# Sebree Solar II, LLC Case No. 2022-00131

# Application – Exhibit 12 Attachment A Exhibit 1

Property Value Impact Studies (185 Pages)

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## REAL ESTATE ADJACENT PROPERTY VALUE IMPACT REPORT:

Academic and Peer Authored Property Value Impact Studies, Research and Analysis of Existing Solar Facilities, and Market Participant and Assessor Interviews

#### **Prepared For:**

Lina Jensen and Jason Andrews NextEra Energy Resources 700 Universe Boulevard Juno Beach, FL 33408

#### Submitted By:

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March 14, 2023

#### LETTER OF TRANSMITTAL

March 14, 2023

Lina Jensen and Jason Andrews NextEra Energy Resources 700 Universe Boulevard Juno Beach, FL 33408

SUBJECT: Property Value Impact Report An Analysis of Existing Solar Farms

To Whom it May Concern:

CohnReznick is pleased to submit the accompanying property values impact report for proposed solar energy uses in Kentucky. Per the client's request, CohnReznick researched property transactions adjacent to existing solar farms, researched and analyzed articles and other published studies, and interviewed real estate professionals and Township/County Assessors active in the market where solar farms are located, to gain an understanding of actual market transactions in the presence of solar energy uses.

The purpose of this consulting assignment is to determine whether proximity to a renewable energy use (solar farm) has an impact adjacent property values. The intended use of our opinions and conclusions is to assist the client in addressing local concerns and to provide information that local bodies are required to consider in their evaluation of solar project use applications. We have not been asked to value any specific property, and we have not done so.

The client and intended user for the assignment is Sebree Solar II, LLC. Additional intended users of our findings include Honaker Law Office PLLC, ECT, Henderson County, Kentucky planning and zoning department officials as well as the Kentucky State Electric Generation and Transmission Siting Board. The report may be used only for the aforementioned purpose and may not be distributed without the written consent of CohnReznick LLP ("CohnReznick").

This consulting assignment is intended to conform to the Uniform Standards of Professional Appraisal Practice (USPAP), the Code of Professional Ethics and Standards of Professional Appraisal Practice of the Appraisal Institute, as well as applicable state appraisal regulations.

Based on the analysis in the accompanying report, and subject to the definitions, assumptions, and limiting conditions expressed in the report, our findings are:

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#### FINDINGS

1. Academic Studies (pages 24-26): CohnReznick reviewed and analyzed published academic studies that specifically analyzed the impact of solar facilities on nearby property values. These studies include multiple regression analyses of hundreds and thousands of sales transactions, and opinion surveys, for both residential homes and farmland properties in rural communities, which concluded existing solar facilities have had no negative impact on adjacent property values.

Peer Authored Studies: CohnReznick also reviewed studies prepared by other real estate valuation experts that specifically analyzed the impact of solar facilities on nearby property values. These studies found little to no measurable or consistent difference in value between the Test Area Sales and the Control Area Sales attributed to the proximity to existing solar farms and noted that solar energy uses are generally considered a compatible use.

11. CohnReznick Studies (pages 27-124): Further, CohnReznick has performed 26 studies in over 15 states, of both residential and agricultural properties, in which we have determined that the existing solar facilities have not caused any consistent and measurable negative impact on property values.

	CohnReznick - Existing Solar Farms Studied							
	Solar Farm	County	State	MW AC	Acreage			
1	Sunshine Farms	Currituck	NC	20.0	121.44			
2	North Star	Chisago	MN	100.0	±1,000			
3	Dominion Indy Solar III	Marion	IN	8.6	129.04			
4	Dougherty Solar	Dougherty	GA	120.0	1,037.42			
5	Miami-Dade Solar Energy Center	Miami-Dade	FL	74.5	465.61			
6	Barefoot Bay Solar Energy Center	Brevard	FL	74.5	504.75			
7	Innovative Solar 42	Bladen & Cumberland	NC	71.0	413.99			
8	Rutherford Farm	Rutherford	NC	61.0	488.84			
9	Elm City Solar	Wilson	NC	40.0	354.00			
10	Woodland Solar	Isle of Wight	VA	19.0	211.12			
11	DTE Lapeer	LaPeer	MI	48.3	365.68			

For this Project, we have included 11 of these studies which are most similar to the subject in terms of general location and size, summarized as follows:

It is noted that proximity to the solar farms has not deterred sales of nearby agricultural land and residential single-family homes, nor has it deterred the development of new single-family homes on adjacent land.

This report also includes four "Before and After" analyses, in which sales that occurred prior to the announcement and construction of the solar farm project were compared with sales that occurred after completion of the solar farm project, for both adjoining and non-adjoining properties. No measurable impact on property values was demonstrated.

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III. Market Participant Commentary (pages 125-127): Our conclusions also consider interviews with over 45 County and Township Assessors, who have at least one solar farm in their jurisdiction, and in which they have determined that solar farms have not negatively affected adjacent property values.

With regards to the Project, we specifically interviewed:

- A Clark County, Kentucky Property Valuation Administrator, Jason Neely, noted there have been no complaints regarding East Kentucky Power Cooperative, Inc.'s Cooperative Solar One project installed in November 2017 located in the county, which has a capacity to generate 8.5 MW of electricity. Additionally, Neely stated he has not seen any evidence of lowered property values in the area and <u>no reduction in assessed property values has been made due to proximity to the solar farm.</u>
- A Grant County, Kentucky Assessor stated that <u>they have not seen a reduction in assessed</u> property values or market values for adjacency to solar farms.

To give us additional insight as to how the market evaluates farmland and single-family homes with views of solar farms, we interviewed numerous real estate brokers and other market participants who were party to actual sales of property adjacent to solar; these professionals also confirmed that solar farms did not diminish property values or marketability in the areas they conducted their business.

IV. Solar Farm Factors on Harmony of Use (pages 128-134): In the course of our research and studies, we have recorded information regarding the compatibility of these existing solar facilities and their adjoining uses, including the continuing development of land adjoining these facilities.

#### CONCLUSION

Considering all of the preceding, the data indicates that solar facilities do not have a negative impact on adjacent property values.



If you have any questions or comments, please contact the undersigned. Thank you for the opportunity to be of service.

Very truly yours,

CohnReznick LLP

, 11th

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#### SCOPE OF WORK

#### CLIENT AND INTENDED USERS

The client and intended user of this report is Sebree Solar II, LLC; other intended users include Honaker Law Office PLLC, ECT, Henderson County, Kentucky planning and zoning department officials, and the Kentucky State Electric Generation and Transmission Siting Board; other intended users may include the client's legal and site development professionals.

#### INTENDED USE

The intended use of our opinions and conclusions is to assist the client in addressing local concerns and to provide information that local bodies are required to consider in their evaluation of solar project use applications. We have not been asked to value any specific property, and we have not done so. The report may be used only for the aforementioned purpose and may not be distributed without the written consent of CohnReznick LLP ("CohnReznick").

#### PURPOSE

The purpose of this consulting assignment is to determine whether proximity to the proposed solar facility will result in an impact on adjacent property values.

#### DEFINITION OF VALUE

This report utilizes Market Value as the appropriate premise of value. Market value is defined as:

"The most probable price which a property should bring in a competitive and open market under all conditions requisite to a fair sale, the buyer and seller each acting prudently and knowledgeably, and assuming the price is not affected by undue stimulus. Implicit in this definition are the consummation of a sale as of a specified date and the passing of title from seller to buyer under conditions whereby:

- 1. Buyer and seller are typically motivated;
- 2. Both parties are well informed or well advised, and acting in what they consider their own best interests;
- 3. A reasonable time is allowed for exposure in the open market.
- 4. Payment is made in terms of cash in U.S. dollars or in terms of financial arrangements comparable thereto; and
- 5. The price represents the normal consideration for the property sold unaffected by special or creative financing or sales concessions granted by anyone associated with the sale."<sup>1</sup>

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<sup>&</sup>lt;sup>1</sup> Code of Federal Regulations, Title 12, Chapter I, Part 34.42[h]

#### **EFFECTIVE DATE & DATE OF REPORT**

March 14, 2023 (Paired sale analyses contained within each study are periodically updated.)

#### **PRIOR SERVICES**

USPAP requires appraisers to disclose to the client any services they have provided in connection with the subject property in the prior three years, including valuation, consulting, property management, brokerage, or any other services.

This report is a compilation of the existing solar farms which we have studied over the past year and is not evaluating a specific subject site. In this instance, there is no "subject property" to disclose.

#### INSPECTION

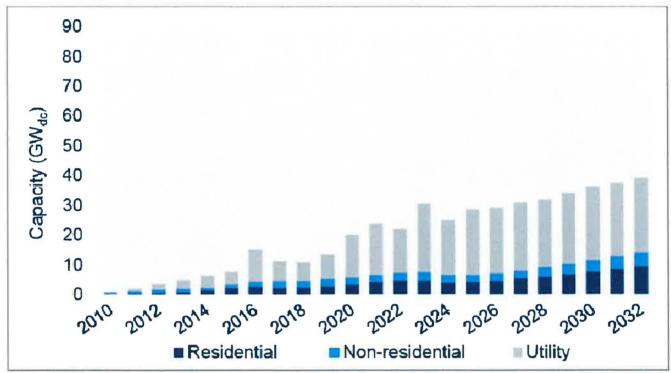
Patricia L. McGarr, MAI, CRE, FRICS, Andrew R. Lines, MAI, and Erin C. Bowen, MAI have viewed the exterior of all comparable data referenced in this report in person, via photographs, or aerial imagery.

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#### OVERVIEW OF SOLAR DEVELOPMENT IN THE UNITED STATES

Solar development increased almost exponentially over the past ten years in the United States as technology and the economic incentives (Solar Investment Tax Credits or ITC) made the installation of solar farms economically reasonable. The cost to install solar panels has dropped nationally by 70 percent since 2010, which has been one cause that led to the increase in installations. A majority of these solar farm installations are attributed to larger-scale solar farm developments for utility purposes. The chart below portrays the historical increase on an annual basis of solar installations in the US as a whole, courtesy of research by Solar Energy Industries Association (SEIA) and Wood Mackenzie, and projects solar photovoltaic (PV) deployment for the next ten years through 2032, with the largest percentage of installations attributed to utility-scale projects.



#### US PV installation historical data and forecast, 2010-2032

Wood Mackenzie Kowie & Renewalles

©2022

The United States installed 4.6 Gigawatts (GW) DC of solar photovoltaic capacity for all the sectors, residential, commercial, community solar and utility-scale solar projects in Q3 2022, a 17 percent decrease from Q3 2021 and a 2 percent increase from Q2 2022, which could have been higher without supply chain constraints. Due to the anti-circumvention investigation instigated by Auxin Solar's petition to the Department of Commerce, most manufacturers have simply stopped shipping equipment to the United States to avoid tariff risk. Additionally, the



Uyghur Forced Labor Prevention Act (UFLPA) went into effect on June 21, 2022 which has resulted in a reduction in expectations of utility-scale projects in the pipeline, reduced down 10 GWdc from Q1 2022. Most of the reduction comes from the utility-scale solar segment while expectations for distributed solar have increased, effectively balancing each other out.

