Kirkland Appraisals, LLC

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May 15, 2025

Justin Wolf
Bluegrass Creek Solar, LLC
Orion Renewable Energy
2345 S. Lyndhurst Dr, Ste 106
Indianapolis, IN 46241

RE: Bluegrass Creek Solar Project, near Elliot, Vanderburgh County, Indiana

Mr. Wolf:

At your request, we have considered the impact of a 100 MW solar project proposed to be constructed on a portion of a 889.31-acre assemblage near Elliot, Vanderburgh County, Indiana. Specifically, we have been asked to give my professional opinion on whether the proposed solar will or will not be injurious to or diminish the use, value and enjoyment of other property in the immediate vicinity for the purposes already permitted as well as whether or not it will impede the normal and orderly development and improvements of surrounding property for uses permitted by right in the zoning districts of surrounding property.

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

This letter is a limited report of a real property appraisal consulting assignment and subject to the limiting conditions attached to this letter. My client is Bluegrass Creek Solar, LLC, represented to me by Mr. Justin Wolf. Orion Renewable Energy is an additional authorized user of this report. My findings support the application. The effective date of this consultation is May 15, 2025.

I. Conclusion

The sale/resale analysis and the matched pair analysis show no impact on home values due to abutting or adjoining a solar project as well as no impact to abutting or adjacent vacant residential or agricultural land where the solar project 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 project is a compatible use for rural/residential transition areas and that it would function in a harmonious manner with this area.

The adjoining properties have sufficient setbacks from the proposed solar panels to protect adjoining property values. The distances indicated for the subject property are consistent with the paired sales showing no impact on adjoining property values given the distances involved and the proposed landscaping screen. Data in our files and analysis show no impacts on homes as close as 105 feet from the nearest panel and the closest home at this project will be 300 feet with an average distance of 606 feet. The landscaping in the comparables include numerous examples of minimal landscaping screens still supporting no impacts on property value at distances over 200 feet, but the subject property is proposing a stronger landscaping screen with a double row of evergreens to provide for a superior landscaping screen than many of the examples that I have identified in my analysis. I

therefore conclude that the project as presented will not have a negative impact on adjoining property values.

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

Supporting data on the BESS component likewise support a finding of no impact on property value on homes as close as 180 to 600 feet, whereas the closest home to the proposed BESS component at the subject property will be 1,288 feet away.

Very similar solar projects in very similar areas have been found by hundreds of towns and counties not to have a negative effect to abutting or adjoining properties at Special Use Permit Hearings.

Many of those findings of no impact have been upheld by NC appellate and superior courts such as:

Dellinger V Lincoln County 789 S.E.2d 21 on July 18, 2016

Ecoplexus V Currituck County COA17-656 on December 19, 2017

Innovative 55 V Robeson County COA16-1101 on June 6, 2017

The Kentucky State Siting Board has upheld the findings of this analysis on similar projects including:

2020 - Turkey Creek Solar, LLC Case 2020-00040, Glover Creek Solar, LLC2020-00043, Horseshoe Bend Solar, LLC 2020-00190, Northern Bobwhite Solar, LLC 2020-00208, AEUG Madison Solar, LLC 2020-0219, Mt Olive Creek Solar, LLC 2020-00226, Flat Run Solar, LLC 2020-00272, Fleming Solar, LLC 2020-00370, Meade County Solar, LLC 2020-00390, Henderson County Solar, LLC 2020-00391, McCracken County Solar, LLC 2020-00392, Horus Kentucky 1, LLC 2020-00417,

2021 - Martin County Solar Project, LLC 2021-00029, Rhudes Creek Solar, LLC 2021-00127, Bluebird Solar, LLC 2021-00141, Russellville Solar, LLC 2021-00235, Blue Moon Energy, LLC 2021-00414,

2022 – Pine Grove Solar, LLC 2022-00262, Hummingbird Energy, LLC 2022-00272, Glover Creek Solar, LLC 2022-00356, Martin County Solar Project, LLC 2022-00362,

2023 – Martin County Solar Project, LLC 2023-00131, Northern Bobwhite Solar, LLC 2023-00160, Dogwood Corners, LLC 2023-00246, Song Sparrow Solar, LLC 2023-00256, Banjo Creek Solar, LLC 2023-00263, FRON bn, LLC (Frontier Solar) 2023-00360,

2024 – Lynn Bark Energy Center, LLC 2024-00104, Pike County Solar Project, LLC 2024-00105, and Clover Creek Solar Project, LLC d/b/a New Frontiers Solar Park 2024-0253.

The data that I have researched includes new home construction as well as new subdivision developments adjoining solar project which speaks to a finding of no impact on adjoining uses and development potential.

I note that some of the positive implications of a solar project that have been expressed by people living next to solar project include protection from future development of residential developments or other more intrusive uses, reduced dust, odor and chemicals from farming operations, protection from light pollution at night, it is quiet, and there is minimal traffic.

If you have any questions, please let me know.

Sincerely,

Richard C. Kirkland, Jr., MAI
NC Certified General Appraiser #A4359
IN Certified General Appraiser CG42100052

Executive Summary

University Studies:

Studies Cited:	8
Range of Impacts:	-5.60% to +2.10%
Average Range of Impacts:	-2.09% to +0.51%

Assessor Surveys:

Assessors:	188
No Impact Responses:	170
Yes Impact Responses:	0
No Response:	18

Sale/Re-Sale Analysis (Midwest)

Sales Analyzed:	8
Range of Impacts:	-2% to +7%
Median:	+6%

Matched Pair/Paired Sale Analysis (Midwest)

Sales Analyzed:	29
Range of Impacts:	-4% to +12%
Median:	+1%

Broker Comments (Midwest)

Brokers Interviewed:	17
No Impact Responses:	17
Yes Impact Responses:	0

Conclusion:

Data Points Considered:	224
Range of Impacts:	-6% to +12%
Conclusion:	0%

Comments:

The data researched consistently shows impacts that hover in the +/-5% impact range, which is consistent with typical market imperfection.

The vast majority of the solar projects identified show setbacks of 200 feet or greater with landscaping buffers.

The responses from all of the assessors and all of the brokers interviewed in this analysis shows no impact on property value. The assessors interviewed confirmed in all cases that they do in fact have utility scale solar in their jurisdiction and that they have valued the cites of the solar projects as well. The brokers interviewed all sold specific homes adjoining solar projects and their comments are specific to that one sale.

II. Table of Contents

III. Proposed Project and Adjoining Uses

Proposed Use Description

This 100 MW solar project proposed to be constructed on a portion of a 889.31-acre assemblage near Elliot, Vanderburgh County, Indiana. This project will also include a 20.6MW BESS with a 4 hour duration.

Adjoining Properties

I have considered adjoining uses and included a map to identify each parcel's location. The closest adjoining home on a non-participating parcel will be 300 feet from the closest solar panel and the average distance to adjoining homes will be 606 feet to the nearest solar panel.

The project includes screening with a double row of evergreens for every home within 400 feet of a panel and evergreen trees planted along the right of ways every 25 feet. Fencing is proposed to be 7-foot of woven wire fencing to be consistent with the rural location.

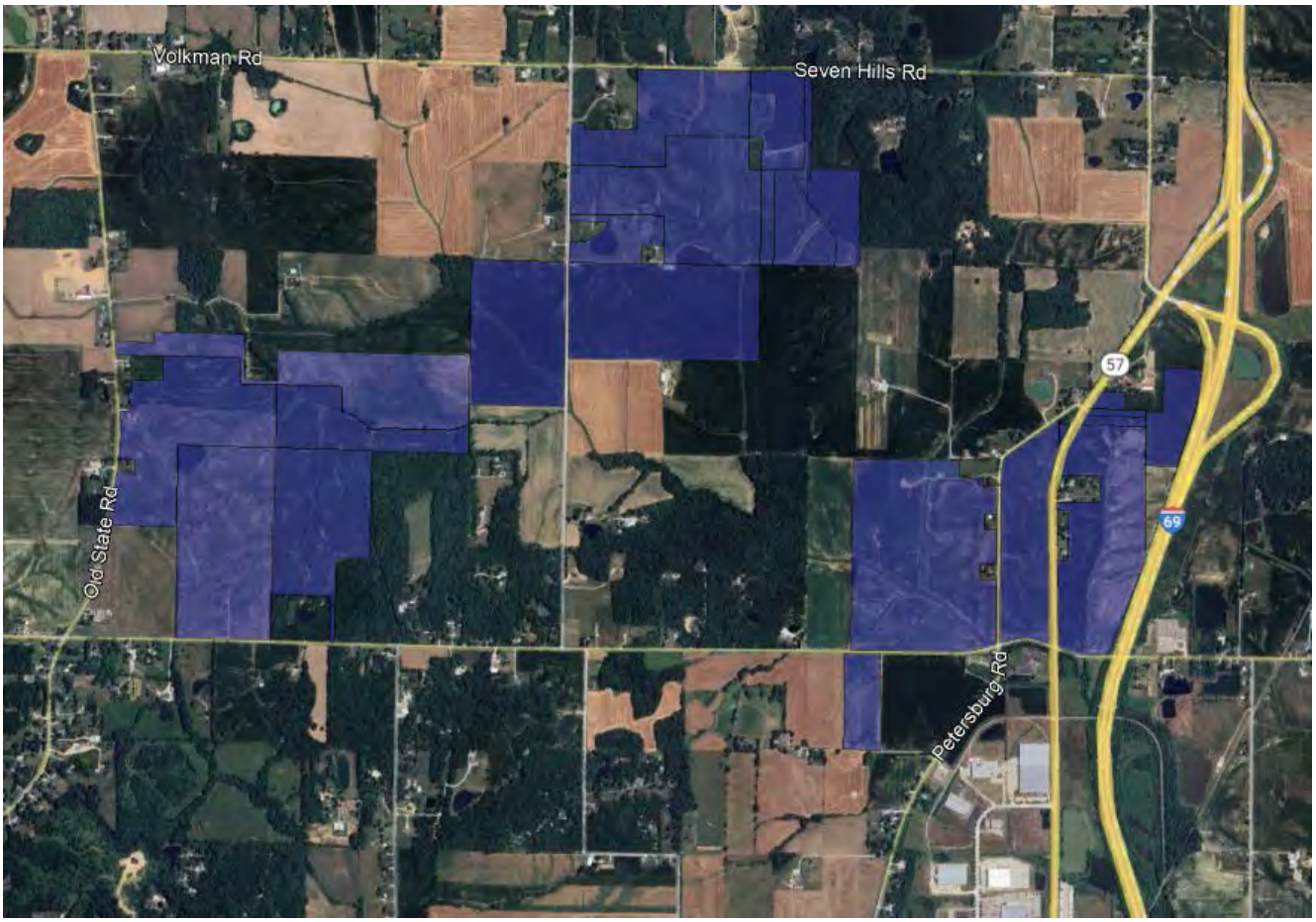
Adjoining land is primarily a mix of residential and agricultural uses, which is very typical of solar project sites.

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

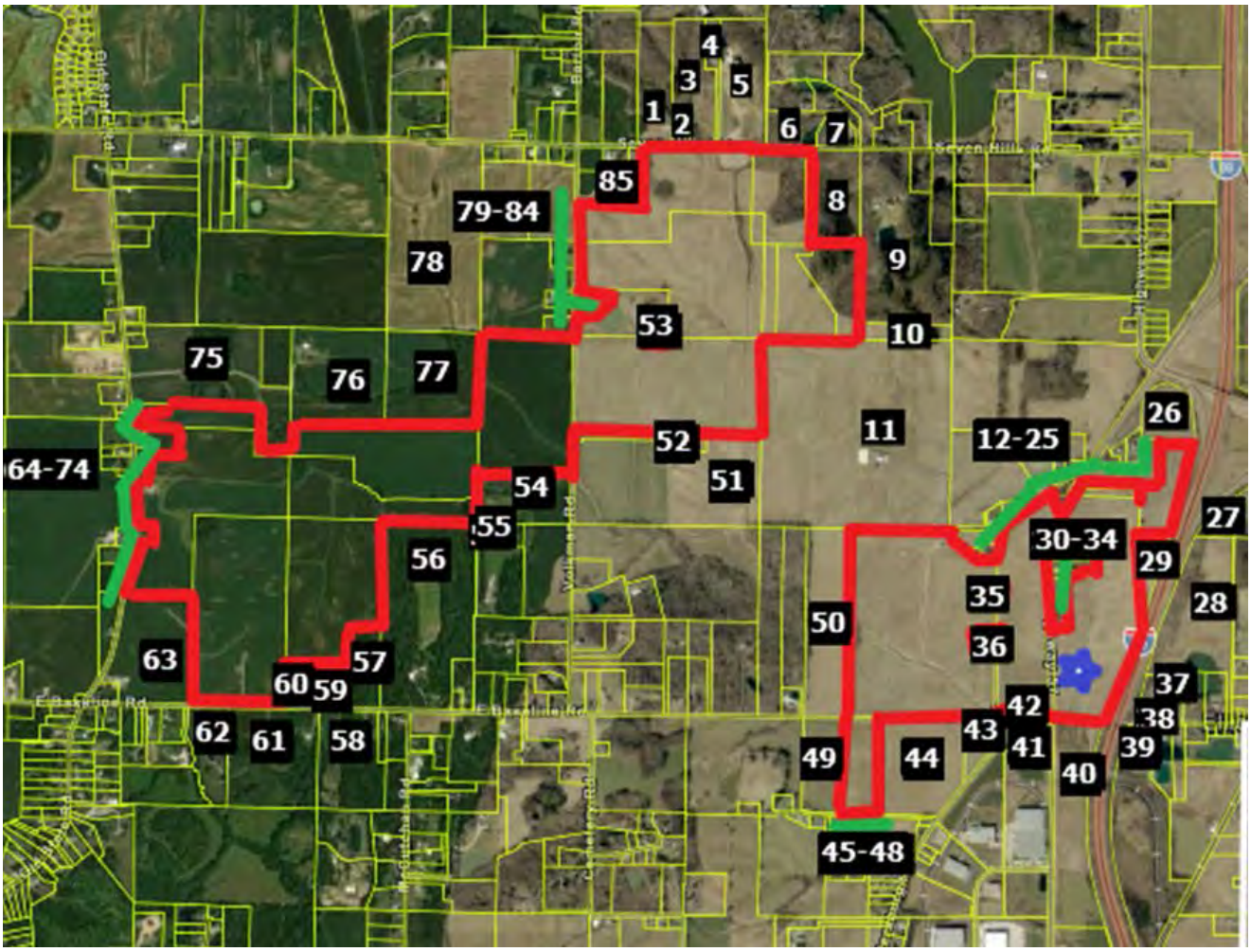
Adjoining Use Breakdown

	Acreage	**Parcels**
Residential	20.73%	70.59%
Agricultural	60.49%	17.65%
Commercial	0.63%	2.35%
Agri/Res	17.55%	7.06%
utility	0.60%	2.35%
Total	**100.00%**	**100.00%**

Google Earth Aerial Image of Entire Project



GIS Aerial Image



Surrounding Uses

#	MAP ID	Owner	GIS Data Acres	Present Use	Adjoin Acres	Adjoin Parcels	Distance (ft) Home/Panel
1	07-010-09-024-013	Titzer	18.63	Residential	1.26%	1.18%	N /A
2	07-094-09-419-001	Seals	2.87	Residential	0.19%	1.18%	N /A
3	07-010-09-024-014	Woods	18.90	Residential	1.28%	1.18%	N /A
4	07-010-09-024-014	Etherton	4.91	Residential	0.33%	1.18%	1,370
5	07-010-09-024-015	Zausch	26.17	Agri/Res	1.77%	1.18%	1,285
6	07-010-09-025-018	Van Hoy	8.18	Residential	0.55%	1.18%	665
7	07-010-09-025-002	Taylor	4.86	Residential	0.33%	1.18%	1,140
8	07-010-09-025-011	Sohn	20.33	Agri/Res	1.38%	1.18%	890
9	07-010-09-025-010	Hisle	58.79	Agri/Res	3.99%	1.18%	1,170
10	07-010-09-025-005	Wheeler	6.90	Residential	0.47%	1.18%	N/A
11	07-020-09-043-001	Wheeler	161.00	Agricultural	10.92%	1.18%	N/A
12	07-020-09-044-036	Brunck	0.83	Residential	0.06%	1.18%	295
13	07-020-09-044-028	Wheeler	2.74	Residential	0.19%	1.18%	N/A
14	07-020-09-044-032	Daniels	1.34	Residential	0.09%	1.18%	330
15	07-020-09-044-031	Harris	1.07	Residential	0.07%	1.18%	300
16	07-020-09-044-004	Wheeler	29.00	Agricultural	1.97%	1.18%	N/A
17	07-020-09-044-039	Bays	11.37	Residential	0.77%	1.18%	785
18	07-020-09-044-005	Stolte	1.21	Residential	0.08%	1.18%	400
19	07-020-09-044-012	Claycomb	0.69	Residential	0.05%	1.18%	N/A
20	07-020-09-044-006	Schnell	0.93	Residential	0.06%	1.18%	300
21	07-020-09-044-003	Woods	75.23	Agricultural	5.10%	1.18%	N/A
22	07-020-09-044-010	Elsner	0.98	Residential	0.07%	1.18%	300
23	07-020-09-044-009	Wallis	0.95	Residential	0.06%	1.18%	390
24	07-020-09-044-038	Wallis	1.80	Residential	0.12%	1.18%	N/A
25	07-020-09-045-016	Wallis	2.29	Residential	0.16%	1.18%	N/A
26	07-020-09-045-001	Wallis	11.64	Residential	0.79%	1.18%	N/A
27	07-020-09-045-010	Bohers	4.25	Residential	0.29%	1.18%	N/A
28	07-020-09-045-005	Wittman	40.20	Agricultural	2.73%	1.18%	N/A
29	07-020-09-045-019	Wittman	6.36	Residential	0.43%	1.18%	N/A
30	07-080-09-167-001	Spindler	2.92	Residential	0.20%	1.18%	300
31	07-080-09-167-002	Spindler	2.10	Residential	0.14%	1.18%	300
32	07-020-09-044-013	Brooks	1.00	Residential	0.07%	1.18%	300
33	07-020-09-044-014	Seib	0.50	Residential	0.03%	1.18%	300
34	07-020-09-044-022	Spindler	1.12	Residential	0.08%	1.18%	300
35	07-020-09-044-026	Puertzer	0.82	Residential	0.06%	1.18%	300
36	07-020-09-044-001	Welte	1.06	Residential	0.07%	1.18%	300
37	07-020-09-045-009	Southern	8.62	Utility	0.58%	1.18%	N/A
38	07-020-09-045-007	Southern	0.22	Utility	0.01%	1.18%	N/A
39	07-030-09-053-001	Silkey	3.91	Residential	0.27%	1.18%	975
40	07-030-09-053-008	Olympus	78.59	Agricultural	5.33%	1.18%	N/A

Surrounding Uses

#	MAP ID	Owner	GIS Data Acres	Present Use	Adjoin Acres	Adjoin Parcels	Distance (ft) Home/Panel
41	07-020-09-052-031	Kingsmen	7.04	Commercial	0.48%	1.18%	N/A
42	07-020-09-044-029	Kingsmen	2.25	Commercial	0.15%	1.18%	N/A
43	07-020-09-052-001	Farney	3.37	Residential	0.23%	1.18%	N/A
44	07-020-09-052-002	Kruse	33.54	Agricultural	2.27%	1.18%	N/A
45	07-020-09-052-008	Schmitt	10.29	Residential	0.70%	1.18%	N/A
46	07-030-09-055-006	Grimm	9.74	Residential	0.66%	1.18%	N/A
47	07-030-09-055-050	Bosse	5.04	Residential	0.34%	1.18%	N/A
48	07-030-09-055-048	Bosse	5.01	Residential	0.34%	1.18%	N/A
49	07-030-09-055-003	Roth	17.59	Residential	1.19%	1.18%	N/A
50	07-020-09-043-003	Farney	39.58	Agricultural	2.68%	1.18%	N/A
51	07-020-09-042-002	Welte	74.18	Agricultural	5.03%	1.18%	N/A
52	07-020-09-042-016	Welte	5.00	Residential	0.34%	1.18%	300
53	07-010-09-024-009	Woolston	1.72	Residential	0.12%	1.18%	300
54	07-020-09-041-004	Lateulere	19.75	Residential	1.34%	1.18%	N/A
55	07-090-09-193-001	Aurand	2.52	Residential	0.17%	1.18%	525
56	07-020-09-041-006	Bonenberger	73.34	Agri/Res	4.97%	1.18%	945
57	07-020-09-040-009	Dalp	11.98	Residential	0.81%	1.18%	N/A
58	07-030-09-057-001	Small	28.05	Agricultural	1.90%	1.18%	N/A
59	07-020-09-040-005	Woods	9.05	Residential	0.61%	1.18%	355
60	07-090-09-215-001	Taylor	2.38	Residential	0.16%	1.18%	N/A
61	07-030-09-056-027	Campbell	39.77	Agri/Res	2.70%	1.18%	630
62	07-030-09-056-030	Stuteville	14.58	Residential	0.99%	1.18%	910
63	07-020-09-039-009	Jackson	37.10	Agricultural	2.52%	1.18%	N/A
64	07-020-09-039-026	LB Jackson	5.35	Residential	0.36%	1.18%	1,185
65	07-094-09-409-002	Lynn	3.26	Residential	0.22%	1.18%	N/A
66	07-094-09-409-001	Lynn	2.32	Residential	0.16%	1.18%	1,065
67	07-020-09-039-002	Seib	1.26	Residential	0.09%	1.18%	1,020
68	07-094-09-424-001	Paridean	1.00	Residential	0.07%	1.18%	780
69	07-020-09-039-020	C&B Farms	90.64	Agricultural	6.15%	1.18%	N/A
70	07-020-09-039-021	Seib	0.83	Residential	0.06%	1.18%	N/A
71	07-020-09-039-036	Elpers	4.70	Residential	0.32%	1.18%	N/A
72	07-020-09-039-019	Arwood	3.50	Residential	0.24%	1.18%	N/A
73	07-020-09-039-013	TVO LLC	0.40	Residential	0.03%	1.18%	720
74	07-020-09-039-006	Hawkins	1.87	Residential	0.13%	1.18%	N/A
75	07-020-09-040-001	Hawkins	54.19	Agricultural	3.68%	1.18%	N/A
76	07-020-09-040-007	Hawkins	40.36	Agri/Res	2.74%	1.18%	1,005
77	07-020-09-041-001	Hawkins	39.51	Agricultural	2.68%	1.18%	N/A
78	07-010-09-027-005	Farney Farms	79.17	Agricultural	5.37%	1.18%	N/A
79	07-092-09-280-001	Littell	2.35	Residential	0.16%	1.18%	300
80	07-010-09-027-006	Hawkins	31.96	Agricultural	2.17%	1.18%	N/A

Surrounding Uses

#	MAP ID	Owner	GIS Data Acres	Present Use	Adjoin Acres	Adjoin Parcels	Distance (ft) Home/Panel
81	07-010-09-024-021	McKinney	2.53	Residential	0.17%	1.18%	N/A
82	07-010-09-027-015	Hawkins	2.00	Residential	0.14%	1.18%	300
83	07-010-09-027-013	Maun	2.76	Residential	0.19%	1.18%	300
84	07-010-09-027-030	Gibson	15.56	Residential	1.06%	1.18%	N/A
85	07-010-09-024-004	Miller	10.86	Residential	0.74%	1.18%	300
		Total	**1474.530**		**100.00%**	**100.00%**	606

Demographics Around Subject Property

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

The population projection for the coming years shows a decline in all three rings of this map.

