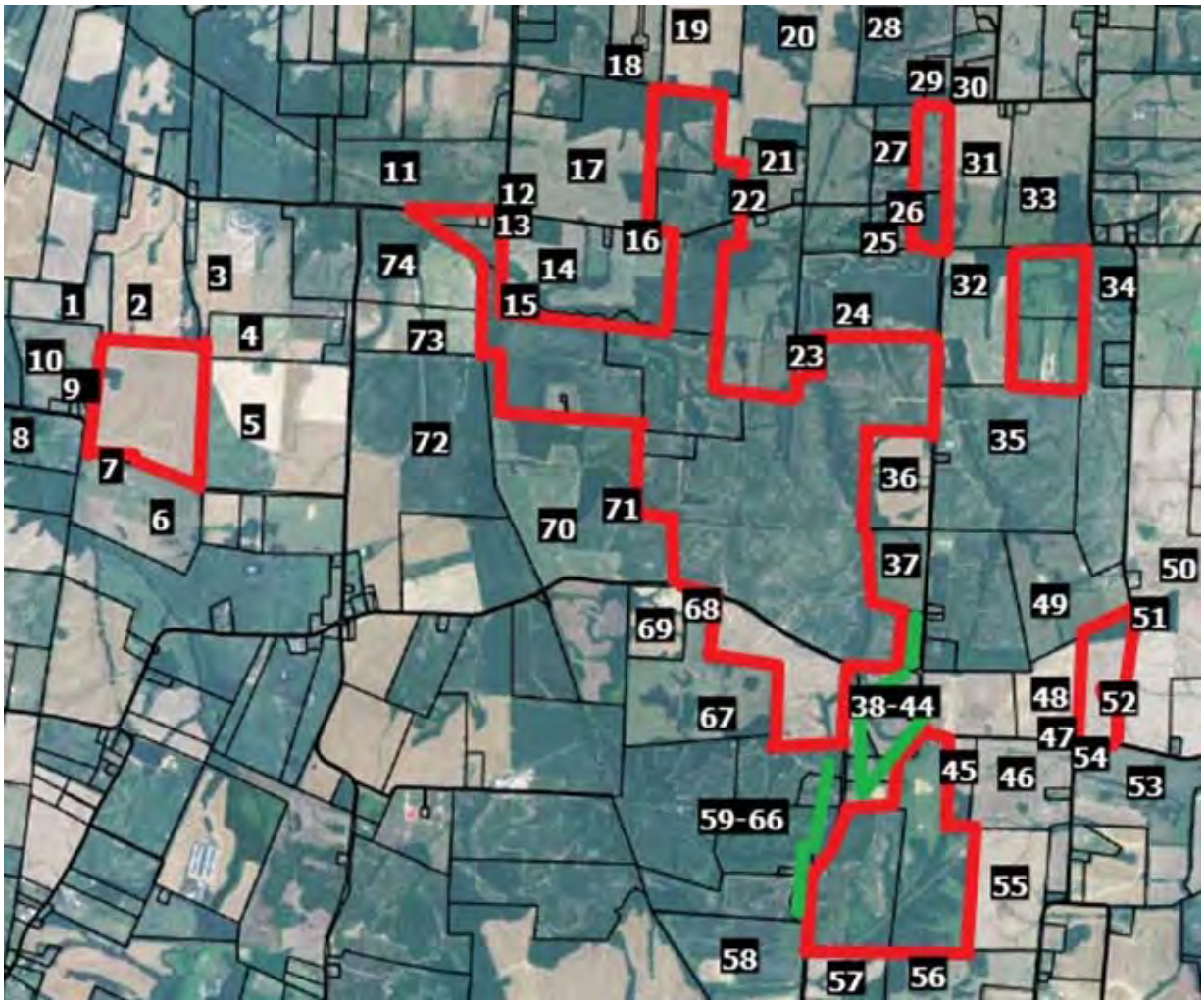
Adjoining land is primarily a mix of residential and agricultural uses, which is very typical of solar farm sites. The breakdown of those uses by acreage and number of parcels is summarized below.

Adjoining Use Breakdown

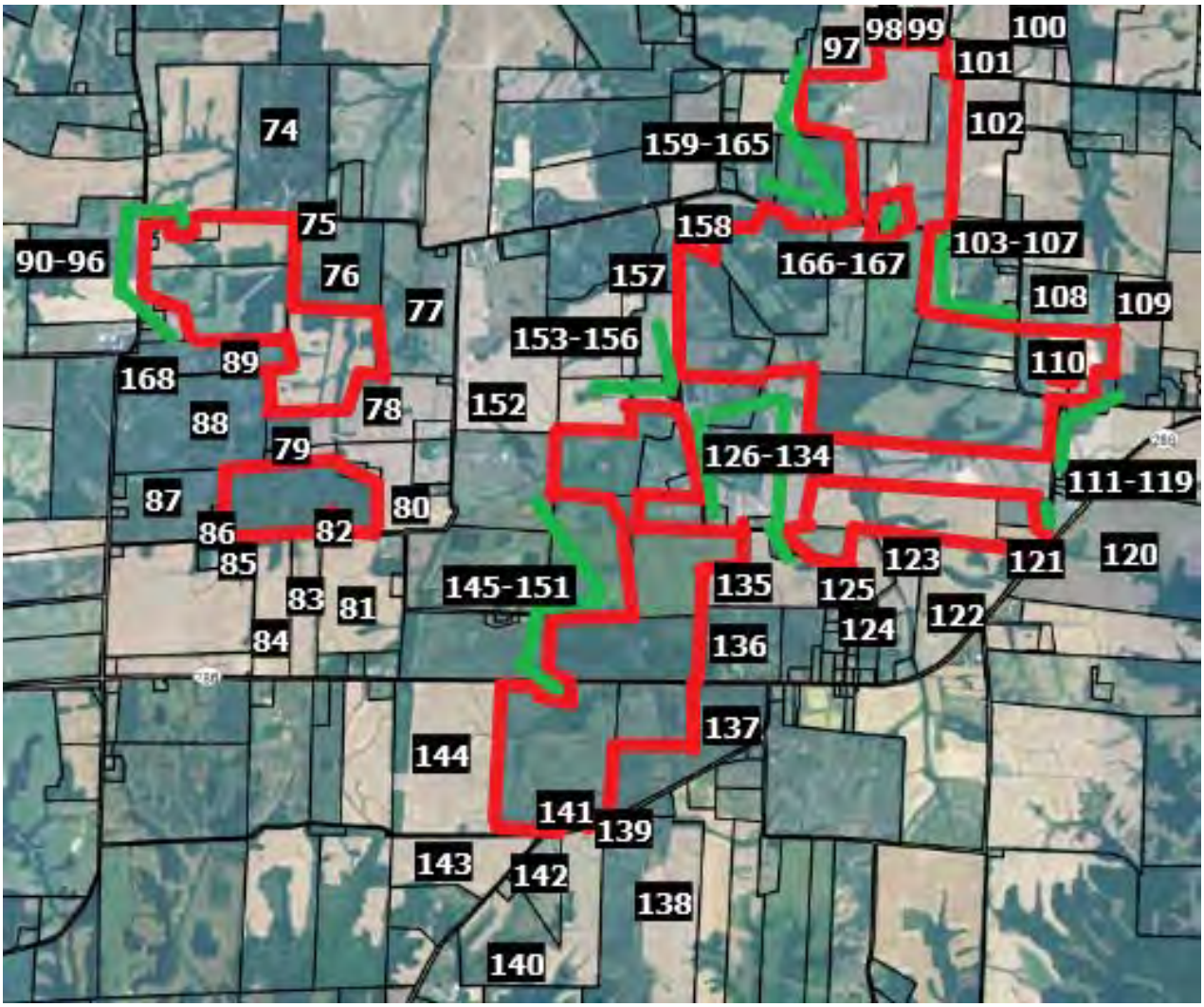
	Acreage	Parcels
Residential	3.77%	44.05%
Agricultural	64.82%	39.29%
Agri/Res	31.33%	16.07%
Religious	0.08%	0.60%
Total	**100.00%**	**100.00%**



Numbered Map from GIS Showing Northern Section of Project



Numbered Map from GIS Showing Southern Section of Project



Surrounding Uses

#	MAP ID	Owner	GIS Data Acres	Present Use	Adjoin Acres	Adjoin Parcels	Distance (ft) Home/Panel	L.F Adjacent
1	47-29	Miller	108.61	Agricultural	1.41%	0.60%	N/A	185
2	57-10-01	Sutherland	95.24	Agricultural	1.24%	0.60%	N/A	1640
3	57-26	Armstrong	89.35	Agri/Res	1.16%	0.60%	2,410	150
4	57-10	Armstrong	45.50	Agri/Res	0.59%	0.60%	2,600	255
5	57-19	Armstrong	164.33	Agricultural	2.14%	0.60%	N/A	2405
6	47-35	Bowman	82.79	Agri/Res	1.08%	0.60%	375	2105
7	47-35-01	Bowman	1.22	Residential	0.02%	0.60%	N/A	165
8	47-31	Ross	52.00	Agri/Res	0.68%	0.60%	N/A	545
9	47-30	Gill	53.86	Agri/Res	0.70%	0.60%	1,315	390
10	47-30-02	Grantham	1.08	Residential	0.01%	0.60%	315	485
11	57-04	Myers	95.20	Agricultural	1.24%	0.60%	N/A	1840
12	57-06	Hook	3.59	Residential	0.05%	0.60%	2,335	1
13	57-14-02	Bowman	2.23	Residential	0.03%	0.60%	N/A	460
14	57-14	Bowman	113.59	Agri/Res	1.48%	0.60%	N/A	2945
15	57-14-03	Yates	12.00	Residential	0.16%	0.60%	N/A	3330
16	57-14-01	Sutherland	1.42	Residential	0.02%	0.60%	285	95
17	57-06-01	Foster	134.98	Agricultural	1.76%	0.60%	N/A	2695
18	56-44	Murray	55.37	Agricultural	0.72%	0.60%	N/A	125
19	56-31-03	Bowles	85.31	Agricultural	1.11%	0.60%	N/A	1105
20	65-05	Sullivan	190.10	Agri/Res	2.47%	0.60%	2,650	1700
21	65-65-01	Brooking	137.49	Agricultural	1.79%	0.60%	N/A	585
22	65-64	Brooking	1.00	Residential	0.01%	0.60%	330	385
23	66-01-02	Hook	5.88	Residential	0.08%	0.60%	N/A	1050
24	66-01-01	Hook	100.00	Agricultural	1.30%	0.60%	N/A	2260
25	65-68-02	Graves	12.10	Residential	0.16%	0.60%	N/A	495
26	65-68-01	Graves	3.60	Residential	0.05%	0.60%	355	470
27	65-68	Carpenter	30.90	Agri/Res	0.40%	0.60%	675	1690
28	65-06	Sullivan	99.80	Agri/Res	1.30%	0.60%	N/A	180
29	65-06-02	Cooper	10.00	Residential	0.13%	0.60%	N/A	485
30	65-16	Hope	4.12	Residential	0.05%	0.60%	710	1
31	65-70	Bowles	70.50	Agricultural	0.92%	0.60%	N/A	2665
32	65-75	Parker	75.00	Agricultural	0.98%	0.60%	N/A	2845
33	65-71-01	Bowles	89.00	Agricultural	1.16%	0.60%	N/A	1480
34	65-77-01	Ross	120.00	Agricultural	1.56%	0.60%	N/A	2625
35	66-05	Hook	161.00	Agricultural	2.10%	0.60%	N/A	1870
36	66-03	Sjlh	50.00	Agri/Res	0.65%	0.60%	505	3195
37	66-02	Scott	32.27	Agricultural	0.42%	0.60%	N/A	1905
38	66-02-02-01	Ashby	11.00	Residential	0.14%	0.60%	N/A	850
39	66-02-01	Ashby	0.75	Residential	0.01%	0.60%	305	240

#	MAP ID	Owner	GIS Data Acres	Present Use	Adjoin Acres	Adjoin Parcels	Distance (ft) Home/Panel	L.F Adjacent
40	66-14-07	Lester	38.20	Agricultural	0.50%	0.60%	N/A	875
41	66-14-08	White	10.80	Residential	0.14%	0.60%	345	1690
42	66-13-01	Vaughn	10.00	Residential	0.13%	0.60%	N/A	400
43	66-13-02	Vaughn	10.19	Residential	0.13%	0.60%	520	1370
44	66-14-06	Wilson	48.90	Agricultural	0.64%	0.60%	N/A	560
45	66-14-03	Windt	18.45	Residential	0.24%	0.60%	365	2140
46	66-14	Lester	64.95	Agricultural	0.85%	0.60%	N/A	100
47	66-15	Duberry	1.00	Residential	0.01%	0.60%	N/A	0
48	66-14-05	Wilson	40.26	Agricultural	0.52%	0.60%	N/A	1895
49	66-08	Shelby	79.50	Agri/Res	1.03%	0.60%	855	1120
50	66-09	Wilson	198.83	Agri/Res	2.59%	0.60%	N/A	1965
51	66-09-02	Ross	2.17	Residential	0.03%	0.60%	375	285
52	66-26	Russell	1.00	Residential	0.01%	0.60%	250	610
53	66-17	Wilson	99.48	Agricultural	1.29%	0.60%	N/A	370
54	66-17-01	Unknown	1.00	Residential	0.01%	0.60%	N/A	190
55	66-25	Russell	72.00	Agricultural	0.94%	0.60%	N/A	2265
56	67-05	Russell	179.00	Agri/Res	2.33%	0.60%	2,065	1435
57	67-04	Ballard	46.20	Agricultural	0.60%	0.60%	N/A	1520
58	67-02	Wilson	122.74	Agricultural	1.60%	0.60%	N/A	545
59	66-23-01	Anderson	1.00	Residential	0.01%	0.60%	N/A	150
60	66-23	Anderson	3.70	Residential	0.05%	0.60%	325	375
61	66-22	Overby	49.00	Agricultural	0.64%	0.60%	N/A	355
62	66-21	Freeman	51.34	Agri/Res	0.67%	0.60%	430	205
63	66-24-01	Garnet	7.44	Residential	0.10%	0.60%	445	1275
64	66-12	Baldwin	10.01	Residential	0.13%	0.60%	755	1
65	66-12-01	Baldwin	48.86	Agricultural	0.64%	0.60%	N/A	1520
66	66-11	Wrye	106.95	Agricultural	1.39%	0.60%	N/A	4030
67	66-11-01	Unknown	1.00	Residential	0.01%	0.60%	N/A	95
68	66-10	Rousseau	32.00	Agri/Res	0.42%	0.60%	360	255
69	57-23	Foster	176.61	Agricultural	2.30%	0.60%	N/A	6925
70	57-23-01	Hughes	2.39	Residential	0.03%	0.60%	N/A	220
71	57-21	Williams	211.34	Agricultural	2.75%	0.60%	N/A	1
72	57-10-02	Armstrong	44.64	Agricultural	0.58%	0.60%	N/A	835
73	57-27	Armstrong	90.00	Agri/Res	1.17%	0.60%	3,500	2625
74	58-28	Watwood	100.00	Agri/Res	1.30%	0.60%	420	975
75	58-29-02	Meddings	5.00	Residential	0.07%	0.60%	N/A	310
76	58-29	Meddings	60.00	Agricultural	0.78%	0.60%	N/A	2855
77	59-07	Moss	77.00	Agri/Res	1.00%	0.60%	1,560	1075
78	59-13	Rothrock	60.27	Agricultural	0.78%	0.60%	N/A	2485

#	MAP ID	Owner	GIS Data Acres	Present Use	Adjoin Acres	Adjoin Parcels	Distance (ft) Home/Panel	L.F Adjacent
79	59-13-06	Lynch	14.16	Residential	0.18%	0.60%	N/A	2210
80	59-13-05	Wilson	37.88	Agricultural	0.49%	0.60%	N/A	840
81	59-27	Todd	69.00	Agri/Res	0.90%	0.60%	405	600
82	59-12-01	Walters	1.49	Residential	0.02%	0.60%	330	855
83	59-24-01	Ross	29.29	Agricultural	0.38%	0.60%	N/A	525
84	59-24	Ross	34.00	Agricultural	0.44%	0.60%	N/A	605
85	59-19-01	Rogers	11.75	Residential	0.15%	0.60%	690	615
86	59-11	Wallace	2.00	Residential	0.03%	0.60%	705	585
87	59-09-03	Miles	48.86	Agricultural	0.64%	0.60%	N/A	640
88	59-10	Leigh	102.78	Agricultural	1.34%	0.60%	N/A	1225
89	59-09-04	Shaw	35.55	Agricultural	0.46%	0.60%	N/A	2615
90	59-04	Atherton	6.34	Residential	0.08%	0.60%	455	910
91	59-04-02	Higgins	2.00	Residential	0.03%	0.60%	465	195
92	59-04-04	Cooper	0.88	Residential	0.01%	0.60%	465	385
93	59-03	Perkins	91.25	Agricultural	1.19%	0.60%	N/A	1380
94	58-27	Simmons	92.91	Agricultural	1.21%	0.60%	N/A	1205
95	58-27-03	Simmons	0.39	Residential	0.01%	0.60%	N/A	85
96	58-27-02	Simmons	1.00	Residential	0.01%	0.60%	1,050	650
97	67-10	Lovvo	46.00	Agricultural	0.60%	0.60%	N/A	1720
98	66-31	Walker	2.14	Residential	0.03%	0.60%	400	325
99	66-30-01	J & B	36.25	Agricultural	0.47%	0.60%	N/A	850
100	66-32	J & B	51.00	Agricultural	0.66%	0.60%	N/A	1
101	67-13-03	J & B	31.00	Agricultural	0.40%	0.60%	N/A	1020
102	67-13	J & B	58.91	Agricultural	0.77%	0.60%	N/A	2465
103	67-13-02	Hannah	4.20	Residential	0.05%	0.60%	N/A	225
104	67-22-04	Reed	1.00	Residential	0.01%	0.60%	340	105
105	67-22-02	Pennebaker	2.00	Residential	0.03%	0.60%	320	625
106	67-22-03	Buchanan	46.98	Agricultural	0.61%	0.60%	N/A	2610
107	67-22	Glisson	2.00	Residential	0.03%	0.60%	455	245
108	72-09	Simmons	41.00	Agricultural	0.53%	0.60%	N/A	1705
109	72-10	Myers	43.00	Agricultural	0.56%	0.60%	N/A	765
110	72-26-09	Flournoy	2.01	Residential	0.03%	0.60%	315	1735
111	72-26-08	Flournoy	2.60	Residential	0.03%	0.60%	1,020	765
112	72-26-01	Stokes	0.86	Residential	0.01%	0.60%	N/A	1
113	72-26	King	38.67	Agricultural	0.50%	0.60%	N/A	355
114	72-26-07	Horvath	1.32	Residential	0.02%	0.60%	555	85
115	72-26-03	King	1.30	Residential	0.02%	0.60%	N/A	565
116	72-26-10	Grueninger	1.57	Residential	0.02%	0.60%	250	150
117	72-25	Bethel	4.31	Residential	0.06%	0.60%	N/A	580

