

FILE

20-1814-EL-BGN

# Ohio

## Power Siting Board

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Case number 20-1814-EL-RGN

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Hearing Date: 11/10/21

Are you an  
interviewer?  
(Y/N)

Address

Name (Please Print)

1. Daniel L. Shirey - 5:20

2602 Tick Ridge-Koenigs Hill Rd  
Owney, OH 45857

N

2. Thomas Ross - 5:22

10755 Friemering Rd.  
Ft Loramie OH 45895

N

3. Dave Gugerich - 5:25

5071 Kibler Rd. Lynchburg OH

N

4. Robert McCollister - 5:32

2911 Stark Road 93, Ironton OH

N

5. Pam McConnell - 5:36

1512 Turner Lane

N

6. David A. Mayer - 5:42

107 W 4370th Dr  
HIGHLAND CTRY, Hillsboro OH 45133

N

7. Robert G. Thoburn Jr - 5:51

938 Weberstown Rd, Lynchburg

N

8. Kyle Stranker - 5:59

2040 Alum Creek Dr, Columbus, OH

N

9. Amy Green - 6:00

3401 Cochran Rd Lynchburg - OH

N

10. Patrick Shanahan - 6:10

130 Monroe Street, Hillsboro, OH

N

# Ohio

## Power Siting Board

Dodson Creek

Public Hearing

Case number 20-1814-EL-BGN

PLEASE SIGN-IN ONLY IF YOU WISH TO PROVIDE TESTIMONY

Hearing Date: 11/10/2021

Name (Please Print)

Address

Are you an  
intervenor?  
(Y/N)

✓ 11. Taylor Christian - 6:14

9499 Valla Rd. Salem OH 44460

N

✓ 12. Annette Houck - 6:22

9711 54th St. 73 Hillsboro OH 45133

N

✓ 13. Jeremy Welch - 6:27

3331 E Augusta Dr NW M'Conaughville OH

N

✓ 14. Debra McKee - 6:30

3298 Poush Rd. Hillsboro OH

N

✓ 15. DAN LONG - 6:50

96 Carmichael Way Granville OH 43023

N

✓ 16. Kelly Tolliver - 6:53

38 Lee Ln. Wilmington OH 45177

N

✓ 17. Lena Perry - 6:59/7:00

5141 134 Martinsville OH

N

✓ 18. ~~Bill Farley~~

~~2455 Anderson Ln. Wapakoneta OH~~

~~N~~

✓ 19. Ted Foster - 7:08

6832 Danville Road, Hillsboro

N

20.

# Ohio

## Power Siting Board

Dodson Creek

Public Hearing

Case number 20-1814-EL-BGN

PLEASE SIGN-IN ONLY IF YOU WISH TO PROVIDE TESTIMONY

Hearing Date:

11/10/2021

Name (Please Print)

Address

Are you an  
intervenor?  
(Y/N)

21. Melanie Hawk - 7:11

5129 Franklin Rd Hillsboro 45133

N

22. Trampas Rockett 7:16

2909 Euclid Ave West Port

N

23. HAREN FAUST - 7:21

2540 SR R131 N. Hillsboro, OH

N

24. ROBERT BANKS

7612 RAMMEL RD LINCOLN OH

N

25. Jerry Boggs

53 Virginia Lane Waverly, Ohio

N

26. John Boggs

68 township house rd Ohio

N

27. Mathew M. W. [unclear]

5029 S.R. 138 Hillsboro OH

N

28. City Montgomery

923 State 104 Leesville OH

N

29.

30.

No appearance

# Ohio

## Power Siting Board

Dodson Creek

Public Hearing

Case number - 20-1814-EL-BGN

PLEASE SIGN-IN ONLY IF YOU WISH TO PROVIDE TESTIMONY

Hearing Date: 11/10/2021

Name (Please Print)

Address

Are you an  
intervenor?  
(Y/N)

31. Misty Carter - 7:30

6335 Abernathy Rd Lynchburg

N

32.

33.

34.

35.

36.

37.

38.

39.

40.

IUOE Local 18 Business Representative  
Michael Young & Thomas Ross

3860 Towne Blvd., Franklin, OH 45005

On behalf of the Operating Engineers Local Union 18, I am here to support the approval of the Dodson Creek Solar project.

The Operating Engineers are the individuals who operate heavy equipment such as bulldozers, excavators, backhoes, forklifts and so on. The roads and bridges you drive on were most likely built by members of Local 18 along with our fellow Union trades men and women.