Housing Profile

47725
47725, Evansville, Indiana
Ring: 1 mile radius

Prepared by Esri
Latitude: 38.13440
Longitude: -87.49775

Population		Households	
2020 Total Population	115	2024 Median Household Income	$90,040
2024 Total Population	113	2029 Median Household Income	$109,854
2029 Total Population	111	2024-2029 Annual Rate	4.06%
2024-2029 Annual Rate	-0.36%		

	Census 2020		2024		2029	
Housing Units by Occupancy Status and Tenure	Number	Percent	Number	Percent	Number	Percent
Total Housing Units	47	100.0%	47	100.0%	47	100.0%
Occupied	42	89.4%	41	87.2%	41	87.2%
Owner	39	83.0%	38	80.9%	38	80.9%
Renter	3	6.4%	3	6.4%	3	6.4%
Vacant	2	4.3%	6	12.8%	6	12.8%

	2024		2029	
Owner Occupied Housing Units by Value	Number	Percent	Number	Percent
Total	40	100.0%	39	100.0%
<$50,000	0	0.0%	0	0.0%
$50,000-$99,999	2	5.0%	0	0.0%
$100,000-$149,999	3	7.5%	1	2.6%
$150,000-$199,999	3	7.5%	1	2.6%
$200,000-$249,999	7	17.5%	6	15.4%
$250,000-$299,999	9	22.5%	10	25.6%
$300,000-$399,999	0	0.0%	0	0.0%
$400,000-$499,999	2	5.0%	3	7.7%
$500,000-$749,999	6	15.0%	9	23.1%
$750,000-$999,999	6	15.0%	6	15.4%
$1,000,000-$1,499,999	2	5.0%	3	7.7%
$1,500,000-$1,999,999	0	0.0%	0	0.0%
$2,000,000+	0	0.0%	0	0.0%
Median Value	$277,778		$450,000	
Average Value	$437,500		$522,436	

Housing Profile

47725
47725, Evansville, Indiana
Ring: 3 mile radius

Prepared by Esri
Latitude: 38.13440
Longitude: -87.49775

Population		Households	
2020 Total Population	5,559	2024 Median Household Income	$103,526
2024 Total Population	5,568	2029 Median Household Income	$115,901
2029 Total Population	5,546	2024-2029 Annual Rate	2.28%
2024-2029 Annual Rate	-0.08%		

	Census 2020		2024		2029	
Housing Units by Occupancy Status and Tenure	Number	Percent	Number	Percent	Number	Percent
Total Housing Units	2,120	100.0%	2,142	100.0%	2,143	100.0%
Occupied	2,028	95.7%	2,054	95.9%	2,069	96.5%
Owner	1,898	89.5%	1,935	90.3%	1,957	91.3%
Renter	130	6.1%	119	5.6%	112	5.2%
Vacant	99	4.7%	88	4.1%	74	3.5%

	2024		2029	
Owner Occupied Housing Units by Value	Number	Percent	Number	Percent
Total	1,934	100.0%	1,956	100.0%
<$50,000	2	0.1%	1	0.1%
$50,000-$99,999	21	1.1%	3	0.2%
$100,000-$149,999	80	4.1%	16	0.8%
$150,000-$199,999	207	10.7%	77	3.9%
$200,000-$249,999	422	21.8%	326	16.7%
$250,000-$299,999	504	26.1%	577	29.5%
$300,000-$399,999	356	18.4%	494	25.3%
$400,000-$499,999	126	6.5%	186	9.5%
$500,000-$749,999	117	6.0%	170	8.7%
$750,000-$999,999	77	4.0%	77	3.9%
$1,000,000-$1,499,999	21	1.1%	29	1.5%
$1,500,000-$1,999,999	1	0.1%	0	0.0%
$2,000,000+	0	0.0%	0	0.0%
Median Value	$273,313		$298,094	
Average Value	$326,370		$365,146	

Housing Profile

47725
47725, Evansville, Indiana
Ring: 5 mile radius

Prepared by Esri
Latitude: 38.13440
Longitude: -87.49775

Population		Households	
2020 Total Population	15,225	2024 Median Household Income	$106,368
2024 Total Population	15,267	2029 Median Household Income	$118,846
2029 Total Population	15,225	2024-2029 Annual Rate	2.24%
2024-2029 Annual Rate	-0.06%		

	Census 2020		2024		2029	
Housing Units by Occupancy Status and Tenure	Number	Percent	Number	Percent	Number	Percent
Total Housing Units	5,986	100.0%	6,076	100.0%	6,091	100.0%
Occupied	5,704	95.3%	5,799	95.4%	5,862	96.2%
Owner	5,343	89.3%	5,462	89.9%	5,544	91.0%
Renter	361	6.0%	337	5.5%	318	5.2%
Vacant	261	4.4%	277	4.6%	230	3.8%

	2024		2029	
Owner Occupied Housing Units by Value	Number	Percent	Number	Percent
Total	5,462	100.0%	5,543	100.0%
<$50,000	41	0.8%	9	0.2%
$50,000-$99,999	58	1.1%	12	0.2%
$100,000-$149,999	249	4.6%	57	1.0%
$150,000-$199,999	681	12.5%	264	4.8%
$200,000-$249,999	1,095	20.0%	854	15.4%
$250,000-$299,999	1,084	19.8%	1,248	22.5%
$300,000-$399,999	1,197	21.9%	1,633	29.5%
$400,000-$499,999	511	9.4%	767	13.8%
$500,000-$749,999	330	6.0%	465	8.4%
$750,000-$999,999	145	2.7%	144	2.6%
$1,000,000-$1,499,999	68	1.2%	87	1.6%
$1,500,000-$1,999,999	1	0.0%	0	0.0%
$2,000,000+	2	0.0%	3	0.1%
Median Value	$277,998		$320,055	
Average Value	$324,684		$367,784	

IV. Methodology and Discussion of Issues

Standards and Methodology

I conducted this analysis using the standards and practices established by the Appraisal Institute and 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 Indiana and across the country as the industry standard by certified appraisers conducting appraisals, market analyses, or impact studies and are considered adequate to form an opinion of the impact of a land use on neighboring properties. These standards and practices have also been accepted by the courts at the trial and appellate levels and by federal courts throughout the country as adequate to reach conclusions about the likely impact a use will have on adjoining or abutting properties.

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

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

The second type of analysis employed is a Matched Pair Analysis or Paired Sales Analysis. This methodology is outlined in **The Appraisal of Real Estate**, Twelfth Edition by the Appraisal Institute pages 438-439. It is further detailed in **Real Estate Damages**, Third Edition, pages 33-35 by Randall Bell PhD, MAI. Paired sales analysis is used to support adjustments in appraisal work for factors ranging from the impact of having a garage, golf course view, or additional bedrooms. It is an appropriate methodology for addressing the question of impact of an adjoining solar farm. The paired sales analysis is based on the theory that when two properties are in all other respects equivalent, a single difference can be measured to indicate the difference in price between them. Dr. Bell describes it as comparing a test area to control areas. In the example provided by Dr. Bell he shows five paired sales in the test area compared to 1 to 3 sales in the control areas to determine a difference. I have used 3 sales in the control areas in my analysis for each sale developed into a matched pair.

Determining what is an External Obsolescence

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

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

1) Traffic. Solar Farms are not traffic generators.

2) Odor. Solar farms do not produce odor.

3) Noise. Solar farms generate no noise concerns. A wide range of noise studies have found them consistent with agricultural and residential areas.

4) Environmental. Solar farms do not produce toxic or hazardous waste. Grass is maintained underneath the panels so there is minimal impervious surface area.

5) Appearance/Viewshed. This is the one area that potentially applies to solar farms. However, solar farms are generally required to provide significant setbacks and landscaping buffers to address that concern. Furthermore, any consideration of appearance of viewshed impacts has to be considered in comparison with currently allowed uses on that site. For example, if a residential subdivision is already an allowed use, the question becomes in what way does the appearance impact adjoining property owners above and beyond the appearance of that allowed subdivision or other similar allowed uses.

6) Other factors. I have observed and studied many solar farms and have never observed any characteristic about such facilities that prevents or impedes neighbors from fully using their homes or farms or businesses for the use intended.

Market Imperfection

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

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

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

Based on this understanding of market imperfection, it is important to note that very minor differences in value within an impact study do not necessarily indicate either a negative or positive impact. When the impacts measured fall within that +/-5%, I consider this to be within typical market variation/imperfection. Therefore it may be that there is a negative or positive impact identified if the impact is within that range, but given that it is indistinguishable from what amounts to the

background noise or static within the real estate data, I do not consider indications of +/-5% to support a finding of a negative or positive impact.

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

Relative Solar Farm Sizes

Solar farms have been increasing in size in recent years. Much of the data collected is from existing, older solar farms of smaller size, but there are numerous examples of sales adjoining 75 MW facilities and projects over 100 MW that show a similar trend as the smaller solar farms. This is understandable given that the primary concern relative to a solar farm is the appearance or view of the solar farm, which is typically addressed through setbacks and landscaping buffers. The relevance of data from smaller solar farms to larger solar farms is due to the primary question being one of appearance. If the solar farm is properly screened, then little of the solar farm would be seen from adjoining property regardless of how many acres are involved.

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

I have split out the data for the matched pairs adjoining larger solar farms only to illustrate the similarities later in this report. I note that I have matched pairs adjoining solar farms over 600 MWs in size showing no impact on property value – specifically Spotsylvania Solar in Virginia is a 617 MW project with numerous new homes being built in close proximity to the solar project including a new subdivision section that has solar on three sides of that new subdivision phase.

V. Research on Solar Farms

A. Appraisal Market Studies

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

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

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

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

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

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

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

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

Mr. Kaila also interviewed County Planners and Real Estate Assessor's in eight different Virginia counties with none of the assessor's identifying any negative impacts observed for existing solar projects.

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

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

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

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

Also noted in the Christian Kalia interview notes is a response from Mr. Beck indicating that in his opinion "the homes were higher priced homes and had full view of the solar farm." Mr. Beck indicated in the interview if landscaping screens were employed he would not see any drop in value.

NorthStar Appraisal Company – Impact Analysis for Nichomus Run Solar, Pilesgrove, New Jersey, 2020

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

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

MR Valuation Consulting, LLC – The Kuhl Farm Solar Development and The Fischer Farm Solar Development – New Jersey, 2012

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

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

Ms. Mary Clay, MAI reviewed a report by Kirkland Appraisals in this case and also provided a differing opinion of impact. 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 later in this report, but specifically excludes the conclusion of that study that in rural areas they found no impact on property value.

She cites lot sales near Spotsylvania Solar without confirming the purchase prices with brokers as indicative of market impact and has made no attempt to compare lot prices that are contemporaneous. In her 5 lot sales that she identifies, all of the lot prices decline with time from 2015 through 2019. This includes the 3 lot sales prior to the approval of the solar farm. The decrease in lot values shown in this chart are more indicative of the trend in the market, than of any impact related to the solar farm. Otherwise, how does she explain the drop in price from 2015 to 2017 prior to the solar farm approval. Furthermore, those same lots sold at significant increases in value once the solar project was completed and interviewing a local broker, a local appraiser, and the land speculator who had purchased the lots all three confirmed that the solar project was having no impact on home and lot values in that 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 prices of 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 5,712 solar farms in the USA in 49 states as of 2025 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.

Additionally, Ms. Mary Clay, MAI out of Kentucky reviewed a report by Kirkland Appraisals in Jefferson County Indiana that claimed the Kirkland Appraisals report is “fundamentally flawed, not credible, and not consistent with USPAP guidelines.”

Instead of attempting to unwind those comments I will point out that similar impact studies have been upheld 100% of the time they have been presented to the State of Kentucky Siting Board, whereas 0% of Mary Clay’s analysis have been upheld by that board. Similar studies have also been accepted by the State of Ohio Siting Board and upheld by the North Carolina Superior Court on multiple occasions. I have recorded a webinar on the methodology for the American Society of Farm Managers and Rural Appraisers in conjunction with Donald Fisher, MAI that is still available for training appraisers by that body.

Furthermore, I have worked with or been reviewed by numerous MAIs across the country with similar studies using similar methodology. A partial list of these MAIs are presented below:

William Sapio, MAI

Donald Fisher, MAI

Christian Kalia, MAI

Katherine Tantinan, MAI

Mark Pomykacz, MAI

Lee Ovington, MAI

Ty Sutton, MAI

Ryan Shively, MAI

Tom Hester, MAI

Damon Bidencope, MAI

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

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

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

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

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

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

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

Donald Fisher, ARA, 2021

Donald Fisher has completed a number of studies on solar farms and was quoted in February 15, 2021 stating, "Most of the locations were in either suburban or rural areas, and all of those studies found either a neutral impact or, ironically, a positive impact, where values on properties after the installation of solar farms went up higher than time trends."

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

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

Conclusion of Impact Studies

Of the 10 studies noted 9 included actual sales data to derive an opinion of no impact on value. The two studies to conclude on a negative impact includes the Fred Beck study based on no actual sales data, and he has since indicated that with landscaping screens he would not conclude on a negative impact. The other study by Mary Clay shows improper adjustments for time, a lack of confirmation of sales comparables, and exclusion of data that does not support her initial position.

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

B. Articles

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

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

Andy Ames, 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.

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 Indiana and the Midwest States. I have additional commentary from other states available in my files.

VI. 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 (which is 200 feet closer than proposed for the Bluegrass Creek Solar project), the response from experienced appraisers were -5% at most on impact and that is without a landscaping screen (which Bluegrass Creek Solar will have). Inexperienced appraisers who have never appraised anything next to a solar project came up with significantly higher impacts.

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 landscape screening and is set back much further than 100 feet from adjoining homes.

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 Township of Scott of Vanderburgh County, which has a population of 10,292 population for 2024 based on HomeTownLocator using Census Data and a total area of 41.5 square miles. This indicates a population density of 248 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. Again, this study only found negative impacts in high population areas and found no statistical impact in rural areas.

Township Of Scott Data & Demographics (As of July 1, 2024)

POPULATION	
Total Population	10,292 (100%)
Population in Households	10,207 (99.2%)
Population in Families	9,073 (88.2%)
Population in Group Quarters[1]	85 (0.8%)
Population Density	248
Diversity Index[2]	18

HOUSING	
Total HU (Housing Units)	4,053 (100%)
Owner Occupied HU	3,652 (90.1%)
Renter Occupied HU	207 (5.1%)
Vacant Housing Units	194 (4.8%)
Median Home Value	$273,862
Average Home Value	$319,161
Housing Affordability Index[3]	148

INCOME	
Median Household Income	$103,130
Average Household Income	$125,608
% of Income for Mortgage[4]	17%
Per Capita Income	$47,107
Wealth Index[5]	126

HOUSEHOLDS	
Total Households	3,859
Average Household Size	2.64000000000
Family Households	2,987
Average Family Size	3

C. University of Rhode Island, 2023

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

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

D. Georgia Institute of Technology, October 2020

Utility-Scale Solar Farms and Agricultural Land Values

This study was completed by Nino Abashidze as Post-Doctoral Research Associate of Health Economics and Analytics 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.

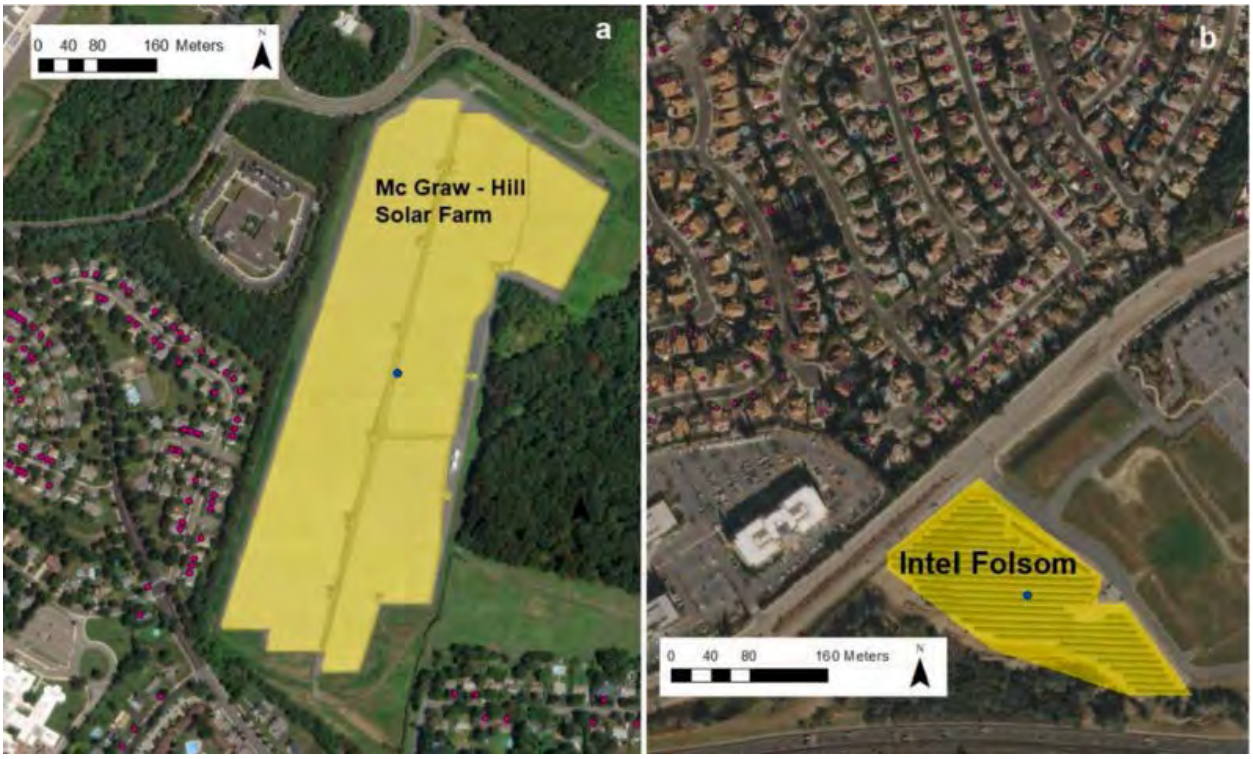
This analysis concludes on Page 21 of the study "Although there are no direct effects of solar farms on nearby agricultural land values, we do find evidence that suggests construction of a solar farm may create a small, positive, option -value for land owners that is capitalized into land prices. Specifically,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

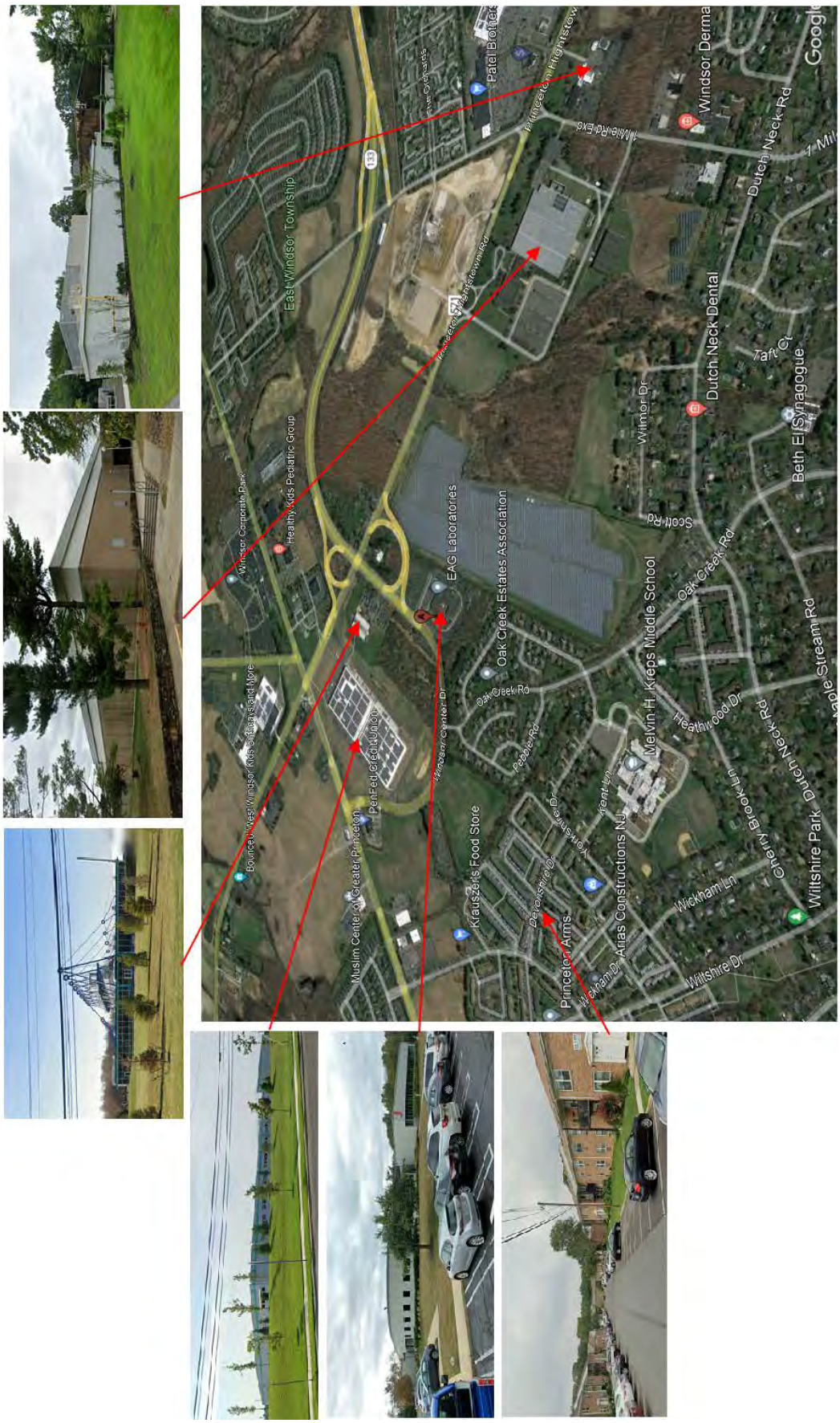
E. Lawrence Berkeley National Lab, March 2023