#	MAP ID	Owner	GIS Data Acres	Present Use	Adjoin Acres	Adjoin Parcels	Distance (ft) Home/Panel	L.F Adjacent
118	67-33-01	Ray	2.19	Residential	0.03%	0.60%	650	290
119	72-22	Bethel	6.04	Religous	0.08%	0.60%	N/A	380
120	73-04	Yarbrough	147.75	Agri/Res	1.92%	0.60%	545	1
121	68-18-01	Fick	0.69	Residential	0.01%	0.60%	330	315
122	68-18	Pennebaker	69.21	Agri/Res	0.90%	0.60%	430	1690
123	68-16	Coleman	38.50	Agricultural	0.50%	0.60%	N/A	920
124	68-16-01	Turner	25.00	Agricultural	0.33%	0.60%	N/A	1000
125	67-30-01	Howle	6.90	Residential	0.09%	0.60%	460	410
126	67-31-01	Hawthorne	0.50	Residential	0.01%	0.60%	530	45
127	67-31	Hawthorne	1.00	Residential	0.01%	0.60%	595	140
128	67-30-02	Tubbs	2.00	Residential	0.03%	0.60%	630	255
129	67-29	Talley	2.00	Residential	0.03%	0.60%	525	50
130	67-28	Black	180.09	Agricultural	2.34%	0.60%	N/A	1155
131	67-27	Sanders	92.00	Agri/Res	1.20%	0.60%	255	1940
132	67-28-01	Cordell	0.86	Residential	0.01%	0.60%	285	185
133	67-28-02	Sutton	3.90	Residential	0.05%	0.60%	390	285
134	67-25-02	Green	15.00	Residential	0.20%	0.60%	325	3005
135	67-30	Howle	49.10	Agri/Res	0.64%	0.60%	290	2160
136	68-05	Ashbrook	46.00	Agricultural	0.60%	0.60%	N/A	1295
137	68-07	Foster	183.00	Agricultural	2.38%	0.60%	N/A	3695
138	68-19	Viniard	244.00	Agri/Res	3.18%	0.60%	720	1
139	68-19-01	Viniard	1.00	Residential	0.01%	0.60%	715	145
140	68-01-02	Pittman	98.00	Agricultural	1.28%	0.60%	635	315
141	68-01-04	Deweese	1.58	Residential	0.02%	0.60%	390	815
142	68-01-01	Walters	25.33	Agri/Res	0.33%	0.60%	400	260
143	68-01-01	Myers	45.93	Agricultural	0.60%	0.60%	N/A	705
144	60-10	Myers	112.25	Agricultural	1.46%	0.60%	N/A	2695
145	68-01-05	Grueninger	1.38	Residential	0.02%	0.60%	N/A	785
146	68-03	Grueninger	0.81	Residential	0.01%	0.60%	320	245
147	68-02	Rideout	1.31	Residential	0.02%	0.60%	320	515
148	59-29	Ross	70.14	Agricultural	0.91%	0.60%	N/A	1620
149	67-25-01	Viniard	1.00	Residential	0.01%	0.60%	295	235
150	67-25-03	Viniard	64.78	Agricultural	0.84%	0.60%	N/A	4660
151	67-23	Bobby	70.00	Agri/Res	0.91%	0.60%	2,180	1080
152	67-14	Wilson	126.19	Agricultural	1.64%	0.60%	N/A	1
153	67-26-01	Wilson	27.40	Agricultural	0.36%	0.60%	N/A	1730
154	67-26-02	Wilson	10.60	Residential	0.14%	0.60%	N/A	835
155	67-26	Fields	2.00	Residential	0.03%	0.60%	320	1
156	67-17	Wilson	24.04	Agricultural	0.31%	0.60%	N/A	1465

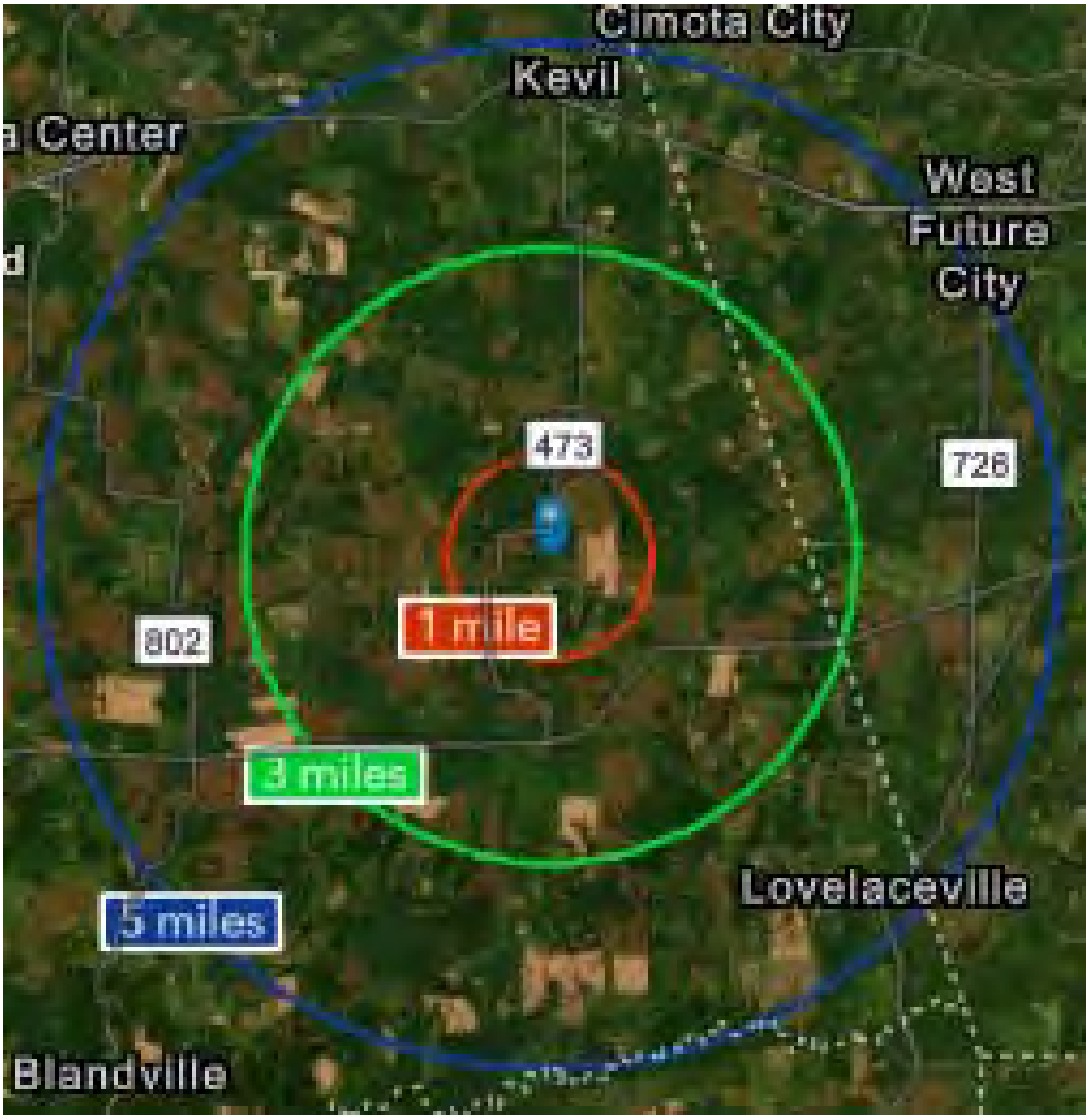
#	MAP ID	Owner	GIS Data Acres	Present Use	Adjoin Acres	Adjoin Parcels	Distance (ft) Home/Panel	L.F Adjacent
157	67-16	Wilson	65.51	Agricultural	0.85%	0.60%	N/A	935
158	67-06	Howle	62.24	Agricultural	0.81%	0.60%	N/A	2500
159	67-08	Newberry	25.96	Agri/Res	0.34%	0.60%	1,710	270
160	67-09	Blackford	37.76	Agricultural	0.49%	0.60%	N/A	3535
161	67-09-03	Turner	1.50	Residential	0.02%	0.60%	390	200
162	67-09-01	Blackford	0.99	Residential	0.01%	0.60%	420	205
163	67-07	Wilson	24.99	Agricultural	0.33%	0.60%	N/A	885
164	67-07-03	Wrye	1.50	Residential	0.02%	0.60%	N/A	175
165	67-10-01	Russell	4.00	Residential	0.05%	0.60%	1,265	135
166	67-12	Blackford	5.00	Residential	0.07%	0.60%	310	1810
167	67-21-01	Buchanan	1.50	Residential	0.02%	0.60%	325	770
168	59-05	Simmons	69.00	Agricultural	0.90%	0.60%	N/A	65
		Total	**7684.470**		**100.00%**	**100.00%**	705	

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. Distance Home/Panel numbers in blue were measured at closer than the number identified from the kmz file, but moved to the minimum setback indicated on the siteplan.

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 all three rings indicate an historical decline in population since 2010 with projections of continued decreases in the coming years.



Housing Profile

42053
42053, Kevil, Kentucky
Ring: 1 mile radius

Prepared by Esri
Latitude: 37.01766
Longitude: -88.88928

Population		Households	
2010 Total Population	84	2023 Median Household Income	$51,768
2020 Total Population	84	2028 Median Household Income	$57,903
2023 Total Population	82	2023-2028 Annual Rate	2.27%
2028 Total Population	79		
2023-2028 Annual Rate	-0.74%		

	Census 2010		2023		2028	
Housing Units by Occupancy Status and Tenure	Number	Percent	Number	Percent	Number	Percent
Total Housing Units	36	100.0%	34	100.0%	33	100.0%
Occupied	35	97.2%	34	100.0%	33	100.0%
Owner	31	86.1%	32	94.1%	31	93.9%
Renter	4	11.1%	2	5.9%	2	6.1%
Vacant	0	0.0%	0	0.0%	0	0.0%

	2023		2028	
Owner Occupied Housing Units by Value	Number	Percent	Number	Percent
Total	30	100.0%	30	100.0%
<$50,000	4	13.3%	4	13.3%
$50,000-$99,999	5	16.7%	4	13.3%
$100,000-$149,999	1	3.3%	1	3.3%
$150,000-$199,999	5	16.7%	4	13.3%
$200,000-$249,999	4	13.3%	4	13.3%
$250,000-$299,999	2	6.7%	2	6.7%
$300,000-$399,999	2	6.7%	2	6.7%
$400,000-$499,999	0	0.0%	0	0.0%
$500,000-$749,999	0	0.0%	0	0.0%
$750,000-$999,999	0	0.0%	0	0.0%
$1,000,000-$1,499,999	7	23.3%	9	30.0%
$1,500,000-$1,999,999	0	0.0%	0	0.0%
$2,000,000+	0	0.0%	0	0.0%
Median Value	$200,000		$225,000	
Average Value	$412,500		$487,500	

Census 2010 Housing Units	Number	Percent
Total	36	100.0%
In Urbanized Areas	0	0.0%
In Urban Clusters	0	0.0%
Rural Housing Units	36	100.0%

Data Note: Persons of Hispanic Origin may be of any race.
Source: Esri forecasts for 2023 and 2028. U.S. Census Bureau 2010 decennial Census data converted by Esri into 2020 geography.

August 19, 2023

Housing Profile

42053
42053, Kevil, Kentucky
Ring: 3 mile radius

Prepared by Esri
Latitude: 37.01766
Longitude: -88.88928

Population		Households	
2010 Total Population	696	2023 Median Household Income	$56,811
2020 Total Population	694	2028 Median Household Income	$66,285
2023 Total Population	694	2023-2028 Annual Rate	3.13%
2028 Total Population	677		
2023-2028 Annual Rate	-0.49%		

	Census 2010		2023		2028	
Housing Units by Occupancy Status and Tenure	Number	Percent	Number	Percent	Number	Percent
Total Housing Units	303	100.0%	295	100.0%	288	100.0%
Occupied	276	91.1%	273	92.5%	267	92.7%
Owner	241	79.5%	254	86.1%	248	86.1%
Renter	35	11.6%	19	6.4%	19	6.6%
Vacant	27	8.9%	22	7.5%	20	6.9%

	2023		2028	
Owner Occupied Housing Units by Value	Number	Percent	Number	Percent
Total	252	100.0%	249	100.0%
<$50,000	33	13.1%	28	11.2%
$50,000-$99,999	35	13.9%	29	11.6%
$100,000-$149,999	12	4.8%	10	4.0%
$150,000-$199,999	42	16.7%	36	14.5%
$200,000-$249,999	38	15.1%	39	15.7%
$250,000-$299,999	16	6.3%	17	6.8%
$300,000-$399,999	13	5.2%	15	6.0%
$400,000-$499,999	13	5.2%	16	6.4%
$500,000-$749,999	6	2.4%	7	2.8%
$750,000-$999,999	0	0.0%	0	0.0%
$1,000,000-$1,499,999	44	17.5%	52	20.9%
$1,500,000-$1,999,999	0	0.0%	0	0.0%
$2,000,000+	0	0.0%	0	0.0%
Median Value	$205,263		$227,564	
Average Value	$374,603		$424,498	

Census 2010 Housing Units	Number	Percent
Total	303	100.0%
In Urbanized Areas	0	0.0%
In Urban Clusters	0	0.0%
Rural Housing Units	303	100.0%

Data Note: Persons of Hispanic Origin may be of any race.
Source: Esri forecasts for 2023 and 2028. U.S. Census Bureau 2010 decennial Census data converted by Esri into 2020 geography.

August 19, 2023

Housing Profile

42053
42053, Kevil, Kentucky
Ring: 5 mile radius

Prepared by Esri
Latitude: 37.01765
Longitude: -88.88928

Population		Households	
2010 Total Population	3,400	2023 Median Household Income	$63,813
2020 Total Population	3,391	2028 Median Household Income	$72,377
2023 Total Population	3,376	2023-2028 Annual Rate	2.55%
2028 Total Population	3,326		
2023-2028 Annual Rate	-0.30%		

	Census 2010		2023		2028	
Housing Units by Occupancy Status and Tenure	Number	Percent	Number	Percent	Number	Percent
Total Housing Units	1,530	100.0%	1,529	100.0%	1,511	100.0%
Occupied	1,374	89.8%	1,382	90.4%	1,370	90.7%
Owner	1,148	75.0%	1,181	77.2%	1,171	77.5%
Renter	226	14.8%	201	13.1%	199	13.2%
Vacant	156	10.2%	147	9.6%	142	9.4%

	2023		2028	
Owner Occupied Housing Units by Value	Number	Percent	Number	Percent
Total	1,181	100.0%	1,170	100.0%
<$50,000	137	11.6%	117	10.0%
$50,000-$99,999	146	12.4%	124	10.6%
$100,000-$149,999	86	7.3%	73	6.2%
$150,000-$199,999	179	15.2%	155	13.2%
$200,000-$249,999	162	13.7%	169	14.4%
$250,000-$299,999	114	9.7%	116	9.9%
$300,000-$399,999	130	11.0%	149	12.7%
$400,000-$499,999	80	6.8%	97	8.3%
$500,000-$749,999	78	6.6%	90	7.7%
$750,000-$999,999	2	0.2%	2	0.2%
$1,000,000-$1,499,999	67	5.7%	78	6.7%
$1,500,000-$1,999,999	0	0.0%	0	0.0%
$2,000,000+	0	0.0%	0	0.0%
Median Value	$213,117		$234,320	
Average Value	$287,892		$315,983	

Census 2010 Housing Units	Number	Percent
Total	1,530	100.0%
In Urbanized Areas	0	0.0%
In Urban Clusters	12	0.8%
Rural Housing Units	1,517	99.2%

Data Note: Persons of Hispanic Origin may be of any race.
Source: Esri forecasts for 2023 and 2028. U.S. Census Bureau 2010 decennial Census data converted by Esri into 2020 geography.

August 19, 2023

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

Determining what is an External Obsolescence

An external obsolescence is a use of property that, because of its characteristics, might have a negative impact on the value of adjacent or nearby properties because of identifiable impacts. Determining whether a use would be considered an external obsolescence requires a study that isolates that use, eliminates any other causing factors, and then studies the sales of nearby versus distant comparable properties. The presence of one or a combination of key factors does not mean the use will be an external obsolescence, but a combination of these factors 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. They generate even less noise 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 impacts 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 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 up to 500 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 2013

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

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

re-assesments were based on the County Official, who lived adjacent to the solar farm, appeal to the assessor for reductions with his own home." In that Clay County Case study the noted lack of lot sales after announcement of the solar farm also coincided with the recession in 2008/2009 and lack of lot sales effectively defined that area during that time. I contacted the Clay County Assessor who indicated that there is no set downward adjustment for properties adjoining solar farms in the county at this time.

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

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

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

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

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

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

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

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

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

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

She cites lot sales near Spotsylvania Solar without confirming the purchase prices with brokers as indicative of market impact and has made no attempt to compare lot prices that are contemporaneous. In her 5 lot sales that she identifies, all of the lot prices decline with time from 2015 through 2019. This includes the 3 lot sales prior to the approval of the solar farm. The lot sales she cites showing a drop are all related to the original developer of that subdivision 20+ years

ago liquidating all of their lots in that time period and shows significant drops on all of the lots due to it being a liquidation value. More recent lot sales show lot prices over $100,000 with the most recent land sale adjoining the solar farm having sold in December of 2021 for $140,000. I spoke with Chris Kalia, MAI out of VA about these lot sales and he confirmed along with two other appraisers in that market that he connected me with that the lot sales Ms. Clay identified were all related to that liquidation and not related to the solar farm. All three appraisers agreed that they had seen no negative impacts from Spotsylvania Solar and that lot prices among builders and home owners were going up and home prices in the neighborhood were likewise going up. Additional analysis on Spotsylvania Solar is shown later in this report with a new section of homes and new price points significantly higher than historical sales in this subdivision.

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

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

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

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

Kevin T. Meeks, MAI – Corcoran Solar Impact Study, June 19, 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.

Conclusion of Impact Studies

Of the six studies noted three included actual sales data to derive an opinion of no impact on value. The two studies to conclude on a negative impact includes the Fred Beck study based on no actual sales data, and he has since indicated that with landscaping screens he would not conclude on a

negative impact. The other study by Mary Clay shows improper adjustments for time, a lack of confirmation of sales comparables, and exclusion of data that does not support her position.

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

B. Articles

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

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

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

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

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

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

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

Megan Day reports form 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.

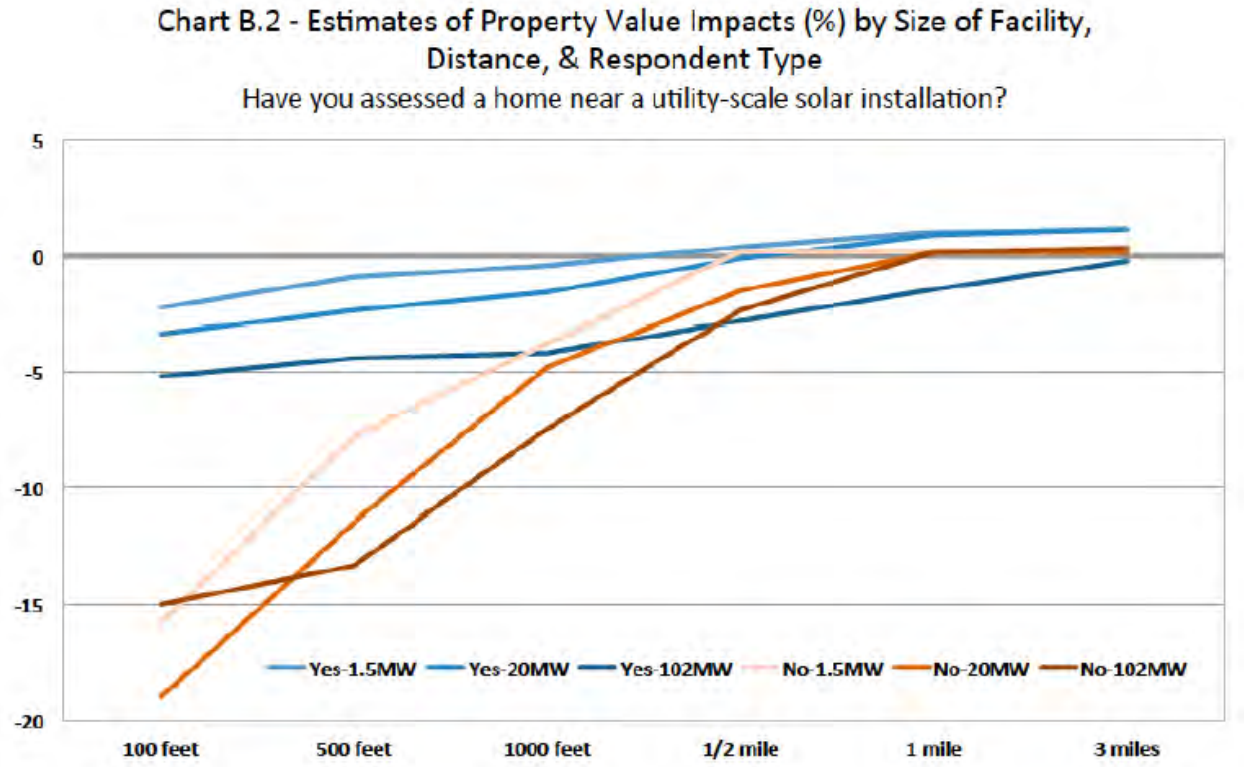
A. University of Texas at Austin, May 2018

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.