The beginning dates for operation of multiple gigawatts of projects have been pushed from 2022 into 2023 or later. The projects likely to come online in 2022 already have secured equipment, as of the end of 2021.

However, solar power generation still accounted for 45 percent of all new electricity-generating capacity additions in Q3 2022 and continues to make up the largest share of new generating capacity in the U.S.

As of August 12, 2022, the Inflation Reduction Act was passed in the Senate and The House of Representatives, which includes long-term solar incentives and investment in domestic solar manufacturing. Included in the bill, a 10-year extension and expansion of the Investment Tax Credit (ITC) and Production Tax Credit (PTC) will provide tax credits for solar manufacturing and direct payment options for tax credits. While the uncertainty of the anticircumvention investigation remains present, the passage of the Inflation Reduction Act gives the solar industry long-term market certainty.

Recent articles show that over the past decade, the solar industry has experienced unprecedented growth. Among the factors contributing to its growth were government incentives, significant capacity additions from existing and new entrants and continual innovation. Solar farms offer a wide array of economic and environmental benefits to surrounding properties. Unlike other energy sources, solar energy does not produce emissions that may cause negative health effects or environmental damage. Solar farms produce a lower electromagnetic field exposure than most household appliances, such as TV and refrigerators, and studies have confirmed there are no health issues related to solar farms.<sup>2</sup>

Solar farm construction in rural areas has also dramatically increased the tax value of the land on which they are built, which has provided a financial boost to some counties. CohnReznick has studied real estate tax increases due to the installation of solar, which can range up to 10-12 times the rate for farmland. A majority of tax revenue is funneled back into the local area, and as much as 50 percent of increased tax revenue can typically be allocated to the local school district. By converting farmland to a passive solar use for the duration of the system's life, the solar energy use does not burden school systems, utilities, traffic, nor infrastructure as it is a passive use that does not increase population as say a residential subdivision would.

Beyond creating jobs, solar farms are also benefiting the overall long-term agricultural health of the community. The unused land, and also all the land beneath the solar panels, will be left to rejuvenate naturally. In the long run this is a better use of land since the soil is allowed to recuperate instead of being ploughed and fertilized year after year. A solar farm can offer some financial security for the property owner over 20 to 25 years. Once solar panel racking systems are removed, the land can revert to its original use.<sup>3</sup>

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<sup>&</sup>lt;sup>2</sup> "Electromagnetic Field and Public Health." Media Centre (2013): 1-4. World Health Organization.

<sup>&</sup>lt;sup>3</sup> NC State Extension. (May 2016). Landowner Solar Leasing: Contract Terms Explained. Retrieved from: https://content.ces.ncsu.edu/landowner-solar-leasing-contract-terms-explained

#### NATIONAL UTILITY-SCALE ENERGY PRODUCTION

As of January 2023, the U.S. produces over 1.257 million megawatts (MW) of power each year, according to the U.S. Energy Information Administration (EIA) in ±25,000 unique power generation facilities. Of that power produced, approximately five percent is generated from solar facilities, or 72,411 MW AC, at 5,696 solar facilities across the country, reflecting an average facility size of 12.33 MW AC. For utility scale solar production, the number of facilities that generate over 5 MW of power accounts for 34 percent of all solar facilities, nationwide, whereas 90.0 percent of solar power generated in the country comes from utility scale facilities, overall.

According to the U.S. Energy Information Administration (EIA) through January 2023, ±184 solar facilities in operation that generate 100 MW AC or more of power. A map illustrating existing solar facilities with capacities greater than 100 MW is presented below (indicated by yellow suns), using data retrieved from the EIA.



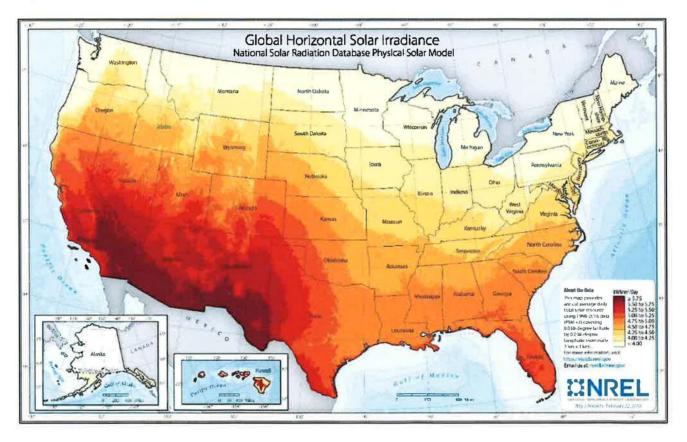
To meet zoning and planning requirements, and/or to take advantage of certain incentive programs, several solar facilities are built by the same developer around the same location, de facto functioning as one larger solar facility. Many of these solar facilities are located in California, with several located in Florida, Texas, Nevada, North Carolina, Arizona, Georgia, and Utah. Additionally, these installations are typically located in outlying areas where site costs are lowest, and residential development and sales activity is minimal in these areas. While we reviewed each for surrounding uses, the majority are not good candidates for a paired sales analysis since they were either recently constructed or surrounding development/sales activity was minimal.

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In the United States, there are ±50 operating solar facilities with generating capacities above 200 MW AC, presented on the following pages. All of the existing solar facilities in operation as of January 2023 that have a generating capacity of greater than 200 MW AC are located in the southwestern United States, with the exception of the 200 MW Hillcrest Solar Project in Ohio, the 200 MW Sun Mountain Solar Project in Colorado, the 200 MW Prairie Wolf Solar Project in Illinois, the 200 MW Riverstart Solar Park project in Indiana (analyzed in this report), the 204 MW Twiggs Solar Project in Georgia, the 213 MW Cool Springs Solar Project in Georgia, the 227 MW Muscle Shoals Project in Alabama, the 240 MW Pleinmont Project in Virginia, the 240 MW Bighorn Solar Farm in Colorado and the 250 MW 25 Mile Creek Solar Project in Oklahoma. The map developed by the National Renewable Energy Laboratory (NREL), presented next, shows the solar resources released by the sun daily throughout in the United States. Red indicates the areas with the most solar resources.



It should be noted that there are 132 solar projects currently planned across the United States over 200MW. These projects are located throughout the United States, not just in the areas with solar resources, the largest of which is a 2,250 MW facility outside of Las Vegas, Nevada, currently planned for operation in 2027. Additionally, the Mammoth Solar project in Indiana is planned in three phases which with total 1.6 GW when complete, enough to power 275,000 homes across the Midwest. There is an 800 MW facility planned in Sherman County, Oregon for 2025. The next largest are five 700 MW solar facilities in Madison County, Lamar County



and Navarro County, Texas, all of which are currently in the planning phase with operations expected to begin in 2024.

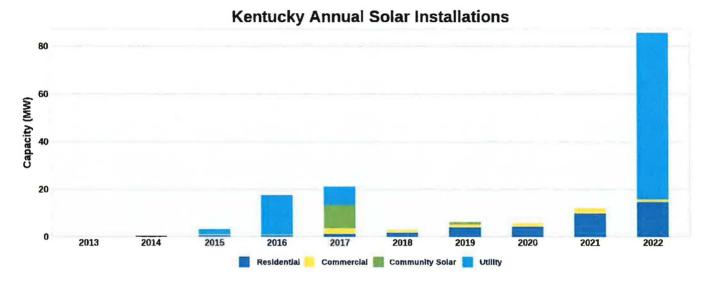
The following map has operating solar installations larger than 200 MW (marked by green suns) and shows that the largest solar installations have been built in areas where there are the most solar resources.



Solar facilities larger than 200 MW, per EIA, as of January 2023



As of the end of the fourth quarter of 2022, Kentucky has 157 MW of solar installed, ranking only 33<sup>rd</sup> in the US for the capacity of solar installed. There have been significantly more utility investments in clean energy with continued growth on the horizon, with 2,108 MW of solar proposed to be installed over the next five years.



Kentucky only has a few solar installations, and most of them are less than 10 MW of power. The largest solar project in Kentucky is the 50 MW Turkey Creek Solar Project which became operational in November 2022 and is located in Garrard County. The second largest solar site in Kentucky is the Kentucky Utilities Company project located in Mercer County, Kentucky. This solar farm is part of the E.W. Brown Generating Station, consisting of 457 MW of coal-fired power generation, 895 MW of natural gas fired power generation, 10 MW of solar power generation, and 33 MW of hydroelectric power generation. The generating station was established in 1925 with the construction of the Dix Dam and Dix hydroelectric facility, representing Kentucky's first hydroelectric dam by the time it was completed in 1925. Herrington Lake was also formed as a result, which has numerous residential homes along the waterfront and is a popular fishing and recreation destination. The solar facility was added in 2016 and sits on fifty acres of the power plant property, providing electricity to power approximately 1,500 homes. We note there are some homes to the east of the solar arrays along Herrington Lake with boat docks that were built in the 1960s; well prior to when the solar panels were constructed. These homes are more expensive than the median home value in the county on a per square foot of gross living area basis given their waterfront location on Herrington Lake, although they are accessible only via a utility road on the power plant property. Homes on the other side of Herrington Lake are adjacent to a golf course and are generally larger in size. As identified in the Methodology section earlier in this report, credible results from paired sales analysis can be achieved when it is used to extract the effect of a single characteristic on value. We did not prepare an independent evaluation of the homes adjacent to the solar panels since it is difficult to extract any other possible external influence on property values, including adjacency to the coal-fired and natural gas combustion generators at the E.W. Brown Generating Station or proximity to a golf course.

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CohnReznick did not perform a full analysis of the solar project at the E.W. Brown Generating Station for the previously stated reasons, but reviewed the homes adjacent the solar project to determine if a sale-resale analysis was possible. There are 35 homes located along Hardin Heights Road in proximity to the solar project. The solar filed was complete in May 2016. A review of all 35 homes revealed only one property with available data for a sale-resale analysis. 683 N Hardin Heights sold on March 14, 2014, for \$130,000 prior to the solar field installation, and again on October 25, 2018, for \$162,500, after the completion of the solar field. This represents an appreciation of 25% over 4.5 years or 0.41% per month. The Mercer County average monthly appreciation from 2014 to 2018 was 0.37% per month, according to the FHFA Housing Price Index, indicating no negative impact from the completed solar project.



E.W. Brown Generating Station Solar Field

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The next largest solar farm is East Kentucky Power Cooperative, Inc.'s Cooperative Solar One project that installed in November 2017, located in Clark County, KY with a capacity to generate 8.5 MW of electricity. A Clark County, Kentucky Property Valuation Administrator, Jason Neely, noted there have been no complaints regarding the Cooperative Solar One project. Additionally, Neely stated he has not seen any evidence of lowered property values in the area and no reduction in assessed property values has been made due to proximity to the solar farm.