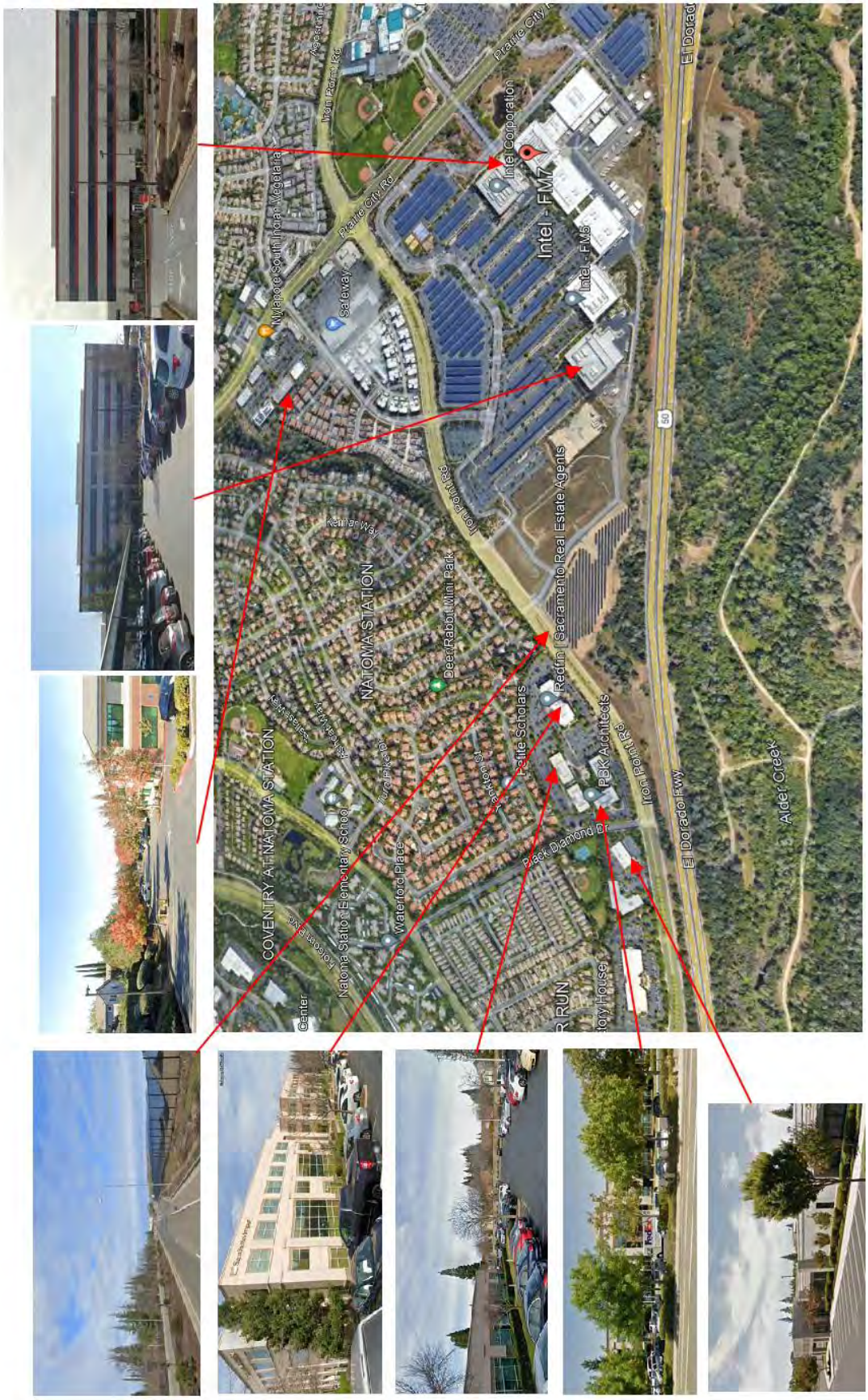
Shedding light on large-scale solar impacts: An analysis of property values and proximity to photovoltaics across six U.S. states

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



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


East Windsor Township
Windsor Corporate Park
Healthy Kids Pediatric Group
Bounce U West Windsor Kids Parties and More
PenFed Credit Union
Muslim Center of Greater Princeton
Kraus Zeris Food Store
Princeton Arms
Arias Constructions NJ
EAG Laboratories
Oak Creek Estates Association
Oak Creek Rd
Pebble Rd
Windsor Center Dr
Yorkshire Dr
Kent Ln
Melvin H. Kreps Middle School
Heathrwood Dr
Oak Creek Rd
Scott Rd
Wilmor Dr
Dutch Neck Dental
Taft Ct
Beth El Synagogue
Dutch Neck Rd
Windsor Derma
Patel Biotech
Princeton Highstown
Wickham Ln
Wiltshire Dr
Wiltshire Park
Cherry Brook Ln
Maple Stream Rd


Intel - FM7
Intel Corporation
Prairie City Rd
Iron Point Rd
Natoma Station Elementary School
NATOMA STATION
COVENTRY AT NATOMA STATION
Deer Rabbit Mini Park
Petite Scholars
Redfin
Sacramento Real Estate Agents
PBK Architects
Black Diamond Dr
Waterford Place
Alder Creek
El Dorado Fwy
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 0.5-mile radius are significantly more impacted by the adjoining office buildings than a solar farm located distantly that are not within the viewshed of those homes. Also, this solar farm is located on land adjoining the Intel Campus on a tract that is zoned M-1 PD, which is a Light Industrial/Manufacturing zoning. Nearby homes. Furthermore, the street view at the solar farm shows not only the divided four-lane highway that separates the office buildings and homes from the solar farm, but also shows that there is no landscaping buffer at this location. All of these factors are ignored by this study. Below is another image of the Folsom Solar at the corner of Iron Point Road and Intel West Driveway which shows just how close and how unscreened this project is.

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

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

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

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

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

G. Loyola University Chicago by Simeng Hao and Gilbert Michaud, 2024

Assessing Property Value Impacts Near Utility-Scale Solar in the Midwest

This study by two Loyola University Chicago researchers of 70 utility-scale solar facilities built in the Midwest from 2009 to 2022, using data from the Lawrence Berkley National Lab and housing value data from Zillow. Results indicate that utility-scale solar projects increase nearby property values by roughly 0.5 to 2.0% and the positive effect was found in both rural and metro areas, although smaller projects have more of a positive impact on nearby property values than projects 20 MW or larger.

The study suggests that the positive correlation between utility-scale and nearby property values could be due to new tax revenues, which are often used to support local schools and other public services, as well as the local employment opportunities that utility-scale solar projects can provide.

H. Purdue University by Binayak Kunwar, 2024

Impact of Commercial and Utility-Scale Solar Energy on Farmland Price

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

Summary of University Studies

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

The overall range is -5.60% to a 2.10% with an average between -2.09% and +0.51%. These ranges are clearly hovering in a nominal range that correspond with Market Imperfection as identified earlier

in this report. With a range that tight, it is not a significant impact shown by these studies and is suggesting a positive potential that is almost as great as the negative potential.

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

Table 2: Breakdown of University Study Findings

	Source	Type	Year	Low	High	Conclusion	Note on Proximity
A	UTA	Published Study	2018	-5.00%	1.00%		1000 feet
B	URI	Published Study	2020	-1.70%	0.00%	-1.70%	1 mile
						0.00%	1mile rural
C	URI	Published Study	2023	-3.60%	-1.50%		1/2 mile
D	GATech	Published Study	2020	0.00%	0.00%		Farmland
E	Lawrence	Published Study	2023	-5.60%	0.00%	-2.30%	1/4 mile
						-1.50%	1/2 mile
						-0.80%	1/2 to 1 mile
F	Loyola	Published Study	2024	0.50%	2.00%		Proximity
G	Purdue	Masters Thesis	2024	0.80%	2.10%		Proximity

Overall		
Average	-2.09%	0.51%
Median	-1.70%	0.00%
High	0.80%	2.10%
Low	-5.60%	-1.50%

Excluding Study A that had no empirical data		
Average	-1.60%	0.43%
Median	-0.85%	0.00%
High	0.80%	2.10%
Low	-5.60%	-1.50%

Excluding Study A and Study D (Farmland Only)		
Average	-1.92%	0.52%
Median	-1.70%	0.00%
High	0.80%	2.10%
Low	-5.60%	-1.50%

VII. Solar project on Agricultural Land Discussion

A question that often arises with solar project is the displacement of agricultural land as part of the solar project development. As noted earlier in this report, a solar project is a temporary use of the land that at the end of the life of the project (approximately 40 years) will be removed and the land restored to the current condition. Topsoil is to be maintained throughout the project with minimal grading in the initial development and anywhere topsoil is removed, it is to be stockpiled for later restoration.

The viability of restoring the land to agricultural use following 40 years as a solar project is well supported through a wide variety of resources. The NCSU White Paper identified earlier in this report - **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 –** specifically addresses common questions and supports a lack of impacts on soils, erosion, and related issues. This is a heavily researched paper that identifies multiple supporting references and resources.

The American Society of Farm Managers and Rural Appraisers (ASFMRA) has looked at the issue of farms being used for solar and considers it to be a good means of providing farmers with a more diverse and stable income as part of a mix of agricultural incomes. They further consider this to be a good method for preserving farmland for the future. After 40 years of the land being in what amounts to pasture, the land will have rested, which allows the soil quality to improve, and be ready to return to agricultural production if the owners choose to do so.

The US Department of Energy NREL estimated in 2016 that the entire energy needs of the US would require approximately 10 million acres of land based on solar panels that were 20% efficient. The total amount of agricultural land in the US is 897 million acres based on the US Department of Agriculture (USDA) as of 2020. This means that approximately 1.11% of US farmland could support 100% of US Energy needs based on those terms. This percentage gets even smaller if accounting for improving efficiency of solar panels as well as the ongoing agrivoltaic efforts for dual use of farmland and solar project.

According to the Indiana State Department of Agriculture, Indiana lost approximately 460,000 acres of farmland between 1982 and 2012 due to urbanization and other non-agricultural uses. Despite that loss in farmland, agricultural products sold by farmers has increased from $4.1 billion in 1982 to $11.2 billion in 2012. Adjusting those figures by the CPI for inflation, the $4.1 billion of 1982 dollars is equivalent to $9.84 billion in 2012 dollars. This means that despite reduced acreage in farming in Indiana, there was still a 13.8% increase in agricultural production over that time period. This is attributed to improvements in agricultural production, which is an ongoing process. The average corn yield in the US in 2020 was 172 bushels per acre, while the average in 1980 was only 109 bushels per acre. This shows an increase in productivity of 57.8% over a 40-year period, or about 1.45% per year on average.

Indiana has 14.7 million acres of agricultural land according to the USDA as of 2020. Vanderburgh County has 51,839 acres of agricultural land according to the USDA as of 2022. The current project proposed for Bluegrass Creek Solar would include significantly less than the parent tract of 889.31 acres. But if I assumed all 889.31 acres were converted, this would reflect 1.72% of the agricultural land in the county. Based on the average increase in output for farmland noted above, there would be no net loss in output in agricultural product if just this one change occurred in just two years.

Furthermore, the USDA as of 2021 indicated that there are approximately 442,000 acres enrolled in the Conservation Reserve Enhancement Program (CREP) in Indiana. This land is being paid by the US government to avoid agricultural production for periods that typically range from 10 to 15 years. The purpose is to manage crop yields, protect and enhance soils and wildlife. These same functions can occur on land leased for solar project, without the US government payments.

Also, as of 2021 the USDA indicates that approximately 550 to 600 million bushels of corn are used for ethanol production in Indiana. This represents approximately 34% to 37% of the total corn produced in the state, or 5 to 5.4 million acres in Indiana. Converting some of this ethanol production acreage to solar project land would have no impact on food production in the state.

VIII. Assessor Surveys

I have completed a survey of assessors in Indiana in 2023 similar to surveys completed in other states as shown below. The number of farms noted below is specific only to solar farms.

Indiana Solar Farm Research Survey

County	Assessor's Name	Number of Farms	Change in Adjacent Property Value
Bartholomew	Ginny Whipple	1	No
Blackford	Sheila Hyer	2 in process	No
Carroll	Neda Duff	2	No
Clark	Lewis "Butch" Love	0	No
Clay	Barbara "Barb" Scott	3	No
Clinton	Jada Ray	0	No
Delaware	James D. Carmichael	0	No
Dubois	Angela C. (Angie) Giesler	1	No
Elkhart	Cathy Searcy	1	No
Fountain	Melissa Griffin	1, 2 more possibly	No
Gibson	Kim Beadle	0	No
Greene	Dawn Abrams	2	No
Harrison	Lorena (Rena) A. Stepro	1	No
Hendricks	Nicki Lawson	1	No
Henry	Jodie Brown	2	No
Huntington	Jill Amick-Zorger	0	No
Jay	Robin Alberson	0	No
Lagrange	LaTonya Spearman	0	No
Lawrence	April Stapp Collins	1	No
Marshall	Peter Paul	4	No
Miami	Karen Lemaster	3	No
Monroe	Judith A. Sharp	2	No
Newton	Kristen Hoskins	2	No, but would base enhancement/decrease on data
Noble	Ben Castle	0	No
Pike	Mike Goodpaster	0	No, but probably in future - need more data
Posey	Nancy Hoehn	0	No
Randolph	George Caster	1	No
Starke	Michelle Schouten	0	No
Steuben	Kim (Johnson) Anderson	2 small lots less than 1 acre, with 3 or 4 at the schools	No
Vigo	Kevin Gardner	1	No
Wabash	Kelly Schenkel	0	No

Responses: 31
Negative Impact on Adjoining Value = Yes: 0
Negative Impact on Adjoining Value = No: 31

1 response indicated future data would "probably" show negative impact
1 response indicated future data might show positive or negative

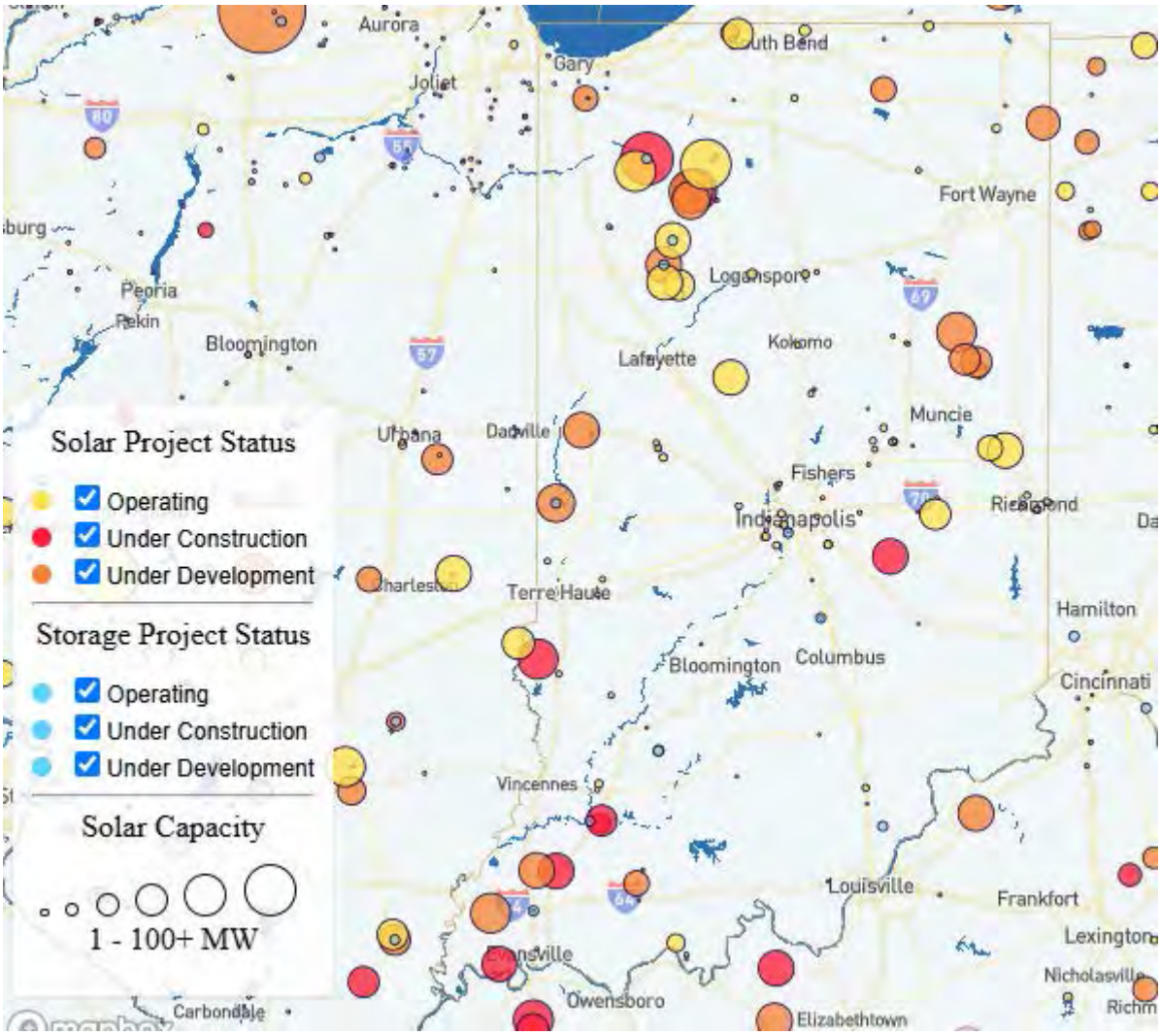
In some of the responses noted above the county reported no solar projects currently active but still provided an opinion on how they would handle the situation once a project was completed. This survey was completed in 2023 and not all assessors replied to the request for information.

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 project 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

IX. Summary of Solar Projects In and Around Indiana

I have researched solar projects in Indiana. I identified solar projects through the Solar Energy Industries Association (SEIA) Major Project List and then excluded the roof mounted facilities. I focused on larger solar projects over 5 MW. The map below shows the solar projects that SEIA is tracking and shows a number under development.



A quick summary of each solar project identified is shown on the following pages. I have included some additional solar farms that I have identified through AcreValue that were not shown on the SEIA map above.

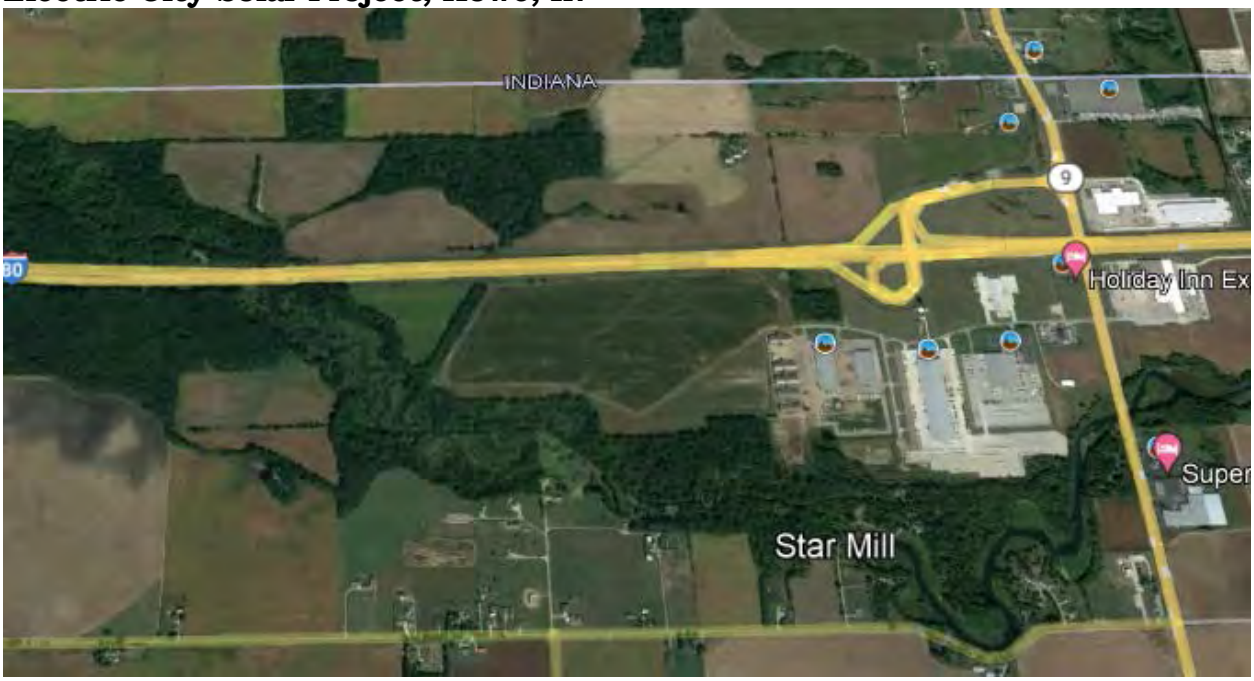
St. Joseph Solar, South Bend, IN

This solar project is a 26.7 MW facility that is currently in operation.

Olive PV, Olive, IN

This solar project is 6.4 MW and located between Olive and New Carlisle.

Electric City Solar Project, Howe, IN



This 18.9 MW facility is located just off I-80-90 between Sturgis and Howe.

Rensselaer 2 Solar, Rensselaer, IN

This 5.1 MW facility is located on the field shown in the middle of the map.

Logansport Solar, Logansport, IN

This 21.3 MW facility is located on the field between Holland Street and Water Street.

Peru 2 & 3 Solar, Peru, IN

Peru 2 is a 9.5 MW project built in 2021 and Peru 3 is 2.9 MW built in 2022 for a total of 12.4 MW. I did not identify any recent home sales adjoining this solar project. There is a golf course just to the west.