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 La Center Division of Ballard County, which has a population of 2,871 population for 2023 based on HomeTownLocator using Census Data and a total area of 117.30 square miles. This indicates a population density of 33 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.

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

POPULATION	
Total Population	3,871 (100%)
Population in Households	3,818 (98.6%)
Population in Families	3,130 (80.9%)
Population in Group Quarters[1]	53 (1.4%)
Population Density	33
Diversity Index[2]	19

HOUSING	
Total HU (Housing Units)	1,861 (100%)
Owner Occupied HU	1,357 (72.9%)
Renter Occupied HU	284 (15.3%)
Vacant Housing Units	220 (11.8%)
Median Home Value	$151,355
Average Home Value	$241,470
Housing Affordability Index[3]	136

INCOME	
Median Household Income	$50,785
Average Household Income	$71,307
% of Income for Mortgage[4]	18%
Per Capita Income	$30,246
Wealth Index[5]	56

HOUSEHOLDS	
Total Households	1,641
Average Household Size	2.33000000000
Family Households	1,100
Average Family Size	3

C. Georgia Institute of Technology, October 2020

Utility-Scale Solar Farms and Agricultural Land Values

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

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

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

D. Master's Thesis: ECU by Zachary Dickerson July 2018

A Solar Farm in *My* Backyard? Resident Perspectives of Utility-Scale Solar in Eastern North Carolina

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

1. Are there different aspects that affect resident satisfaction regarding solar farms?

2. Are there variations in satisfaction for residents among different geographic settings, e.g. neighborhoods adjacent to the solar farms or distances from the solar farms?

3. How can insight from both the utility and planning sectors, combined with knowledge gained from residents, fill gaps in communication and policy writing in regard to solar farms?

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

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

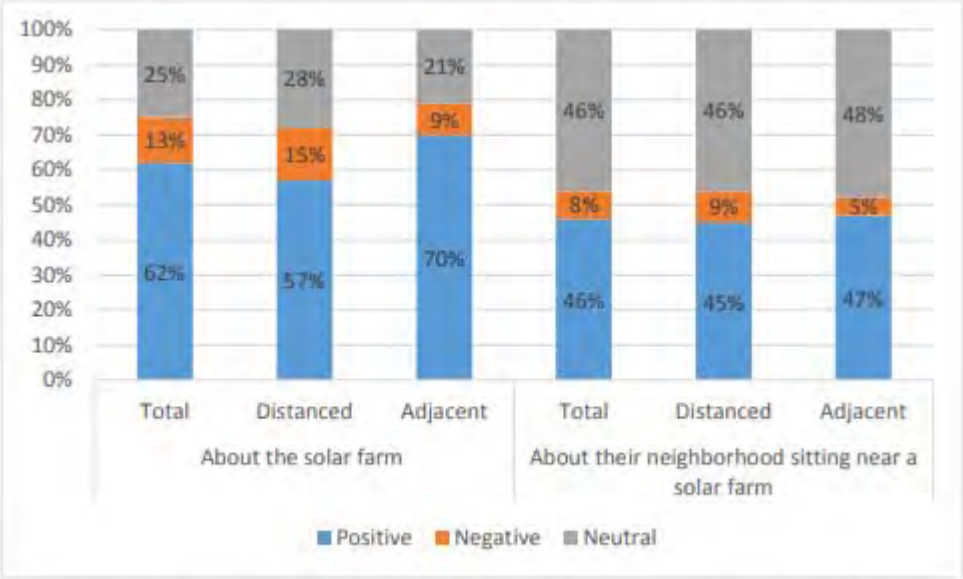
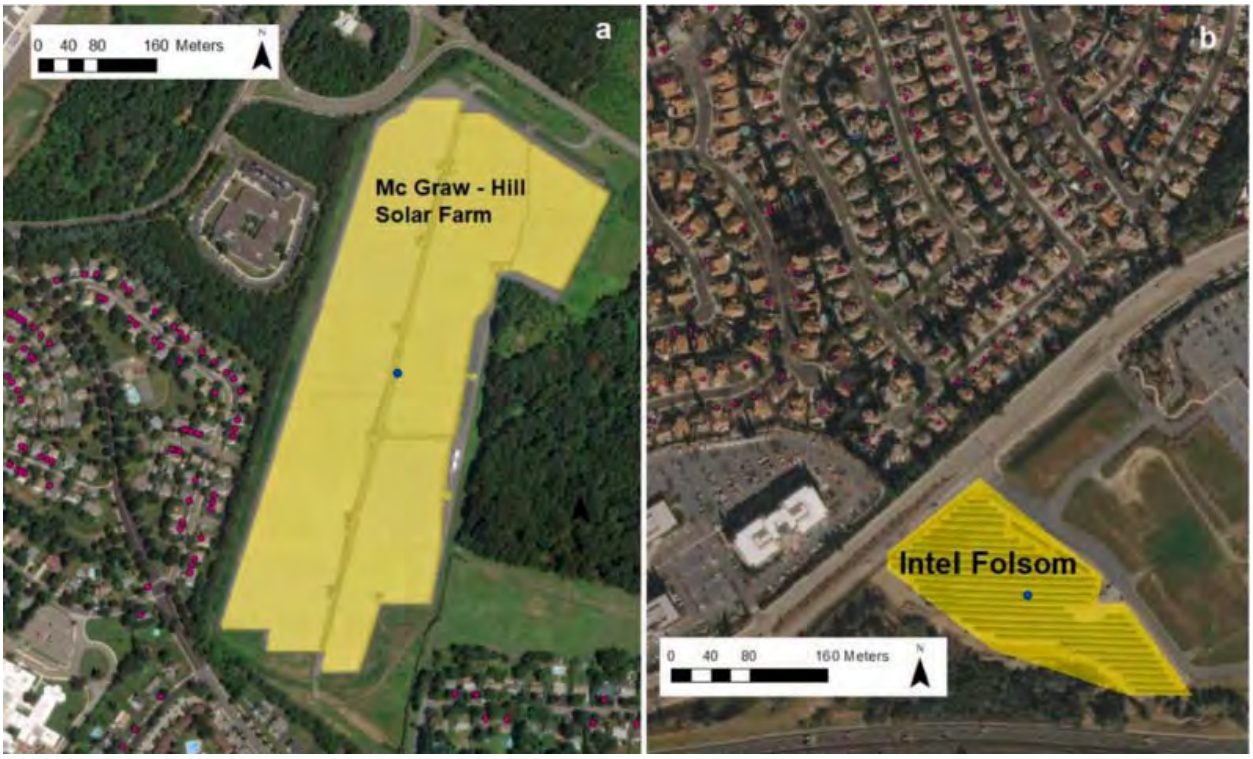


Figure 11: Residents' positive/negative word choices by geographic setting for both questions

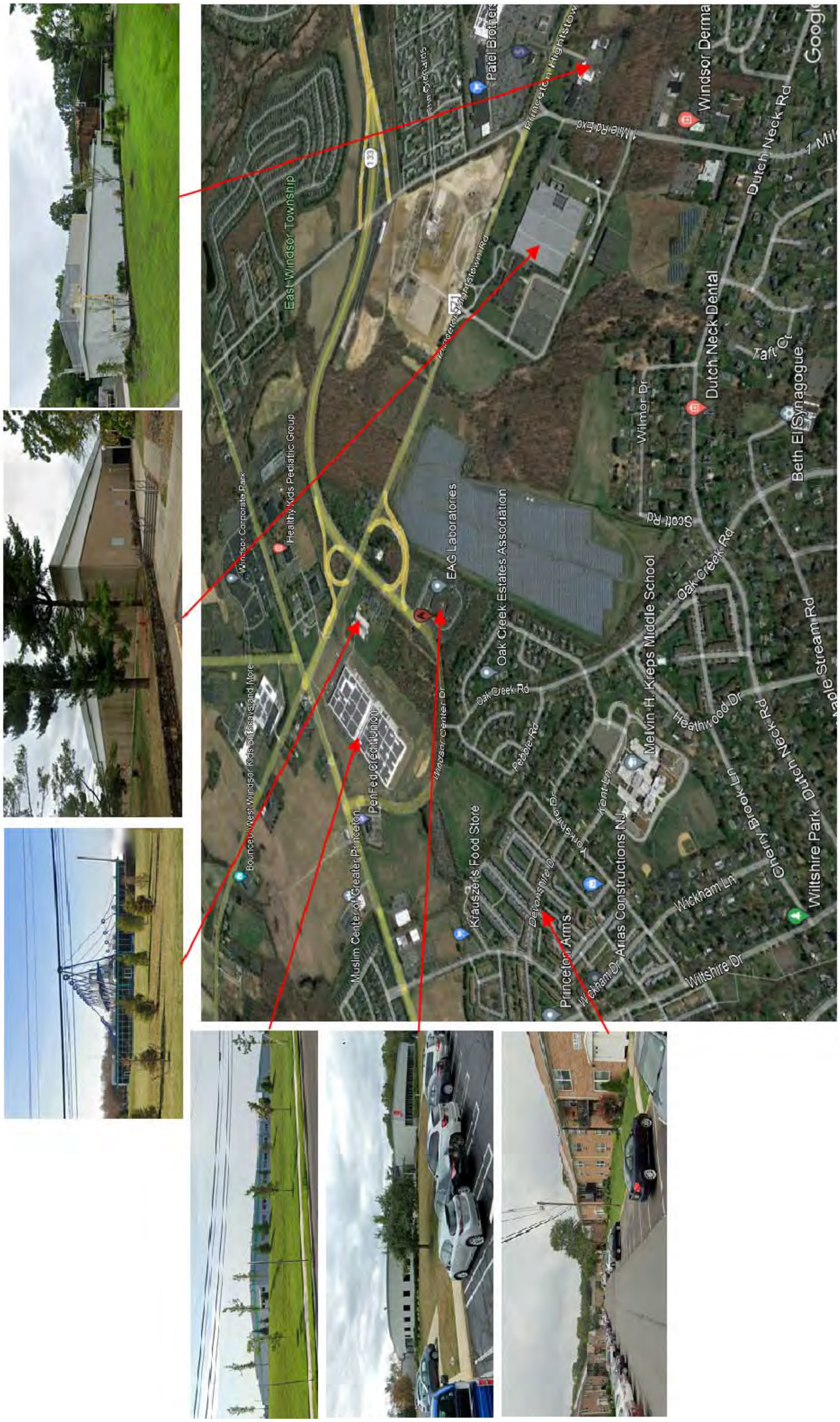
E. Lawrence Berkeley National Lab, March 2023

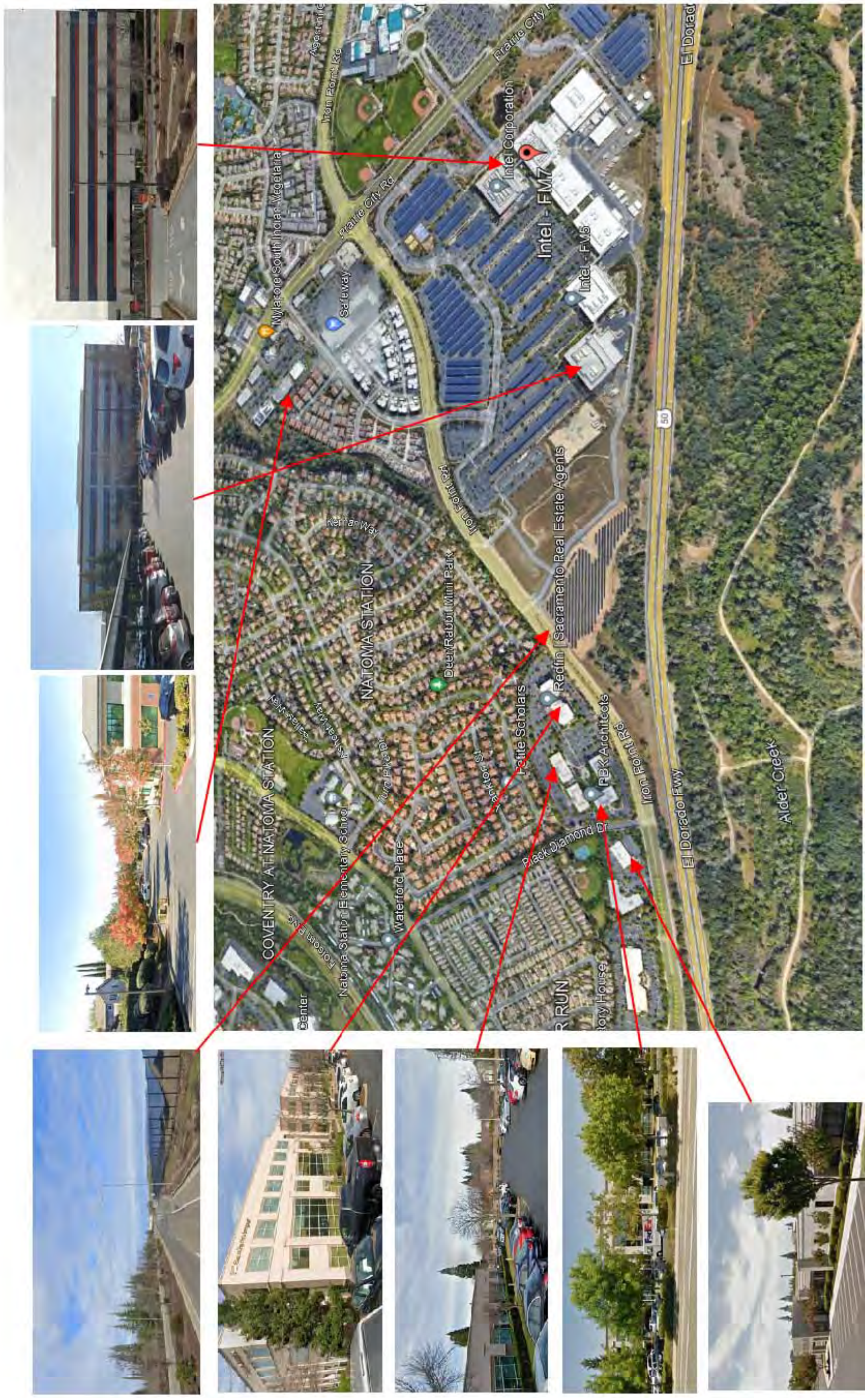
Shedding light on large-scale solar impacts: An analysis of property values and proximity to photovoltaics across six U.S. states

This study was completed by researchers including Salma Elmallah, Ben Hoen, K. Sydny 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 1 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.


East Windsor Township
Patel Brothers
1 Mile Rd Ext
Dutch Neck Rd
Dutch Neck Dental
Taft Ct
Beth El Synagogue
Wilmer Dr
Scott Rd
Oak Creek Rd
Windsor Corporate Park
Healthy Kids Pediatric Group
EAG Laboratories
Oak Creek Estates Association
Melvin H. Kreps Middle School
Heathwood Dr
PenFed Credit Union
Windsor Center Dr
Pebble Rd
Muslim Center of Greater Princeton
Krauszer's Food Store
Devonshire Dr
Kent Ln
Arias Constructions NJ
Princeton Arms
Wickham Ln
Wiltshire Dr
Cherry Brook Ln
Wiltshire Park
Google


Intel Corporation
Intel - FM7
Intel - FM6
Prairie City Rd
Iron Point Rd
Safeway
Mylapore South Indian Vegetarian
NATOMA STATION
COVENTRY AT NATOMA STATION
Redfin | Sacramento Real Estate Agents
Petite Scholars
PBK Architects
Black Diamond Dr
Waterford Place
Natoma Station Elementary School
El Dorado Fwy
Alder Creek
50

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 1 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 1-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 it flaws would just be lost in the static of normal real estate transactions.

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.

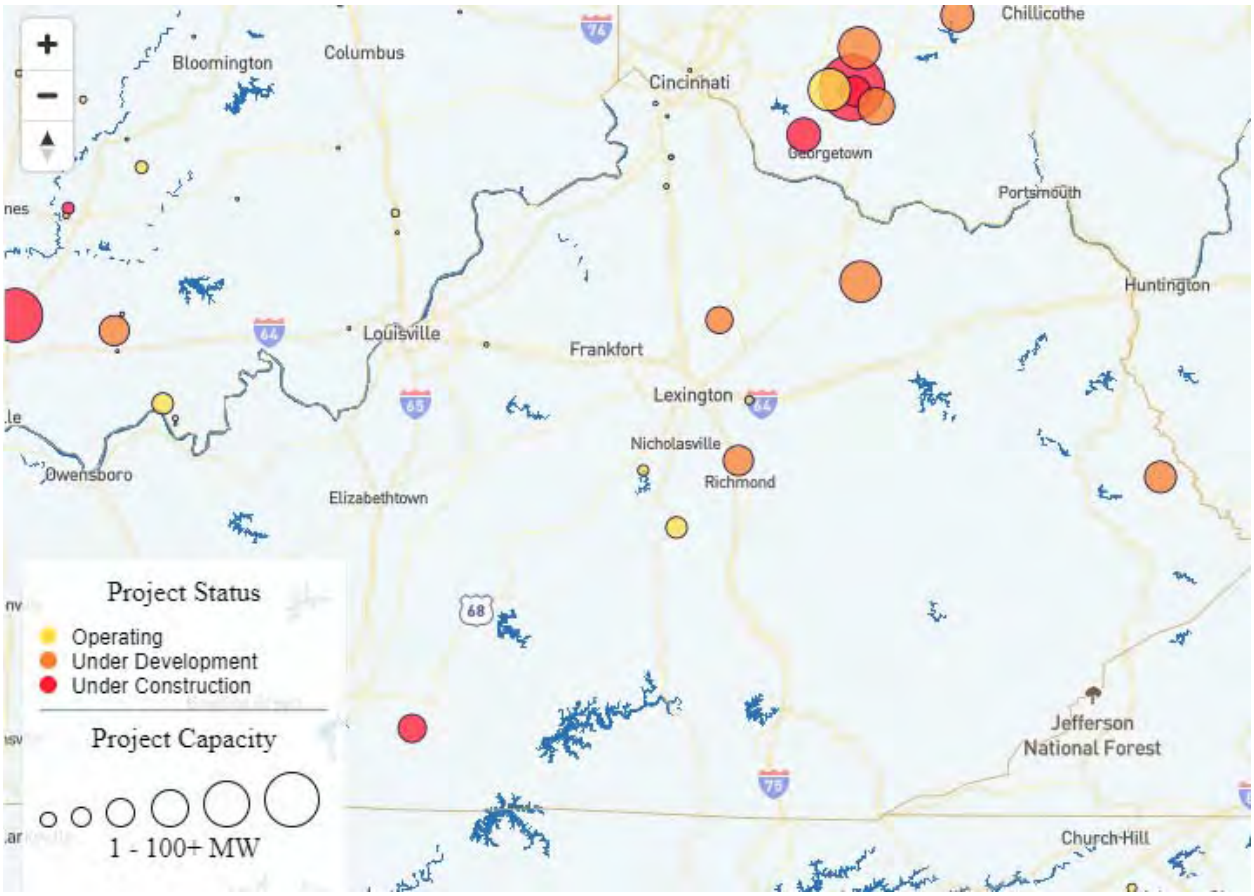
Kentucky Property Valuation Administrator				
		Existing	Proposed	
County	Assessor	Solar	Solar	Impact on Adjacent?
Breckinridge	Dana Bland	0	2	No
Caldwell	Ronald Wood	0	2	No
Christian	Angie Strader	4	n/a	No
Clark	Jada Brady	1	n/a	No response
Green	Sean Curry	0	2	No
Martin	Bobby Hale, Jr.	0	1	No response/hasn't 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 completed similar surveys in a number of states and I have shown the breakdown of those responses below. I have not had any assessor indicate a negative adjustment due to adjacency to a solar farm in any state. These responses total 188 with 170 definitively indicating no negative adjustments are made to adjoining property values, 18 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	16	16		
Indiana	31	31		
Colorado	15	7		8
Georgia	33	33		
Kentucky	10	6		4
Mississippi	4	2		2
New Mexico	5	5		
Ohio	24	20		4
South Carolina	11	11		
Totals	188	170		18

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.