East KY Power Coop Solar Field

Furthermore, Grant County, Kentucky Property Value Administrator, Elliott Anderson, stated that Duke Energy built a solar farm near Crittenden, adjacent to existing homes on Claiborne Drive in December 2017. At the time of the interview, there have been nine arm's length homes sales on that street since the solar farm commenced operations. Each of those nine homes sold higher than its assessed value, and one over 32 percent higher. At the time, Anderson noted that several more lots were for sale by the developer and four more homes were



currently under construction. Anderson said that the solar farm had no impact either on adjoining home values or on marketability or desirability of those homes adjacent to the solar farm.



Crittenden, KY Solar Field

There are several solar projects that are planned in the state of Kentucky including the 188.5 MW solar facility in Fleming County by Accionia Energy, which is planned for installation but is still awaiting regulatory approval and is expected to be operational by June 2023. A 100 MW solar facility in Madison County, also owned by Acciona Energy, is awaiting regulatory approvals and is projected to be operational in December 2023. Bluebird Solar, an 80 MW facility in Harrison County, is planned for installation but is still awaiting regulatory approvals. Bluebird Solar is expected to be operational by February 2024. Lastly, Glover Creek Solar, a 55 MW facility in Metcalfe County, is projected to be operational by August 2023. As these solar farms are not yet developed, they have not qualified for a study based on our standard methodology at this point.



#### APPRAISAL THEORY - ADJACENT PROPERTY'S IMPACT ON VALUE

According to Randall Bell, PhD, MAI, author of text *Real Estate Damages,* published by the Appraisal Institute in 2016, understanding the market's perceptions on all factors that may have an influence on a property's desirability (and therefore its value) is essential in determining if a diminution or enhancement of value has occurred.<sup>4</sup> According to Dr. Bell:

.........

"There is often a predisposition to believe that detrimental conditions automatically have a negative impact on property values. However, it is important to keep in mind that if a property's value is to be affected by a negative condition, whether internal or external to the property, that condition must be given enough weight in the decision-making process of buyers and sellers to have a material effect on pricing relative to all the other positive and negative attributes that influence the value of that particular property."<sup>5</sup>

Market data and empirical research through the application of the three traditional approaches to value should be utilized to estimate the market value to determine if there is a material effect on pricing due, to the influence of a particular characteristic of or on a property.

A credible impact analysis is one that is logical, innate, testable and repeatable, prepared in conformity with approved valuation techniques. In order to produce credible assignment results, more than one valuation technique should be utilized for support for the primary method, or a check of reasonableness, such as utilization of more than one approach to value, conducting a literature review, or having discussions (testimony) with market participants. <sup>6</sup> CohnReznick implemented the scientific method<sup>7</sup> to determine if a detrimental condition of proximity to a solar farm exists, further described in the next section.

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<sup>&</sup>lt;sup>4</sup> Bell, Randall, PhD, MAI. *Real Estate Damages. Third ed.* Chicago, IL: Appraisal Institute, 2016. (Pages 1-2)

<sup>&</sup>lt;sup>5</sup> Ibid, Page 314 <sup>6</sup> Ibid, Pages 7-8

<sup>&</sup>lt;sup>7</sup> The scientific method is a process that involves observation, development of a theory, establishment of a hypothesis, and testing. The valuation process applies principles of the scientific method as a model, based upon economic principles (primarily substitution) as the hypothesis. The steps for the scientific method are outlined as follows:

<sup>1.</sup> Identify the problem.

<sup>2.</sup> Collect relevant data.

<sup>3.</sup> Propose a hypothesis.

<sup>4.</sup> Test the hypothesis.

<sup>5.</sup> Assess the validity of the hypothesis.

Bell, Randall, PhD, MAI. Real Estate Damages. Third ed. Chicago, IL: Appraisal Institute, 2016. (Pages 314-316)

#### METHODOLOGY

The purpose of this report is to determine whether proximity to the solar facility resulted in any measurable and consistent impact on adjacent property values. To test this hypothesis, CohnReznick identified three relevant techniques to test if a detrimental condition exists.

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- (1) A review of published studies;
- (2) Paired sale analysis of properties adjacent to existing solar generating facilities, which may include repeat sale analyses or "Before and After" analyses; and,
- (3) Interviews with real estate professionals and local real estate assessors.

The paired sales analysis is an effective method of determining if there is a detrimental impact on surrounding properties.

"One of the most useful applications of the sales comparison approach is paired sale analysis. This type of analysis may compare the subject property or similarly impacted properties called **Test Areas** (at Points B, C, D, E, or F) with unimpaired properties called **Control Areas** (Point A). A comparison may also be made between the unimpaired value of the subject property before and after the discovery of a detrimental condition. If a legitimate detrimental condition exists, there will likely be a <u>measurable and consistent difference</u> between the two sets of market data; if not, there will likely be no significant difference between the two sets of data. This process involves the study of a group of sales with a detrimental condition, which are then compared to a group of otherwise similar sales without the detrimental condition."<sup>8</sup>

As an approved method, paired sales analysis can be utilized to extract the effect of a single characteristic on value. By definition, paired data analysis is "a quantitative technique used to identify and measure adjustments to the sale prices or rents of comparable properties; to apply this technique, sales or rental data on nearly identical properties is analyzed to isolate a single characteristic's effect on value or rent."<sup>9</sup> The text further describes that this method is theoretically sound when an abundance of market data, or sale transactions, is available for analysis.

Where data is available, CohnReznick has also prepared "Before and After" analyses or a Repeat Sale Analysis,<sup>10</sup> to determine if a detrimental impact has occurred.

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<sup>&</sup>lt;sup>8</sup> Bell, Randall, PhD, MAI. Real Estate Damages. Third ed. Chicago, IL: Appraisal Institute, 2016. (Page 33)

<sup>&</sup>lt;sup>9</sup> The Appraisal of Real Estate 14<sup>th</sup> Edition. Chicago, IL: Appraisal Institute, 2013.

<sup>&</sup>lt;sup>10</sup> Another type of paired sales analysis involves studying the sale and subsequent resale of the same property. This method is used to determine the influence of time on market values or to determine the impact of a detrimental condition by comparing values before and after the discovery of the condition.

Bell, Randall, PhD, MAI. Real Estate Damages. Third ed. Chicago, IL: Appraisal Institute, 2016. (Page 35)

#### SCOPE OF WORK

The scope of work utilized to test the hypothesis stated on the prior page is as follows:

- 1. Review published studies, assess credibility, and validity of conclusions;
- 2. Prepare paired sale analyses for existing solar farms as follows:
  - 2.1. Identify existing solar farms comparable to the proposed project to analyze;
  - 2.2. Define Test Area Sales and Control Areas Sales;
  - 2.3. Collect market data (sale transactions) for both Test Area and Control Area Sales;
  - 2.4. Analyze and confirm sales, including omission of sales that are not reflective of market value;
  - 2.5. Prepare comparative analysis of Test Area and Control Area sales, adjusting for market conditions;
  - 2.6. Interpret calculations; and
- 3. Conduct interviews with real estate professionals and local real estate assessors who have evaluated real property adjacent to existing solar farms.

It should be noted that our impact report data and methodology have been previously reviewed by our peer in the field – Kirkland Appraisals, LLC – as well as by the Solar Energy Industries Association (SEIA).

The following bullet points summarize important elements to consider in our scope of work:

- Due to the limited number of existing larger utility scale projects in the state of Kentucky, we have incorporated other utility scale projects in other states.
- Test Area Sales consists of sales that are adjacent to an existing solar facility. Ownership and sales
  history for each adjoining property to an existing solar farm through the effective date of this report is
  maintained within our workfile. Adjoining properties with no sales data or that sold prior to the
  announcement of the solar farm were excluded from further analysis.
- Control Area Sales are generally located in the same market area, although varies based on the general location of the existing solar farm under analysis. In rural areas, sales are identified first within the township, and expands radially outward through the county until a reliable set of data points is obtained.
- Control Area Sales are generally between 12 and 18 months before or after the date of the Test Area Sale(s), and are comparable in physical characteristics such as age, condition, style, and size.
- Sales of properties that sold in a non-arm's length transaction (such as a transaction between related parties, bank-owned transaction, or between adjacent owners) were excluded from analysis as these are not considered to be reflective of market value, as defined earlier in this report. The sales that remained after exclusions were considered for a paired sale analysis.
- The methodology employed in this report for paired sale analysis does not rely on multiple subjective adjustments that are typical in many appraisals and single-paired sales analyses. Rather, the



methodology remains objective, and the only adjustment required is for market conditions;<sup>11</sup> the analysis relies upon market conditions trends tracked by credible agencies such as the Federal Housing Finance Agency ("FHFA"), who maintains a House Price Index ("HPI")<sup>12</sup> for macro and micro regions in the United States. A market conditions adjustment is a variable that affects all properties similarly and can be adjusted for in an objective manner.

- To make direct comparisons, the sale price of the Control Area Sales was adjusted for market conditions to a common date. In this analysis, the common date is the date of the Test Area Sale(s). After adjustment, any measurable difference between the sale prices would be indicative of a possible price impact by the solar facility.
- If there is more than one Test Area Sale to evaluate, the sales are grouped if they exhibit similar transactional and physical characteristics; otherwise, they are evaluated separately with their own respective Control Area Sale groups.

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<sup>&</sup>lt;sup>11</sup> Adjusting for market conditions is necessary as described in The Appraisal of Real Estate 14th Edition as follows: "Comparable sales that occurred under market conditions different from those applicable to the subject on the effective date of appraisal require adjustment for any differences that affect their values. An adjustment for market conditions is made if general property values have increased or decreased since the transaction dates."

<sup>&</sup>lt;sup>12</sup> The FHFA HPI is a weighted, repeat-sales index, meaning that it measures average price changes in repeat sales or re-financings on the same properties. This information is obtained by reviewing repeat mortgage transactions on single-family properties whose mortgages have been purchased or securitized by Fannie Mae or Freddie Mac since January 1975. The FHFA HPI serves as a timely, accurate indicator of house price trends at various geographic levels. Because of the breadth of the sample, it provides more information than is available in other house price indexes.

#### **TECHNIQUE 1: REVIEW OF PUBLISHED STUDIES**

The following is a discussion of various studies that consider the impact of solar farms on surrounding property values. The studies range from quantitative analysis to survey-based formal research to less-formal analyses.

#### ACADEMIC REPORTS

There have been three academic reports that attempt to quantify the effect on property values due to proximity to solar.

i. The first report is a study completed by The University of Texas at Austin, published in May 2018.<sup>13</sup> The portion of the study focusing on property impact was an Opinion Survey of Assessors with no sales data or evidence included in the survey. The opinion survey was sent to 400 accessors nationwide and received only 37 responses. Of those 37 assessors, only 18 had assessed a home near a utility-scale solar installation, the remainder had not. Of the 18 assessors with experience in valuing homes near solar farms, 17 had not found any impact on home values near solar. Those are the actual facts in the study. A small number of those assessor respondents hypothetically surmised an impact, but none had evidence to support such statements.