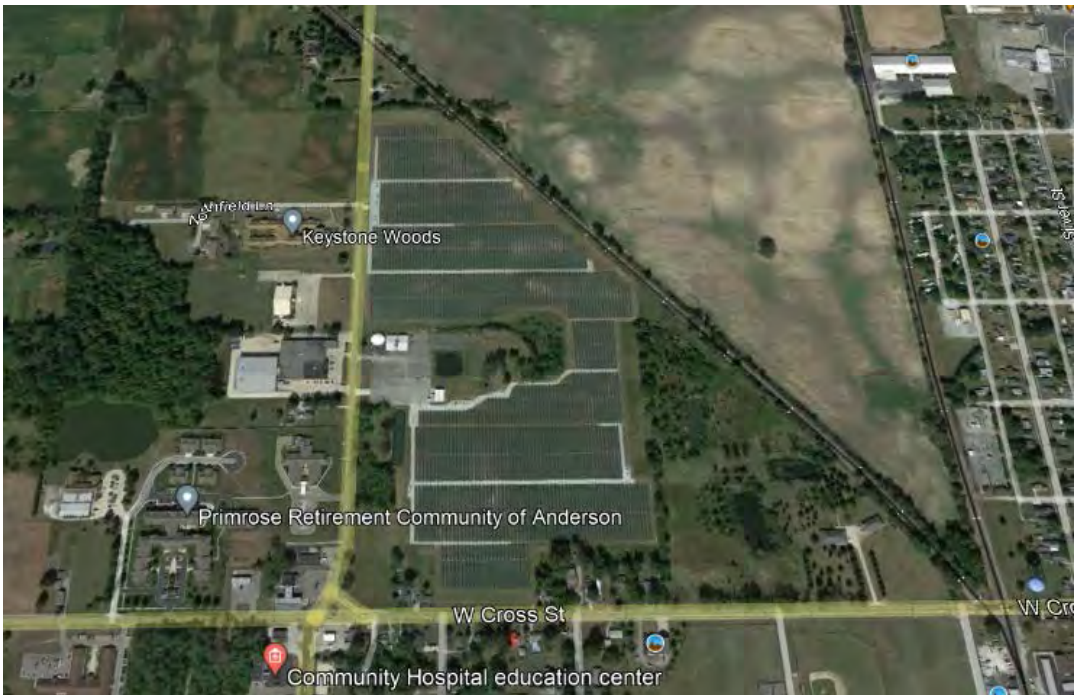
Columbia City Solar Park, Columbia City

This 5.7 MW solar project is located at the north end of Opportunity Drive.

Tipton Solar Park, Tipton, IN

This project was built in 2019 for a 5.25 MW solar project and adjoins mostly agricultural properties. It is on the north side of State Rte 28 near the middle of the map.

IMPA Anderson Solar Park 2, Anderson, IN



This solar project has a 10.2 MW capacity.

Anderson 3, Anderson 4 and Anderson 5, Anderson, Madison County, IN

Anderson 4 is located off S Rangeline Road closer to Union Township Drive and is a 10.4 MW facility. Anderson 3 was built in 2021 and is located closer to E 150 S Street and is an 11.6 MW solar project. Anderson 5 is a 4 MW solar project located to the northeast across S Rangeline Road.

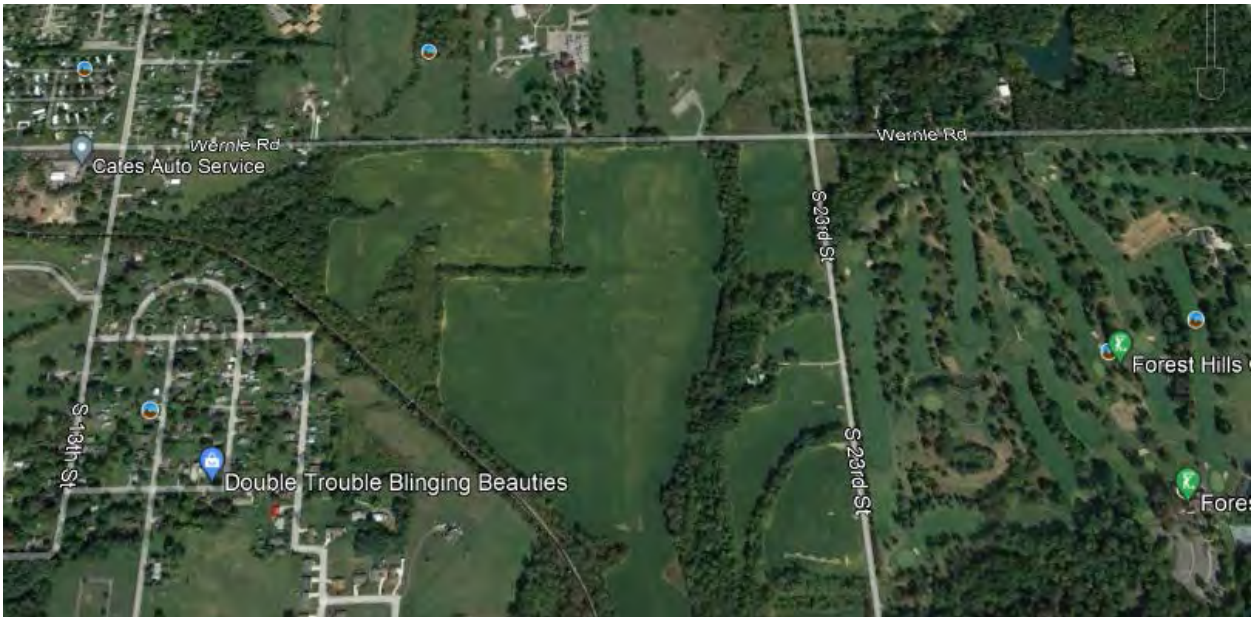
Richmond Solar Park 2 and 3, Richmond, IN

Richmond 3 is located at the north end of Commerce Road with 8.7 MW of capacity. Richmond 2 is located to the southeast across from the US 35 Highway and US 40 interchange with 9.8 MW of capacity.

Richmond Solar Park 4, Richmond, IN

Richmond 4 is located on the south side of Industries Road with 9.3 MW capacity.

Richmond Solar Park 5 and 6, Richmond, IN



Richmond 5 is located on the south side of Wernle Road with 12 MW capacity. Richmond 6 is just west of that with 6.8 MW capacity.

It is notable that Forest Hills Country Club is located just to the west of this location. Most of the adjoining residential housing is located across the railroad line shown along the southern boundary of the solar project.

Indy Solar II, LLC, Indianapolis, IN

This is a 13.9 MW facility located off of E. Southport Road. There was a January 7, 2021 sale of a new home constructed at 9620 E McGregor Road to the southwest of this solar project. This home is approximately 1,700 feet from the nearest panel. I have not analyzed this sale as it is not adjoining, though I have noted it as new activity in the area.

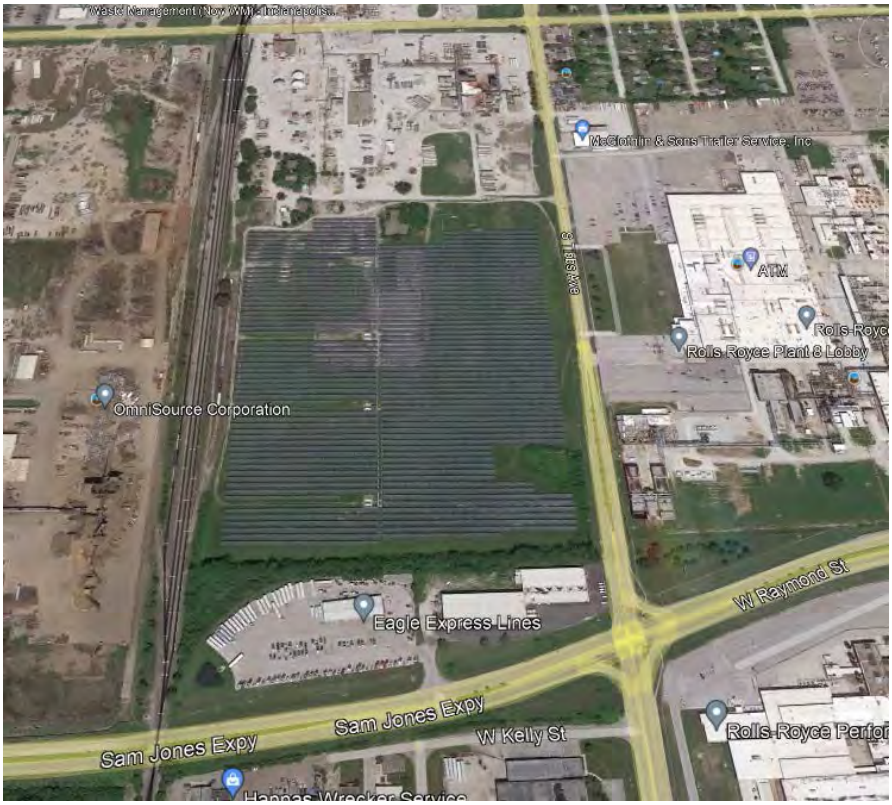
Indy Solar III, LLC, Indianapolis, IN

This is an 11.9 MW facility located off of W. Southport Road and was built in 2014. There have been three nearby sales of homes to the north recently that I have discussed later in this report.

IND Community Solar project Phases 1 and 2

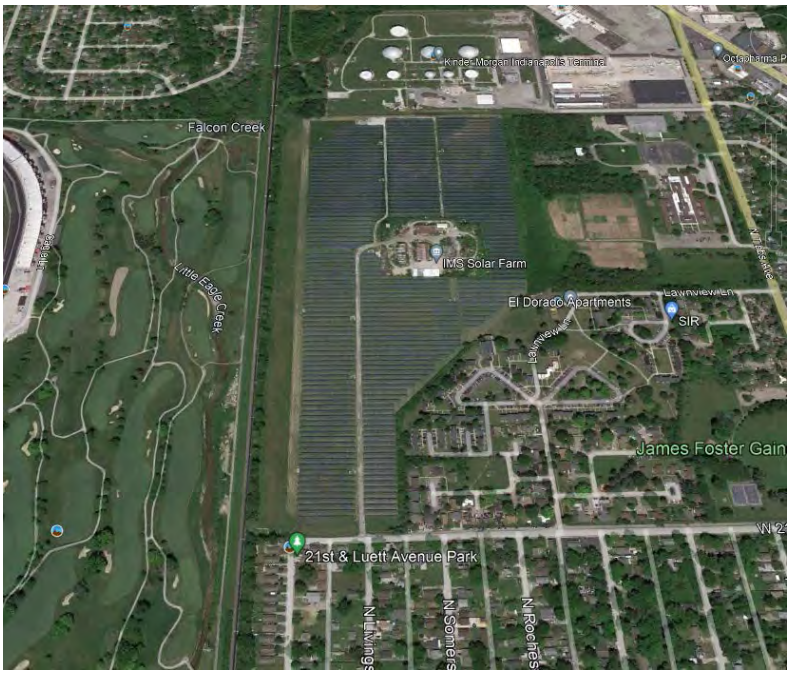
Phase 1 is 12.5 MW and Phase 2 is 9.8 MW. These are located adjoining the Indianapolis International Airport.

Maywood Photovoltaic Project, Indianapolis, IN



This 10.5 MW solar project is located just north of Sam Jones Expressway.

Indianapolis Motor Speedway Solar PV, Indianapolis, IN

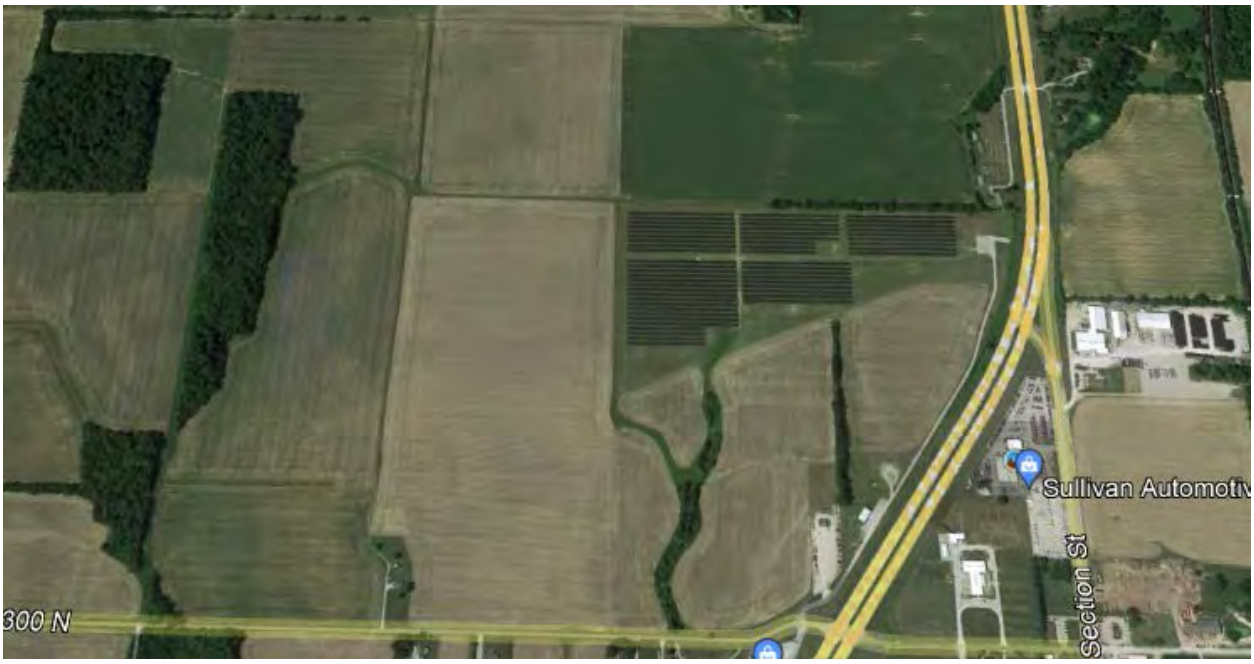


This 11.2 MW solar project is located just east of Brickyard Crossing Golf Course and east of the Indianapolis Motor Speedway.

Pastime Farm, LLC, Brazil, IN

This 7 MW solar project is located just west of Brazil built in 2015. The home to the southwest at 4183 W County Road 900 N, Brazil sold on June 3, 2022 for $215,000 for this 3 BR, 1 BA with 2,408 s.f. on 1.95 acres built in 1961, or $89.29 per s.f. This home was remodeled and most recently sold the prior year on August 31, 2021 for $165,000, or $68.52 per s.f. The extent of the remodeling is unclear from the listing and complicates analysis. It does show that an investor was not concerned with the solar project being 590 feet away from the home as they purchased the home, renovated it, and then sold it for a presumed profit.

Sullivan Solar, LLC, Sullivan, IN



This 5.2 MW solar project is located just off US 41 Highway and built in 2016.

Deer Creek PV, Marion, Grant County, IN

This 2.5 MW facility was built in 2016. The closest home to the south is 550 feet from the nearest panel.

Crane Solar Facility, Burns City, IN

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

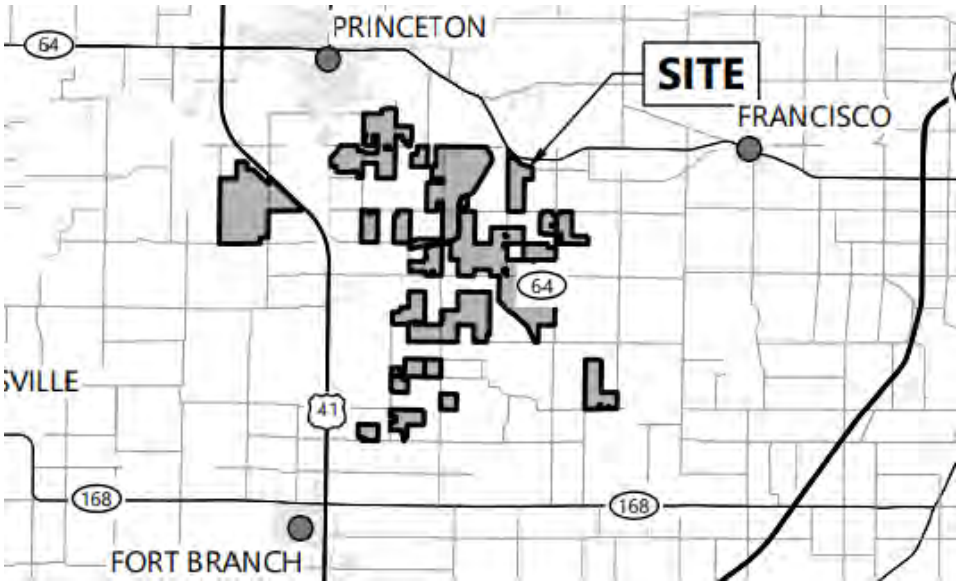
Scottsburg Solar Park, Scottsburg, IN

This 9.7 MW solar project is located adjoining the reservoir.

Troy Solar, Troy, IN

This 67.2 MW solar project is located on both sides of State Road 545 and both sides of County Road 950 N.

Gibson Solar, LLC, Princeton, IN



This 280 MW solar project is being developed on the tracts shown above between Princeton, Fort Branch, and Francisco. This will be located on 2,250 acres of land, though parts of the property are non-contiguous as shown in the map above.

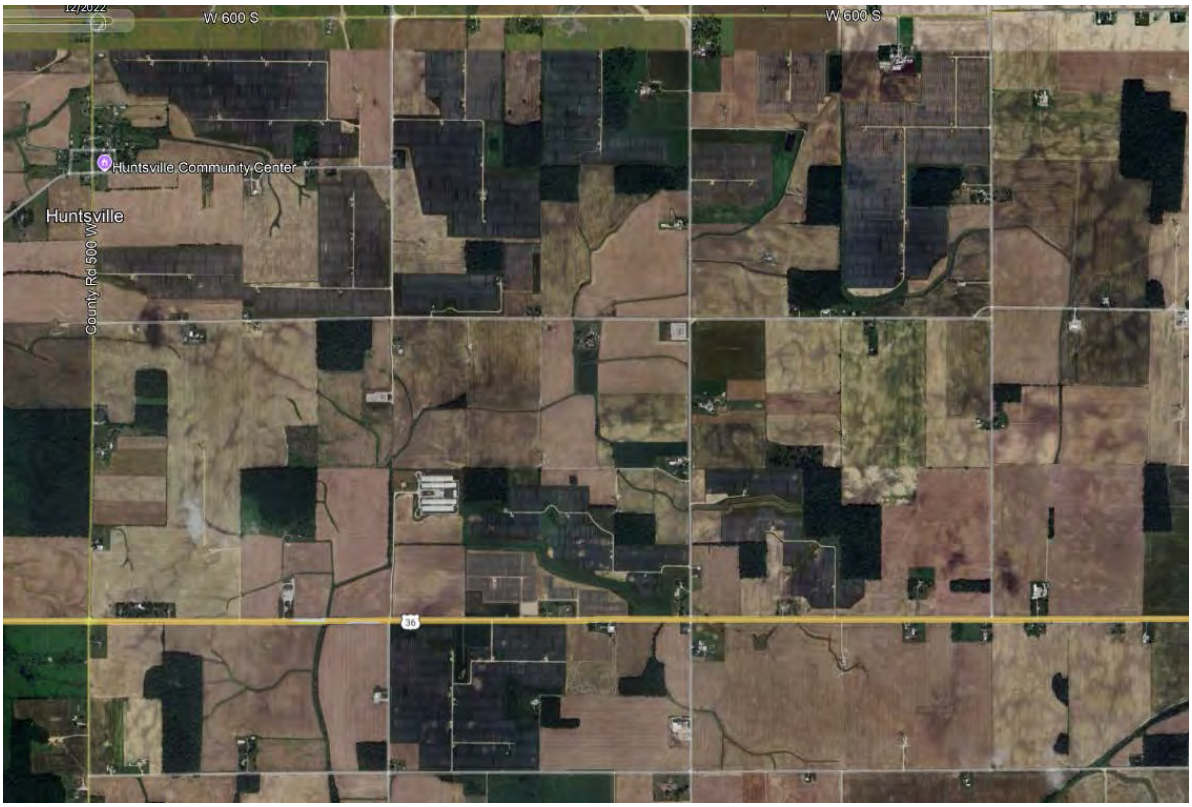
Bremen Solar (IMPA), Bremen, IN

This 6.8 MW solar project was built in 2022 on 36.74 acres. The closest adjoining homes is 60 feet, and the average distance is 133 feet. This project has no landscaping screen with homes in close proximity and is not consistent with most of the projects that I have researched.

Bellflower Solar 1, LLC, Lewisville, Henry County, IN

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

Riverstart Solar, Modoc, Randolph County, IN



This 200 MW solar project is located in Union and Washington Townships in Randolph County and was completed in January 2022. These solar panels are being installed near the existing wind farm.

Volkman Road Solar, Highway 41, Evansville, IN

This 2 MW solar project was built in 2018.

Oak Hill Solar, E Morgan Avenue, Evansville, IN

This 2 MW solar project was built in 2018. The homes to the north are all within 120 feet of the solar panels shown.

Anderson 6, Anderson, IN

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

Crawfordsville 2 and 4 and IMPA Crawfordsville Solar, Crawfordsville, IN

Crawfordsville 2 Solar Park is the northernmost of the 3 solar farms shown and is a 7.9 MW project built in 2019. Crawfordsville 4 Solar Park is the southernmost solar farm shown is a 2.3 MW project built in 2020. The middle solar farm is IMPA Crawfordsville is a 3 MW project built in 2015. Combined these three projects are 13.2 MW. The closest home is 200 feet from the nearest panel.

Crawfordsville 5 Solar Park, Crawfordsville, IN

Crawfordsville 5 Solar Park was built in 2020 with a 9.8 MW capacity. The closest adjoining home is the south at 50 feet from the nearest panel. The next closest home to the north is 835 feet. The home to the west is 975 feet.

Crawfordsville 3 Solar Park, Crawfordsville, IN

Crawfordsville 3 Solar Park was built in 2019 with a 4.8 MW capacity.

Logansport Solar, Logansport, Cass County, IN

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

Indiana Crossroads Solar, Reynolds, Cass County, IN

This 299 MW solar project broke ground in November 2021 and was completed in 2023. The closest home to the south is 700 feet. The closest house to the west is 370 feet. The closest house to the north is 1,900 feet. The closest home to the east is 530 feet. There is one home with panels on 3 sides on the east side that is owned by the owner of land within the solar project.