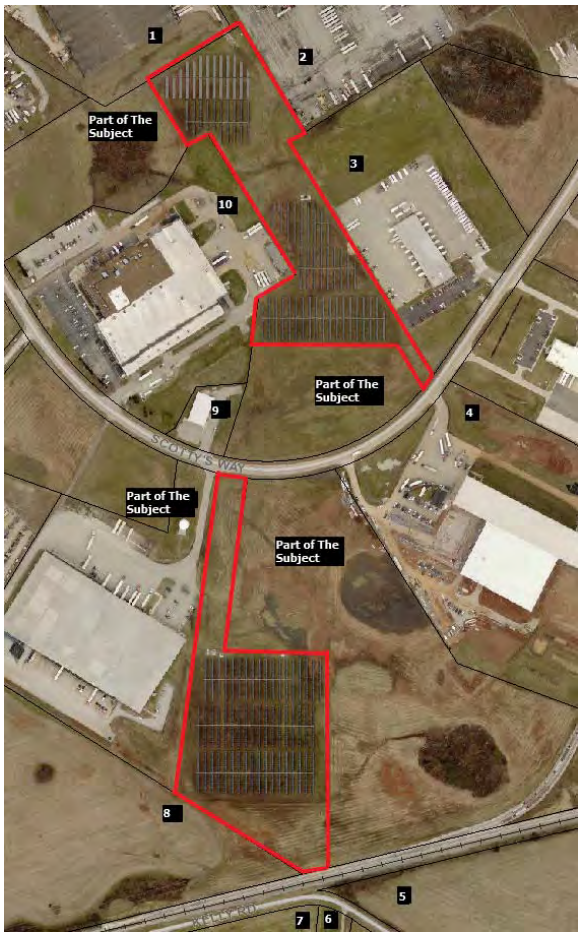


I have provided a summary of projects below and additional detailed information on the projects on the following pages. I specifically note the similarity in most of the sites in Kentucky in terms of mix of adjoining uses, topography, and distances to adjoining homes to each other as well as to the data identified throughout the southeast.

The 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	County	City	Output (MW)	Total Acres	Used Acres	Avg. Dist to home	Closest Home	Adjoining Use by Acre			
									Res	Agri	Agri/Res	Com
610	Bowling Green	Warren	Bowling Green	2	17.36	17.36	720	720	1%	64%	0%	36%
611	Cooperative Solar I	Clarky	Winchester	8.5	181.47	63	2,110	2,040	0%	96%	3%	0%
612	Walton 2	Kenton	Walton	2	58.03	58.03	891	120	21%	0%	60%	19%
613	Crittenden	Grant	Crittenden	2.7	181.7	34.1	1,035	345	22%	27%	51%	0%
617	Glover Creek	Metcalfe	Summer Shade	55	968.2	322.44	1,731	175	6%	25%	69%	0%
618	Turkey Creek	Garrard	Lancaster	50	752.8	297.05	976	240	8%	36%	51%	5%
656	Mount Olive Creek	Russell	Russell Springs	60	526.02	420.82	759	150	24%	28%	47%	0%
657	Horseshoe Bend	Greene	Greensburg	60	585.65	395	1,140	285	8%	51%	41%	0%
658	Flat Run	Taylor	Campbellsville	55	518.94	518.94	540	220	11%	70%	18%	0%
659	Cooperative Shelby	Shelby	Simpsonville	4	35	35	N/A	N/A	6%	11%	32%	52%
660	E.W. Brown	Mercer	Harrodsburg	10	50	50	1,026	565	3%	44%	29%	25%
696	Fleming	Fleming	Elizaville	188	2350	2350	1,036	175	12%	37%	50%	0%
700	Ashwood	Lyon	Fredonia	86	1537.7	1537.7	785	170	4%	46%	23%	27%
720	Fleming 1	Fleming	Flemingburgs	98	764.5	598.6	585	150	3%	48%	49%	0%
722	Henderson KY	Henderson	Henderson	50	1113	725.13	1,395	180	14%	57%	28%	1%
770	Bluebird KY	Harrison	Cynthia	90	1943.2	1345	2,056	350	3%	21%	76%	0%
771	Martin	Martin	Threeforks	100	4122		4,029	1,450	5%	94%	2%	0%
794	Russelville	Logan	Russelville	208	1612	1612	1,058	250	4%	51%	45%	0%
				18								
			Average	62.7	962.1	610.6	1287	446	9%	45%	37%	9%
			Median	55.0	669.2	395.0	1035	240	6%	45%	43%	0%
			High	208.0	4122.0	2350.0	4029	2040	24%	96%	76%	52%
			Low	2.0	17.4	17.4	540	120	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%**

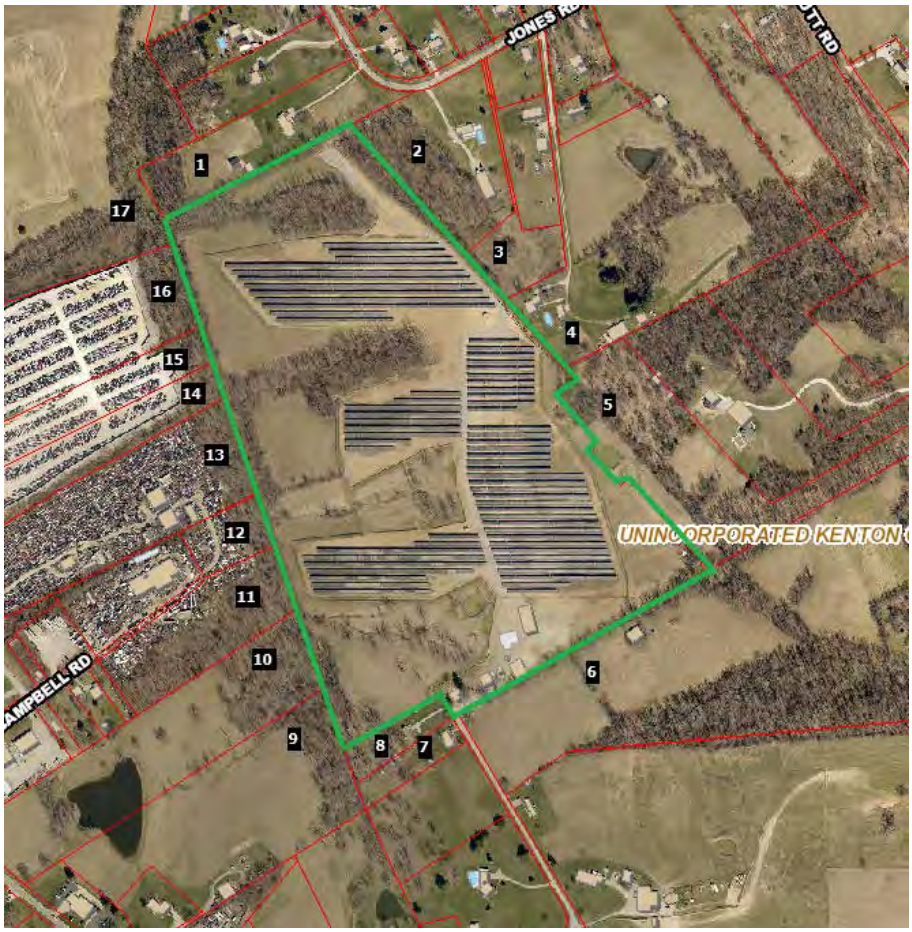
611: Cooperative Solar I, Winchester, KY

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 was built in 2022 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.

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 purchase 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 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.

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

This project was built in 2022 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.

I identified a home sale at 2985 Highway 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 Sulpher 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.

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

This project was built in 2022 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 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%**

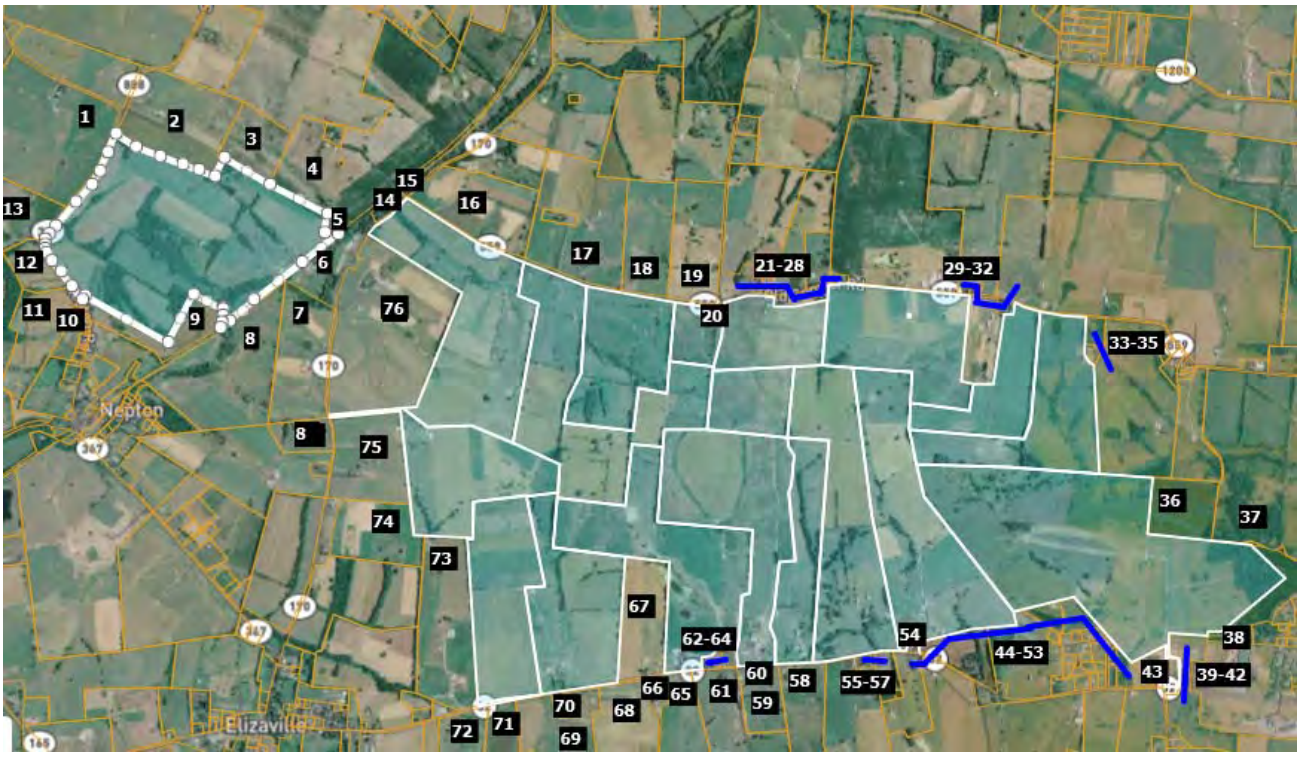
660: E.W. Brown Solar, Harrodsburg, KY

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: Fleming Solar, Elizaville, Fleming County, KY



This project is proposed 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%**

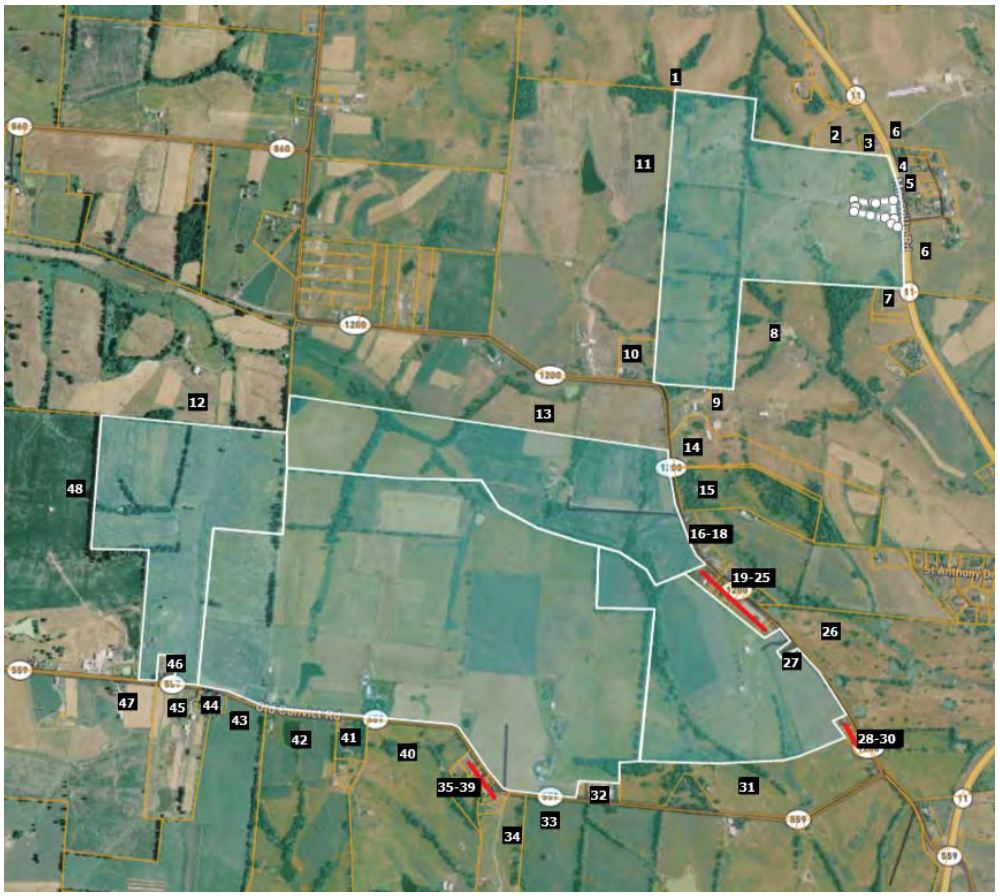
700: Ashwood Solar, Fedonia, Lyon County, KY

This project broke ground in 2023 and 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 2 Solar, Flemingsburg, Fleming County, KY

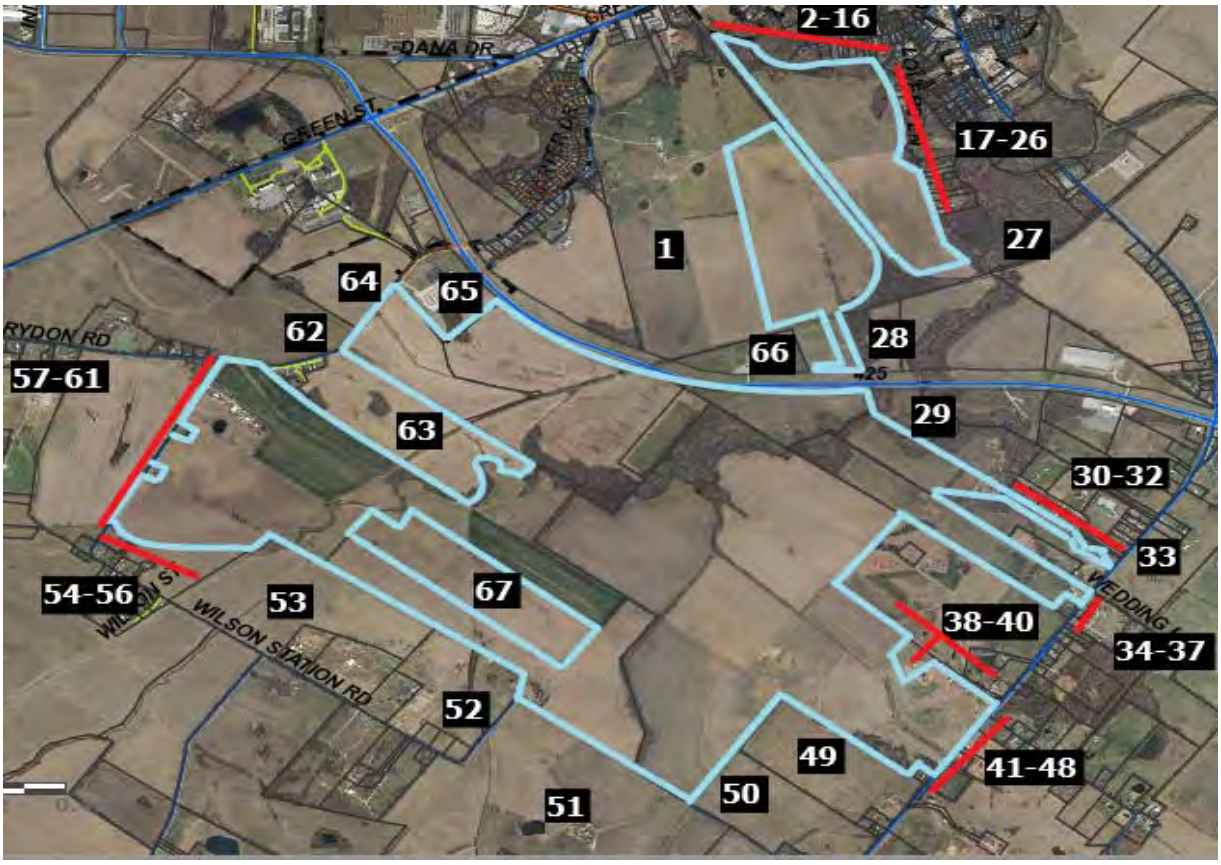


This project is currently proposed to be completed in 2024 and is located on 598.60 acres out of a 764.50-acre assemblage for a 98 MW project on Old Convict Road. The closest dwelling was proposed to be 150 feet from the nearest panel.