The paper admits that there is no actual sales data analyzed, and further denotes its own areas of weakness, including "This study did not differentiate between ground-mounted and rooftop installations." The author states on the last line of page 22: *"Finally, to shift from perceived to actual property value impacts, future research can conduct analyses on home sales data to collect empirical evidence of actual property value impacts."* 

The paper concludes with a suggestion that a statistic hedonic regression model may better identify impacts. It should be noted that the type of statistical analysis that the author states is required to determine "actual property value impacts" was completed two years later by the following Academic Studies.

ii. The second report is a study prepared by a team at the **University of Rhode Island**, published in September 2020, "*Property Value Impacts of Commercial-Scale Solar Energy in Massachusetts and Rhode Island*."<sup>14</sup> The study utilized a hedonic pricing model, or multiple regression analysis, to quantify the effect of proximity on property values due to solar by studying existing solar installations in Massachusetts and Rhode Island. The study evaluated 208 solar facilities, 71,373 housing sales occurring within one-mile of the solar facilities (Test Group), and 343,921 sales between one-to-three

https://web.uri.edu/coopext/valuing-siting options-for-commercial-scale-solar-energy-in-rhode-island/.



<sup>&</sup>lt;sup>13</sup> Al-Hamoodah, Leila, et al. An Exploration of Property-Value Impacts Near Utility-Scale Solar Installations. Policy Research Project (PRP), LBJ School of Public Affairs, The University of Texas at Austin, May 2018, emp.lbl.gov/sites/default/files/property-value\_impacts\_near\_utility-scale\_solar\_installations.pdf.

<sup>&</sup>lt;sup>14</sup> Gaur, V. and C. Lang. (2020). Property Value Impacts of Commercial-Scale Solar Energy in Massachusetts and Rhode Island. Submitted to University of Rhode Island Cooperative Extension on September 29, 2020. Accessed at

miles (Control Group). Because it is a hedonic regression model, it allowed them to isolate specific variables that could impact value, including isolating rural and non-rural locations. The study defines "Rural," as an area having a "population density of 850 people per square mile or fewer."

The study provides data which found no negative impact to residential homes near solar arrays in rural areas: "these results suggest that [the Test Area] in rural areas is effectively zero (a statistically insignificant 0.1%), and that the negative externalities of solar arrays are only occurring in non-rural areas."15 Further, the study tested to determine if the size of the installation impacted values, and found no evidence of differential property values impacts by the solar installation's size.

Thus, not only are there no impacts to homes in similar areas as the proposed Project, but any differences in the size of a solar farm are similarly not demonstrating an impact.

The third report is a published study prepared by Dr. Nino Abashidze, School of Economics, Georgia iii. Institute of Technology, dated October 20, 2020, entitled "Utility Scale Solar Farms and Agricultural Land Values." Abashidze examined 451 solar farms in North Carolina. "Across many samples and specifications, we find no direct negative or positive spillover effect of a solar farm construction on nearby agricultural land values. 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 landowners 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."

#### VALUATION EXPERT REPORTS

We have similarly considered property value impact studies prepared by other experts, which have also noted that the installation of utility-scale solar on a property has no measurable or consistent impact on adjoining property value. According to a report titled "Mapleton Solar Impact Study" from Kirkland Appraisals, LLC, conducted in Murfreesboro, North Carolina in September 2017, which studied 13 existing solar farms in the state, found that the solar farms had no impact on adjacent vacant residential, agricultural land, or residential homes. The paired sales data analysis in the report primarily consisted of low density residential and agricultural land uses and included one case where the solar farm adjoined to two dense subdivisions of homes.

Donald Fisher, ARA, who has served six years as Chair of the American Society of Farm Managers and Rural Appraisers, and has prepared several market studies examining the impact of solar on residential values was quoted in a press release dated February 15, 2021 stating, "Most of the locations were in either suburban or rural areas, and all of these 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."

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<sup>&</sup>lt;sup>15</sup> The University of Rhode Island study's conclusion that there may be an impact to non-rural communities is surmised is that "land is abundant in rural areas, so the development of some land into solar does little to impact scarcity, whereas in non-rural areas it makes a noticeable impact."

#### **REAL ESTATE ASSESSOR SOLAR IMPACT REPORTS**

The Chisago County (Minnesota) Assessor's Office conducted their own study on property prices adjacent to and in the close vicinity of the North Star solar farm in Chisago County, Minnesota. At the November 2017 Chisago County Board meeting, John Keefe, the Chisago County Assessor, presented data from his study. He concluded that the North Star solar farm had, "no adverse impact" on property values. His study encompassed 15 parcels that sold and were adjacent or in the close vicinity to the solar farm between January 2016 and October 2017; the control group used for comparison comprised of over 700 sales within the county. Almost all of the [Test Area] properties sold were at a price above the assessed value. He further stated that, "It seems conclusive that valuation has not suffered."<sup>16</sup>

Furthermore, Grant County, Kentucky Property Value Administrator, Elliott Anderson, stated that Duke Energy built a solar farm near Crittenden, adjacent to existing homes on Claiborne Drive in December 2017. At the time of the interview, there have been nine arm's length homes sales on that street since the solar farm commenced operations. Each of those nine homes sold higher than its assessed value, and one over 32 percent higher. At the time, Anderson noted that several more lots were for sale by the developer and four more homes were currently under construction. Anderson said that <u>the solar farm had no impact either on adjoining home values or on marketability or desirability of those homes adjacent to the solar farm.</u>

#### CONCLUSION

These published studies and other valuation expert opinions, conclude that there is no impact to property adjacent to established solar farms. These conclusions have been confirmed by academic studies utilizing large sales databases and regression analysis investigating this uses' potential impact on property values. Further, the conclusion has been confirmed by county assessors who have also investigated this adjacent land use' potential impact on property values.

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<sup>&</sup>lt;sup>16</sup> Chisago County Press: County Board Real Estate Update Shows No "Solar Effects" (11/03/2017)

#### **TECHNIQUE 2: PAIRED SALE ANALYSIS**

#### SOLAR FARM 1: SUNSHINE FARMS SOLAR FARM, CURRITUCK COUNTY, NC

\_ \_ \_ \_ \_ \_ \_ \_ \_

Coordinates: Latitude 36.234042, Longitude -75.880074

PINs: 0108000095H0000, 0108000095G0000

Total Land Size: 121.44 acres

Date Project Announced: January 2016

Date Project Completed: February 2020

Output: 20 MW AC





The Sunshine Farms Solar use is located in Grandy, North Carolina at 180 Uncle Graham Road and 6562 Caratoke Highway. The current owner of the solar farm is Paloma Solar & Wind, LLC while Exoplexus Incorporated developed the solar facility. The solar farm went into operation in February 2020 and can generate power for approximately 2,900 homes. Nearly 55,000 panels comprise the farm.

<u>The Surrounding Area</u>: The Sunshine Farms solar installation is located in Grandy Township, in the southern portion of Currituck County, North Carolina. Currituck County is located in the northeast corner of North Carolina. Sunshine Farms is one of four solar farms located within Currituck County and the only solar farm within the town of Grandy. Sunshine Farms is the smallest solar farm in the county at 20 MW, along with Shawboro Solar which also produces an output capacity of 20 MW AC and is located Crawford Township, approximately 20 miles north of Sunshine Farms. The two larger solar farms in Currituck County are adjacent to one another in Moyock Township, approximately 25 miles north of Sunshine Farms, producing a combined output of 124.4 MW AC and are adjacent to residential homes and agricultural use land.

<u>The Immediate Area</u>: Surrounding land uses consist of residential homes and vacant residential lots to the north, west, and south; and commercial uses and vacant commercial lots to the east. The project site was previously the site of the Goose Creek Golf and Country Club and sits just south of the Carolina Club Community.

The solar farm is surrounded by landscaped buffers, with a denser landscaped buffer along the north, west, and south borders of the site adjacent to residential uses.

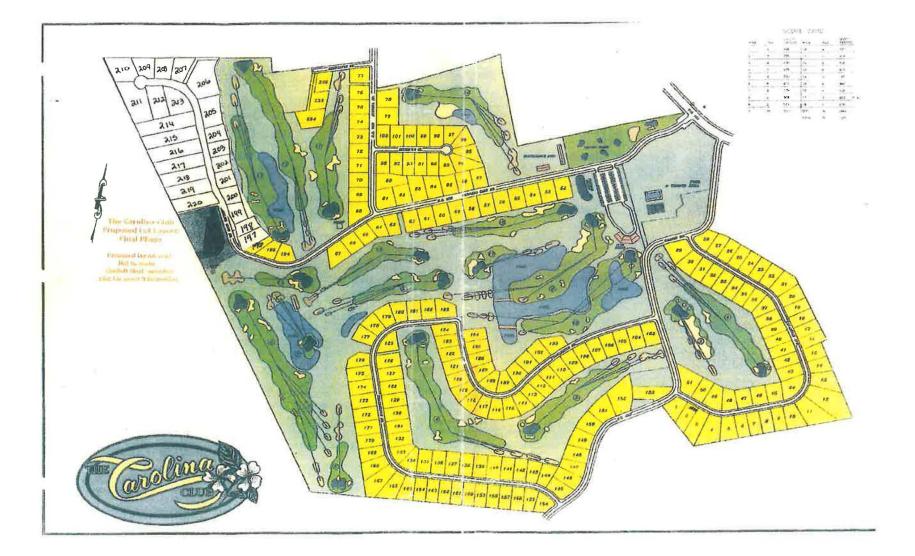
<u>Carolina Club Community</u>: The Carolina Club Community is comprised of 220 single-family residential lots and residences surrounding an 18-hole golf course and amenities including a swimming pool, tennis courts, a clubhouse, and a community boat ramp. While the golf course within the community is open to the public, all other amenities in the Carolina Club Community are only available to Carolina Club Association Property Owners and their families and guests.

The Carolina Club is operated by The Carolina Club Owners Association, Inc. and every person or entity who is a record owner of a fee simple interest in any lot in the community are subject to architectural control and homeowner's association dues every quarter. The homeowner's association dues are determined annually with the minimum annual assessment being between \$350 and \$500 per year. However, "special assessments" for capital improvements to the Association's common properties allows annual dues to exceed \$500 per year.

Property owners are limited to construct one single-family dwelling per lot that may not cover more than 25 percent of the total lot size. The minimum required living area for dwellings in the community is 1,500 square feet for one-story dwellings and 1,800 square feet for two-story dwellings. Additionally, dwellings must have setbacks of 25 feet in the front yard, 15 feet on the side yards, and 25 feet in the rear yard.