Dunn's Bridge 1 Solar, Jasper and Starke Counties, IN

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

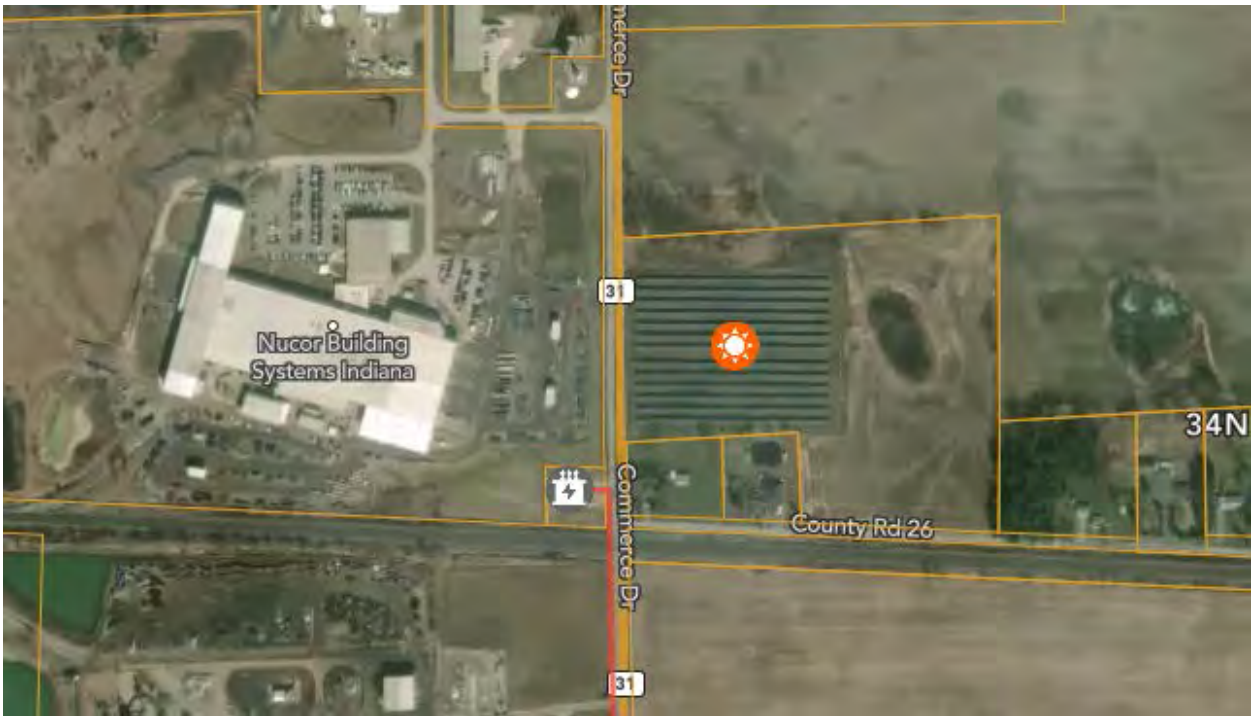
I located a nearby sale at 1546 E 1225 N, Wheatfield, IN that sold on February 11, 2022, which would have been after approval of the project, but likely before construction began. This home is 3,130 s.f. home on 15.90 acres built in 2004. The unique size and features make it difficult to compare this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

Auburn Renewables, LLC, Garrett, Dekalb County, IN

This is a 11 MW solar project built in 2022. The closest adjoining home is 160 feet with frontage on County Road 19 just north of the entrance drive to the solar project. The large building to the north is owned by Scot Industries, the other adjoining parcels are all residential or agricultural.

I identified a home sale at 5107 County Road 19, Garrett that sold on December 20, 2021 for $170,000 for a 3 BR, 2 BA home with 1,548 s.f. built in 1977 on 0.58 acres. This home was a FSBO with the buyers broker being Bonita Ranger with Century 21 Bradley Realty, Inc. Given the FSBO, the nearby industrial building, and the solar farm it is difficult to do specific analysis on this home. I have reached out to the broker for comments.

Waterloo Solar, Dekalb County, IN



This is a 1 MW solar project built in 2012. The closest adjoining home is 190 feet from the panels. The Nucor Building Systems and industrial use to the southwest makes it difficult to do a paired sales analysis on this as there are other factors in the area that could be impacting value.

Kokomo Solar 1, Kokomo, Howard County, IN

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

X. Market Analysis of the Impact on Value from Solar Projects

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 been conducted in Indiana, North Carolina, Virginia, South Carolina, Tennessee, Texas, Oregon, Mississippi, Maryland, New York, California, Missouri, Florida, Montana, Georgia, Kentucky, Louisiana, Pennsylvania, Ohio, Arizona, North Dakota and New Jersey.

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

I have derived a breakdown of the adjoining uses to show where solar farms are located. A summary showing the results of compiling that data over hundreds of solar farms is shown later in the Scope of Research section of this report.

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

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

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

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

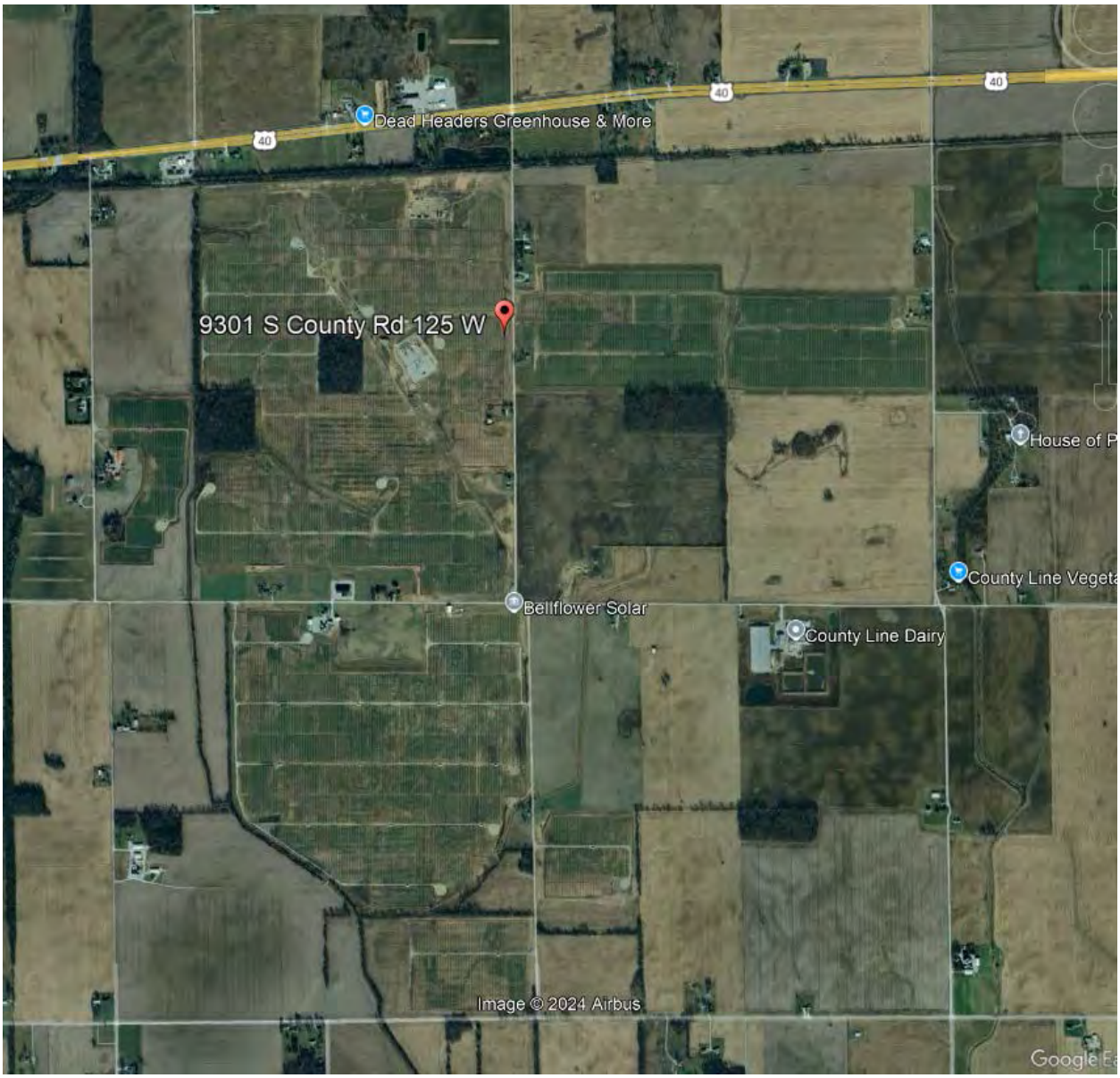
A. Indiana Data Over 25 MW

1. Matched Pair – Dunn's Bridge 1, Wheatfield, Jasper and Starke Counties, IN

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

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

2. Matched Pair – Bellflower Solar 1, Henry & Rush County, IN



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

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

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

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

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

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

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

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

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

3. Matched Pair – Riverstart Solar, Winchester, Randolph County, IN

This 200 MW solar farm was completed in January 2022.

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

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

Adjoining Residential Sales After Solar Farm Built

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

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

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

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

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

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

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

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

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

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

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

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

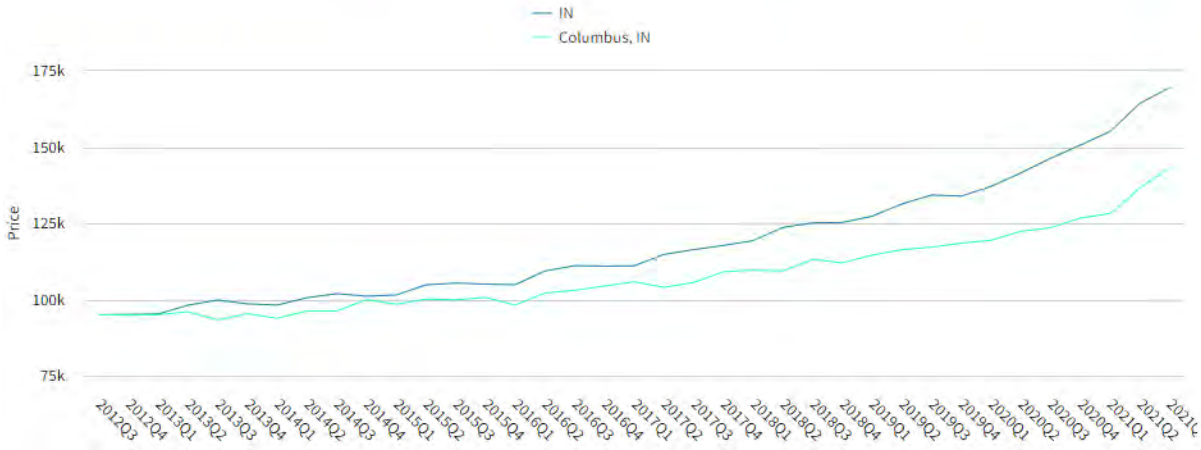
Purchase Quarter * 2012Q3

Valuation Quarter * 2021Q3

Purchase Price * 95000

Submit

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



B. Data from States Adjoining Indiana Over 25 MW

1. Turkey Creek, Lancaster, Garrard County, KY

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

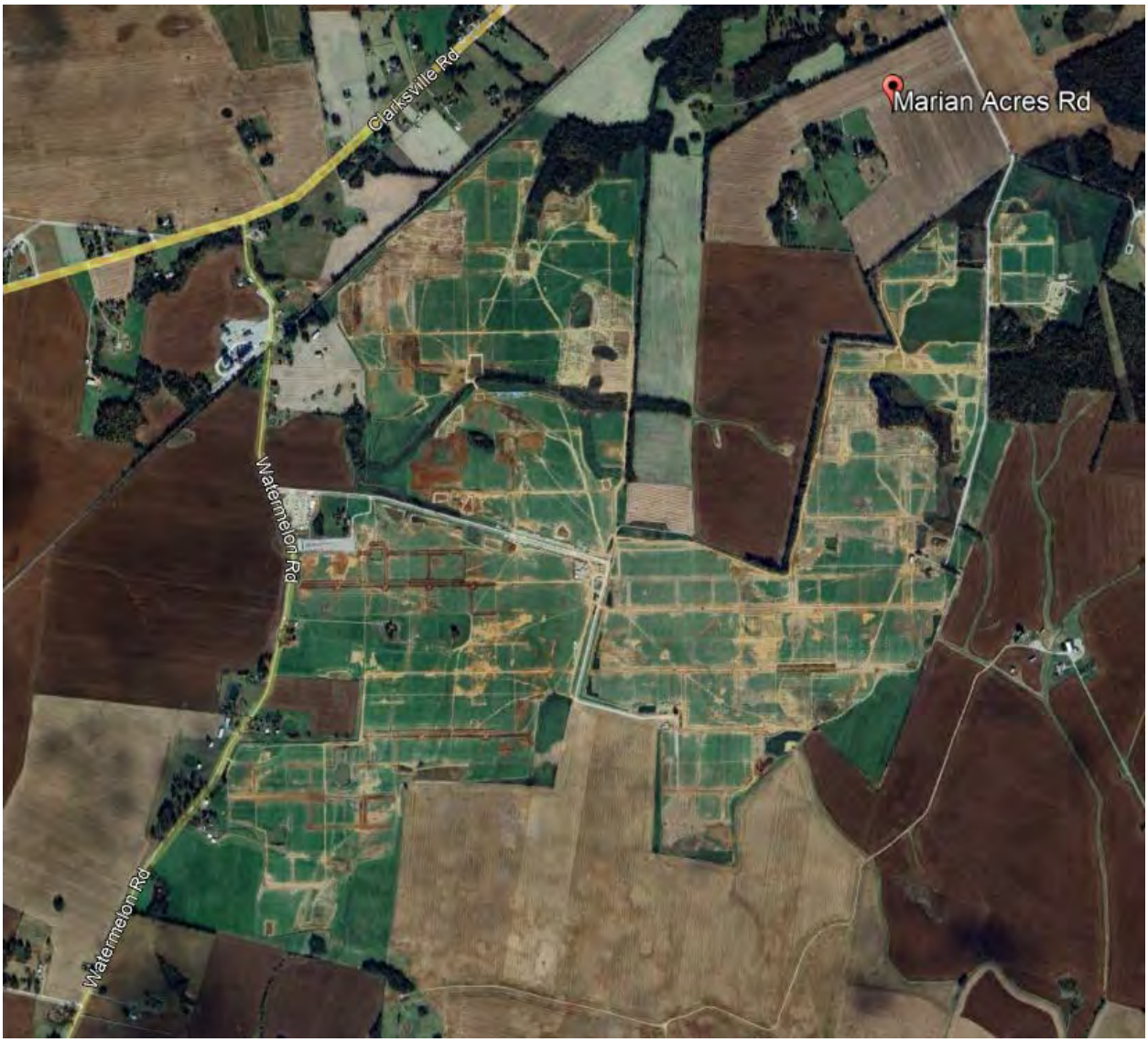

28C-03-006.04
35A
35A
ORCHARD RD
28C-03-004
28C-03-006.11
ORCHARD WAY
ELMWOOD CT
28C-03-006.10
35-77
28C-03-006.09
35-78
CRAB ORCHARD RD
CEMETER
35-80
28-113
28-112
28-103.01
CURRY WAY
28-103

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

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

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

3. Logan County Solar, Russelville, Logan County, KY



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

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

4. Matched Pair – Demille Solar, Demille Road, Lapeer, Lapeer County, MI

This solar project is located on 160 acres of a parent tract assemblage of 311.40 acres with a 28.4 MW output. This was built in 2017.

I have identified several home sales adjoining this solar project at the southeast corner where the red line shows adjoining Parcels 5 through 17 on the map above.

The first is Parcel 8 in the map above, 1120 Don Wayne Drive that sold in August 2019. I have compared this to multiple home sales as shown below. I consider 1231 Turrill to be the best comparable of this set as it required the least adjustment and was the most similar in size, age, and date of sale.

Adjoining Residential Sales After Solar Farm Built

Solar	Address	Acres	Date Sold	Sales Price	Built	GBA	$/GBA	BR/BA	Park	Style	Other	Dist.
Adjoins	1120 Don Wayne	0.47	8/28/2019	$194,000	1976	1,700	$114.12	3/3.5	2-Car	Ranch	Brick/FinBsmt	310
Not	1127 Don Wayne	0.51	9/23/2019	$176,900	1974	1,452	$121.83	3/2	2-Car	Ranch	Brick/Ufin Bsmt	
Not	1231 Turrill	1.21	4/25/2019	$182,000	1971	1,560	$116.67	3/2	2-Car	Ranch	Brick/Wrkshp	
Not	1000 Baldwin	3.11	8/1/2017	$205,000	1993	1,821	$112.58	3/2.5	2-Car	Ranch	Vinyl	

Solar	Address	Time	Site	YB	GLA	BR/BA	Park	Other	Total	% Diff	Avg % Diff
Adjoins	1120 Don Wayne								$194,000		-1%
Not	1127 Don Wayne	-$258		$1,769	$24,171	$10,000			$212,582	-10%	
Not	1231 Turrill	$1,278	-$10,000	$4,550	$13,067	$10,000			$200,895	-4%	
Not	1000 Baldwin	$8,718	-$20,000	-$17,425	-$10,897	$10,000			$175,396	10%	

Next I considered Parcel 9, 1126 Don Wayne Drive, which I have compared to two similar home sales nearby that are not adjoining a solar project as shown below. This home sold in May 2018 after the solar project was built.

Adjoining Residential Sales After Solar Farm Built

Solar	Address	Acres	Date Sold	Sales Price	Built	GBA	$/GBA	BR/BA	Park	Style	Other	Dist.
Adjoins	1126 Don Wayne	0.47	5/16/2018	$160,000	1971	1,900	$84.21	3/2.5	2-Car	Ranch	Brick,FinBsmt	310
Not	70 Sterling Dr	0.32	8/2/2018	$137,500	1960	1,800	$76.39	3/1.5	1-Car	Ranch	Brick	
Not	3565 Garden Dr	0.34	5/15/2019	$165,000	1960	2,102	$78.50	3/1.5	2-Car	Ranch	Brick	

Solar	Address	Time	Site	YB	GLA	BR/BA	Park	Other	Total	% Diff	Avg % Diff
Adjoins	1126 Don Wayne								$160,000		-3%
Not	70 Sterling Dr	-$603		$7,563	$6,111	$10,000	$5,000		$165,571	-3%	
Not	3565 Garden Dr	-$3,374		$9,075	-$12,685	$5,000			$163,016	-2%	

I looked at Parcel 11, 1138 Don Wayne Drive that sold in August 2019. I have compared this to three similar sales as shown below. I attributed no value to the pool at 1138 Don Wayne Drive.

Adjoining Residential Sales After Solar Farm Built

Solar	Address	Acres	Date Sold	Sales Price	Built	GBA	$/GBA	BR/BA	Park	Style	Other	Dist.
Adjoins	1138 Don Wayne	0.47	8/28/2019	$191,000	1975	2,128	$89.76	4/1.5	2-Car	2-Story	Brick	380
Not	1331 W Genessee	0.45	10/25/2019	$160,707	1940	1,955	$82.20	4/1.5	Drive	1.5 Story	Vinyl/UnBsmt	
Not	1128 Gwen Dr	0.47	8/24/2018	$187,500	1973	2,040	$91.91	3/2.5	2-Car	2 Story	Brick/UnBsmt	
Not	1227 Oakridge	1.05	6/11/2017	$235,000	1980	2,500	$94.00	4/2.5	2-Car	2 Story	Brk/PFinBsmt	

Solar	Address	Time	Site	YB	GLA	BR/BA	Park	Other	Total	% Diff	Avg % Diff
Adjoins	1138 Don Wayne								$191,000		-1%
Not	1331 W Genessee	-$524		$16,874	$11,377		$10,000		$198,434	-4%	
Not	1128 Gwen Dr	$3,887		$1,875	$6,471	-$10,000			$189,733	1%	
Not	1227 Oakridge	$10,667	-$10,000	-$5,875	-$27,974	-$10,000			$191,818	0%	

Parcel 13, 1168 Alice Drive, sold in October 2019. I spoke with Tanya Biernat the buyer's agent who handled that sale and she indicated that the property was placed on the market below market for a fast sale by the sellers. The buyers expressed no concern regarding the adjacent solar project and it had no impact on marketing or selling the property, though it did sell for a low price. I also spoke with Chantel Fink's office, the selling agent. They confirmed that the solar project was not an issue in the sales price or marketing of the property. Given that this sale was noted as below market for a fast sale, I have not attempted to set it up as a matched pair.

Parcel 14, 1174 Alice Drive, sold in January 2019, which is 280 feet from the nearest panel. I have compared that sale to three similar properties as shown below. I included 1135 Gwen Drive as a nearby comparable, but it is not a good comparable. According to the broker, Paul Coulter, that home had many recent and significant upgrades that made it superior to similar housing in the neighborhood. It is notably the highest sales price in the neighborhood. I have shown that one but I made no adjustment for those upgrades, but I won't rely on that sale for the matched pairs. I consider the 1127 Don Wayne Drive comparable to be a more reasonable comparison. I spoke with Chris Fergurson the broker for that sale who confirmed that it was arm's length and that while across Don Wayne Drive from the homes that adjoin the solar project, this home had no view of the solar project and was not an issue in marketing this home.

Adjoining Residential Sales After Solar Farm Built

Solar	Address	Acres	Date Sold	Sales Price	Built	GBA	$/GBA	BR/BA	Park	Style	Other	Dist.
Adjoins	1174 Alice Dr	0.54	1/14/2019	$165,000	1973	1,400	$117.86	3/1.5	2-Car	Ranch	Brick/Fin Bsmt	280
Not	1127 Don Wayne	0.51	9/23/2019	$176,900	1974	1,452	$121.83	3/2	2-Car	Ranch	Brick/Ufin Bsmt	
Not	1135 Gwen Dr	0.43	7/26/2019	$205,000	1967	1,671	$122.68	3/2	2-Car	Ranch	Brick/Ufin Bsmt	
Not	1160 Beth Dr	0.46	6/20/2019	$147,500	1970	1,482	$99.53	4/1.5	2-Car	Ranch	Brick/Fin Bsmt	

Solar	Address	Time	Site	YB	GLA	BR/BA	Park	Other	Total	% Diff	Avg % Diff
Adjoins	1174 Alice Dr								$165,000		2%
Not	1127 Don Wayne	-$2,504		-$885	-$5,068	-$5,000			$163,443	1%	
Not	1135 Gwen Dr	-$2,223		$6,150	-$26,597	-$5,000			$177,330	-7%	
Not	1160 Beth Dr	-$1,301		$2,213	-$6,529				$141,883	14%	

The four matched pairs identified show a range of -3% to +2% based on the average difference for each set of matched pairs. This is a very similar range I have found in most sales adjoining solar project and strongly supports the assertion that the solar project is not having a negative impact on adjoining property values.