Although we do not have an agreement signed with National Grid Renewables, to perform the work associated with this project, we believe our Local signatory contractors will secure this work, thus providing our membership with numerous employment opportunities. In turn high paying wages, health care benefits and apprenticeship programs can continue to grow because of the Solar industry.

If approved the Dodson Creek Solar project will not only create jobs but you can expect an economic impact, additional tax money and clean energy for Ohio as a result from the project.

We encourage the Ohio Power Siting Board to support the jobs of the men and women of Local 18 by approving the Dodson Creek Solar project.

**The Investigation Report written for Dodson Creek suggests your staff is inexperienced in acquiring and evaluating factual and balanced information.**

**We were told at our July 8, 2021, meeting that staff had not been to Hillcrest Solar and had not been to other solar sites.**

**In a congressional hearing Director White stated that staff visits sites.**

#### Staff Investigation and Report

Staff begins the in-depth analysis of the application as guided by the eight statutory criteria outlined in ORC 4906.10. Staff relies on internal expertise as well as on various state and federal agencies to provide expertise, guidance, and review of relevant portions of the application for potential impacts.

**During its analysis, staff makes multiple site visits to inspect and confirm conditions as necessary.**

Staff also reports on the public comments within its written report to the Board and uses the public comments to inform data requests made to the applicant. These measures ensure the public's concerns are addressed.

Staff provides its findings and recommendations to the Board in the form of a staff report.

The staff report is due 15 days prior to the scheduled public hearing and typically is submitted between 60 and 90 days after the letter of completeness has been issued.

This staff report and all public comments are entered into the docket along with the public testimony transcripts from hearings. All this material then goes to the Board as they are considering their decision on the application.

Source; [https://puco.ohio.gov/static/emplibrary/files/media/testimony/Theresa+White+OPS B+Testimony.pdf](https://puco.ohio.gov/static/emplibrary/files/media/testimony/Theresa+White+OPS+B+Testimony.pdf)

**We requested information showing proof that your investigative staff has done an on-site inspection of any solar project.**

**We asked that the evaluation of any and all inspected sites be posted for public view.**

**We ask your staff to provide proof of any on site investigation of any solar power plant site in the State of Ohio. We requested documentation with timestamps as proof.**

**This information has never been provided to us.**

**We recommend these suggestions to the OPSB;**

**(a) You need an independent on-site inspection team that has absolutely no association with Ohio Farm Bureau (Dale Arnold who works for OFB and President of Ohio Green Energy ) or USSEC, otherwise this team is stained as the OPSB who has allowed these two biased entities to make rules that the OPSB adopted and followed.**

**(b) Your investigative team needs to have authority to arrive unannounced and have the powers to inspect and require any and all documentation at said facility.**

**(c) Your investigative team needs to be independent of any existing staff as many of your staff are comfortable with the USSEC.**

**(d) Your investigating power needs to have the authority to attain all financial statements of all developments so as to see which are not meeting obligations to Ohio businesses and post a public report and create a credit rating so that counties can make better decisions protecting local business from uncollectible receivables**

**(e) You Chair French need to be empowered to dismiss any staff member from position, as they work at your pleasure, no matter status of tenure and you need to surround yourself with your own team. This letter will be sent to the senate and house members requesting that legislation be written to give you authority and expanded parameters to operate in.**

**(f) The OPSB should work not only to site facilities but to protect all taxpayers interest, which in the past has been in dereliction of that responsibility. Transparency is a must .**

**(g) An investigative team needs to be allowed authority to read all leases.**

**(h) Any lease stating a renewable facility has the right to all water from any aquifer should be disqualified.**

**(i) The practice of allowing developers to rush incomplete studies through and submit incomplete studies that can be suspended and extend the 90-day completion should not be allowed.**

**(j) Severe monetary penalties for developers need to be developed and imposed for breaking rules.**

**One more comment. SMRs, Small Modular Reactors Hitachi GE are scheduled to roll out SMRs 2028. These power plants are said to be the stable backup for renewables and potentially replace unreliable solar. After reading staff reports and seeing the multiple errors , we find no comfort in the fact that the OPSB will be involved in the siting process for nuclear energy .**



Ohio Power Siting Board Public Hearing  
November 10, 2021

Good evening, my name is Robert McCollister, and I am a member of the Green Energy Ohio (GEO) Board of Directors. Thank you for the opportunity to submit comments in support of the Dodson Creek solar project in Highland County currently under development by National Grid Renewables.