A map of the Carolina Club Community is presented on the following page.





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**<u>Real Estate Tax Info:</u>** In Currituck County, North Carolina, real property is assessed every 8 years, with the two most recent reassessments in 2013 and 2021. However, the parcel on which Sunshine Farms is constructed on has been split, merged and subdivided several times since 2013, therefore, we have presented historical real estate tax assessments and payments for the parcel dating back to only 2019. The parcel has not been split, merged or subdivided since this time.

Solar farms in North Carolina are assessed as personal property, separate from the land assessment. After the solar farm was placed into service, there was an increase of 628.65 percent in total assessed value, and a 597.99 percent increase in total taxes paid.

In 2019, prior to the property being assessed as a solar farm, the assessed value of the land was \$517,200 and ownership paid \$2,483 in real estate taxes. In 2021, the assessed value increased to \$708,100 and the real estate tax increased to \$3,257, an increase in tax revenue of 31.17 percent.

Pin	Acres	2019 Taxes Paid	2021 Taxes Paid	Tax Increase	2019 Assessed Value	2021 Assessed Value	Va Inci
<b>Currituck County, NC</b> 0108000095H0000 Personal Property Tax	118.02	\$2,483 \$0		31.1 <b>7%</b>	\$517,200 \$0	\$ <b>70</b> 8,100 \$3,059,520	
Fotal	118.02	\$2,483	\$17,331	597.99%	\$517,200	\$3,767,620	62

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The following map displays the parcels developed with the solar farm (outlined in red). Properties immediately adjoining the solar parcels (outlined in yellow) are numbered for subsequent analysis.



Sunshine Farms Solar - Adjoining Properties



#### PAIRED SALES ANALYSIS

In reviewing Adjoining Properties to study in a Paired Sale Analysis, several properties and sales were considered but eliminated from further consideration as discussed below.

We identified seven Adjoining Properties that sold since the solar farm started operation in February 2020: Three single-family residential properties have sold since the solar farm started operation, Adjoining Properties 4, 9, and 12. We have not included the sale of Adjoining Property 12 in our analysis as it sold between related parties. Additionally, four vacant land parcels that can be developed with single-family homes, Adjoining Properties 1, 21, 29, and 35, have sold since the solar farm started operation. We have not included the sale of Adjoining Properties 21 and 35 due to a lack of comparable transactions in the local market. Adjoining properties 21 and 35 are located along Grandy Road and Uncle Graham Road, respectively, and do not have community clubhouse, swimming pool, tennis courts, or community boat ramp privileges. In our search of comparable vacant lot sales, other lots that have sold in the area during the same time frame either have those privileges or are waterfront properties. Therefore, there was insufficient comparable control transactions.

#### Group 1 – Improved Single-Family Residential Properties

Adjoining Properties 4, 9, and 12 to the Sunshine Farms Solar project were considered for a paired sales analysis. We have not included the sale of Adjoining Property 12 in our analysis as it sold between related parties. We have analyzed Adjoining Properties 4 and 9 as single-family home uses in Group 1. The improvements on these properties are located between 388 and 535 feet to the nearest solar panel. Adjoining Properties 4 and 9 are both located within the Carolina Club Community of Grandy. The Carolina Club public golf course, with many residences having frontage along the golf course.

				ARY OF T up 1 - Su						
Adj .Property #	Address	Sale Price	Beds	Baths	Year Built	Home Size (SF)	Improvements	Site Size (AC)	Sale Price / SF	Sale Date
4	141 Savannah Avenue	\$433,000	3	4.0	1998	2,481	Single-Family Home	0.46	\$174.53	Mar-22
9	151 Savannah Avenue	\$367,000	3	2.0	1996	1,744	Single-Family Home	0.71	<mark>\$210.44</mark>	Aug-21

We analyzed six Control Area Sales of single-family homes with similar construction and use that were not located in close proximity to the solar farm, that sold within a reasonable time frame from the median sale date of the Test Area Sales in Group 1. The Control Area Sales for Group 1 are single-family homes with three bedrooms and two to three baths, consist of between 1,500 square feet and 3,000 square feet of gross living area, and built between 1990 and 2005. Additionally, the Control Area Sales for Group 1 are all located within the Carolina Club Community of Grandy.

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presented below.

The Control Area Sales were adjusted for market conditions using the Federal Housing Finance Agency's House Price Index (HPI), a weighted, repeated-sales index measuring the average price changes in repeat sales or refinancing of the same properties. The result of our analysis for Sunshine Farms Solar Project – Group 1 is

CohnReznick Paired Sale Analysis Sunshine Farms Solar							
No. of Sales	Potentially Impacted by Solar Farm	Adjusted Median Price Per SF					
Test Area Sale (2)	Adjoining solar farm	\$192.48					
Control Area Sales (6)	No: Not adjoining solar farm	\$190.99					
	Price of Test Area Sale and rice of Control Area Sales	0.78%					

The days on market for the two Test Area Sales had a median of 69 days on market, while the median days on market for the Control Area sales was 86 days (ranging from 56 to 140 days), <u>and we note no significant</u> <u>marketing time differential.</u>

**Noting no negative price differential**, it does not appear that the Sunshine Farms Solar use impacted the sale price of the two Test Area Sales, Adjoining Properties 4 and 9.

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#### Group 2 – Vacant Residential Lots, Carolina Club Community

Adjoining Properties 1, 21, 29 and 35 to the Sunshine Farms Solar project were considered for a paired sales analysis. We have not included the sale of Adjoining property 29 as it was an off-market transaction. Additionally, we have not included the sale of Adjoining properties 21 and 35 due to a lack of comparable transactions in the local market.

We have analyzed Adjoining Property 1 as a vacant residential lot use in Group 2. The property boundary of Adjoining Property 1 is located 397 feet to the nearest solar panel. Adjoining Property 1 is located within the Carolina Club Community of Grandy which surrounds the Carolina Club public golf course, with many residences having frontage along the golf course.

Bill Hogan, the listing agent of 135 Savannah Avenue (Adjoining Property 1), indicated that vacant lots within the Carolina Club Community are valued predominantly on a per lot basis as the Carolina Club Declaration of Covenants, Conditions, and Restrictions limit owners to one dwelling per lot. It was also noted that larger lots still attract a higher sale price but will reflect a lower sale price per square foot due to economies of scale and the limit on dwelling units per lot to one. Given that the marketplace analyzes the lots on a per lot sale basis, this is the method we will use in determining any differences in sale prices between target and control data.

			TEST AREA SALE unshine Farms		
Property #	Address	Sale Price	Improvements	Site Size (AC)	Sale Date
1	135 Savannah Avenue	\$67,500	Vacant Residential Lot	0.99	Mar-22

We analyzed nine Control Area sales of vacant residential lots with similar site size that were not located in close proximity to the solar farm, and that sold within a reasonable time frame from the sale date of the Test Area Sale in Group 2. The Control Area sales for group 2 are vacant residential lots located within the Carolina Club Community, which are subject to homeowner's association fees, and that did not have golf course frontage, similar to the Test Area Sale.

The Control Area Sales were adjusted for market conditions using the Federal Housing Finance Agency's House Price Index (HPI), a weighted, repeated-sales index measuring the average price changes in repeat sales or refinancing of the same properties. The result of our analysis for Sunshine Farms Solar Project – Group 2 is presented on the following page.



CohnReznick Paired Sale Analysis Sunshine Farms Solar							
No. of Sales	Adjusted Median Price Per Lot						
Test Area Sale (1)	Adjoining solar farm	\$67,500					
Control Area Sales (9)	No: Not adjoining solar farm	\$49,900					
Difference between Unit Price Median Unit Price o	26.07%						

The days on market for the Test Area Sale was 69 days, while the median days on market for the Control Area sales was 273 days (ranging from 37 to 358 days), *and we note no significant marketing time differential.* 

**Noting no negative price differential**, it does not appear that the Sunshine Farms Solar use impacted the sale price of the Test Area Sale, Adjoining Property 1. This was confirmed by the real estate agent who marketed and sold this vacant residential lot.

There has been another property value impact study performed on Sunshine Farms. Appraiser Mary Clay, MAI prepared a case study drawing different conclusions indicating a negative impact on property values. A review of Ms. Clay's study reveals some flaws and inconsistencies.

In Ms. Mary Clay's case study of Sunshine Farms, there is a lack of quality in her data and understanding of the Carolina Club Community which leads to a conclusion of lowered property values for lots abutting the Sunshine Farms solar facility. In her study, five test sales within the Carolina Club Community are utilized, however, test sales 1 and 5 do not abut the solar farm and should not have been included in the analysis of lots abutting the solar farm. As the test sale lots (abutting Sunshine Farms) do not have golf course frontage, the control sales should also not have golf course frontage as said lots sell for premium within the community per local brokers. However, five of the eight control sales (6, 8, 10, 11, 12 & 13) included in the study do indeed have golf course frontage and should have either been adjusted downward to account for this feature or not utilized at all. Additionally, four out of eight control sales (10, 11, 12 & 13) that Ms. Clay has included in her study sold more than 3 years after the most recent test sale included in her study, yet an adjustment had not been made for market conditions over that period of time.

In addition to incorrectly defining parameters for test and control sales of vacant residential lots, Ms. Clay's study fails to identify improved single-family residential property sales abutting Sunshine Farms to study. The inclusion of improved single-family residential property sales in our study further supported the conclusion that there is no negative price differential for properties abutting the solar farm.



Prepared for Sebree Solar II, LLC	Page   3	35

Ms. Clay's study is incomplete as it fails to analyze all possible groupings of test sales, incorrectly defines parameters for the group of test sales that are analyzed and fails to compare the correct data within her study as proper adjustments for time and location were never included. Therefore, the conclusions Ms. Clay draws are not substantiated and are incorrect. The Sunshine Farms Solar facility did not impact property values for either improved single family residential or vacant land surrounding the project.

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# SOLAR FARM 2: NORTH STAR SOLAR FARM, CHISAGO COUNTY, MINNESOTA

Coordinates: Latitude 45.486756, Longitude -92.884206

PINs: Multiple

Population Density (2020) Chisago County: 136 people per square mile (Largest City = North Branch)

Total Land Size: ±1,000 Acres

Date Project Announced: 2014

Date Project Completed: October 2016

Output: 100 MW AC



#### **Overview and Surrounding Area:**

The North Star Solar Farm is located approximately four miles southeast of the City of North Branch in unincorporated Chisago County, near the intersection of Route 69 and Route 72. The solar farm was developed by Community Energy Solar in 2016 and is the largest solar farm in the Midwest. The solar farm features 440,000 solar panels and a power output capacity of 100 MW AC, which is enough to power 20,000 homes. The owner, North Star, LLC, has a 25-year purchase contract for the power produced by the project with Xcel Energy.



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Chisago County lies on Minnesota's eastern border, abutting the western border of Wisconsin, across the Saint Croix River. The North Star Solar Farm is approximately 16 miles west of the border with Wisconsin and is just over one mile west of the Kost Dam public park and reservoir, a 28-acre park on the south branch of the Sunrise River.