Furthermore, two brokers active in the sale of a home adjoining the solar project both confirmed that Parcel 13 was not impacted by the presence of the solar project on the adjacent tract.

XI. Conclusions from Market Research

A. Demographic Data from IN Solar Projects Identified

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

Below I have simply summarized the demographic data around the solar projects identified. While I don't have the adjoining uses broken out on this set, the primary adjoining uses remain residential and agricultural.

The population within a mile radius indicates the number of people around the projects and the median income and housing. 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 (2020-2024 Data)		
	Name	City	State	Acres	MW	Topo Shift	Res	Ag	Ag/Res	Com/Ind	Population	Med. Income	Avg. Housing Unit
1	Dunns Brdge	Wheatfield	IN	N/A	435.00	N/A	N/A	N/A	N/A	N/A	208	$71,098	$203,986
2	Bellflower 1	Lewisville	IN	N/A	152.50	N/A	N/A	N/A	N/A	N/A	45	$78,261	$215,789
3	Riverstart	Winchester	IN	N/A	200.00	N/A	N/A	N/A	N/A	N/A	47	$75,000	$169,565
	Average			N/A	262.50	N/A	N/A	N/A	N/A	N/A	100	$74,786	$196,447
	Median			N/A	200.00	N/A	N/A	N/A	N/A	N/A	47	$75,000	$203,986
	High			0	435.00	0	0%	0%	0%	0%	208	$78,261	$215,789
	Low			0	152.50	0	0%	0%	0%	0%	45	$71,098	$169,565

For further comparison, I have included similar demographic data compiled from Indiana and adjoining states from other solar projects where I have gathered similar data for projects over 5 MW. The similarity in adjoining uses is consistent throughout the Southeast, which supports these locations as a harmonious location for solar projects.

Adjoining States

							Adj. Uses By Acreage				1 mile Radius (2020-2024 Data)		
	Name	City	State	Acres	MW	Topo Shift	Res	Ag	Ag/Res	Com/Ind	Population	Med. Income	Avg. Housing Unit
1	Turkey Crk	Lancaster	KY	753	50.00	120	7%	36%	51%	6%	257	$52,892	$221,809
2	Mt. Olive Crk	Russell Spr	KY	421	60.00	N/A	N/A	N/A	N/A	N/A	149	$60,646	$152,778
3	Logan Cnty	Russellville	KY	1,100	173.00	N/A	N/A	N/A	N/A	N/A	177	$54,545	$284,459
4	Demille	Lapeer	MI	160	28.40	10	10%	68%	0%	22%	2,010	$47,208	$187,214
	Average			609	77.85	65	9%	52%	26%	14%	648	$53,823	$211,565
	Median			587	55.00	65	9%	52%	26%	14%	217	$53,719	$204,512
	High			1,100	173.00	120	10%	68%	51%	22%	2,010	$60,646	$284,459
	Low			160	28.40	10	7%	36%	0%	6%	149	$47,208	$152,778

B. Sale/Resale Analysis

In the market data I was able to identify a number of home sales where I was able to complete a Sale/Resale Analysis. The summary of that data is shown below. I have combined all of the data for Indiana and adjoining states in this chart.

Residential Dwelling Sale/Resale Analysis

Pair	Solar Farm	City	State	Area	MW	Approx Distance	Tax ID/Address	Date	Sale Price	Adj. Sale Price	% Diff
1	Riverstart	Winchester	IN	Rural	200	677	3928 W 600 S	Feb-22	$250,000		
							3928 W 600 S	Mar-21	$219,000	$245,000	2%
2	Riverstart	Winchester	IN	Rural	200	1070	7141 S SR 1	Sep-21	$165,000		
							7141 S SR 1	Oct-12	$95,000	$143,287	13%
3	Turkey Crk	Lancaster	KY	Rural	50	250	166 Long Branch	Nov-20	$180,000		
							166 Long Branch	Feb-19	$160,000	$181,000	-1%
4	Turkey Crk	Lancaster	KY	Rural	50	1050	209 Ashlock	Jun-22	$180,000		
							209 Ashlock	Feb-19	$160,000	$181,000	-1%
5	Mt Olive Crk	Russell Spng	KY	Rural	60	1250	2985 KY 1729	Dec-22	$150,000		
							2985 KY 1729	Sep-18	$110,000	$158,000	-5%
6	Logan Cnty	Russellville	KY	Rural	173	1460	528 Watermelon	May-22	$275,000		
							528 Watermelon	Sep-16	$149,000	$234,000	15%
7	Logan Cnty	Russellville	KY	Rural	173	1900	557 J Montgomery	Dec-21	$185,000		
							557 J Montgomery	May-16	$114,000	$174,000	6%
8	Logan Cnty	Russellville	KY	Rural	173	1400	263 Donald	Oct-22	$263,400		
							263 Donald	May-10	$141,000	$262,000	1%

	MW	Avg. Distance
Average	134.88	1,132
Median	173.00	1,160
High	200.00	1,900
Low	50.00	250

	Indicated Impact
Average	4%
Median	1%
High	15%
Low	-5%

The Sale/Resale Analysis includes 4 examples with impacts ranging from -5% to +15% with an average impact of +4% and a median impact of +1%. These suggest neutral to slightly positive relationship between solar and adjoining homes.

The closest adjoining home is 250 feet and the range of solar projects range from 50 MW up to 200 MW.

The Sale/Resale Analysis uses no appraiser judgement and links the consideration of appreciation to the FHFA Home Price Index. The advantage of this approach is that there is only one factor to address and it is linked to a national source. The disadvantage is that there is generally a more limited pool of homes that are usable in this type of analysis. Homes with significant updates or renovations between sales are less reliable and extended periods of time between the sales could lead to less reliable results.

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

C. Paired Sale/Matched Pair Analysis

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

The Matched Pairs includes 8 examples with impacts ranging from -4% to +12% with an average impact of +3% and a median impact of +1%.

The closest adjoining home is 280 feet and the range of solar projects range from 28 MW up to 435 MW.

Residential Dwelling Matched Pairs Adjoining Solar Farms in Indiana

Pair	Solar Farm	City	State	Area	MW	Approx Distance	Tax ID/Address	Sale Date	Sale Price	Adj. Sale Price	% Diff
1	Dunns Bridge	Wheatfield	IN	Suburban	435	910	1546 E 1225 N	Feb-22	$499,900		
							1546 E 1225 N	Feb-22	$499,900	$499,900	0%
2	Bellflower 1	Lewisville	IN	Rural	152	360	9559 S CR 225 W	Jan-24	$650,000		
							1068 Landmark	Jul-23	$565,900	$571,382	12%
3	Riverstart	Winchester	IN	Rural	200	1205	6535 S 500 W	Feb-22	$129,900		
							113 N Main	Oct-22	$142,900	$118,634	9%
4	Riverstart	Winchester	IN	Rural	200	677	3928 W 600 S	Feb-22	$250,000		
							4095 N 1000	Jan-22	$281,250	$237,956	5%
5	Demille	Lapeer	MI	Suburban	28	310	1120 Don Wayne	Aug-19	$194,000		
							1231 Turrill	Apr-19	$182,000	$200,895	-4%
6	Demille	Lapeer	MI	Suburban	28	310	1126 Don Wayne	May-18	$160,000		
							3565 Garden	May-19	$165,000	$163,016	-2%
7	Demille	Lapeer	MI	Suburban	28	380	1138 Don Wayne	Aug-19	$191,000		
							1128 Gwen	Aug-18	$187,500	$189,733	1%
8	Demille	Lapeer	MI	Suburban	28	280	1174 Alice	Jan-19	$165,000		
							1127 Don Wayne	Sep-19	$176,900	$163,443	1%

	MW	Avg. Distance
Average	137.38	554
Median	90.00	370
High	435.00	1,205
Low	28.00	280

	% Dif
Average	3%
Median	1%
High	12%
Low	-4%

D. Summary of Broker Opinions from Research

From the research identified in the earlier section, I was able to identify and speak with the brokers identified below. The full comments provided by the brokers are shown in the market research, but the summary below shows that 4 of the 4 brokers who had sold a home adjoining a solar development in Indiana and adjoining states identified no impact on property value.

#	Solar Farm	City	State	Area	MW	Approx Distance	Tax ID/Address	Date	Sale Price	Impact	Broker
1	Dunns Bridge	Wheatfield	IN	Suburban	435	910	1546 E 1225 N	Feb-22	$499,900	No	Dan Walstra
2	Bellflower	Spiceland	IN	Rural	152.5	2200	2312 US Hwy 40	Apr-24	$155,000	No	Jason Loveless
3	Bellflower	Spiceland	IN	Rural	152.5	360	9559 S Cnty Rd 225	Jan-24	$650,000	No	Kayla Walker
4	Logan Cnty	Logan Cnty	KY	Rural	173	1900	557 J Montgomery	Dec-21	$185,000	No	Dewayne Whittaker

Yes	0
No	4
Maybe	0

	MW	Avg. Distance
Average	228.25	1,343
Median	162.75	1,405
High	435.00	2,200
Low	152.50	360

	Sale Price	Indicated Impact
Average	$372,475	0%
Median	$342,450	0%
High	$650,000	0%
Low	$155,000	0%

XII. Supporting Data

A. Midwest Data

Below I have simply summarized the demographic data around the solar projects identified. While I don't have the adjoining uses broken out on this set, the primary adjoining uses remain residential and agricultural.

The population within a mile radius indicates the number of people around the projects and the median income and housing. 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 (2020 Data)		
	Name	City	State	Acres	MW	Topo Shift	Res	Ag	Ag/Res	Com/Ind	Population	Med. Income	Avg. Housing Unit
1	Grand Ridge	Streator	IL	160	20.00	1	8%	87%	5%	0%	96	$70,158	$187,037
2	Dominion	Indianapolis	IN	134	8.60	20	3%	97%	0%	0%	3,774	$61,115	$167,515
3	Demille	Lapeer	MI	160	28.40	10	10%	68%	0%	22%	2,010	$47,208	$187,214
4	Turrill	Lapeer	MI	230	19.60	10	75%	59%	0%	25%	2,390	$46,839	$110,361
5	DG Amp Piqua	Piqua	OH	86	12.60	2	26%	16%	58%	0%	6,735	$38,919	$96,555
6	Bremen	Bremen	IN	37	6.80	15	40%	60%	0%	0%	388	$62,855	$232,857
7	North Rock	Fulton	WI	472	50.00	N/A	3%	40%	57%	0%	236	$86,238	$370,062
8	Wood County	Saratoga	WI	1,200	150.00	N/A	N/A	N/A	N/A	N/A	187	$74,110	$204,545
9	Crane	Burns City	IN	182	24.30	100	N/A	N/A	N/A	N/A	114	$68,227	$273,077
10	Kokomo 1	Kokomo	IN	83	5.40	5	30%	36%	0%	34%	8,656	$50,193	$168,723
11	Bellflower 1	Lewisville	IN	N/A	152.50	N/A	N/A	N/A	N/A	N/A	45	$78,261	$215,789
12	Riverstart	Winchester	IN	N/A	200.00	N/A	N/A	N/A	N/A	N/A	47	$75,000	$169,565
13	North Star	North Branch	MN	1,099	100.00	N/A	18%	73%	7%	2%	218	$119,700	$323,413
14	Logansport	Logansport	IN	N/A	6.80	N/A	N/A	N/A	N/A	N/A	4,534	$51,694	$122,099
15	Anderson 6	Anderson	IN	N/A	6.80	N/A	N/A	N/A	N/A	N/A	736	$77,343	$181,635
16	Dunns Brdge	Wheatfield	IN	N/A	435.00	N/A	N/A	N/A	N/A	N/A	208	$71,098	$203,986
17	Hardin	Alger	OH	N/A	150.00	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
18	Hillcrest	Mt Orab	OH	N/A	200.00	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	Average			349	87.60	20	24%	60%	14%	9%	1,898	$67,435	$200,902
	Median			160	26.35	10	18%	60%	0%	0%	312	$69,193	$187,126
	High			1,200	435.00	100	75%	97%	58%	34%	8,656	$119,700	$370,062
	Low			37	5.40	1	3%	16%	0%	0%	45	$38,919	$96,555

From these 18 solar developments I have identified 8 Sale/Resale data points, 29 Matched Pair data points and 17 broker comments.

Sale/Resale Comparable Stats

	MW	Avg. Distance
Average	120.45	823
Median	150.00	511
High	200.00	2,000
Low	6.80	310

8 Data Points

	Indicated Impact
Average	7%
Median	6%
High	14%
Low	-2%

Matched Pair Comparable Stats **29 Data Points**

	MW	Avg. Distance		Indicated Impact
Average	38.35	369	**Average**	2%
Median	12.60	380	**Median**	1%
High	200.00	1,205	**High**	12%
Low	2.00	135	**Low**	-4%

Broker Comment Breakdown **17 Data Points**

	MW	Avg. Distance		Sale Price	Impact	
Average	97.73	541	**Average**	$243,647	17	**NO**
Median	28.40	280	**Median**	$175,000	0	**Yes**
High	435.00	2,200	**High**	$650,000	0	**Maybe**
Low	2.00	120	**Low**	$110,000		

B. National Data Over 50 MW

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 50 MW and up as shown below.

Matched Pair Summary							Adj. Uses By Acreage				1 mile Radius (2010-2020 Data)		
	Name	City	State	Acres	MW	Topo Shift	Res	Ag	Ag/Res	Com/Ind	Population	Med. Income	Avg. Housing Unit
1	Summit	Moyock	NC	2,034	80.00	4	4%	0%	94%	2%	382	$79,114	$281,731
2	Manatee	Parrish	FL	1,180	75.00	20	2%	97%	1%	0%	48	$75,000	$291,667
3	McBride	Midland	NC	627	75.00	140	12%	10%	78%	0%	398	$63,678	$256,306
4	Innov 46	Hope Mills	NC	532	78.50	0	17%	83%	0%	0%	2,247	$58,688	$183,435
5	Innov 42	Fayetteville	NC	414	71.00	0	41%	59%	0%	0%	568	$60,037	$276,347
6	Barefoot Bay	Barefoot Bay	FL	504	74.50	0	11%	87%	0%	3%	2,446	$36,737	$143,320
7	Miami-Dade	Miami	FL	347	74.50	0	26%	74%	0%	0%	127	$90,909	$403,571
8	Spotyslvania	Paytes	VA	3,500	617.00	160	37%	52%	11%	0%	74	$120,861	$483,333
9	Hattiesburg	Hattiesburg	MS	400	50.00	N/A	10%	85%	5%	0%	1,065	$28,545	$129,921
10	North Rock	Fulton	WI	472	50.00	N/A	3%	40%	57%	0%	236	$86,238	$370,062
11	Wood County	Saratoga	WI	1,200	150.00	N/A	N/A	N/A	N/A	N/A	187	$74,110	$204,545
12	Twiggs	Dry Branch	GA	N/A	200.00	N/A	N/A	N/A	N/A	N/A	15	$55,000	$50,000
13	Dougherty	Albany	GA	N/A	120.00	N/A	N/A	N/A	N/A	N/A	30	$60,354	$204,167
14	Big Horn 1	Pueblo	CO	2,760	240.00	N/A	0%	44%	2%	54%	20	$75,000	$400,000
15	Bison/Raw	Wellington	CO	1,160	52.00	N/A	0%	93%	7%	0%	0	$0	$0
16	Pioneer	Bennett	CO	611	110.00	N/A	3%	81%	16%	0%	67	$82,329	$497,991
17	Bellflower 1	Lewisville	IN	N/A	152.50	N/A	N/A	N/A	N/A	N/A	45	$78,261	$215,789
18	Riverstart	Winchester	IN	N/A	200.00	N/A	N/A	N/A	N/A	N/A	47	$75,000	$169,565
19	North Star	North Branch	MN	1,099	100.00	N/A	18%	73%	7%	2%	218	$119,700	$323,413
20	Dunns Brdge	Wheatfield	IN	N/A	435.00	N/A	N/A	N/A	N/A	N/A	208	$71,098	$203,986
21	Bedford	Chesapeake	VA	N/A	70.00	N/A	N/A	N/A	N/A	N/A	993	$127,047	$509,365
22	Mt. Olive Crk	Russell Spr	KY	421	60.00	N/A	N/A	N/A	N/A	N/A	149	$60,646	$152,778
23	Logan Cnty	Russellville	KY	1,100	173.00	N/A	N/A	N/A	N/A	N/A	177	$54,545	$284,459
24	Centerfield	Chesterfield	SC	N/A	75.00	N/A	N/A	N/A	N/A	N/A	248	$51,170	$91,364
25	Harts Mill	Tarboro	NC	N/A	80.00	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
26	Hardin	Alger	OH	N/A	150.00	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
27	Hillcrest	Mt Orab	OH	N/A	200.00	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	Average			1,080	141	41	13%	63%	20%	4%	416	$70,169	$255,296
	Median			627	80	2	11%	74%	6%	0%	182	$72,604	$236,048
	High			3,500	617	160	41%	97%	94%	54%	2,446	$127,047	$509,365
	Low			347	50	0	0%	0%	0%	0%	0	$0	$0

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

The data for these larger solar farms is shown in the 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 238 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								
						Adjoining Use by Acre			
	Output (MW)	Total Acres	Used Acres	Avg. Dist to home	Closest Home	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%

XIII. Distance Between Homes and Panels

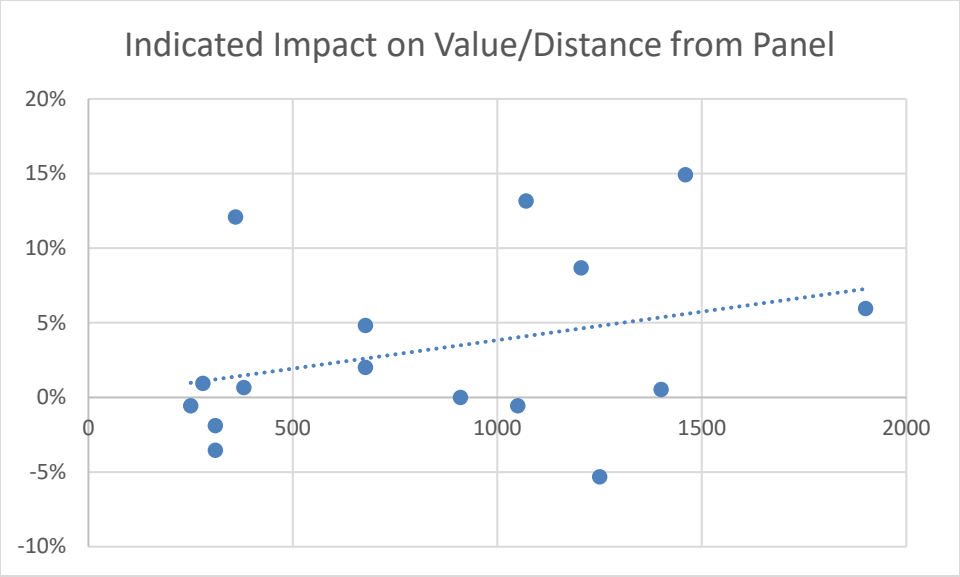
I have measured distances at matched pairs as close as 105 feet between panel and home to show no impact on value. This measurement goes from the closest point on the home to the closest solar panel. This is a strong indication that at this distance there is no impact on adjoining homes.

However, in tracking other approved solar project, 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 at these distances with such landscaping.

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 project with one or two homes closer than 100-feet, but most of the adjoining homes are further than that distance.

As you can see in Section XI of this report in the Sale Resale Analysis, the closest home was 250 feet and it showed a -1% impact on value, whereas the closest home in the Matched Pair Analysis was 280 feet and it showed a +1% impact on value. Additionally, there were four more matched pairs between 300 and 400 feet showing impacts ranging from -4% to +12% impact on value. These are very consistent with the overall data that shows median impacts of +1% in the 300 foot range. This is very consistent with typical market deviation and supports a finding of no impact at that distance.

To illustrate this I have worked up the following chart using the indicated impact for each Sale/Resale and each Matched Pair data point and included a trendline as shown below. At 300 feet, the trendline is still above 0% impact suggesting more of a positive impact than a negative impact.



XIV. Topography

As shown on the summary charts for the solar project, I have been identifying the topographic shifts across the solar project 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 project 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.

XV. Fencing and Vegetative Screening

Most of the comparable solar projects use chainlink fencing with barb wire and landscaped screening on the outside of the fence to buffer the projects.

The subject property is proposing a 7-foot woven wire fencing and a double-row of evergreen trees as a buffer. The woven fencing is considered more consistent with agricultural uses and fencing and typically blends in with the surroundings more easily. Similar fencing and/or wildlife fencing is becoming more common for these reasons.

XVI. Visibility Impacts

I have looked at numerous examples of homes with solar on multiple sides that show no cumulative impacts from multiple adjoining sections of solar. The most striking example I have shown below as it also has minimal to no landscaping screening. This sales data includes a Sale/Resale analysis and the broker's comments as well as the comments from the appraisers that the broker consulted on the issue as outlined below.

This project is known as Elk Hill Solar 1 in Mercersburg, Franklin County, Pennsylvania.