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

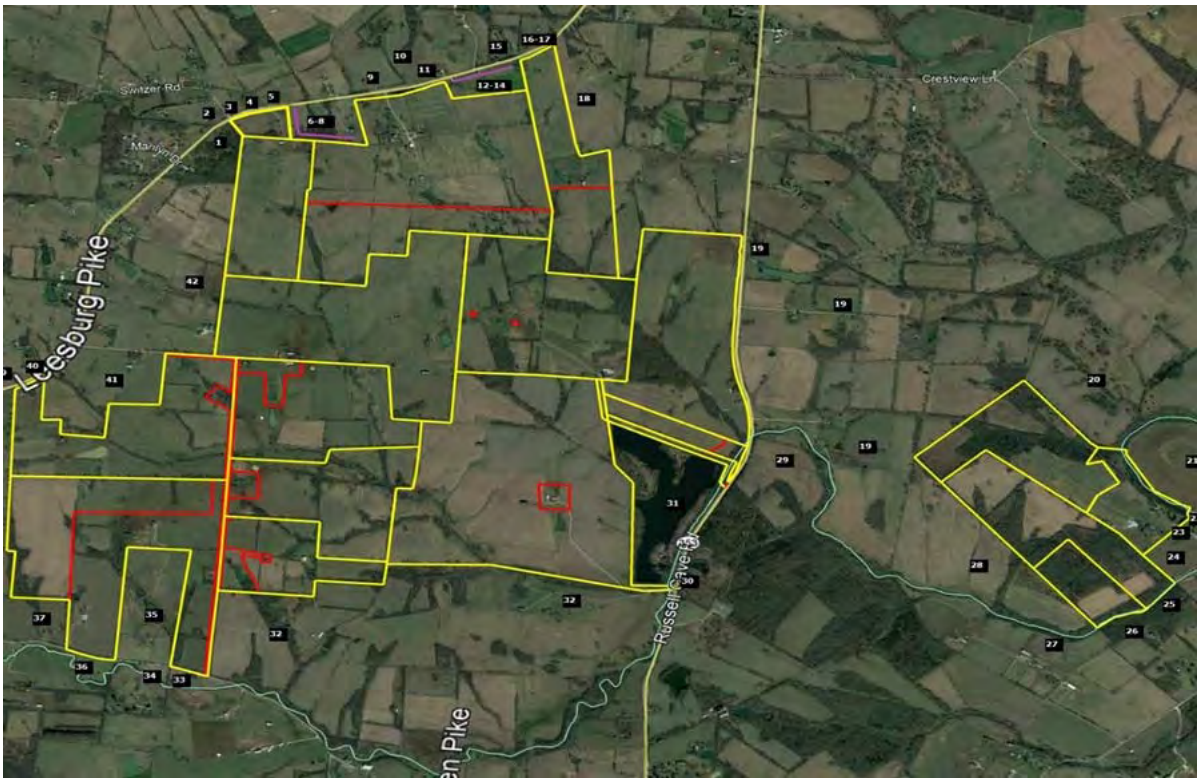


This project is currently proposed to be completed in 2023 and is located on 725.13 acres out of a 1,113.03-acre assemblage for a 50 MW project on Wilson Station Road. The closest dwelling was proposed to be 180 feet from the nearest panel.

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

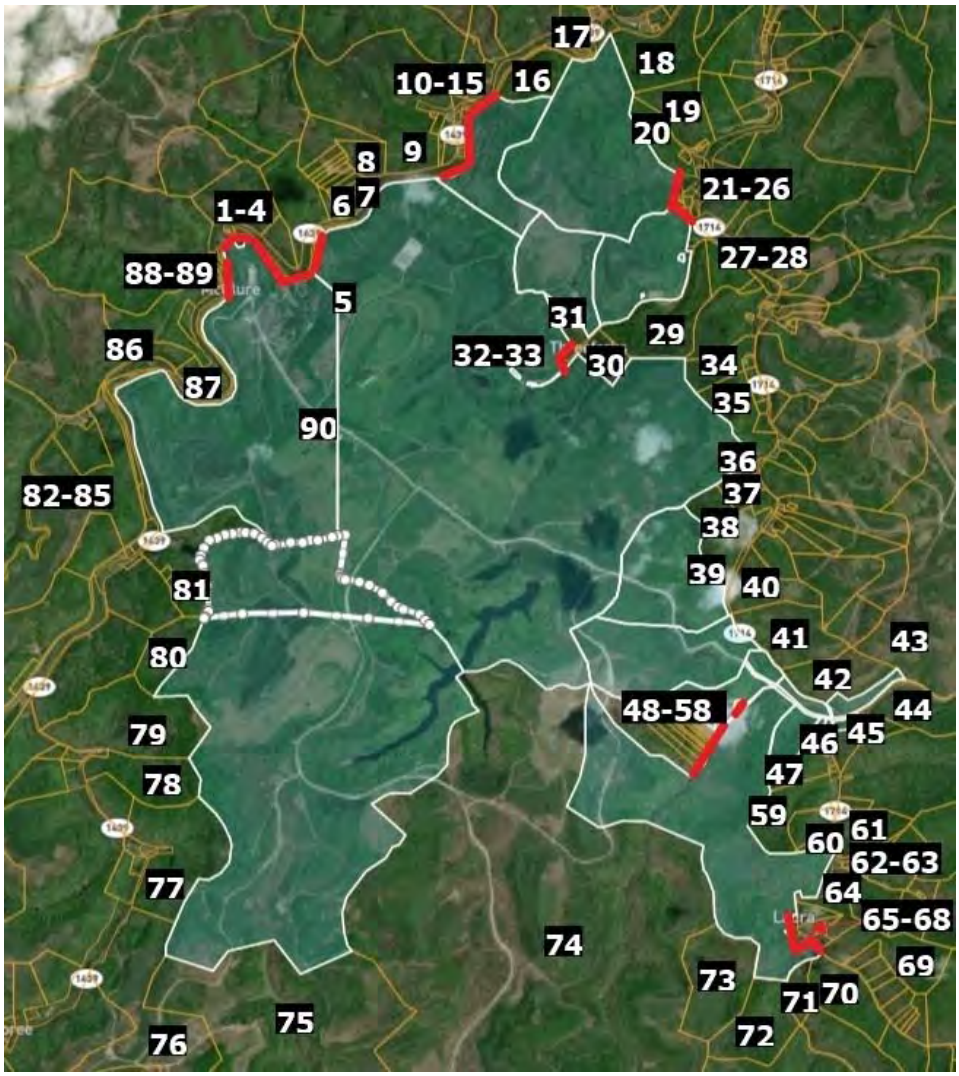


This project is currently proposed to be completed in 2024 and is located on 1,345 acres out of a 1,943.24-acre assemblage for a 90 MW project on Hwy 32 W near Cynthia. The closest dwelling was proposed to be 350 feet from the nearest panel.

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 is under construction on a 2,500-acre assemblage for a 100 MW project. This was the former Martiki Coal Mine land. The closest dwelling was proposed to be 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 is currently proposed to be completed in 2023 and 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.

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 12 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.

A. Kentucky and Adjoining States Data

1. Matched Pair – 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 five home sales to the north of this solar farm on Clairborne Drive and one home sale to the south on Eagle Ridge Drive since the completion of this solar farm. The home sale on Eagle Drive is for a $75,000 home and all of the homes along that street are similar in size and price range. According to local broker Steve Glacken with Cutler Real Estate these are the lowest price range/style home in the market. I have not analyzed that 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 $280,000 price range. The vacant residential lots are being marketed for $28,000 to $29,000. 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 three other home sales on this street 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	300 Claiborne	1.08	9/20/2018	$212,720	2003	1,568	$135.66	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	Ranch	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	300 Claiborne								$213,000			488
Not	460 Claiborne	-$2,026		-$4,580	$15,457	$5,000			$242,850	-14%		
Not	2160 Sherman	-$5,672		-$2,650	-$20,406				$236,272	-11%		
Not	215 Lexington	$1,072		$3,468	-$2,559	-$5,000			$228,180	-7%		
											-11%	

This set of matched pairs shows a minor negative impact for this property. I was unable to confirm the sales price or conditions of this sale. The best indication of value is based on 215 Lexington, which required the least adjusting and supports a -7% 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	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 a 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 considered the sale of a home across the street that did not back up to the solar farm and it adjusted to well below the range of the other comparables. I have included it, but would not rely on that which means this next comparable strongly supports a range of 0 to +3% and not up to +19%.

djoining 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	12/18/2021	$290,000	2002	1,568	$184.95	3/3	2-Car	Br Rnch	Bsmt
Not	405 Claiborne	0.41	2/1/2022	$267,750	2004	1,787	$149.83	3/2	2-Car	Br Rnch	Bsmt
Not	39 Pinhook	0.68	3/31/2022	$299,000	1992	1,680	$177.98	3/2	2-Car	Br Rnch	Bsmt
Not	5 Pinhook	0.70	4/7/2022	$309,900	1992	1,680	$184.46	3/2	2-Car	Br Rnch	Bsmt

Solar	Address	Time	YB	GLA	BR/BA	Park	Other	Total	% Diff	Avg % Diff	Distance
Adjoins	300 Claiborne							$290,000			570
Not	405 Claiborne	-$3,384	-$2,678	-$26,251				$235,437	19%		
Not	39 Pinhook	-$8,651	$14,950	-$15,947				$289,352	0%		
Not	5 Pinhook	-$9,576	$15,495	-$16,528				$299,291	-3%		
										5%	

The photograph of the rear view from the 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. 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

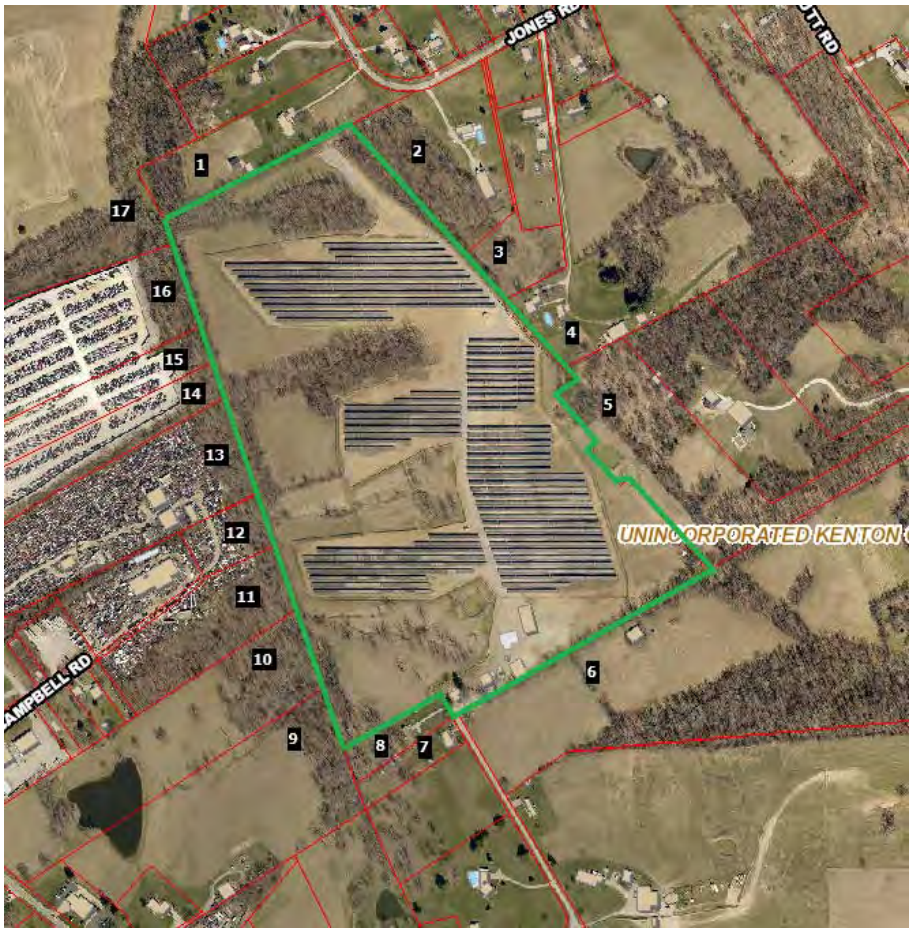
Solar	Address	Acres	Date Sold	Sales Price	Built	GBA	$/GBA	BR/BA	Park	Style	Other
Adjoins	410 Claiborne	0.31	2/10/2021	$275,000	2006	1,595	$172.41	3/2	2-Car	Br Rnch	Bsmt/Pool
Not	114 Austin	1.40	12/23/2020	$248,000	1994	1,650	$150.30	3/2	2-Car	Br Rnch	Bsmt
Not	125 Liza	0.29	6/25/2021	$315,000	2005	1,913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

The nine matched pairs considered in this analysis includes five that show no impact on value, one that shows a negative impact on value, and three that show a positive impact. The negative indication supported by one matched pair is -7% and the positive impacts are +6% and +7%. The two neutral indications show impacts of -5% to +5%. The average indicated impact is +2% when all nine of these indicators are blended.

Furthermore, the comments of the local real estate brokers strongly support the data that shows no negative impact on value due to the proximity to the solar farm.

2. Matched Pair – Walton 2, Walton, Kenton County, KY

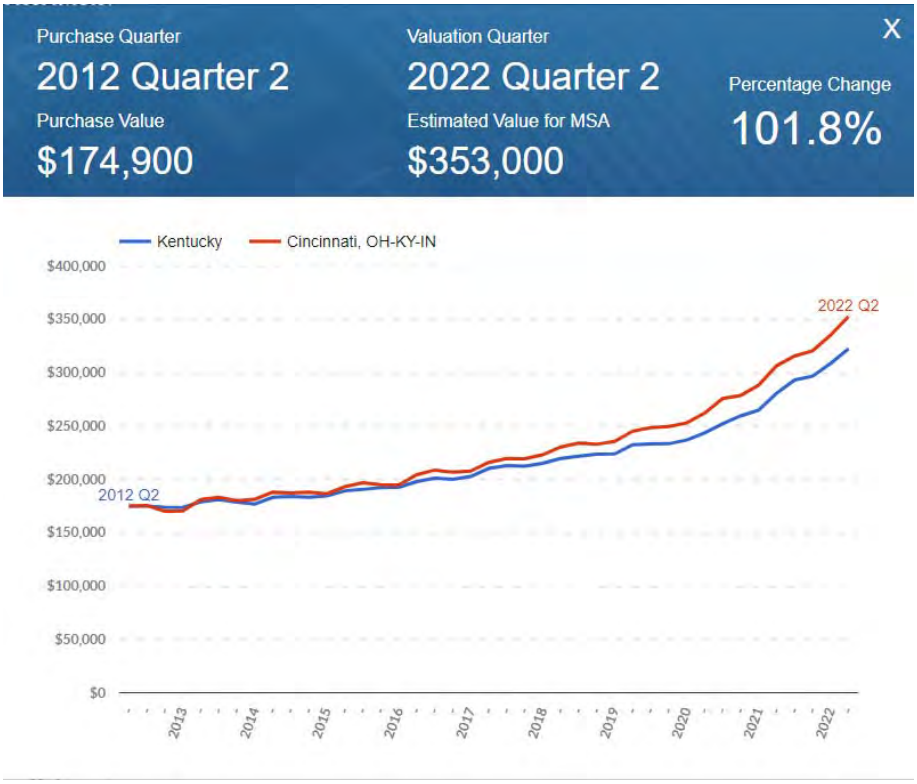


This project was built in 2017 on 58.03 acres for a 2 MW project with the closest home 120 feet from the closest panel.

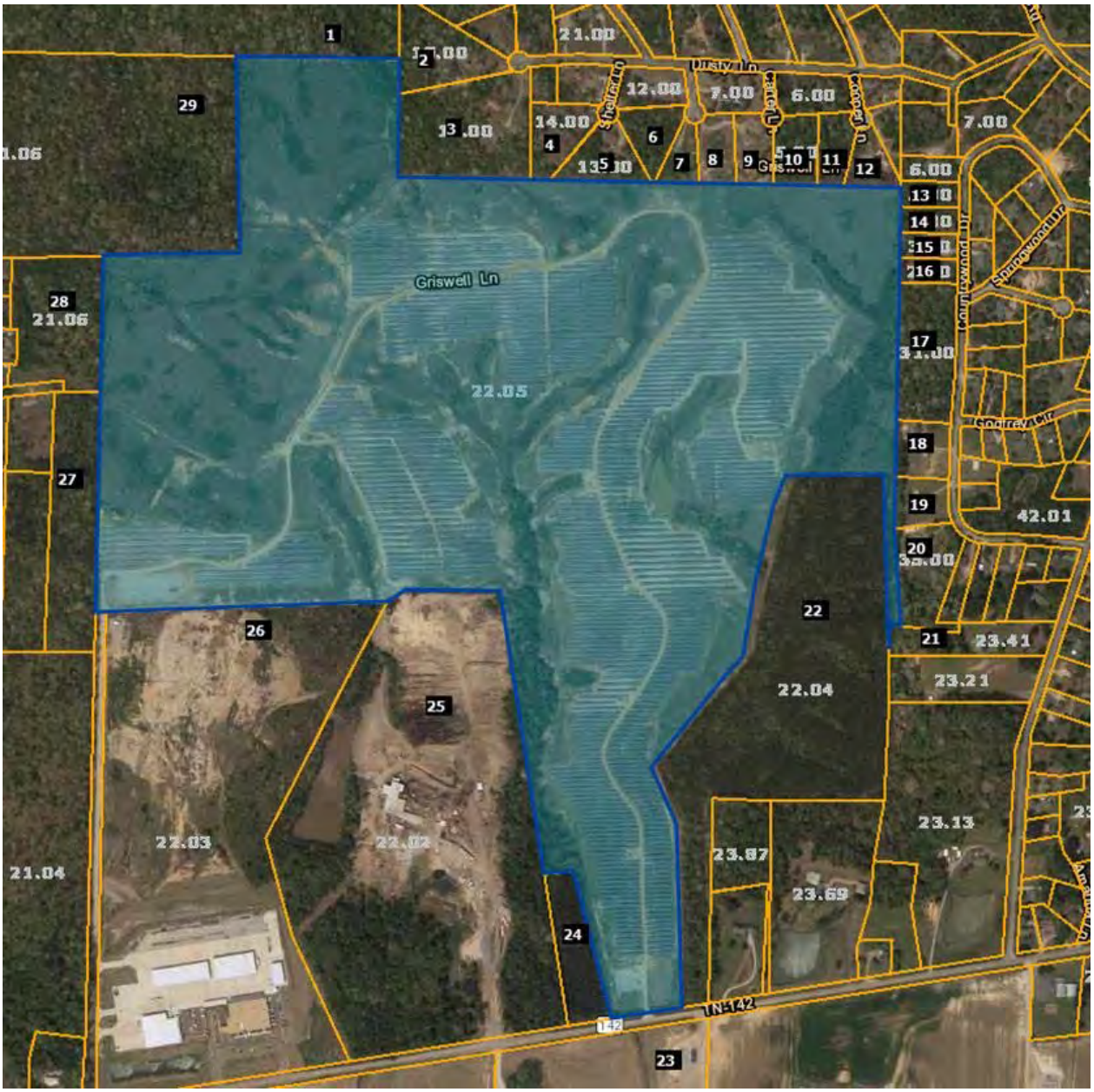
The home located on Parcel 1 (783 Jones Road, Walton, KY) in the map above sold on May 4, 2022 for $346,000. This home is 410 feet from the nearest solar panel. I have considered a Sale/Resale analysis of this home as it previously sold on May 7, 2012 for $174,900. This analysis compares that 2012 purchase 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
2012 Quarter 2
Purchase Value
$174,900
Valuation Quarter
2022 Quarter 2
Estimated Value for MSA
$353,000
Percentage Change
101.8%
X
Kentucky
Cincinnati, OH-KY-IN
$400,000
$350,000
$300,000
$250,000
$200,000
$150,000
$100,000
$50,000
$0
2012 Q2
2022 Q2
2013
2014
2015
2016
2017
2018
2019
2020
2021
2022

3. Matched Pair – 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 Hearnsberger 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 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.