### The Immediate Area:

The North Star Solar Farm is adjoined by agricultural land to the north and west. To the south and east of the project there are several residential properties, including some located within the actual solar farm. The solar farm has agricultural and deer fencing around parts of the project. Additionally, native vegetation and trees previously existed as a buffer along the frontage roads.

Prior Use: Agricultural use

## **Real Estate Tax Information:**

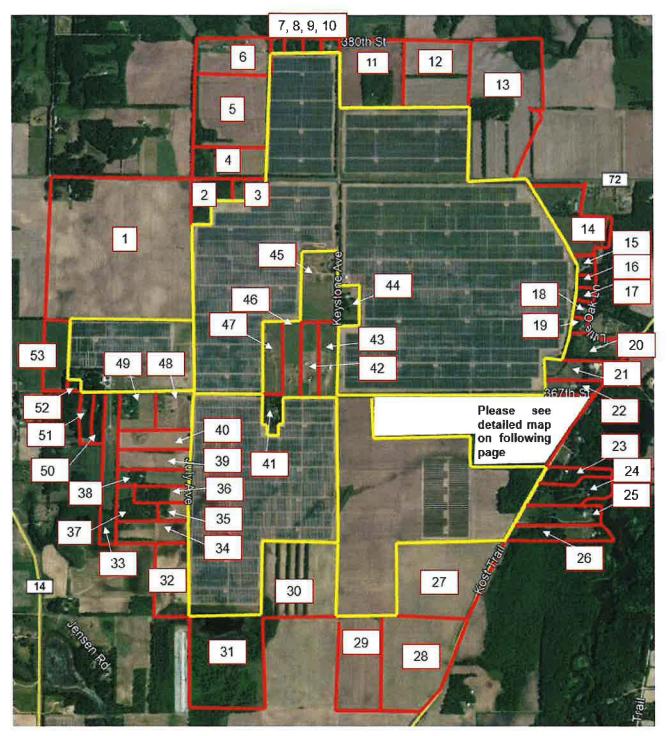
Prior to development of the solar farm, in 2015, this  $\pm 1,000$ -acre site paid real estate taxes of \$37,250, annually. After the solar farm development, in 2017, real estate taxes increased to \$112,856, a 203 percent increase in tax revenue for the site.

PIN	Acres	201	15 Taxes	20	17 Taxes	Tax	2	201	5 Assessed	201	17 Assessed	Value
	Hores		Paid		Paid	Increase			Value		Value	Increase
Chisago County, MN												
09.00348.00	74.91	\$	2,806	\$	8,546	205%	\$	5	198,800	\$	233,900	18%
09.00349.00	74.30	\$	2,818	\$	8,578	204%	\$	5	199,600	\$	234,800	18%
09.00350.10	16.95	\$	644	\$	2,752	327%	\$	6	45,600	\$	75,300	65%
09.00351.10	68.01	\$	3,260	\$	9,806	201%	\$	6	230,900	\$	268,400	16%
09.00353.00	81.87	\$	3,114	\$	8,678	179%	\$	6	220,500	\$	237,500	8%
09.00354.00	121.84	\$	4,578	\$	13,324	191%	\$	6	324,200	\$	364,700	12%
11.00517.00	72.07	\$	3,382	\$	7,440	120%	\$	5	194,400	\$	224,100	15%
11.00528.00	66.42	\$	1,460	\$	6,836	368%	\$	6	180,000	\$	210,000	17%
11.00529.00	60.26	\$	1,506	\$	7,284	384%	\$	6	168,700	\$	168,800	0%
11.00726.00	40.55	\$	1,010	\$	3,968	293%	\$	6	110,700	\$	140,700	27%
11.00730.00	68.32	\$	3,426	\$	7,638	123%	\$	6	315,700	\$	338,200	7%
11.00731.00	160.83	\$	3,598	\$	17,924	398%	\$	6	422,500	\$	469,100	11%
11.00732.00	30.52	\$	788	\$	4,748	503%	9	6	84,900	\$	109,500	29%
11.00732.10	10.00	\$	4,860	\$	5,334	10%	\$	5	257,700	\$	290,100	13%
TOTAL	946.85	\$	37,250	\$	112,856	203%	9	5	2,954,200	\$	3,365,100	14%

### Adjoining Properties:

The maps on the following pages display the parcels that contain the solar farm (outlined in yellow). Properties adjoining the solar site (outlined in red) are numbered for subsequent analysis.



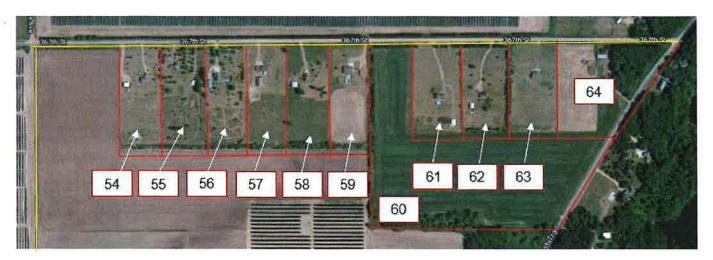


North Star Solar Farm - Adjoining Properties

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North Star Solar Farm - Adjoining Properties

In reviewing Adjoining Properties to study in a Paired Sales Analysis, several properties and sales were considered but eliminated from further consideration as discussed below.

While assembling the solar development site, the developer of the solar farm acquired seven homes along 367<sup>th</sup> Street and Keystone Avenue, which we refer to as Adjoining Properties 41, 42, 43, 44, 45, 46, and 47, and are surrounded by the solar arrays. According to conversations with the solar developer, they purchased the homes prior to development to provide interim housing for employees as the solar farm was under construction or for potential use for the project area (which ultimately was not necessary). The developer had each home appraised, and then negotiated separately with each homeowner. All of the houses sold above their appraised values, which the developer considered to be an assemblage premium. After construction, the developer sold all seven homes at market prices, six to new buyers, and one, Adjoining Property 47, which was re-purchased by the original owner. Over a year later, these subsequent sales from the developer to individual homeowners were still higher than the originally appraised values. This indicates that the development of the North Star Solar Farm did not deter transactions nor affect sale prices in the surrounding area.

Clifford Sheppeck, broker at Keller Williams Classic, was hired by Renewable Energy Asset Co, LLC, the solar farm developer, to market and sell the remaining properties that the developer owned. We discussed these transactions with Mr. Sheppeck who indicated they all sold within two months, which was in line with the market.

In addition to the seven homes sold by the developer, we identified six other properties all which sold since the construction of the solar farm: Adjoining Properties 3, 10, 18, 19, 22, 38, 54, 57 and 64. In all, a total of 16 identified Adjoining Properties have sold during or since the construction of the solar farm. These properties are discussed further in the following sections.

## Properties Excluded from Paired Sales Analysis

Adjoining Property 10, located at 10270 380<sup>th</sup> Street, sold in June 2018 for \$163,800, or \$143.18 per square foot of finished living area. The property is improved with a small, single-story, modular/pre-fabricated home with no



basement, which is atypical for the area. Most of the homes in the area, while similar in gross living areas, are one-story, single-family homes with finished basements. We conducted a search in the area for comparable modular homes without basements but did not find sufficient data yield reliable conclusions in a paired sale analysis. Additionally, this home does not appear to have been listed on the local MLS as we could not identify a broker contact for the most recent sale. We have reached out to the buyer and seller to confirm the nature of the transaction, but as of this writing, we have not made contact. We note that the home sold previously in July 2004; however, county sale records indicate the 2004 sale was between related parties which disgualifies it as an arm's length transaction. Due to limited sales in the area to categorize as Control Area Sales, Adjoining Property 10 was excluded from further analysis.

Adjoining Property 38, located at 36438 July Avenue, sold during construction of the solar farm in October 2015 for \$225,000, or \$117.68 per square foot of finished living area. It is a home designed specifically as a passive solar home, taking advantage of the same renewable energy potential of the North Star solar farm. The property is set back behind five acres of agricultural land and is secluded behind trees and operates as a mixed-use "hobby farm." This is a highly atypical use with no comparable sales which sold during construction; we have excluded the 2015 sale from paired sale analysis because we cannot separate any influence from construction on the sale price at that time. We note that the home sold previously in November 2003; however, we could not prepare a Before and After analysis utilizing this prior transaction as the most recent sale was marketed as a passive solar home. For these reasons, Adjoining Property 38 was excluded from further analysis.

Adjoining Property 41, located at 10095 367<sup>th</sup> Street, is subject to an existing 30-year lease for the southern 6.24 acres of the parcel for solar panels in the North Star solar farm. The property most recently sold in April 2021 for \$339,186 and previously in June 2017 for \$336,900. The sale of this property in May 2016 was to the solar developer for an above appraised value of \$365,000, which was an atypically motivated transaction. Because the property is a participating parcel in the solar farm, and due to the additional rental income from the land, this property was excluded from both paired sale and the Before and After Analysis.

Adjoining Property 44, located at 37083 Keystone Avenue, sold for \$257,000, or \$157.86 per square foot of finished living area, in August 2017 and is a one-story rambler style home with an unfinished basement. Sale listing materials indicated significant deferred maintenance, which would need to be accurately assessed in order to quantify an appropriate adjustment. Most comparable sales in the area either have finished or walk-out basements and no items of significant deferred maintenance. Due to limited comparable sales for this property, and the required adjustment for deferred maintenance. Adjoining Property 44 was excluded from a paired sales analysis. The prior sale of this property was in October 2016, to the solar developer for assemblage, for \$302,500. Because this home traded in an atypically motivated transaction in 2016, we have not included it in a Before and After analysis.

Adjoining Property 45, located at 37206 Keystone Avenue, sold in June 2017 for \$290,000, or \$149.48 per square foot of finished living area, from the solar farm developer. The property is a split-entry home on over 20 acres. The home features an attached 3-car garage, a detached two-car garage with a finished second story, and a fenced in-ground pool. The County Assessor classified this property as agricultural due to its large acreage. Because this home is atypical (large acreage and pool) there were no comparable sales in the area and Adjoining Property 45 was excluded from further analysis. This home was previously purchased by the solar farm

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developer in July 2016 for \$450,000, an above market price, for assemblage during solar farm construction. After construction was complete, the home was sold in 2017 at a market-oriented price, in an average number of days listed on the Multiple Listing Service (MLS). Because this home traded in an atypically motivated transaction in 2016, we have not included it in a Before and After analysis.

Adjoining Property 47, located at 10090 367<sup>th</sup> Street, most recently sold in March 2018 for \$302,500, or \$127.53 per square foot of finished living area, from the solar farm developer. This home was previously purchased by the solar farm developer in August 2016 for \$360,800, an above market price, for assemblage during solar farm construction. According to the broker, Cliff Sheppeck, the original owner leased the house back from the developer after the sale, never moved out, and was hired to do maintenance and upkeep on the other six houses the developer purchased in the area. When the developer no longer needed the property, he sold it back to the original owner in 2018 at a market-oriented price. Because of the relationship between the parties in 2018 and 2016, we have not included it in a Paired Sales Analysis nor a Before and After analysis.