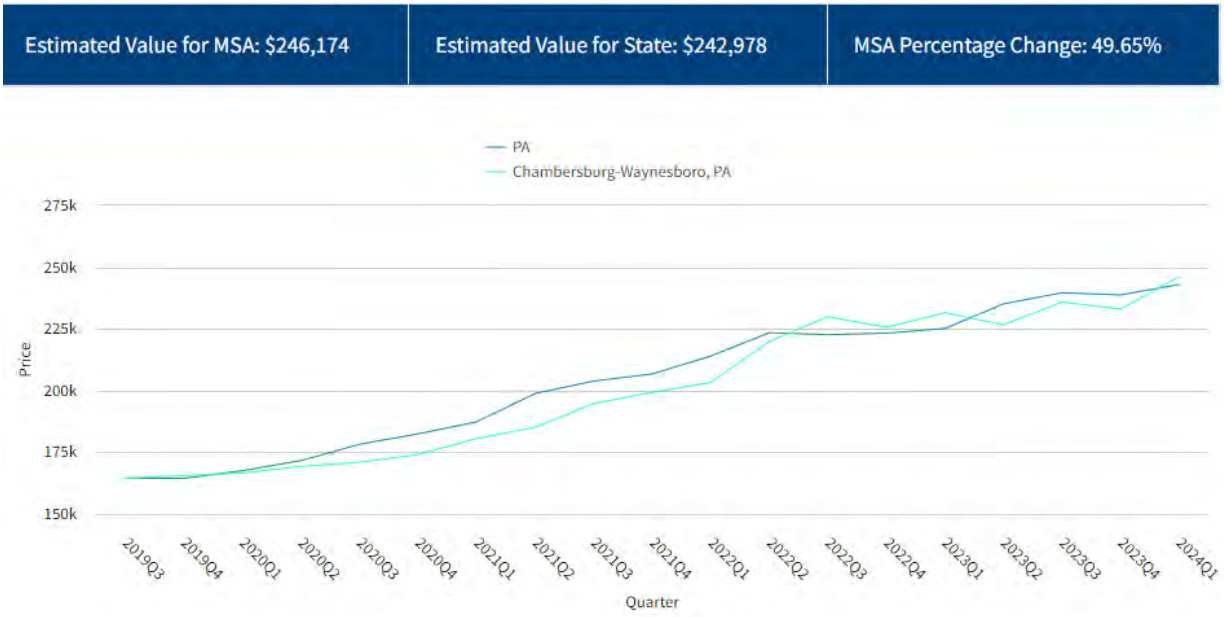
This is a 20 MW project built in 2022. The image above shows this project during construction and the panels on the north/west section are still being aligned which is why they are showing glare towards the sky, while the rest of the project that is completed and aligned is not.

I looked at the sale of 12962 Buchanan Trail W which is located directly between the northern and southern portions of this solar project. I've included some photos from the listing to show the view of these panels from this home. The first image is the view from the back yard facing south, while the second is the view across the highway to the northern portion of the solar farm from the back yard.

I reached out to the listing broker, Morgan Beck, with Coldwell Banker Realty (717-504-3814) about this listing. She indicated that she spoke with 3 appraisers before listing this property. They indicated that they would not make any adjustments for the solar but would just note it in the appraisal if hired to do that property. She further indicated that she priced the property near the low end of the range of her comparables due partly to the close proximity of Buchannan Trail and partly due to the solar farm. She had some concern from potential buyers about the solar and some about the road, but ultimately she received multiple issues and had it under contract quickly for above the asking price.

The property was listed on the market on January 23, 2024 for $239,900 and then sold on February 23, 2024 for $245,000, above asking price. This home is 260 feet from the closest panel to the south and 240 feet from the closest panel to the north. The landscaping screen on this project is minimal.

The most recent sale of this home was August 21, 2019 for $164,500, which was prior to the solar farm construction. Adjusting that older sales price upward using the FHFA HPI, I derive an anticipated appreciation of that price to 1st Quarter 2024 to $246,174. This is almost exactly the sales price of this home which strongly supports a finding of no impact on property value due to the adjacency of this solar farm on both sides of this home.



XVII. Scope of Research

I have researched approximately 1,000 solar project and sites on which solar project are existing and proposed in Indiana, Ohio, Virginia, Illinois, Tennessee, North Carolina, Kentucky as well as other states to determine what uses are typically found in proximity with a solar project. The data I have collected and provided in this report strongly supports the assertion that solar project 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 projects comparables to derive a breakdown of the adjoining uses for each solar project. 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 project by number of adjoining parcels to the solar project 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 projects. Every single solar project considered included an adjoining residential or residential/agricultural use.

XVIII. 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 project.

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

1. Hazardous material

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

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

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

4. Traffic

Solar project will typically have no onsite employee's or staff. Even where there are onsite staff, the traffic generated is minimal after construction. Relative to other potential uses of the site (such as a residential subdivision), the additional traffic generated by a solar project use on this site is insignificant.

5. Stigma

There is no stigma associated with solar projects and solar project and people generally respond favorably towards such a use. While an individual may express concerns about proximity to a solar project, there is no specific stigma associated with a solar project. 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 projects are adjoining elementary, middle and high schools as well as churches and subdivisions. I note that one of the solar projects 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 project.

6. Appearance

I note that larger solar projects 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 projects 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 project.

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 project 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 other uses that it could currently be developed as – say a feedlot, hog farm, poultry farm, dairy or other industrial/agricultural use - then those allowed alternative uses should be considered in the analysis. Essentially, if there are more impactful uses currently allowed, then how can you claim damages for a less impactful use?

XIX. Conclusion on Solar project

The paired sales analysis shows no negative impact in home values due to abutting or adjoining a solar project 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.

The distances indicated for the subject property are consistent with the paired sales showing no impact on adjoining property values given the distances involved and the proposed landscaping screen.

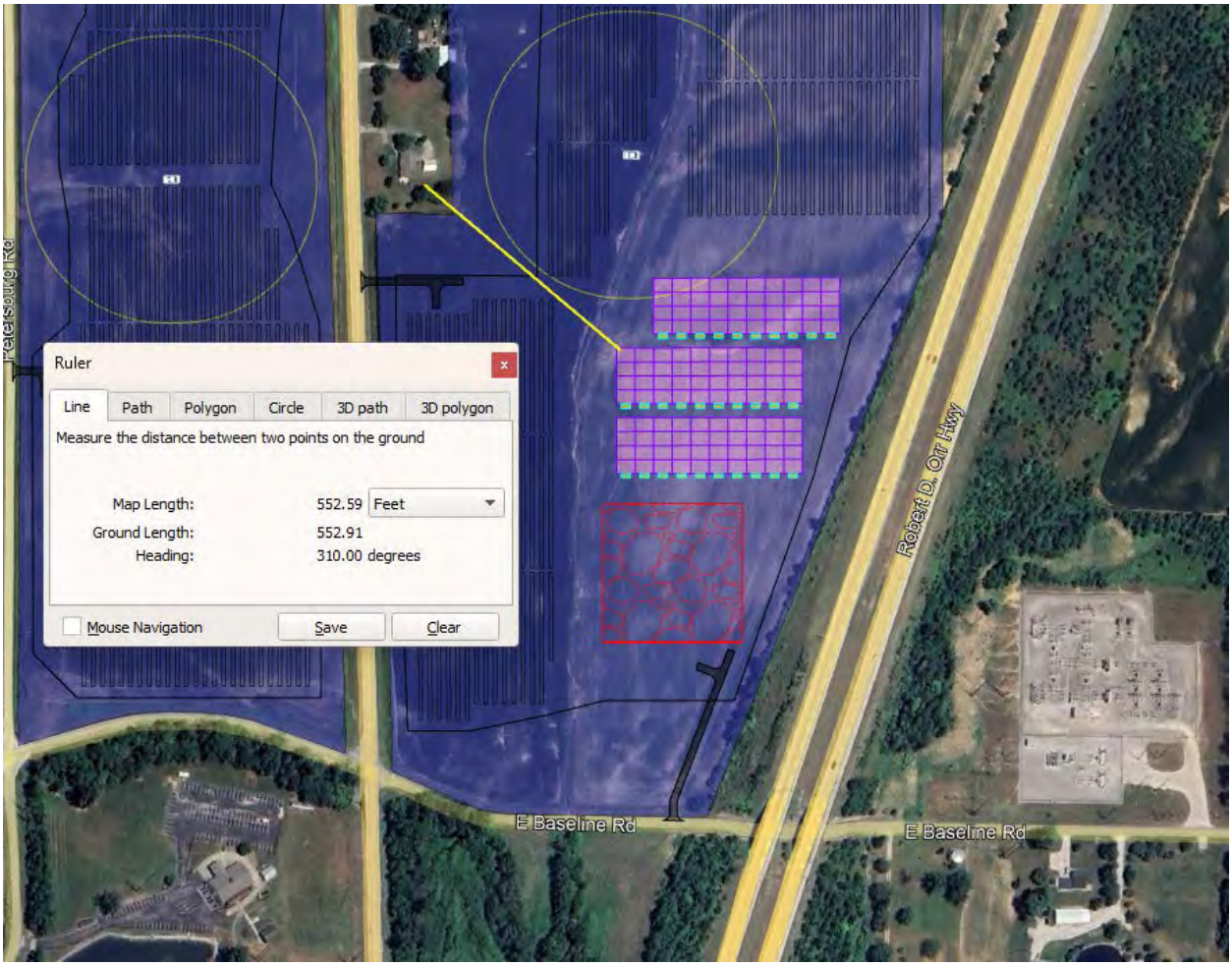
Very similar solar projects in very similar areas have been found by hundreds of towns and counties not to have a substantial injury to abutting or adjoining properties, and many of those findings of no impact have been upheld by appellate courts. Similar solar projects have been approved adjoining agricultural 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 project and I have found no significant difference in the matched pair data adjoining larger solar project versus smaller solar project. 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 Indiana.

Based on the data and analysis in this report, it is my professional opinion that the solar project 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 project that have been expressed by people living next to solar project 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.

XX. Battery Energy Storage System (BESS)

The BESS is proposed to be located on the parcel shown below. The BESS will be surrounded by the solar project and Interstate 69. The closest home to the proposed BESS is 550 feet as shown in the GoogleEarth Measurement below.



I considered the following battery storage facilities in a variety of states for a comparison of similar battery energy storage systems (BESS) in proximity to residential uses. I have also searched these areas for recent sales to see if there is any impact on property values near these battery storage facilities, which will be addressed in the following section.

I have focused on stand alone BESS instead of BESS collocated with solar to better isolate the conditions associated with BESS versus solar.

The primary use of this larger set is to show compatibility of BESS and residential uses as well as showing typical setbacks between these uses. These measured distances are from the closest point on the home to the closest piece of equipment. Where I have N/A, the facility does not have an aerial image that I can use to measure that distance. These distances were measured using GoogleEarth.

Summary of Battery Data

#	Name	City/State	Acres	Year Built	Capacity (MW)	Distance from Closest Home	Average Distance Adjoining Home
1	Cane Run	Cane Run, KY	416.8	Proposed	400.0	1190	1,830
2	Medway Grid	Medway, MA	10.6	Proposed	250.0	150	N/A
3	Diablo	Pittsburg, CA	11.45	2021	200.0	320	361
4	Fort Watt	Fort Worth, TX	47.94	Proposed	200.0	515	1,412
5	Cranberry	Carver, MA	34	2025	150.0	680	N/A
6	N Central Valley	Stockton, CA	N/A	2023	132.0	N/A	N/A
7	Silicon Hill	Pflugerville, TX	N/A	2022	100.0	350	N/A
8	Bat Cave	Mason, TX	N/A	2021	100.5	N/A	N/A
9	Gambit	Angleton, TX	6.24	2021	100.0	215	243
10	Chisholm	Ft Worth, TX	21.74	2021	100.0	840	875
11	Yadkins EC	Chesapeake, VA	29.34	Proposed	100.0	775	1,609
12	Roughneck	W. Columbia, TX	4.55	2021	50.0	1,095	N/A
13	Vista	Vista, CA	0.88	2023	40.0	50	98
14	Outer Cape	Provincetown, MA	N/A	2020	25.0	435	N/A
15	N. New York Energy	Burke, NY	10.47	2023	20.0	945	945
16	West Chicago	Chicago, IL	5	2015	20.0	430	450
17	McHenry	McHenry, IL	2.75	2016	20.0	260	283
18	Plumstead	Cream Ridge, NJ	14.39	2019	20.0	155	943
19	Rush Springs	Marlow, OK	N/A	2020	10.0	N/A	N/A
20	Prospect	W. Columbia, TX	2.3	2019	10.0	400	400
21	Brazoria	Brazoria, TX	17.58	2020	10.0	130	438
22	Churchtown	Pennsville, NJ	3.13	Proposed	10.0	N/A	N/A
23	Port Lavaca	Prt Lavaca, TX	1.44	2020	10.0	N/A	N/A
24	Magnolia	Houston, TX	0.87	2020	10.0	180	190
25	Rabbit Hill	Georgtown, TX	5.99	2020	10.0	130	338
26	Asheville	Asheville, NC	12.36	2020	9.0	130	452
27	Micanopy	Micanopy, FL	22.5	2022	8.3	605	1,085
28	East Hampton	E. Hampton, NY	17.58	2024	5.0	470	733
29	Montauk Energy	Montauk, NY	1.63	2019	5.0	N/A	N/A
30	Little Field ESS	Staten Island, NY	0.22	2023	4.3	40	84
31	Beebe	Wakefield, MA	N/A	2019	3.0	150	N/A
32	Ozone Park	Queens, NY	0.35	2018	3.0	30	203
33	Pomona	Rockland, NY	28.5	2020	N/A	270	1196
39	Callisto	Houston, TX	N/A	2024	200.0	685	1,391
40	Nextera	Winston, GA	107.13	Proposed	300.0	800	1,605

	Capacity	Distance from Closest Home	Average Distance Adjoining Home
Average	78 MW	375	617
Median	20 MW	295	444
High	400 MW	1,095	1,609
Low	3 MW	30	84

E. Market Data

From the larger set of BESS data, I searched for recent sales activity for analysis. The examples that I was able to identify are shown on the following pages.

9 - Gambit Energy Storage, Angleton, Texas

This 102.4 MW battery storage system is located off W. Live Oak Street, Angleton, Texas. This is a new facility and placed online in June 2021. This system is a good location as there are no other externalities adjoining it to potentially impact the analysis. The substation associated with this is located to the east along N. Walker Street.

The adjoining homes to the north were selling with new homes ranging from $400,000 to $600,000 in 2022.

The most recent adjoining home sale to the west was 852 Marshall Road that sold on April 5, 2021 and presumably they were aware of the battery storage facility as it would have been under construction at the time of sale. This brick ranch with 3 BR, 1 BA with 1,220 s.f. of gross living area and built in 1980 on 0.40 acres sold for $165,000, or $135 per s.f.

I have compared that sale to 521 Catalpa Street that sold on September 11, 2020 for $155,000 for a 3 BR, 2 BA brick ranch with 1,220 s.f. built in 1973 with a single car garage. Adjusting this price upward by 9% for growth in the market for time, 3.5% for difference in age, downward by $6,000 for the additional bathroom, and $4,000 for the garage, the adjusted indicated value of this home is $164,375, which is right in line with 852 Marshall Road and supports a finding of no impact on property value.

I have also compared that sale to 521 W Mimosa Street that sold on February 26, 2021 for $150,000 for this brick ranch with 3 BR, 1.5 BA with 1,194 s.f. built in 1976. Adjusting this sale upward by 4% for growth in the market over time, upward 2% for difference in age, and downward by $5,000 for the additional half bathroom, I derive an adjusted indication of $154,000. This is 7% less than the home price at 852 Marshall Road which suggests an enhancement due to proximity to the battery storage system.

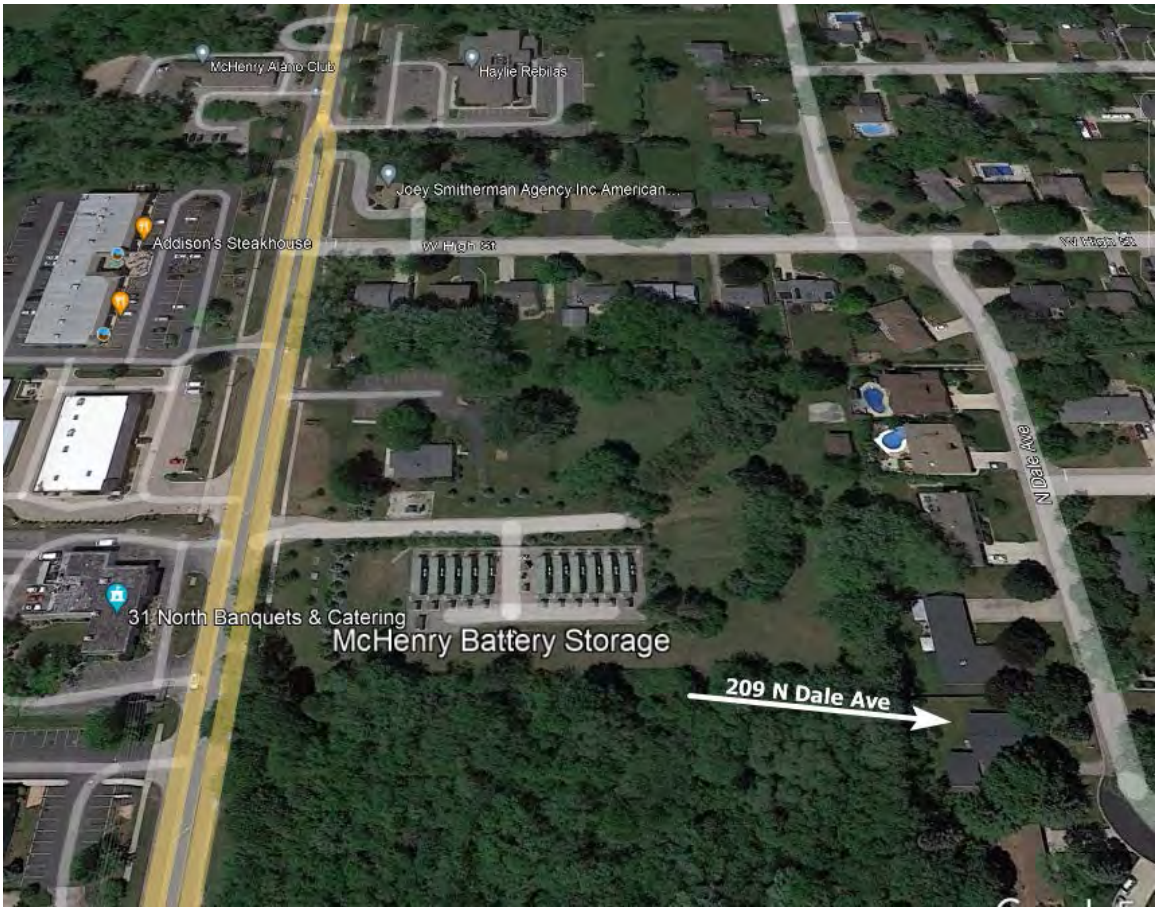
I have also compared this sale to 1164 Thomas Drive that sold on May 20, 2020 for $187,000 for this brick ranch with 2-car garage, 3 BR, 2 BA with 1,259 s.f. and built in 1998. Adjusting this upward by 13% for growth over time, downward by 9% for difference in age of construction, downward by $8,000 for the garage, downward $6,000 for the additional bathroom, I derive an indicated value of $180,480. This is a 9% difference suggesting a negative impact on property value. However, this comparable required the largest amount of adjustments and is not considered as heavily as the other two comparables. This home is 18 years newer and with better bathroom situation as a 1-bathroom house is a significant issue for most buyers.

The second comparable considered required the least adjustment and suggests a positive impact on property value. The median indication is the first comparable which shows no impact on property value. Given this data set I conclude that the best indication from these matched pairs supports a finding of no impact on property value. The home at 852 Marshall is 180 feet from the project outline shown.

I also considered a Sale/Resale analysis on this home. This same home at 852 Marshall sold on April 20, 2016 at $69,900. Adjusting this upward by 38% which is typical appreciation in this area based on the FHFA HPI indicates an expected appreciation to $96,462. However, this home was completely renovated between those two dates so this analysis is not very useful other than to show that the home was updated and sold at a higher price despite being located next to the BESS.

17 - McHenry Battery Storage, McHenry, Illinois

This 19.8 MW battery storage system is located off Illinois Highway 31, McHenry, Illinois that was built around 2016. This is facility fronts on the highway but has rear adjacency to a number of houses.



I have considered the recent sale of 209 N Dale Avenue that adjoins the battery storage site and is 290 feet from the nearest equipment.

That home sold on June 30, 2021 for $265,000 for a vinyl-siding ranch with 3 BR, 2.5 BA, built in 1960 with a gross living area of 1,437 square feet, or $184.41 per s.f. The property has 5 attached garage spaces. As identified in the listing the home was completely renovated with stainless steel appliances and granite countertops. This was listed by Lynda Steidinger with Berkshire Hathaway HomeServices Starck Real Estate and the buyer's agent was Ivette Rodriguez Anderson with Keller Williams. The heavy renovations make it impossible to do a Sale/Resale analysis, so I have looked at paired sales instead.

The home directly across the street, 208 N Dale Avenue, sold on June 16, 2021 for $275,000 for a cedar siding and stone ranch with 3 BR, 2.5 BA, built in 1961, with a gross living area of 1,446 s.f., or $190.18 per s.f. This home also has 1,101 square feet of finished basement space that is currently used as an office but could be an additional bedroom. This home also has been updated and includes stainless steel appliances and granite counter tops.

The size difference is nominal and the additional 3-car garage bays at the 209 N Dale is considered to be balanced by the finished basement space at 208 N Dale, though the finished office space is somewhat superior to garage space. But balancing those two factors out the difference in price per

square foot is 3%. This is considered negligible and attributable to the slightly superior finished basement space and not any impact relative to the battery storage facility.

I also looked at 3802 Clover Avenue, which is two blocks to the north. This stone and siding ranch with 3 BR, 2 BA, built in 1956, with a gross living area of 1,200 s.f. sold on October 21, 2021 for $231,000 or $192.50 per s.f. The property has been updated with a new kitchen and a new bay window and includes a partially finished basement with an additional bathroom in it and the total basement area is an additional 1,200 s.f. This is the smallest home in the neighborhood that I found and it further illustrates that the price per square foot typically goes up as the size goes down. Adjusting this gross sale price upward by $36,498 for the smaller size based on 80% of the price per square foot for this purchase, I derive an adjusted sales price to compare to the subject property of $267,498. I consider the basement to balance out the extra garage space at the subject. This indicates a difference of 1% from the purchase price of the 209 N Dale Avenue, which is attributable to the 4 months difference in time. I consider this comparable to further support a finding of no impact on value.

There are numerous recent home sales in the neighborhood ranging from $172,000 to $306,000, but most of these homes are also over 2,000 square feet in size. The subject property sold for more per square foot than most of these other sales partly due to the smaller overall size, partly due to the significant renovations, and partly due to the additional garage space. Still, this shows that the 209 N Dale Avenue sale is not being impacted by the battery storage facility and has in fact been updated above what is typical for the neighborhood, though given the similar updates at 208 N Dale Avenue, this may be the trend for the area.

The two sales compared to the 209 N Dale Avenue sale supports a finding of no impact on property value due to the battery storage facility.