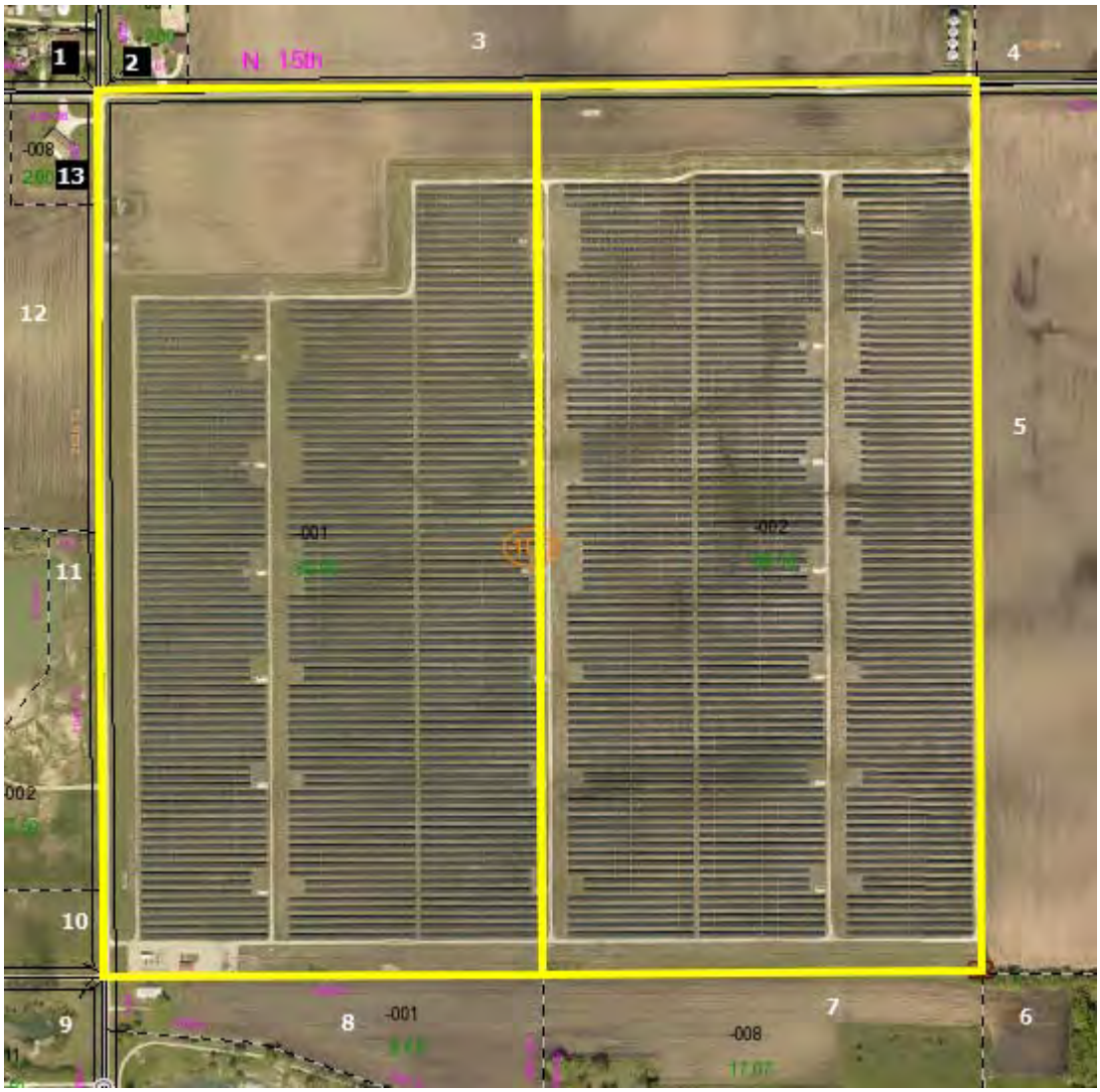
I have also looked at several lot sales in this subdivision as shown below.

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 Adj for Time	$/AC	4/18/2019 Adj for Time
4	Adjoins	Shelter	2.05	10/25/2017	$16,000	$16,728	$7,805	$8,160
10	Adjoins	Carter	1.70	8/2/2018	$14,000	$14,306	$8,235	$8,415
11	Adjoins	Cooper	1.28	9/17/2018	$12,000	$12,215	$9,375	$9,543
	Not	75 Dusty	1.67	4/18/2019	$20,000	$20,000	$11,976	$11,976
	Not	Lake Trl	1.47	11/7/2018	$13,000	$13,177	$8,844	$8,964
	Not	Lake Trl	1.67	4/18/2019	$20,000	$20,000	$11,976	$11,976

	Adjoins	Per Acre	Not Adjoins	Per Acre	% DIF/Lot	% DIF/AC
Average	$14,416	$8,706	$17,726	$10,972	19%	21%
Median	$14,306	$8,415	$20,000	$11,976	28%	30%
High	$16,728	$9,543	$20,000	$11,976	16%	20%
Low	$12,215	$8,160	$13,177	$8,964	7%	9%

4. Matched Pair – 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	Adjustments 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

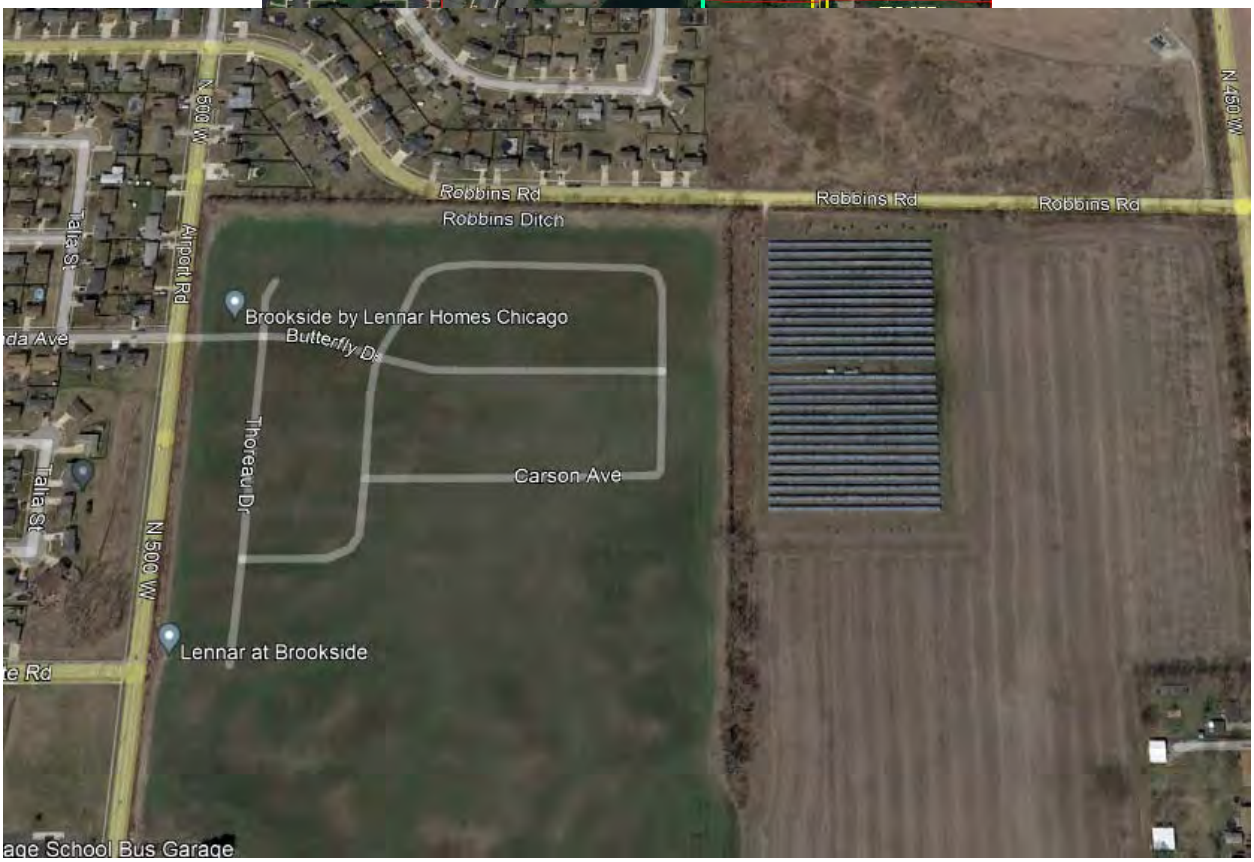
	Adjoins Solar Farm		Not Adjoin Solar Farm	
	Average	Median	Average	Median
Sales Price/SF	$79.90	$79.90	$75.57	$74.14
GBA	2,328	2,328	2,494	2,600

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.

5. Matched Pair – 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

		Adjustments		
TAX ID	Date Sold	Time	Total	$/Sf
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

	Adjoins Solar Farm		Not Adjoin Solar Farm	
	Average	Median	Average	Median
Sales Price/SF	$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

		Adjustments		
TAX ID	**Date Sold**	**Time**	**Total**	**$/Acre**
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

	Adjoins Solar Farm		**Not Adjoin Solar Farm**	
	Average	**Median**	**Average**	**Median**
Sales Price/Ac	$8,480	$8,480	$7,329	$7,329
Acres	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.

6. Matched Pair – 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

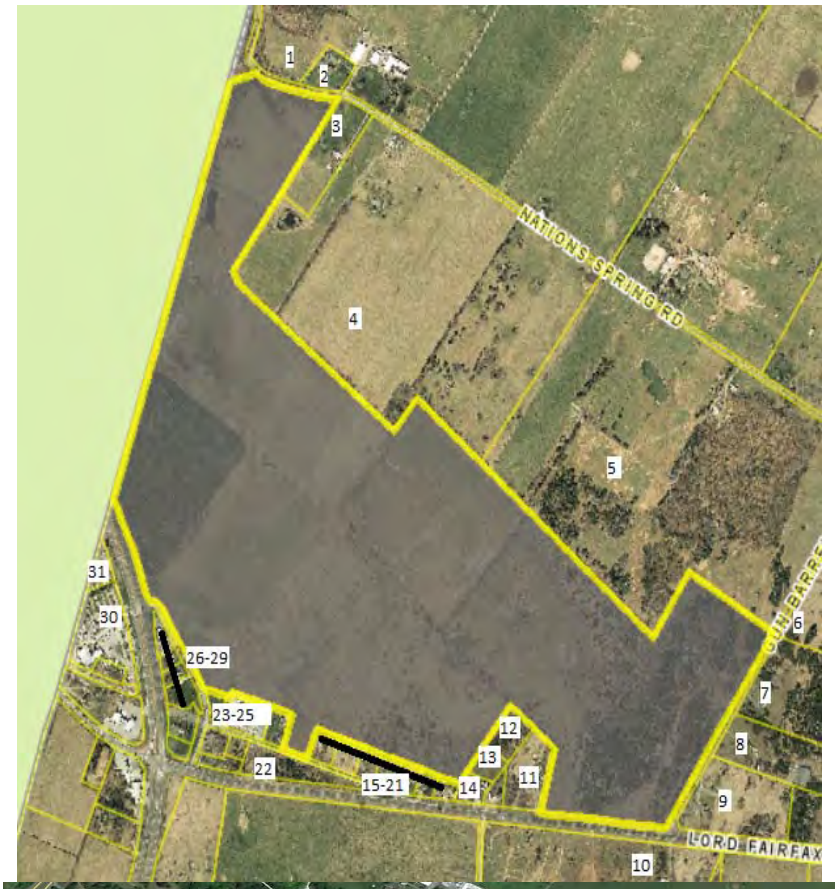
2% adjustment/year
Adjusted to 2017

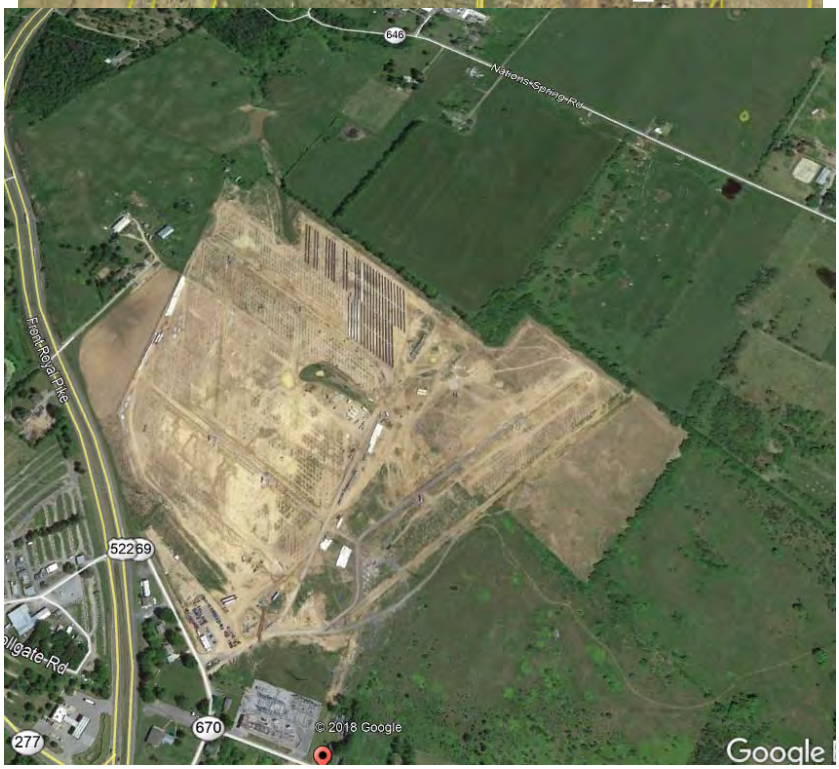
	Adjoins Solar Farm		Not Adjoin Solar Farm	
	Average	**Median**	**Average**	**Median**
Sales Price/SF	$64.13	$63.03	$61.69	$63.08
GBA	2,210	2,163	2,333	2,280

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.

7. Matched Pair – 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 or 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.

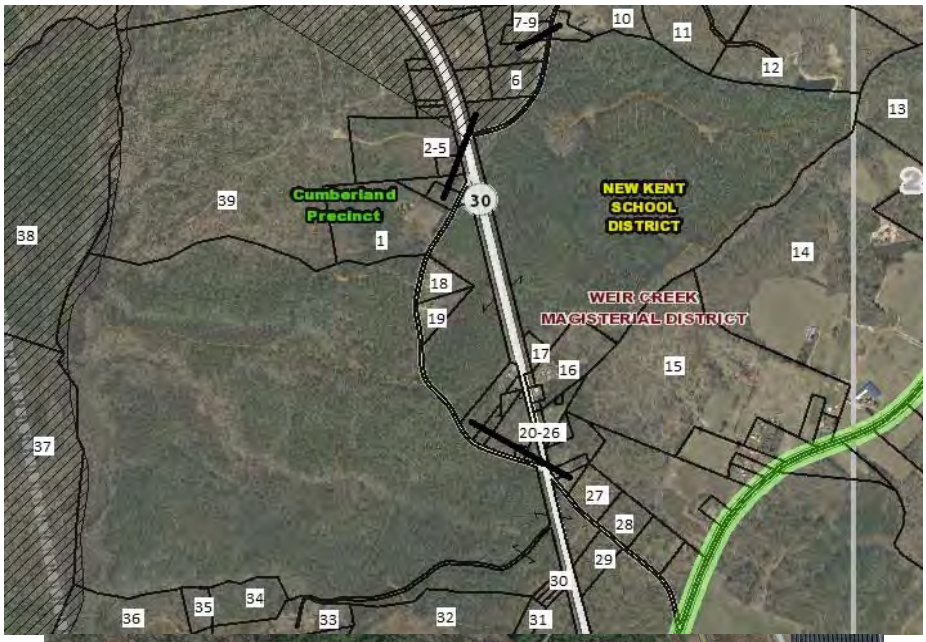
Adjoining Residential Sales After Solar Farm Approved

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 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.

8. Matched Pair – 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.

9. Matched Pair – Sappony Solar, Stony Creek, Sussex County, VA

This project is a 30 MW facility located on a 322.68-acre tract that was built in the fourth quarter of 2017.

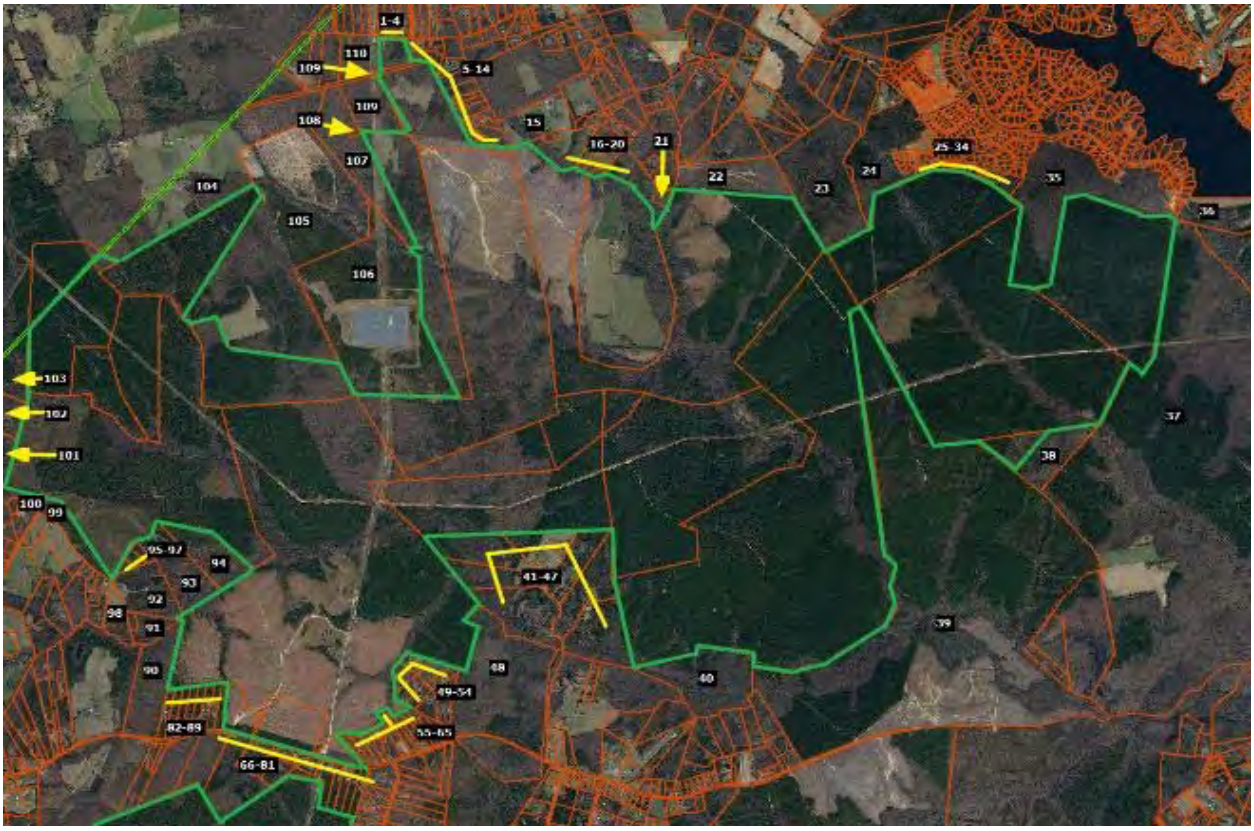
I have considered the 2018 sale of Parcel 17 as shown below. From Parcel 17 the retained trees and setbacks are a light to medium landscaped buffer.