### Properties Included in Paired Sales Analysis

Adjoining Property 3, located at 10009 375<sup>th</sup> Street, sold most recently in July 2019 for \$260,000, or \$172.41 per square foot of finished living area. This property is improved with a one-story, modular/pre-fabricated home in the rambler style, with an English basement, on just over five acres of land. Although this home sold most recently in July 2019 for \$260,000, it had also sold in March 2016 for \$219,900, during construction of the solar farm. The home previously sold in March of 2005 for \$163,000. We have excluded the 2016 sale from paired sale analysis because we cannot separate any influence from construction on the sale price at that time. However, we can calculate the average monthly appreciation from 2005 to 2019 (+0.27 percent), which is higher than the average monthly home price appreciation in the same zip code of 55056 - according to the FHFA Housing Price Index (discussed in more detail later), local home appreciation was 0.0 percent per month over the same period. It is evident that the home value increased at a higher rate than homes in the local area over the same period. This information is also presented in the Before and After Analysis later in the study of the North Star solar farm. The buyer's broker in the 2019 sale, Gail Reinhard, noted that the buyer had no concerns or issues with the home's proximity to the solar farm and the price paid was market oriented. This home qualified for a paired sales analysis and was studied in Group 4, as detailed on subsequent pages.

Adjoining Property 18, located at 37096 Little Oak Lane, sold in April 2017 for \$289,000, or \$119.82 per square foot of finished living area. The home is a rambler style, one-story, home with a finished walk-out basement on a 2.07-acre parcel. The improvements on this property are located approximately 225 feet from the nearest solar panel. The buyer's broker, Amy Lamb, noted that the home was in good shape and had been on the market for two years, because the seller would not lower the price to market levels during previous listings. In the summer, Lamb noted, the solar panels were barely visible from the back of the property, but in winter they were visible. Lamb asked the buyers if the solar panel view would be a problem and their opinion was that <u>the neighboring solar panels meant no other development that created traffic or noise would be built to disturb them</u>. This home qualified for a paired sales analysis and was studied in Group 2, as detailed on subsequent pages. We have also studied this property in a Before and After analysis later in this report as it also sold in 2006, prior to construction of the North Star solar farm. The average monthly change in value from 2006 to 2017 (-0.05 percent) is higher than the average monthly home price appreciation in the same zip code of 55056 according to the

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FHFA Housing Price Index, which was -0.10 percent per month over the same period. It is evident that the home's value reflects a better rate from the prior sale than homes in the local area over the same period.

Adjoining Property 19, located at 37056 Little Oak Lane, sold in August 2021 for \$435,000, or \$205.09 per square foot of finished living area. The property was listed for approximately 14 days on the market before going under contract. The home is a is a split-level style house on 2.37 acres. The improvements on this property are located approximately 280 feet from the nearest solar panel. This property also sold previously in June 2013 for \$208,000 before the solar farm was constructed. The average monthly appreciation from 2013 to 2021 (+0.76 percent) was higher than the average monthly home price appreciation in the same zip code, per the FHFA Housing Price Index, of 0.58 percent per month over the same period. The data indicates the home value increased at a higher rate than homes in the local area over the same period. This information is also presented in the Before and After Analysis later in the study of the North Star solar farm. This home qualified for a paired sales analysis and was studied in Group 5, as detailed on subsequent pages.

Adjoining Property 22, located at 11210 367<sup>th</sup> Street, sold in April 2021 for \$430,000, or \$114.48 per square foot of finished living area. The property was listed on the market for 5 days before going under contract and sold \$5,000 above its asking price. It is a rambler built in 1974 with a full finished basement and has some ancillary farm buildings on a 5.2 acre site. This property also sold previously in March 2015 for \$280,000 during the construction of the solar farm and December 2003 for \$107,000 before the solar farm was constructed. We have excluded the 2015 sale from paired sale analysis, due to the influence from construction on the sale price at that time but have analyzed the 2021 sale in our analysis. This sale's average monthly appreciation from 2003 to 2021 (+0.67 percent), is higher than the average monthly home price appreciation in the same zip code, per the FHFA Housing Price Index of 0.12 percent per month over the same period. This demonstrates that the Target home value increased at a higher rate than homes in the local area over the same period. This information is also presented in the Before and After Analysis later in the study of the North Star solar farm. Additionally, the most recent sale of the Adjoining Property 22 was studied in Group 6, as detailed on subsequent pages.

Adjoining Property 42, located at 10200 367<sup>th</sup> Street, sold in November 2017 for \$330,000, or \$151.93 per square foot of finished living area. The home is a split-level style house on 9.30 acres. The improvements on this property are approximately 393 feet from the nearest solar panel. This home qualified for a paired sales analysis and was studied in Group 1, as detailed on subsequent pages. This home was previously purchased by the solar farm developer in July 2016 for \$387,900, an above market price, for assemblage during solar farm construction. After construction was complete, the home was sold in 2017 at a market-oriented price, in an average number of days listed on the Multiple Listing Service (MLS). Because this home traded in an atypically motivated transaction in 2016, we have not included it in a Before and After analysis. However, this property also sold previously in October 2004 for \$309,900 before the solar farm was constructed. The average monthly appreciation from 2004 to 2017 (+0.04 percent) is higher than the average monthly home price appreciation in the same zip code, per the FHFA Housing Price Index, of -0.02 percent per month over the same period. This home's value increased at a higher rate than homes in the local area over the same period. This information is also presented in the Before and After Analysis later in the study of the North Star solar farm.

This property also resold for \$454,900 in January 2022. The previous 2017 transaction at \$330,000, represents an increase of \$124,900, or 37.85%. The monthly rate of appreciation is 0.64%, compared to the FHFA Housing



Price Index for the same zip code, of 0.58% per month during the same time period. According to Mary Beck, the buyer's broker, the buyers did consider whether looking at the solar panels bothered them, but they considered that the solar farm would not be developed into housing in the future to be a good thing.

Adjoining Property 43, located at 10254 367<sup>th</sup> Street, sold for \$335,000 in July 2017, for \$156.84 per square foot of finished gross living area, and is a split-level home with an atypical floor design. Most of the homes in the area, while having similar gross living areas, are one-story, single-family homes with basements. We conducted a search in the area for comparable above-grade, split level homes. Mr. Sheppeck was the listing broker for this property and confirmed its atypical nature. He indicated that it sold at a price that was in-line with the market even though split-level, two story homes are considered to be rare in the area. However, we were able to find comparably designed sales in the area, and have included the sale within our analysis, studied in Group 7, as detailed on subsequent pages. The prior sale of this property was to the solar developer for assemblage during construction for \$535,000, an above market price, in July 2016. Because this home traded in an atypically motivated transaction in 2016, we have not included this transaction a Before and After analysis. However, this property also sold previously in November 2005 for \$373,000 before the solar farm was constructed. The average monthly change in value from 2005 to 2017 (-0.08 percent) was the same as the average monthly home price appreciation in the same zip code, according to the FHFA Housing Price Index over the same period. This information is also presented in the Before and After Analysis later in the study of the North Star solar farm.

Adjoining Property 46, located at 10132 367<sup>th</sup> Street, sold most recently in December 2020 for \$415,000, or \$196.87 per square foot of finished living area. The home is a split-level style house on 9.31 acres. The home features an attached 3-car heated garage, an 816 square foot detached heated garage, and a 1,400 square foot outbuilding. The improvements on this property are approximately 330 feet from the nearest solar panel. This home also sold in October 2017 for \$333,000 from the solar developer who had purchased it in September 2016 for \$387,900, an above market price, for assemblage during solar farm construction. After construction was complete, the home was sold in 2017 at a market-oriented price, in an average number of days listed on the Multiple Listing Service (MLS). This home qualified for a paired sales analysis and was studied in Group 1 (2017 sale), and in Group 3 (2020 sale), as detailed on subsequent pages. Because this home traded in an atypically motivated transaction in 2016, we have not included the 2016 sale in a Before and After analysis. However, this property also sold previously in July 2001 for \$226,800 before the solar farm was constructed. The average monthly appreciation from 2001 to 2017 (+0.20 percent) is higher than the average monthly home price appreciation in the same zip code according to the FHFA Housing Price Index, which was +0.08 percent per month over the same period. This information is also presented in the Before and After Analysis later in the study of the North Star solar farm.

Adjoining Property 54, located at 10505 367<sup>th</sup> Street, sold in August 2016 for \$260,500, or \$137.83 per square foot of finished living area. The home is a split-level style house on 5.0 acres. The improvements on this property are located approximately 352 feet from the nearest solar panel. The sale of the property was at the end of the construction period, which completed in October 2016, after majority of the project infrastructure was completed; thus, we have incorporated this sale in the analysis. This home qualified for a paired sales analysis and was studied in Group 1, as detailed on subsequent pages. We have also studied this property in a Before and After analysis later in this report as it also sold in 1999 for \$123,294, prior to construction of the North Star solar farm.

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The average monthly appreciation from 1999 to 2016 (+0.36 percent) is higher than the average monthly home price appreciation in the same zip code, according to the FHFA Housing Price Index, which was +0.15 percent per month over the same period. This information is also presented in the Before and After Analysis later in the study of the North Star solar farm.

Adjoining Property 57, located at 10655 367<sup>th</sup> Street, sold in November 2018 for \$304,900, or \$101.63 per square foot of finished living area. The home is a split-level style house on 5.0 acres. The home has an opportunity for a purchaser to add two baths (roughed in at the time of sale), two bedrooms, a family room, and storage in the lower level. We spoke with Jenna Bruski, the listing agent, who indicated that the improvements are unique, and could be divided into two separate dwelling units. According to the agent, the price paid reflected a slight discount because it required a specific buyer to undertake the build-out project on the lower level. It was on the market for a few months, but it was not unreasonable for the asset given its characteristics. Additionally, the agent indicated that potential purchasers did not mention the adjacency to the solar panels; there was no impact on the sale price because of adjacency to the panels. The improvements on this property are located approximately 285 feet from the nearest solar panel. This home gualified for a paired sales analysis and was studied in Group 9, as detailed on subsequent pages.

Adjoining Property 64, located at 36640 Kost Trail, sold in December 2019 for \$310,000, or \$139.70 per square foot of finished living area. The property is an above-grade, two-story home and has a partially finished basement, on 9.29 acres of land. The property also includes a detached 2-car garage and a pole barn. Jeff Turbeville, broker at Edina Realty Inc., explained this two-story home style is atypical in the area. However, we have identified comparable Control Area Sales and Adjoining Property 64 was studied in Group 8, as detailed on subsequent pages.