I also looked at a more recent sale of 205 N Dale Avenue which adjoins 209 N. Dale to the south. This home sold on May 31, 2023 for $255,000 for this 3 BR, 2 BA home with 1,592 s.f. with a 2-car garage built in 1962 on a 0.40-acre lot. This home sold earlier that year for significantly less and underwent heavy renovations. The property was advertised as backing up to woods, it is 1 lot off adjacent to the BESS and shows no sign of impact. The heavy renovations make it difficult to compare this to other non-updated homes in the area, but someone purchased it for updating and sold it for more after the BESS was built.

Another home located at 3815 W High Street sold on October 28, 2022 for $260,000. This home also adjoins a medical office which makes matched pair analysis difficult and the prior sale is much older and not suitable for Sale/Resale analysis.

Another home located at 2813 W High Street sold on April 14, 2022 for $180,000. This home also adjoins a medical office and was sold “as-is” and therefore not appropriate for analysis.

26 - Asheville Energy Storage System

This 9 MW battery storage system is located on a parcel with a substation built in 2020 (substation was bult much earlier). This facility has significant residential development around it but no recent sales to consider.

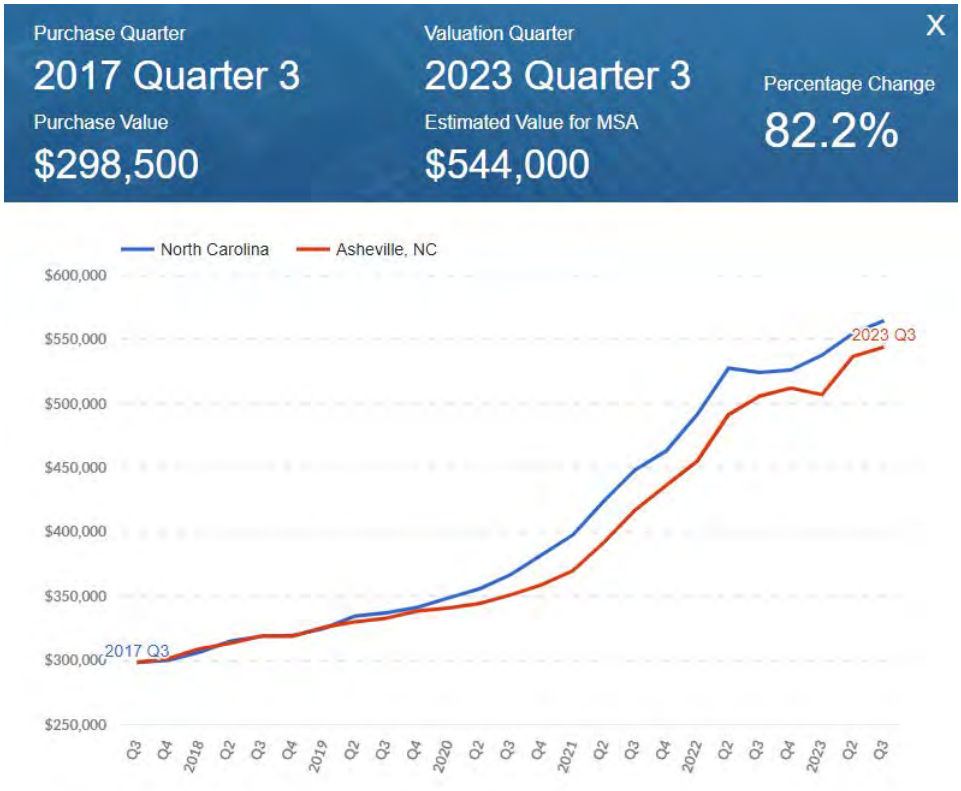
There is a nearby home sale that is located on Tax Parcel 8047 (just below the identifier for Parcel 9). This home is 550 feet from the nearest battery equipment and most of that distance is heavily wooded.

This home has a street address of 95 Forest Lake Drive, Asheville, NC and it sold on April 26, 2022 for $510,000 for this 4 BR/3 BA ranch with 1,931 square feet including the daylight basement area. The home also has a 2 car garage. I did not attempt a paired sale as this home has no visibility of the BESS despite the proximity and arguably has a better view with less screening to the substation, which is also closer to the home.

Similarly, new homes are being built to the south on Rangley Drive with prices ranging from $431,000 to $566,000. These homes include those that back up to the Parcels 11 through 14 in the adjacent parcel map.

Also, Parcel 4 sold in March of 2022, but it has the substation between it and the BESS, which makes it challenging to draw conclusions from and I attempted no analysis.

I did look at 129 Graham Lane, Asheville, which is adjoining Parcel 11. It sold on November 6, 2023 for $550,000 for this 4 BR, 3 BA home with 2,913 s.f. with a 2 car garage built in 1970 on a 1.21-acre lot. This home last sold on August 2, 2017 for $298,500 prior to the BESS being constructed. Adjusting this earlier sale using the Federal Housing Finance Agency Home Price Index over that time period, homes in the area indicate that the home should have appreciated to $544,000 as shown below. The home actually sold for slightly more than this which supports a finding of no impact on property value. This home was 510 feet from the BESS and was screened.



31 – Beebe Substation Battery Storage

This 3 MW battery storage system is in Wakefield, Massachusetts built in 2019. The closest adjoining home is 150 feet away to the southwest.

I looked at 4 Twilight Road to the south that is 600 feet away. It sold in September 2023, but that home is closer to a large powerline easement that makes it difficult to complete a paired sales analysis.

I also looked at 22 Pheasant Wood Drive that sold on August 2023 for $1,050,000 for a 3,038 s.f. brick ranch with 3 BR, 3.5 BA, 2 car garage built in 1992 on 0.33 acres. This home has a finished basement with a full in-law suite with kitchen. The price per square foot works out to $345.62. This home is 480 feet to the north of the battery system.

I have compared this to 7 June Circle that sold December 2023 for $1,109,000 for a 3,473 s.f. 2 story home built in 1971 on 0.36 acres. The home has 5 BR, 4.5 BA, 2 car attached garage and 2 car detached garage with finished basement and a pool. The purchase price works out to $319.32 per s.f. Adjusting this price upward by 10% for the difference in year built, this price is adjusted to $351.24 per s.f. This is within 1.6% of the Pheasant Wood sale and supports a finding of no impact on value.

32 - Ozone Park Batteries

This system is located on 99th Street in Jamaica, Queens, New York. The below image shows the battery pack parcel outlined in red with a bowling alley to the north, a school to the south and homes to the east and west as well as a church to the west. Based on aerial imagery, this site was installed in early to mid-2018.

The two closest structures are the school at 65 feet and a church at 30 feet from the batteries. The nearby homes are on the opposing blocks, but the proximity to the school does illustrate a high confidence in public safety related to the battery facility and acceptance within that community.

Surrounding Uses

#	Address	GIS Data Acres	Present Use	Adjoin Acres	Adjoin Parcels	Distance (ft) Home/Battery
1	98-18 Rockaway	0.76	Bowling	11.69%	6.67%	N/A
2		0.95	Office	14.62%	6.67%	N/A
3	10735 100th St	0.06	Residential	0.92%	6.67%	245
4	10737 100th St	0.06	Residential	0.92%	6.67%	260
5	10739 100th St	0.06	Residential	0.92%	6.67%	275
6	10741 100th St	0.06	Residential	0.92%	6.67%	290
7	10743 100th St	0.06	Residential	0.92%	6.67%	305
8	10915 98th St	3.74	School	57.54%	6.67%	65
9		0.27	School	4.15%	6.67%	N/A
10	10656 98th St	0.06	Residential	0.92%	6.67%	200
11	10654 98th St	0.06	Residential	0.92%	6.67%	195
12	10650 98th St	0.06	Residential	0.92%	6.67%	190
13	10646 98th St	0.06	Residential	0.92%	6.67%	190
14	10636 98th St	0.06	Residential	0.92%	6.67%	195
15	10645 (8th St	0.18	Church	2.77%	6.67%	30
	Total	**6.500**		**100.00%**	**100.00%**	203
					Min	30

The closest recent home sale is 10726 101st Street that sold on October 9, 2018, after the battery storage facility was installed. This home is 345 feet from the closest battery and has a very obstructed view of that area based on the shrubs around the battery storage site as well as a strip of landscape greenery between the two sites. The sales price was $600,000 for this 3 BR/1.5 BA home that was built in 1930 on a 0.06-acre site.

I compared this to a similar home built in 1930 in the same style and same size that sold at 10762 101st Street on October 9, 2018 for $590,000. This home is just down the street but further from the battery storage system and sold on the same day for $10,000 less. The proximity to the battery does not correlate to value impact in this instance as the home further away sold for less. This second home is across the street from the three-story John Adams High School which likely accounts for the lower price for this second property compared to the first which was adjacent to the same school, but not across from the building itself.

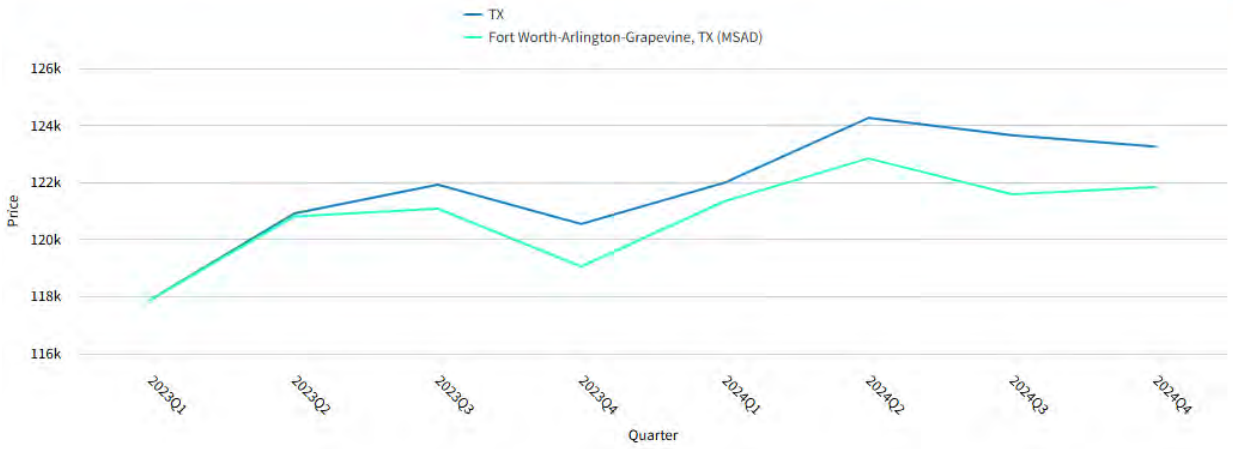
The matched pairs support a finding of no impact on value due to proximity to the battery system.

34 – Connolly BESS, Decatur, TX

This battery storage system is located at 2116 County Rd 4511, Decatur, TX 76234 and was built in November 2024 but operational in 2025.

I identified a sale of a home at 5046 County Road 4010, Decatur for 2.62 acres of unimproved land on February 18, 2025 for $125,000. This same property sold previously on March 27, 2023 for $117,900. I considered a Sale/Resale analysis looking at the FHFA House Price Index and applied in to appreciation for this lot over that time period, which indicated it should have appreciated to $123,260. The lot sold for $125,000 after the project was built, which strongly supports a finding of no impact. The likely homesite on this lot is 630 feet based on the homes built on either side of this lot.

Estimated Value for MSA: $121,837	Estimated Value for State: $123,260	MSA Percentage Change: 3.34%



Summary

Residential Dwelling Sale/Resale and Paired Sale Analysis											
					Approx				Adj. Sale		Sound
Pair	BESS	City	State	MW	Distance	Address	Date	Sale Price	Price	% Diff	Wall
1	Diablo	Pittsburg	CA	200	605	401 Travis	Jun-23	$665,000			4 ft
						401 Travis	Jul-17	$425,000	$671,500	-1%	
2	Gambit	Angleton	TX	102.4	180	852 Marshall	Apr-21	$165,000			8 ft
						521 Catalpa	Sep-20	$155,000	$164,375	0%	
3	Vista	Vista	CA	40	100	508 Dove	Apr-23	$740,000			Yes
						508 Dove	May-02	$258,000	$714,660	3%	
4	Outer Cape	Provincetown	MA	25	425	72 Race Point	Aug-24	$1,400,000			Yes
						72 Race Point	Oct-08	$625,000	$1,331,250	5%	
5	McHenry	McHenry	IL	20	290	209 N Dale	Jun-21	$265,000			No
						3802 Clover	Oct-21	$231,000	$267,498	-1%	
6	Asheville	Asheville	NC	9	510	129 Graham	Nov-23	$550,000			Yes
						129 Graham	Aug-17	$298,500	$544,000	1%	
7	Beebe	Wakefield	MA	3	480	22 Pheasant Wood	Aug-23	$1,050,000			No
						7 June Cir	Dec-23	$1,109,000	$1,067,067	-2%	
8	Ozone	Jamaica	NY	3	345	10726 101st	Oct-18	$600,000			Yes
						10762 101st	Oct-18	$590,000	$590,000	2%	

Comparable Stats			
		Avg.	
	MW	Distance	Indicated Impact
Avg	50.30	367	Average 1%
Med.	22.50	385	Median 1%
High	200.00	605	High 5%
Low	3.00	100	Low -2%

I was able to complete 4 Sale/Resale analysis and 4 Matched Pair analysis as shown in the chart below. The range of impacts are -2% to +5% with an average and median impact of +1%. This is a very typical range of variation in market data and does not suggest a positive impact on property value, but instead suggests no impact.

I consider the Sale/Resale analysis data points to be the stronger data points as they only require a time adjustment and that time adjustment is linked to the Federal Housing Finance Agency House Price Index for that area and therefore has no appraiser judgement involved.

The Sale/Resale analysis set of data has impacts of -1% to +5% with an average of +2% and median of +2%, which trends slightly higher than the larger set or the matched pair set, but still within typical market deviation.

I also communicated with a broker involved in the sale of a home within 100 feet of Littlefield Energy Storage System in Staten Island who noted that the BESS was not a significant factor in the decision process.

Of the 8 projects identified, 6 had sound walls for projects where the identified home was between 100 and 605 feet. The 2 that had no sound walls also supported no impact on property value at homes between 290 and 480 feet. The adjoining home prices range from $165,000 to $1,400,000.

The distance from these sales show a distance from home to BESS equipment ranges from 100 feet to 605 feet with an average distance of 367 feet and a median distance of 385 feet.

The sales data supports a finding of no impact on property value for homes ranging from 100 to 600 feet from the nearest equipment with a median distance of 345 feet.

The closest home to the proposed facility is 550 feet. Seven of the eight data points are closer than this distance. This strongly supports a finding of no impact from the proposed project site.

I conclude that based on the comparable data presented that the proposed BESS component of the facility will not have a negative impact on adjoining property values. Furthermore, there are numerous examples in the data set of homes that are closer than that distance to batteries which reinforces the opinion developed based on the paired sales analysis and sale/resale analysis.

XXI. Specific Factors Related To Impacts on Value - BESS

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 battery energy storage system.

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

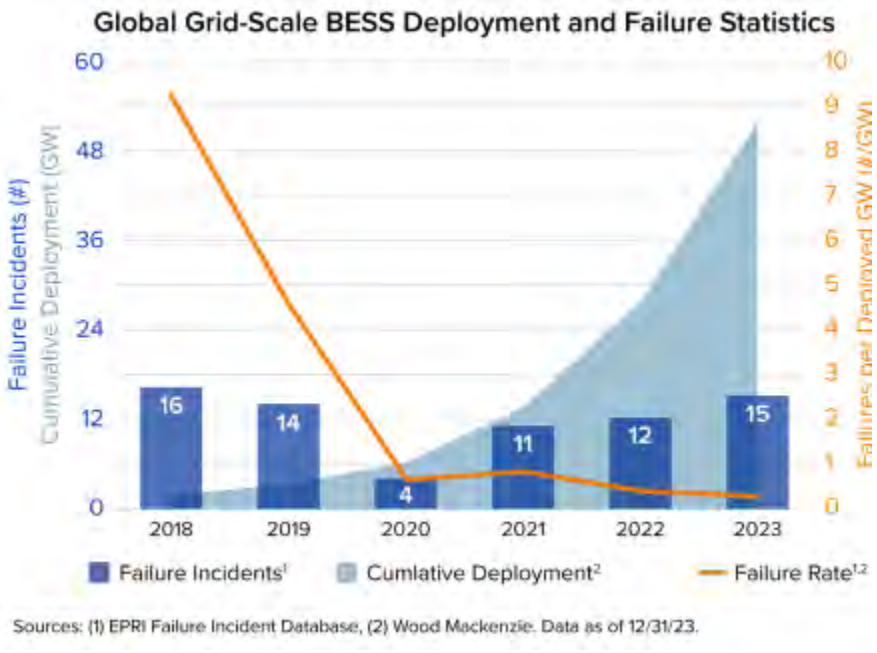
1. Hazardous material

Typically where hazardous material presents an impact on adjoining or nearby property values is due to pollution, risk of spillage, or other impacts that could get into the soil, water table, or into the air. Examples include heavy industrial uses, coal burning uses, or even some heavy agricultural uses.

According to Ms. Judy McElroy, president of Fractal Energy out of Austin Texas, she has been studying battery storage systems since 2012. Since that time there have only been two fires related to this type of system across the United States and both of those fires were in Arizona. Both of those fires were in non-monitored systems that had warnings going off for a week prior to the fire and both were owned and operated by the same company. She indicated that the risk of fire is very limited and that they typically use a closet system as a failsafe to contain and control if a fire did occur. She indicated that any of the gases that would escape from such a fire would be similar to the chemicals that would be released if your kitchen garbage caught on fire and therefore no risk to the surrounding properties even in such an extreme situation.

A battery storage facility presents no potential hazardous waste byproduct as part of normal operation. According to Ms. McElroy, there is no risk to the soils, water supply, or air from the operation of a battery storage facility.

The EPRI Battery Energy Storage System Failure Incidence Database was initiated in 2021 as part of BESS safety research and tracks data back to 2018 globally. The following chart shows that while incident rates are relatively consistent across the time period, the actual failure rate has dropped precipitously on a failure per GW. So despite substantial growth of over 8 times the GW installed since 2020 to 2023, the failure rate is dropping.



Based on that information I conclude that the proposed battery storage system does not have the characteristics of a hazardous material byproduct and no related external obsolescence on adjoining property value.

2. Odor

Odor is the next category that has the second highest potential impact on nearby property values. Odor is an impact often considered with waste water treatment facilities, solid waste facilities, manufacturing, and related uses. There is no significant odor related to a battery storage system and therefore no impact on adjoining or nearby properties related to odor.

3. Noise

Noise is the next category that has the next highest potential for impact on property values. Noise impacts are found near airports, railroads, heavy industry, or other significant generators of noise including outdoor music venues and the like.

I have reviewed three different noise studies by three different experts on this topic specific to BESS, which all support a finding of no impact on property value related to noise concerns.

The systems shown in the market data include a system adjoining a school, a church, and in close proximity to numerous homes including rural homes near park land. I conclude that the battery storage system is not a significant contributor to noise and therefore would not have a negative impact on adjoining property values.

4. Traffic

Traffic impacts come from traffic patterns related to a site that could cause queuing outside the property or putting too much new traffic within a confined area.

The battery storage system would be remotely monitored and other than occasional maintenance would not have a significant number of trips per day. In fact it would have fewer trips per day than a single-family dwelling. I therefore conclude that traffic related to this use will not have a negative impact on adjoining property values.

5. Stigma

There is no stigma associated with battery storage facilities.

Stigma is most often associated with adult establishments and would not typically be connected with infrastructure like this use.

6. Appearance

Appearance or viewshed impacts are typically more for scenic areas where there could be premiums for a view, but also include negative impacts related to less aesthetic uses in proximity to housing. This is a category that could be considered for a battery storage facility.

However, the boxes will be 9 feet tall and will be screened by existing vegetation from the nearest homes. The distances to the nearest homes are further than what was identified in most of the other BESS examples, which substantially mitigates visual impacts even if there were not a landscaping screen.

Substations are much taller and harder to effectively screen, whereas the proposed battery storage use would be lower to the ground.

Given the similar use of screens for taller substations, I consider this a good mitigation method for the appearance of the subject property.

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 consideration of the wide variety of other uses a property already has the right to be put to which could include significant agricultural structures.

F. Conclusion

The proposed use of the subject property is consistent with adjoining industrial and residential uses as shown by the similar projects. They also show compatibility with schools, churches, homes, and parks.

The paired sales in New York as well as the ones in Massachusetts, North Carolina, Illinois and Texas illustrate that the battery storage facilities had no impact on the nearby home sales prices at ranges of 180 to 600 feet. The closest home at the subject property to the BESS component will be 1,288 feet.

The breakdown of potential factors that cause a negative impact (or external obsolescence) on adjoining property value shows that the only area for consideration is the appearance, which is well addressed through the existing and proposed landscaping. Landscaping was a mitigating factor used with many of the projects identified.

Based on those various considerations, I conclude that there is no reasonable basis to anticipate a negative impact on adjoining property value.

XXII. Overall Conclusion

The matched pair analysis in the attached report shows no 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 where there are sufficient setbacks and buffering as identified in the analysis. 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.

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 N.C. Courts or overturned by N.C. Courts when a board found otherwise (see for example *Dellinger. v. Lincoln County*). Similar solar farms have been approved adjoining agricultural uses, schools, churches, and residential developments. Industrial uses rarely absorb negative impacts from adjoining uses. This same pattern of development has been identified in this report showing that this is not a local phenomenon, but found in Indiana, Virginia, North Carolina, Maryland, Tennessee, and Florida as representative of the Mid-Atlantic and Southeastern U.S.

Based on the data and analysis in this report, it is my professional opinion that the solar farm proposed at the subject property will not substantially injure the value of adjoining property and will be 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 no traffic.

XXIII. 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 completed any other appraisal related assignments regarding this project within the three years prior to engagement in this current assignment.

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

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

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
KY State Certified General Appraiser # 5522
TN State Certified General Appraiser # 6240
FL State Certified General Appraiser # RZ3950
GA State Certified General Appraiser # 321885
MI State Certified General Appraiser # 1201076620
PA State Certified General Appraiser # GA004598
OH State Certified General Appraiser # 2021008689
IN State Certified General Appraiser # CG42100052
IL State Certified General Appraiser # 553.002633
LA State Certified General Appraiser # APR.05049-CGA
TX State Certified General Appraiser # 1380528 G

Education

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

Continuing Education

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