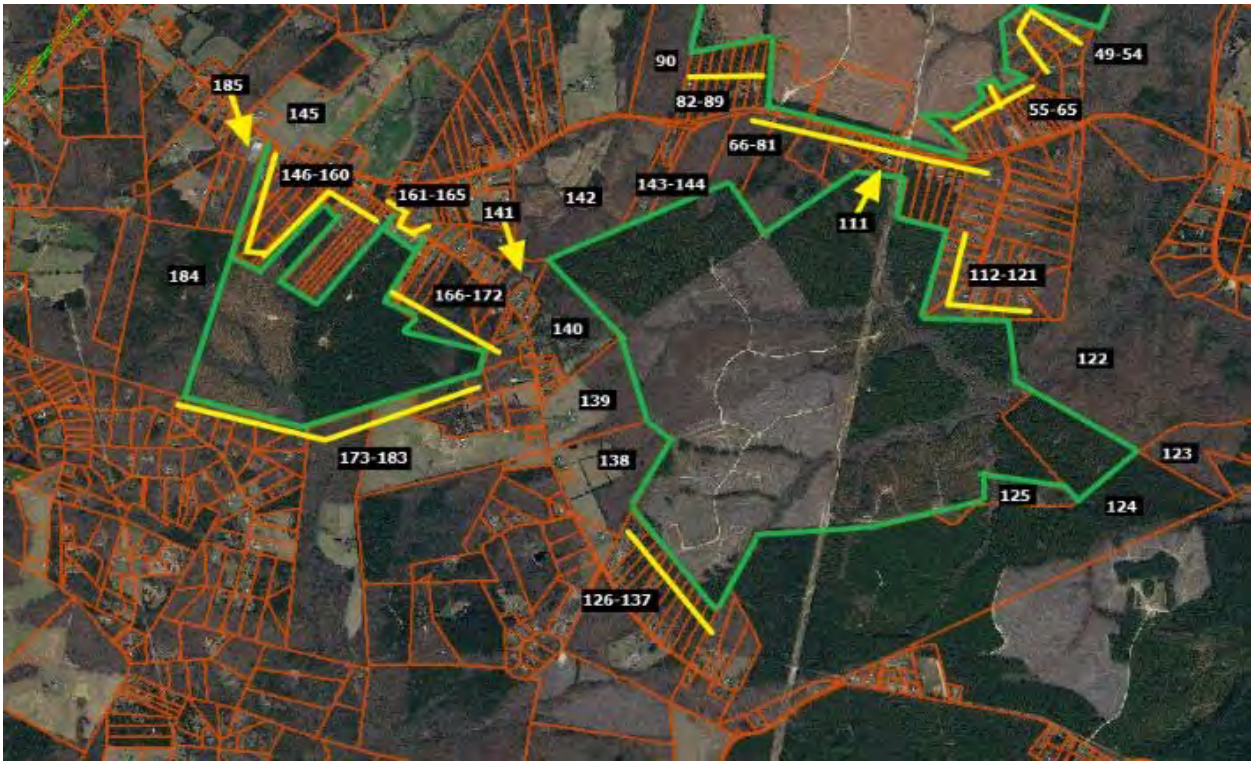
Adjoining Residential Sales After Solar Farm Approved

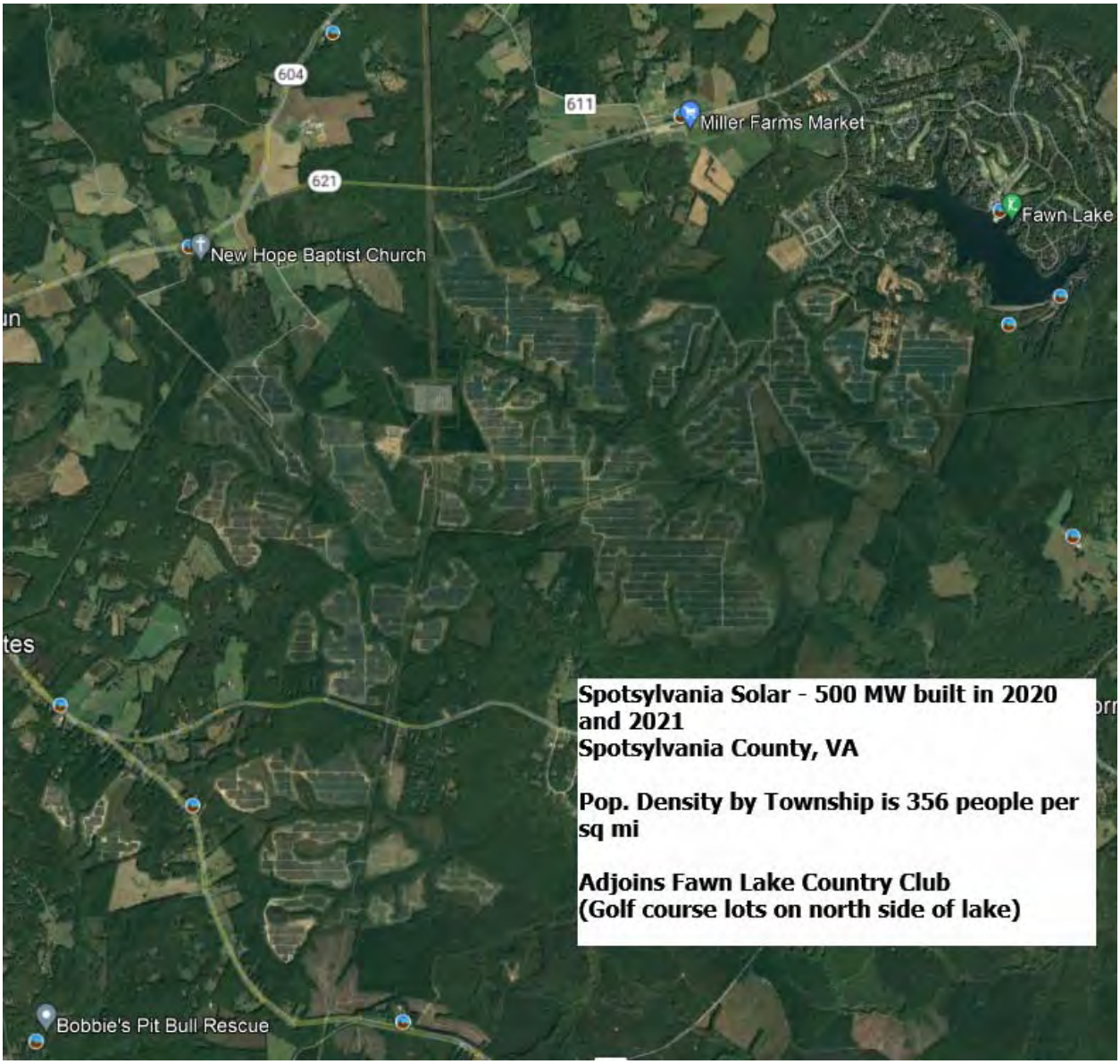
Parcel	Solar	Address	Acres	Date Sold	Sales Price	Built	GBA	$/GLA	BR/BA	Park	Style	Other
	Adjoins	12511 Palestine	6.00	7/31/2018	$128,400	2013	1,900	$67.58	4/2.5	Open	Manuf	
	Not	15698 Concord	3.92	7/31/2018	$150,000	2010	2,310	$64.94	4/2	Open	Manuf	Fence
	Not	23209 Sussex	1.03	7/7/2020	$95,000	2005	1,675	$56.72	3/2	Det Crpt	Manuf	
	Not	6494 Rocky Br	4.07	11/8/2018	$100,000	2004	1,405	$71.17	3/2	Open	Manuf	

Adjoining Sales Adjusted									Avg	
Time	Site	YB	GLA	BR/BA	Park	Other	Total	% Diff	% Diff	Distance
							$128,400			1425
$0		$2,250	-$21,299	$5,000			$135,951	-6%		
-$5,660	$13,000	$3,800	$10,209	$5,000	$1,500		$122,849	4%		
-$843		$4,500	$28,185				$131,842	-3%		
									-1%	

10. Matched Pair – 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

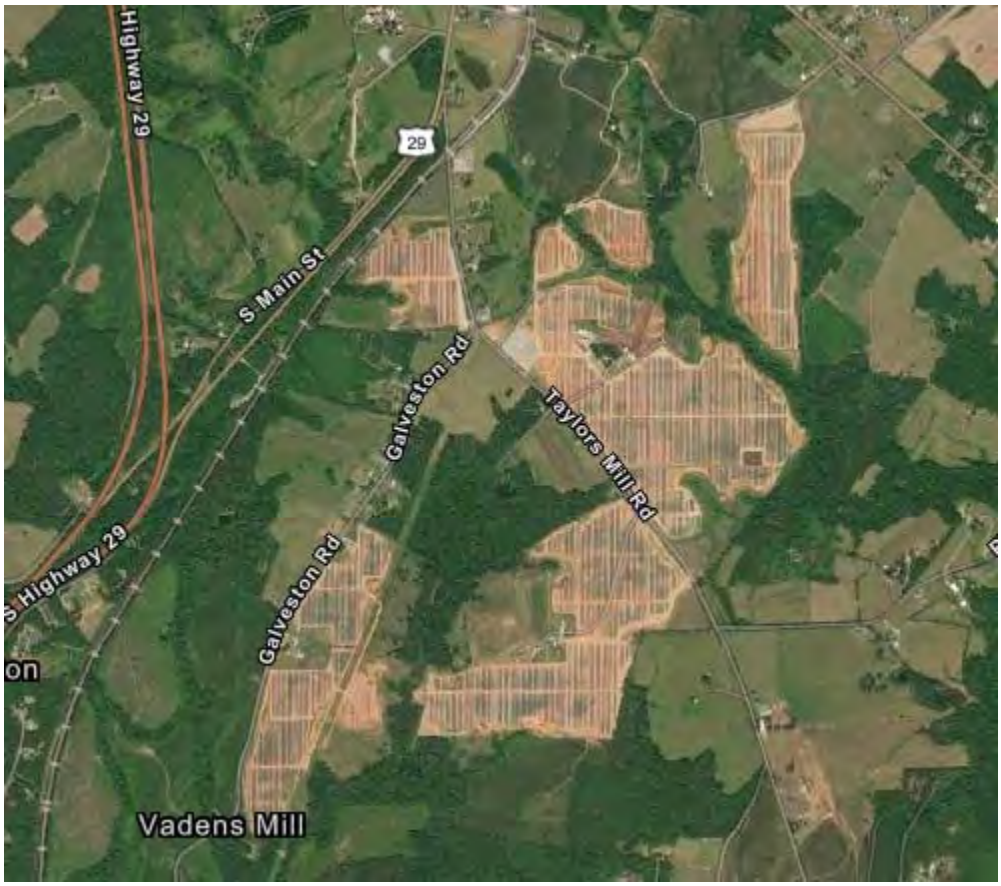
Parcel	Solar?	Address	Acres	Sale Date	Sale Price	Ad. For Time	% Diff
A	Adjoins	11700 Southview Ct	0.76	12/29/2021	$140,000		
1	1 parcel away	11603 Southview Ct	0.44	3/31/2022	$140,000	$141,960	-1.4%
2	Not adjoin	11507 Stonewood Ct	0.68	3/9/2021	$109,000	$118,374	15.4%
3	Not adjoin	11312 Westgate Wy	0.83	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	-1.4%
(Parcel 1 off solar farm)	

Time Adjustments are based on the FHFA Housing Price Index

11. Matched Pair – 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.

12. Matched Pair – 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 give 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.

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.

13. Matched Pair – 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									Avg	
Time	Site	YB	GLA	BR/BA	Park	Other	Total	% Diff	% 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									Avg	
Time	Site	YB	GLA	BR/BA	Park	Other	Total	% Diff	% 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.

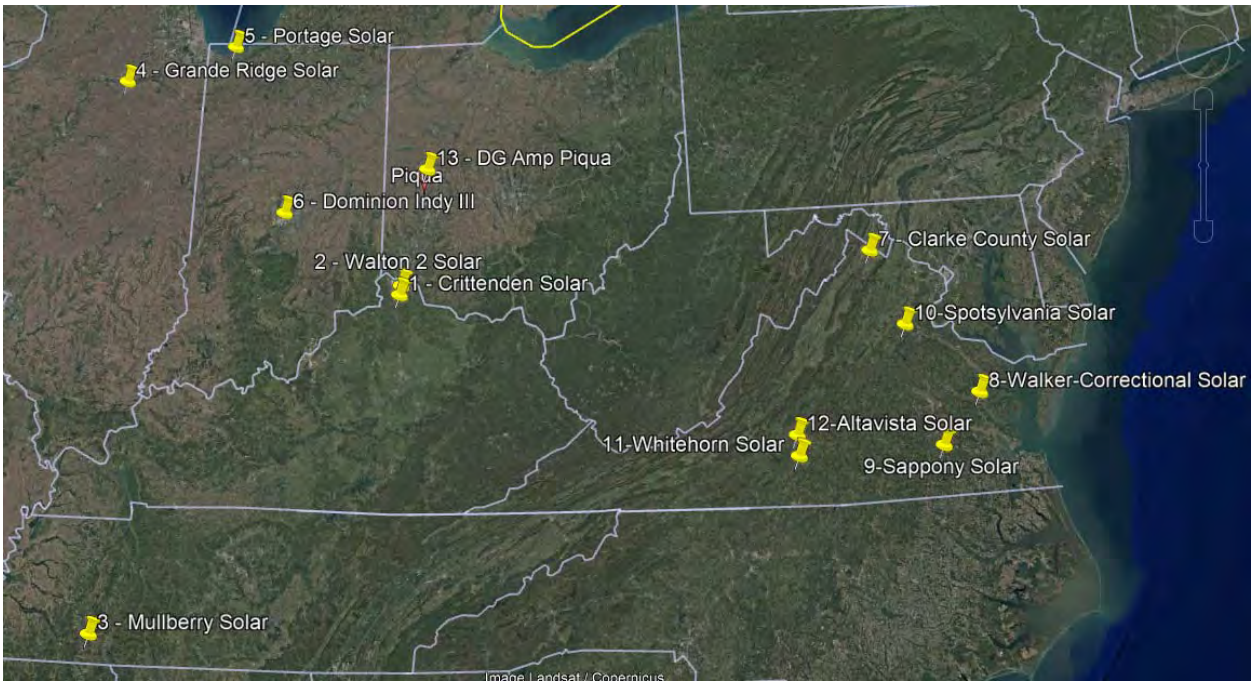
I also identified three new construction home sales on Arrowhead Drive that sold in 2022. I have reached out to the builder regarding those homes, but these homes sold between $250,000 and $275,000 each and were located within 350 feet of the solar farm. These sales show that the presence of the solar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

Conclusion

The solar farm matched pairs shown above have similar characteristics to each other in terms of population, but with several outliers showing solar farms in far more urban areas. The median income for the population within 1 mile of a solar farm among this subset of matched pairs is $61,115 with a median housing unit value of $186,463. Most of the comparables are under $300,000 in the home price, with $483,333 being the high end of the set, though I have matched pairs in other states over $1,600,000 in price adjoining large solar farms. The predominate adjoining uses are residential and agricultural. These figures are in line with the larger set of solar farms that I have looked at with the predominant adjoining uses being residential and agricultural and similar to the solar farm breakdown shown for Kentucky and adjoining states as well as the proposed subject property.

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

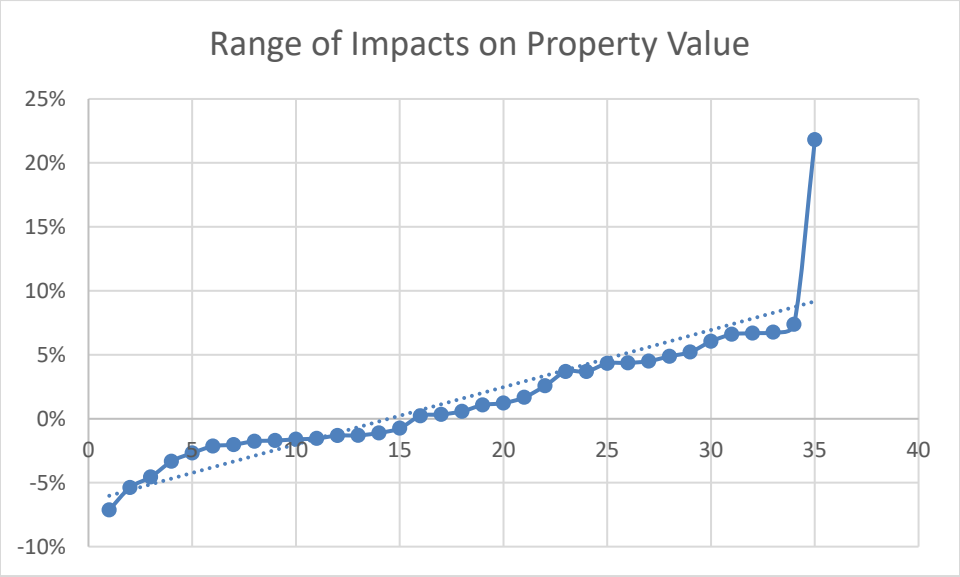
Matched Pair Summary							Adj. Uses By Acreage				1 mile Radius (2010-2022 Data)			
	Name	City	State	Acres	MW	Topo Shift	Res	Ag	Ag/Res	Com/Ind	Population	Med. Income	Avg. Housing Unit	Veg. Buffer
1	Crittenden	Crittenden	KY	34	2.70	40	22%	51%	27%	0%	1,419	$60,198	$178,643	Light
2	Walton 2	Walton	KY	58	2.00	90	21%	0%	60%	19%	880	$81,709	$277,717	Light
3	Mulberry	Selmer	TN	160	5.00	60	13%	73%	10%	3%	467	$40,936	$171,746	Lt to Med
4	Grand Ridge	Streator	IL	160	20.00	1	8%	87%	5%	0%	96	$70,158	$187,037	Light
5	Portage	Portage	IN	56	2.00	0	19%	81%	0%	0%	6,642	$65,695	$186,463	Light
6	Dominion	Indianapolis	IN	134	8.60	20	3%	97%	0%	0%	3,774	$61,115	$167,515	Light
7	Clarke Cnty	White Post	VA	234	20.00	70	14%	39%	46%	1%	578	$81,022	$374,453	Light
8	Walker	Barhamsville	VA	485	20.00	N/A	12%	68%	20%	0%	203	$80,773	$320,076	Light
9	Sappony	Stony Crk	VA	322	20.00	N/A	2%	98%	0%	0%	74	$51,410	$155,208	Medium
10	Spotyslvania	Paytes	VA	3,500	500.00	160	37%	52%	11%	0%	74	$120,861	$483,333	Med to Hvy
11	Whitehorn	Gretna	VA	N/A	50.00	N/A	N/A	N/A	N/A	N/A	166	$43,179	$168,750	None to Lt
12	Altavista	Altavista	VA	720	80.00	N/A	N/A	N/A	N/A	N/A	7	$50,000	$341,667	Light
13	DG Amp Piqua	Piqua	OH	86	12.60	2	26%	16%	58%	0%	6,735	$38,919	$96,555	
	Average			496	57.15	49	16%	60%	22%	2%	1,624	$65,075	$239,166	
	Median			160	20.00	40	14%	68%	11%	0%	467	$61,115	$186,463	
	High			3,500	500.00	160	37%	98%	60%	19%	6,735	$120,861	$483,333	
	Low			34	2.00	0	2%	0%	0%	0%	7	$38,919	$96,555	



These are very similar to the demographics shown around these comparable solar farms.

On the following page is a summary of the 35 matched pairs for all of the solar farms noted above. They show a pattern of results from -7% to +22%. As can be seen in the chart of those results below, most of the data points are between -2% and +5%. This variability is common with real estate and consistent with market imperfection. I therefore conclude that these results strongly support an indication of no impact on property value due to the adjacent solar farm.

There is one significant outlier that shows a 22% enhancement due to adjacency to a solar farm. I have attempted to confirm that sale as it appears likely that renovations were done that would explain that significant difference. I have not considered that to be a reliable indicator on property value impacts. Excluding that one indicator the range is -7% to +7%.