## **Paired Sales Analysis**

## Group 1

		Tes	North Star t Area Sales		1				
Adj. Property #	Address	Sale Price	Site Size (AC)	Beds	Baths	Year Built	GLA (SF)	Sale Date	Price PSF
54	10505 367th St	\$260,500	5.00	3	2	1999	1,890	Aug-16	\$137.83
42	10200 367th St	\$330,000	9.30	4	3	2003	2,172	Nov-17	\$151.93
46	10132 367th St	\$333,000	9.31	4	3	2001	2,108	Oct-17	\$157.97
Median		\$330,000	9.30	4	3	2001	2,108	Oct-17	\$151.93

We analyzed three split-level homes that sold between 2016 and 2017 that were located adjacent to the North Star solar farm.

Throughout our analysis we have relied on square footage data from the Chisago County Assessor's office for home sizes. We have included above-grade and finished below-grade square footage in our calculations as the market in this area considers finished square feet on every level to be livable. Split-level homes and those with basements or walkout basements are prevalent in this area. We note that the square footage for Adjoining

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livable square footage of 2,172 in our analysis.

Property 42 is shown on the MLS real estate listing from 2017 as being 2,350, we have utilized the Assessor's

We analyzed 11 Control Area Sales, single family homes with similar location, construction, square footages, lot sizes, and ages that sold within a reasonable time frame from the median sale date of the Test Area Sales, that were not located in close proximity to the solar farm.

The Control Area Sales for Group 1 are split-level homes with either 3 or 4 bedrooms and 1.5 to 4 bathrooms. We excluded sales that were bank-owned, those between related parties, or others under duress as non-arm's length transactions.

When adjusting sale prices for market conditions (time between date of Test Area Sale and Control Area Sale date) throughout this analysis we have used regression analysis to identify the appropriate monthly market conditions adjustment. We utilized the Federal Housing Finance Agency House Price Index (FHFA HPI) for the zip code 55056, the zip code of all Test Area and Control Area Sales, for the compounded monthly rate of appreciation. The FHFA HPI is a broad measure of the movement of single-family house prices. The FHFA HPI is a weighted, repeat-sales index, meaning that it measures average price changes in repeat sales or refinancings on the same properties. The FHFA HPI serves as a timely, accurate indicator of house price trends at various geographic levels.<sup>17</sup> We adjusted Group 1 Control Area Sales using the FHFA HPI for the period from 2016 through 2017.

CohnReznick Paired Sale Analysis North Star Solar Group 1								
No. of Sales	Potentially Impacted by Solar Farm	Adjusted Median Price Per SF						
Test Area Sales (3)	Adjoining solar farm	\$151.93						
Control Area Sales (11)	No: Not adjoining solar farm	\$139.50						
Difference between Unit Pr Adjusted Median Unit Pri	nener seen in de lander een de eerste strander i serderender eerste eerste seen eerste seen eerste seen eerste	8.91%						

The results of our analysis for Group 1 are presented following.

We note a somewhat large positive difference in adjusted median price per square foot between the median of the Test Area Sales and the Control Area Sales. The price differential is likely attributable to the larger parcel sizes of the Test Area Sales, which range from 5.00 acres to 9.31 acres. The Control Area Sales home sites

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<sup>&</sup>lt;sup>17</sup> https://www.fhfa.gov/DataTools/Downloads/Pages/House-Price-Index.aspx

range from to 2.29 to 7.10 acres, with a median of 5.0 acres. Control Area Sales with lot sizes that bracketed the Test Area Sales on the high side did not transact during the period studied but the properties are considered comparable. The sale prices of Adjoining Properties in Group 1 were not negatively impacted by the homes' proximity to the North Star solar farm.

We note that the median unit sale price of the most recent sales of each of the excluded adjoining properties identified previously is \$141.44 per square foot. As indicated above, the included Test Area Sales have a median unit price of \$151.93 per square foot. Inclusion of the excluded adjoining property sales would not have made a conclusive impact on the conclusions of the paired sale analysis.

# Group 2

		Tes	North Star st Area Sale		2				
Adj. Property #	Address	Median Sale Price	Median Site Size (AC)	Median Beds	Median Baths	Median Year Built	Median GLA (SF)	Median Sale Date	Median Price PSF
18	37096 Little Oak Ln	\$289,000	2.07	4	3.0	2001	2,412	Apr-17	\$119.82

We analyzed Adjoining Property 18, a single-story, rambler style home that sold in 2017.

We analyzed 10 Control Area Sales, single family homes with similar location, construction, square footages, lot sizes, and ages that sold within a reasonable time frame from the median sale date of the Test Area Sale, that were not located in close proximity to the solar farm.

Adjoining Property 18 sits on a somewhat small lot for the home size in this area. So as to capture homes that bracket the Test Area Sale home size, those ranging from 1,700 square feet to 3,400 square feet of finished gross living area were included. The parameters of our search for Control Area Sales were widened to include lot sizes between 1 and 10 acres.

The Control Area Sales for Group 2 are rambler style homes with 4 bedrooms and 2 to 4 bathrooms on less than 10-acre parcels. We excluded sales that were bank-owned, those between related parties, or others under duress as non-arm's length transactions. We adjusted the Control Area Sales for market conditions using the compounded monthly growth rate exhibited in the FHFA House Price Index for the zip code, for the period from 2016 through 2018.

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CohnReznick Paired Sale Analysis North Star Solar Group 2								
No. of Sales	Potentially Impacted by Solar Farm	Adjusted Median Price Per SF						
Test Area Sales (1)	Adjoining solar farm	\$119.82						
Control Area Sales (10)	No: Not adjoining solar farm	\$116.33						
	Price of Test Area Sale and rice of Control Area Sales	3.00%						

**Noting no significant price differential,** it does not appear that the North Star solar farm had any negative impact on adjacent property value in Group 2.

# Group 3

Adjoining Property 46 was analyzed as a 2017 sale in Group 1 and sold again most recently in December 2020.



Photo of 10132 367<sup>th</sup> Street (Adjoining Property 46) with view of solar arrays from 2020 MLS listing



		Te	North Star st Area Sale		3				
Adj. Property #	Address	Median Sale Price	Median Site Size (AC)	Median Beds	Median Baths	Median Year Built	Median GLA (SF)	Median Sale Date	Median Price PSF
46	10132 367th St	\$415,000	9.31	4	3.0	2001	2,108	Dec-20	\$196.87

We analyzed ten Control Area Sales, single family homes with similar location, construction, square footages, lot sizes, and ages that sold within a reasonable time frame from the median sale date of the Test Area Sale, that were not located in close proximity to the solar farm.

The Control Area Sales for Group 3 are split-level style homes and similar with 4 bedrooms and 2 or 3 bathrooms on one to ten acre parcels. We excluded sales that were bank-owned, those between related parties, or others under duress as non-arm's length transactions. We adjusted the Control Area Sales for market conditions using the compounded monthly growth rate exhibited in the FHFA House Price Index, for the period from 2018 through mid-year 2021 (the most recent data available). The results of our analysis are presented next.

	Adjusted	
No. of Sales	Potentially Impacted by Solar Farm	Median Pric Per SF
Test Area Sale (1)	Adjoining solar farm	\$196.87
Control Area Sales (10)	No: Not adjoining solar farm	\$151.73

We note that the sale price of the 2020 sale of Adjoining Property 46 is one of the highest for this home type (split-level) in all the County Assessor data from 2016 to year to date 2021 for North Branch and Sunrise Townships. However, the selling broker, Candace Rindahl, remarked that the price was market for the area at the time of sale. We see this in a study of the rate of appreciation over the course of three years between the prior sale and most recent sale. Adjoining Property 46 appreciated at a higher rate than the local area, as seen in the following table.

				Tes	t Area Sale				1.7	FHFA Housin	Zip Code ng Price Index ange
Property ID	Address	Land Area (Acres)	Total Finished Living Area (SF)	Most Recent Sale Date	Most Recent Sale Price	Date	Prior Sale Price	Total Appreciation	Monthly Appreciation Rate	Total Appreciation	Monthly Appreciation Rate
AP 46	10132 367th St	9.31	2,108	12/20/20	\$415,000	10/20/17	\$333,000	24.62%	0.58%	17.43%	0.42%

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We note a somewhat large positive difference in adjusted median price per square foot between the Test Area Sale and the Control Area Sales. The most comparable Control Area Sale, 6836 410<sup>th</sup> Street, sold for an adjusted sale price per square foot of \$193.35, reflecting a difference of 1.8 percent to the unit sale price of the Test Area Sale. We find that on a macro and micro level of analysis, <u>the sale price of Adjoining Property 46 (Group 3)</u> was not negatively impacted by its proximity to the North Star solar farm.

The differential between the Test Area Sale and the Control Area Sales is much higher than any of our other studies; we have considered this to be an outlier. While the indication shows that the adjacent solar farm has not negatively impacted the property value for this home, we have considered that this house has "set the market" for this kind of property type (home style, age and acreage) – we believe that this differential will likely stabilize in the near future as other homes catch up to the appreciation shown by Adjoining Property 46. Thus, we have not included this Group in the collection of impact studies in our conclusion.

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We analyzed Adjoining Property 3, a single-story, rambler style home that sold in 2019.

				rth Star Sola ea Sale - Gr					
Adj. Property #	Address	Sale Price	Site Size (AC)	Bedrooms	Bathrooms	Year Built/ Renovated	GLA (SF)	Sale Date	Price PSF
3	10009 375TH ST	\$260,000	5.05	3	2.5	1980 / 2005	1,508	Jul-19	\$172.41

We analyzed seven Control Area Sales, single family homes with similar location, construction, square footages, lot sizes, and ages that sold within a reasonable time frame from the median sale date of the Test Area Sale, that were not located in close proximity to the solar farm.

Adjoining Property 3 sits on a somewhat large lot for the home size in this area. So as to capture homes that bracket the Test Area Sale home size, those ranging from 1,200 to 2,000 square feet of finished gross living area were included. The parameters of our search for Control Area Sales were widened to include lot sizes between 2 and 7 acres.

The Control Area Sales for Group 4 are rambler style homes with 2 to 4 bedrooms and 2 to 3 bathrooms on less than 7-acre parcels but greater than 2 acre parcels. We excluded sales that were bank-owned, those between related parties, or others under duress as non-arm's length transactions. We adjusted the Control Area Sales for market conditions using the compounded monthly growth rate exhibited in the FHFA House Price Index, for the period from 2018 through 2020.

	North Star Solar Group 4		
No. of Sales	Potentially Impacted by Solar Farm	Adjusted Median Pric Per SF	
Test Area Sale (1)	Adjoining solar farm	\$172.41	
Control Area Sales (7)	No: Not adjoining solar farm	\$170.86	
	Price of Test Area Sale and rice of Control Area Sales	0.91%	

**Noting no significant price differential,** it does not appear that the North Star solar farm had any negative impact on adjacent property value in Group 4.