Green Energy Ohio (GEO) is a statewide nonprofit organization dedicated to promoting sustainable energy policies, technologies, and practices through education and outreach. We represent a diverse membership of individuals, businesses, community and government entities, and academic institutions who share GEO's mission.

The GEO Statement of Policy Positions endorses investment in utility-scale solar projects for the broad range of economic and environmental benefits that these facilities provide. First and foremost, local communities are the beneficiaries of these projects, through substantial Payments in Lieu of Taxes (PILOT) that support local school districts and government facilities. In the case of Dodson Creek, this revenue is estimated to be in excess of \$1 million annually. A unique feature of this project is the creation of the Dodson Creek Charitable Fund. The Fund is designed to engage with and assist local organizations and community activities that rely on contributions. We often focus on the important advantages that flow to local governments, including school districts, as a result of projects such as Dodson Creek. The establishment of this fund recognizes the broader needs that exist throughout communities – needs that are being addressed by nonprofit and volunteer entities. In addition, National Grid Renewables takes pride in their “farmer-friendly” value system, acknowledging the critical role that rural landowners play in these developments.

GEO understands the importance of corporate citizenship and the trust that is developed through long-term investment in the state. National Grid Renewables has identified a half dozen Ohio solar projects which would produce a combined 1,000 MW of power. As a corporation with solar, wind, and storage assets nationwide, they have a proven track record of responsible development and operation.

The need for renewable energy generated by large-scale solar farms is constantly increasing. The demand is being driven by residential consumers, small businesses, large corporations, and municipal governments, all of whom are seeking a decrease in energy costs, greater sustainability, and reductions in their carbon footprint. By adding up to 117 MW of solar energy, Dodson Creek will serve these goals through a clean and sustainable technology.

Thank you for your time, and I appreciate your consideration of my remarks.

In 2008, then Ohio governor Strickland, gave an executive order enacting an Advanced Energy policy. This was not a well thought out policy but followed party lines.

<sup>KASICH</sup>  
In 2011, Under Governor ~~Kasich~~ <sup>Kasich</sup> mandatory standards were eased. Timelines were set for renewable development. Fines are put in place to push energy producers to meet these demands. This significantly reduced the tax burden on renewable energy projects by exempting them from real and personal property taxation and implementing a PILOT. " Payment in Lieu of Taxes "

This reduced solar and wind taxes from \$115,000 and \$40,000 per MW to a more competitive \$6,000 and 8,000 per MW

It is now 2021 and the ghost of Governor Strickland and his bad policy has brought us to this moment.

<sup>PROPERTY RIGHTS</sup>  
We are not here making arguments about green energy and saving the earth, we are here about poor legislation written years ago and capitalist speculation that needs subsidies to make a profit at taxpayers expense. **AND negatively impacts rural residents**

Reading through the testimony by Jason M. Rafeld Executive Director, Utility Scale Solar Energy Coalition we are led to believe utility scale solar power is poised to generate a multi-billion dollar infusion for Ohio's schools, local communities, our extensive farming sector and more.

He also states In Ohio, data centers like Amazon, Facebook and Google are buying the energy from entire solar projects in an attempt to meet their sustainability goals.

What Rafeld does not state is that this is an illusion: Solar can't survive without massive subsidies. Paid for of course by the ratepayers and taxpayers.

ITC Investment Tax Credit of 30% is paid to qualifying projects.

Millions of dollars are saved by developers if they are given a PILOT on a qualified project.

HB6 will pay 20 million a year to certain solar developments unless SB118 is enrolled.

The Production Tax Credit from the U.S. Treasury will cost taxpayers over \$40 bil from 2018-2027. The most expensive subsidy under current tax law.

<sup>AND OTHER COLS</sup>  
~~THE~~ Amazon, Facebook, and Google will get the benefit of a lower cost of energy, not residential ratepayers.

Good evening, members of the Ohio Power Siting Board. My name is Taylor Christian, and I am the Field Operations Director for the Ohio Land & Liberty Coalition. The Land & Liberty Coalition is a project of the Ohio Conservative Energy Forum (OHCEF). OHCEF focuses primarily on state-level policies, while the Land & Liberty Coalition engages on local energy issues across the State of Ohio.

As an Ohioan myself, I encourage you to approve Dodson Creek Solar. The project will result in increased resilience for Ohio farmers, will result in additional economic development right here at home, and will fulfill the government's obligation to protect property rights.