	MW	Avg. Distance	% Dif
Average	65.53	625	2%
Median	8.60	480	1%
High	617.00	1,950	22%
Low	2.00	155	-7%

Residential Dwelling Matched Pairs Adjoining Solar Farms

Pair	Solar Farm	City	State	Area	MW	Approx Distance	Tax ID/Address	Sale Date	Sale Price	Adj. Price	% Diff	Notes
1	Portage	Portage	IN	Rural	2	1320	836 N 450 W	Sep-13	$149,800			
							336 E 1050 N	Jan-13	$155,000	$144,282	4%	
2	Dominion	Indianapolis	IN	Rural	8.6	400	2013249 (Tax ID)	Dec-15	$140,000			
							5723 Minden	Nov-16	$139,900	$132,700	5%	
3	Dominion	Indianapolis	IN	Rural	8.6	400	2013251 (Tax ID)	Sep-17	$160,000			
							5910 Mosaic	Aug-16	$146,000	$152,190	5%	
4	Dominion	Indianapolis	IN	Rural	8.6	400	2013252 (Tax ID)	May-17	$147,000			
							5836 Sable	Jun-16	$141,000	$136,165	7%	
5	Dominion	Indianapolis	IN	Rural	8.6	400	2013258 (Tax ID)	Dec-15	$131,750			
							5904 Minden	May-16	$130,000	$134,068	-2%	
6	Dominion	Indianapolis	IN	Rural	8.6	400	2013260 (Tax ID)	Mar-15	$127,000			
							5904 Minden	May-16	$130,000	$128,957	-2%	
7	Dominion	Indianapolis	IN	Rural	8.6	400	2013261 (Tax ID)	Feb-14	$120,000			
							5904 Minden	May-16	$130,000	$121,930	-2%	
8	DG Amp	Piqua	OH	Suburban	12.6	155	6060 N Washington	Oct-19	$119,500			
							1511 Sweetbriar	Aug-20	$123,000	$118,044	1%	
9	DG Amp	Piqua	OH	Suburban	12.6	585	1011 Plymouth	Feb-20	$113,000			
							1720 Williams	Dec-19	$119,900	$111,105	2%	
10	DG Amp	Piqua	OH	Suburban	12.6	155	6010 N Washington	Aug-21	$176,900			
							1834 Wilshire	Dec-21	$168,900	$172,354	3%	
11	DG Amp	Piqua	OH	Suburban	12.6	160	6240 N Washington	Oct-21	$155,000			
							424 Pinewood	May-22	$151,000	$145,627	6%	
12	Spotsylvania	Paytes	VA	Rural	617	1270	12901 Orange Plnk	Aug-20	$319,900			Medium
							12717 Flintlock	Dec-20	$290,000	$326,767	-2%	
13	Spotsylvania	Paytes	VA	Rural	617	1950	9641 Nottoway	May-20	$449,900			Medium
							11626 Forest	Aug-20	$489,900	$430,246	4%	
14	Spotsylvania	Paytes	VA	Rural	617	1171	13353 Post Oak	Sep-20	$300,000			Heavy
							12810 Catharpin	Jan-20	$280,000	$299,008	0%	
15	Walker	Barhamsville	VA	Rural	20	250	5241 Barham	Oct-18	$264,000			Light
							9252 Ordinary	Jun-19	$277,000	$246,581	7%	
16	Clarke Cnty	White Post	VA	Rural	20	1230	833 Nations Spr	Aug-19	$385,000			Light
							2393 Old Chapel	Aug-20	$330,000	$389,286	-1%	
17	Sappony	Stony Creek	VA	Rural	20	1425	12511 Palestine	Jul-18	$128,400			Medium
							6494 Rocky Branch	Nov-18	$100,000	$131,842	-3%	
18	Crittenden	Crittenden	KY	Suburban	2.7	373	250 Claiborne	Jan-19	$120,000			
							315 N Fork	May-19	$107,000	$120,889	-1%	
19	Crittenden	Crittenden	KY	Suburban	2.7	488	300 Claiborne	Sep-18	$213,000			
							1795 Bay Valley	Dec-17	$231,200	$228,180	-7%	
20	Crittenden	Crittenden	KY	Suburban	2.7	720	350 Claiborne	Jul-18	$245,000			
							2160 Sherman	Jun-19	$265,000	$248,225	-1%	
21	Crittenden	Crittenden	KY	Suburban	2.7	930	370 Claiborne	Aug-19	$273,000			
							125 Lexington	Apr-18	$240,000	$254,751	7%	
22	Crittenden	Crittenden	KY	Suburban	2.7	365	250 Claiborne	Jan-22	$210,000			Light
							240 Shawnee	Jun-21	$166,000	$219,563	-5%	
23	Crittenden	Crittenden	KY	Suburban	2.7	390	260 Claiborne	Oct-21	$175,000			Light
							355 Oakwood	Oct-20	$186,000	$173,988	1%	
24	Crittenden	Crittenden	KY	Suburban	2.7	570	300 Claiborne	Dec-21	$290,000			Light
							39 Pinhook	Mar-22	$299,000	$289,352	0%	
25	Crittenden	Crittenden	KY	Suburban	2.7	1080	410 Claiborne	Feb-21	$275,000			Light
							114 Austin	Dec-20	$248,000	$279,680	-2%	
26	Mulberry	Selmer	TN	Rural	5	400	0900A011	Jul-14	$130,000			Light
							099CA043	Feb-15	$148,900	$136,988	-5%	
27	Mulberry	Selmer	TN	Rural	5	400	099CA002	Jul-15	$130,000			Light
							0990NA040	Mar-15	$120,000	$121,200	7%	
28	Mulberry	Selmer	TN	Rural	5	480	491 Dusty	Oct-16	$176,000			Light
							35 April	Aug-16	$185,000	$178,283	-1%	
29	Mulberry	Selmer	TN	Rural	5	650	297 Country	Sep-16	$150,000			Medium
							53 Glen	Mar-17	$126,000	$144,460	4%	
30	Mulberry	Selmer	TN	Rural	5	685	57 Cooper	Feb-19	$163,000			Medium
							191 Amelia	Aug-18	$132,000	$155,947	4%	
31	Grand Ridge	Streator	IL	Rural	20	480	1497 E 21st	Oct-16	$186,000			Light
							712 Columbus	Jun-16	$166,000	$184,000	1%	
32	Walton 2	Walton	KY	Suburban	2	410	783 Jones	May-22	$346,000			Light
							783 Jones	May-12	$174,900	$353,000	-2%	
33	Whitehorn	Gretna	VA	Rural	50	255	1120 Taylors Mill	Dec-21	$224,000			Light
							100 Long Branch	Aug-20	$162,000	$213,920	5%	
34	Altavista	Altavista	VA	Rural	80	540	3211 Leesville	Mar-22	$124,048			Light
							3211 Leesville	Dec-18	$72,500	$97,000	22%	
35	Altavista	Altavista	VA	Rural	80	600	3026 Bishop Crk	Feb-22	$150,000			Heavy
							3026 Bishop Crk	Jul-19	$120,000	$155,000	-3%	

B. Southeastern USA Data – Over 5 MW

Conclusion – SouthEast Over 5 MW

Southeast USA Over 5 MW
Matched Pair Summary

							Adj. Uses By Acreage				1 mile Radius (2010-2022 Data)			
	Name	City	State	Acres	MW	Topo Shift	Res	Ag	Ag/Res	Com/Ind	Pop.	Med. Income	Avg. Housing Unit	Veg. Buffer
1	AM Best	Goldsboro	NC	38	5.00	2	38%	0%	23%	39%	1,523	$37,358	$148,375	Light
2	Mulberry	Selmer	TN	160	5.00	60	13%	73%	10%	3%	467	$40,936	$171,746	Lt to Med
3	Leonard	Hughesville	MD	47	5.00	20	18%	75%	0%	6%	525	$106,550	$350,000	Light
4	Gastonia SC	Gastonia	NC	35	5.00	48	33%	0%	23%	44%	4,689	$35,057	$126,562	Light
5	Summit	Moyock	NC	2,034	80.00	4	4%	0%	94%	2%	382	$79,114	$281,731	Light
6	Tracy	Bailey	NC	50	5.00	10	29%	0%	71%	0%	312	$43,940	$99,219	Heavy
7	Manatee	Parrish	FL	1,180	75.00	20	2%	97%	1%	0%	48	$75,000	$291,667	Heavy
8	McBride	Midland	NC	627	75.00	140	12%	10%	78%	0%	398	$63,678	$256,306	Lt to Med
9	Mariposa	Stanley	NC	36	5.00	96	48%	0%	52%	0%	1,716	$36,439	$137,884	Light
10	Clarke Cnty	White Post	VA	234	20.00	70	14%	39%	46%	1%	578	$81,022	$374,453	Light
11	Candace	Princeton	NC	54	5.00	22	76%	24%	0%	0%	448	$51,002	$107,171	Medium
12	Walker	Barhamsville	VA	485	20.00	N/A	12%	68%	20%	0%	203	$80,773	$320,076	Light
13	Innov 46	Hope Mills	NC	532	78.50	0	17%	83%	0%	0%	2,247	$58,688	$183,435	Light
14	Innov 42	Fayetteville	NC	414	71.00	0	41%	59%	0%	0%	568	$60,037	$276,347	Light
15	Sunfish	Willow Spring	NC	50	6.40	30	35%	35%	30%	0%	1,515	$63,652	$253,138	Light
16	Sappony	Stony Crk	VA	322	20.00	N/A	2%	98%	0%	0%	74	$51,410	$155,208	Light
17	Camden Dam	Camden	NC	50	5.00	0	17%	72%	11%	0%	403	$84,426	$230,288	Light
18	Grandy	Grandy	NC	121	20.00	10	55%	24%	0%	21%	949	$50,355	$231,408	Light
19	Champion	Pelion	SC	100	10.00	N/A	4%	70%	8%	18%	1,336	$46,867	$171,939	Light
20	Barefoot Bay	Barefoot Bay	FL	504	74.50	0	11%	87%	0%	3%	2,446	$36,737	$143,320	Lt to Med
21	Miami-Dade	Miami	FL	347	74.50	0	26%	74%	0%	0%	127	$90,909	$403,571	Light
22	Spotyslvania	Paytes	VA	3,500	617.00	160	37%	52%	11%	0%	74	$120,861	$483,333	Md to Hvy
23	Whitehorn	Gretna	VA	N/A	50.00	N/A	N/A	N/A	N/A	N/A	166	$43,179	$168,750	None to Lt
24	Altavista	Altavista	VA	720	80.00	N/A	N/A	N/A	N/A	N/A	7	$50,000	$341,667	Light
	Average			506	58.83	36	25%	47%	22%	6%	883	$62,000	$237,816	
	Median			234	20.00	20	18%	56%	11%	0%	458	$55,049	$230,848	
	High			3,500	617.00	160	76%	98%	94%	44%	4,689	$120,861	$483,333	
	Low			35	5.00	0	2%	0%	0%	0%	7	$35,057	$99,219	

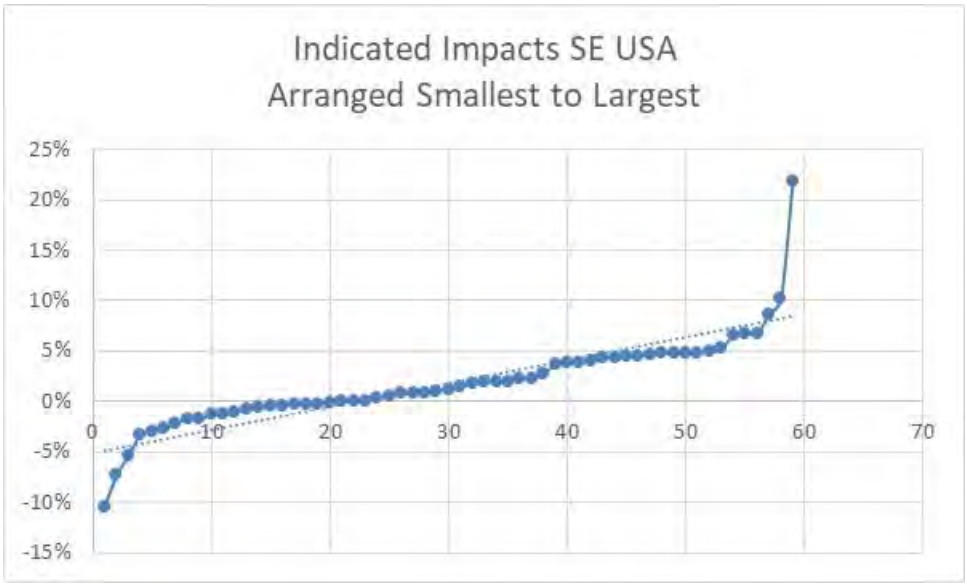
The solar farm matched pairs pulled from the solar farms shown above have similar characteristics to each other in terms of population, but with several outliers showing solar farms in more urban areas. The median income for the population within 1 mile of a solar farm is $55,049 with a median housing unit value of $230,848. Most of the comparables are under $300,000 in the home price, with $483,333 being the high end of the set, though I have matched pairs in multiple states over $1,600,000 adjoining solar farms. The adjoining uses show that residential and agricultural uses are the predominant adjoining uses. These figures are in line with the larger set of solar farms that I have looked at with the predominant adjoining uses being residential and agricultural and similar to the solar farm breakdown shown for Virginia and adjoining states as well as the proposed subject property.

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

I have pulled 59 matched pairs from the above referenced solar farms to provide the following summary of home sale matched pairs and land sales next to solar farms. The summary shows that the range of differences is from -10% to +22% with an average of +2% and median of +1%. Excluding the significant 22% outlier, the range is -10% to +10% with an average and median of +1%. This means that the average and median impact is for a slight positive impact due to adjacency to a solar farm. However, this +1% rate is within the typical variability I would expect from real estate. I therefore conclude that this data shows no negative or positive impact due to adjacency to a solar farm.

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

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



C. Summary of National Data on Solar Farms

I have worked in over 20 states related to solar farms and I have been tracking matched pairs in most of those states. On the following pages I provide a brief summary of those findings showing 38 solar farms over 5 MW studied with each one providing matched pair data supporting the findings of this report.

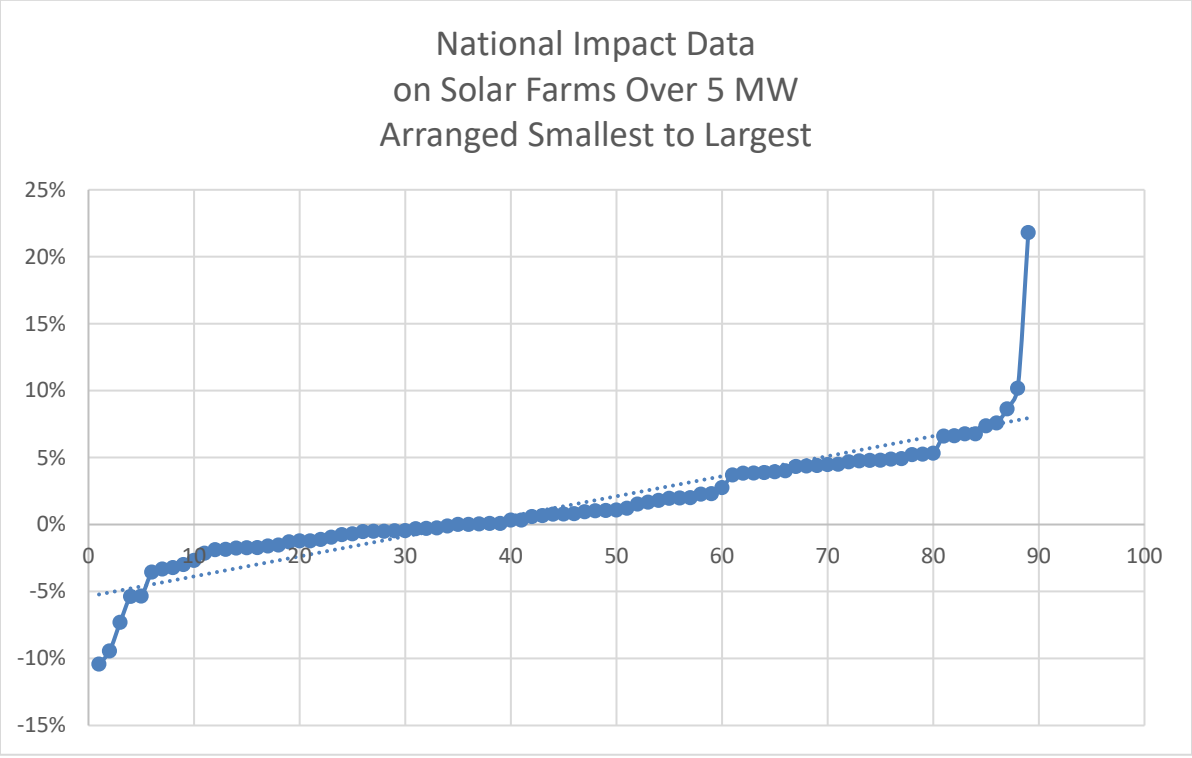
The solar farms summary is shown below with a summary of the matched pair data shown on the following page.

Matched Pair Summary							**Adj. Uses By Acreage**				**1 mile Radius (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	$78,417	$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	Spotyslvania	Paytes	VA	3,500	500.00	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
	Average			372	40.18	32	24%	52%	19%	6%	1,440	$65,255	$243,139
	Median			160	19.80	10	16%	59%	7%	0%	538	$60,576	$230,848
	High			3,500	500.00	160	98%	98%	94%	44%	7,684	$120,861	$515,399
	Low			35	5.00	0	1%	0%	0%	0%	7	$35,057	$96,555

From these 38 solar farms, I have derived 89 matched pairs. The matched pairs show no negative impact at distances as close as 105 feet between a solar panel and the nearest point on a home. The range of impacts is -10% to +10% with an average and median of +1% (after excluding the one +22% outlier that may have other factors influencing it).

	MW	Avg. Distance	% Dif
Average	48.77	569	1%
Median	16.00	400	1%
High	617.00	2,020	22%
Low	5.00	145	-10%

While the range is broad, the two charts below show the data points in range from lowest to highest. There is only 3 data points out of 89 that show a negative impact. The rest support either a finding of no impact or 9 of the data points suggest a positive impact due to adjacency to a solar farm. As discussed earlier in this report, I consider this data to strongly support a finding of no impact on value as most of the findings are within typical market variation and even within that, most are mildly positive findings.



D. Larger Solar Farms

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

Matched Pair Summary - @20 MW And Larger							Adj. Uses By Acreage				1 mile Radius (2010-2020 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	$187,214
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	Spotyslvania	Paytes	VA	3,500	500.00	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
	Average			644	69.08		19%	64%	17%	4%	658	$67,210	$261,914
	Median			347	40.00		12%	68%	2%	0%	203	$66,918	$273,135
	High			3,500	500.00		75%	98%	94%	25%	2,446	$120,861	$483,333
	Low			121	19.60		1%	0%	0%	0%	7	$36,737	$110,361

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

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

Matched Pair Summary - @50 MW And Larger							Adj. Uses By Acreage				1 mile Radius (2010-2020 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	Spotyslvania	Paytes	VA	3,500	500.00	160	37%	52%	11%	0%	74	$120,861	$483,333
9	Whitehorn	Gretna	VA	N/A	50.00	N/A	N/A	N/A	N/A	N/A	166	$43,179	$168,750
10	Altavista	Altavista	VA	720	80.00	N/A	N/A	N/A	N/A	N/A	7	$50,000	$341,667
	Average			1,095	115.85		19%	58%	23%	1%	646	$67,820	$283,013
	Median			627	75.00		15%	67%	0%	0%	274	$61,858	$279,039
	High			3,500	500.00		41%	97%	94%	3%	2,446	$120,861	$483,333
	Low			347	50.00		2%	0%	0%	0%	7	$36,737	$143,320

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

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

On the following page I show 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%

IX. 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.

X. 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.

XI. 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.

XII. 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.

XIII. Specific Factors Related To Impacts on Value

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

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

1. Hazardous material

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

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

2. Odor

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

3. Noise

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

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

4. Traffic

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

5. Stigma

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

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

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

6. Appearance

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

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

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

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

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

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

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

7. Conclusion

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

XIV. Conclusion

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

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

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

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 is quiet, and there is no traffic.

XV. 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. I did provide an earlier draft of this report on August 24, 2023.

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

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Professional Experience

Kirkland Appraisals, LLC, Raleigh, N.C. — 2003 – Present
Commercial appraiser

Hester & Company, Raleigh, N.C.
Commercial appraiser — 1996 – 2003

Professional Affiliations

MAI (Member, Appraisal Institute) designation #11796 — 2001
NC State Certified General Appraiser # A4359 — 1999
VA State Certified General Appraiser # 4001017291
SC State Certified General Appraiser # 6209
FL State Certified General Appraiser # RZ3950
GA State Certified General Appraiser # 321885
MI State Certified General Appraiser # 1201076620
PA State Certified General Appraiser # GA004598
OH State Certified General Appraiser # 2021008689
IN State Certified General Appraiser # CG42100052
KY State Certified General Appraiser # 5522

Education

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

Continuing Education

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