Farmers in Ohio and across the country must navigate through shifting commodity prices and varying crop yields. Renewable energy projects, like Dodson Creek Solar, come with leaseholder payments for the landowners, many of whom are farmers. The money that the developer, National Grid Renewables, will be paying out will serve as a buffer against the challenges that farmers face day-in and day-out.

National Grid Renewables, in Land & Liberty's experience, has always had a farmer-friendly attitude and a community focus. They understand what it means to be an agricultural community, and they know that the money from their leases will help to keep family farms in operation through some tough times. But those leases aren't the only way that my organization has seen them contribute to the communities they develop in.

In Illinois, they recently committed to donating over \$700,000 to the Kansas, Illinois School District. In Texas, they have committed to over \$1 million to benefit the Denton County community. Wherever they go, they give back, and I'm excited to see that same practice applied here.

The generosity of National Grid Renewables will certainly help the local community. In addition to that, though, is the job creation that comes from projects like Dodson Creek Solar. As a conservative, I believe that the best social program is a job. According to the docket, National Grid Renewables will be creating nearly 200 jobs during the construction of Dodson Creek Solar. Afterwards, there will be over a dozen long-term jobs in the community. If that's not enough, Dodson Creek Solar stands to provide more than \$30 million in revenue to local taxing jurisdictions over the life of the project. Those taxing jurisdictions are the townships, Lynchburg-Clay Local Schools, and Highland County General Fund.

It's also important to note how vital renewable energy development is to attracting businesses. Companies large and small want renewable energy nearby. When looking to open new facilities, thereby creating jobs, they'll go to areas that provide it to them. The more we generate here, the better our chances of attracting new

business. If Ohio doesn't take the lead in renewable energy development, it could be losing out on opportunities for its workers.

In this case, looking out for Ohio workers coincides with the government's obligation to protect our rights to property. Ultimately, the owner of the land should get to determine what goes on it. Of course, there are limits to that - we don't have the right to do things that will impede on the rights of others. Fortunately, solar panels don't harm anyone. They operate quietly, produce less glare than your standard window, and create no odor or byproduct. I have heard concerns that solar farms decrease surrounding property values, but a 2018 study done by CohnReznick shows that's just not the case. This study was conducted in Illinois, Indiana, and North Carolina. Illinois and Indiana have similar climate and, in the areas studied, have a similar rural makeup. Dodson Creek Solar will be built on private land, and will not harm others' rights to life, liberty, or property. The government should respect our God-given right to do as we see fit with our own land.

In sum, I encourage you to approve Dodson Creek Solar. The project will help to make Ohio's farmers more resilient. It's being developed by National Grid Renewables, a developer that is farmer-friendly and community-focused. Dodson Creek Solar will result in additional economic development right here in Ohio. And, approving the project will fulfill government's obligation to protect our God-given property rights. Thank you for your time. I am happy to entertain any questions you have regarding my testimony.



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# National Grid Renewables Hosts Cele at Noble Solar and Storage Project

October 28, 2021 · 4 min read

**Project currently under construction in Denton County,  
Texas - will contribute millions in economic benefit**

MINNEAPOLIS --News Direct-- National Grid



MINNEAPOLIS, October 28, 2021 /3BL Media/ - As part of the first annual American Clean Power Week, National Grid Renewables hosted a community event at the Noble Solar and Storage Project (Noble) in Denton County, Texas to celebrate the project's economic and environmental benefits with community members, landowners, customers, and partners. In attendance were executives from National Grid Renewables and two of the solar project's previously announced power purchasers, The Hershey Company and NRG Energy. Additionally, Signal Energy (the project's construction partner), First Solar (the project's module

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Buttigieg responds to Ted Cruz on racism in highway design

'It feels harder and harder to not share my truth': Bella Hadid gets real about her mental health

'I Lost Everything': More Than 160 Former Hertz Customers Are Suing Company Over Claims It Falsified Stolen Car Reports, Landing Some Drivers In Jail

United will stop flying to 11 US cities indefinitely - see the full list

For a short video clip of the event, please click here.



Noble, which is currently under construction with an estimated commercial operation date of 2022, consists of 275 megawatts (MW) of solar and 125 MW of battery storage. Using the United States Environmental Protection Agency's (EPA) greenhouse gas equivalencies calculator, Noble is projected to offset carbon dioxide emissions by 450,000 metric tons annually during operation.



"Not only will the Noble Project benefit our environment, but it will also benefit our economy," commented Blake Nixon, President for National Grid Renewables. "We anticipate over 475 workers will help build Noble, and millions of dollars will be pumped into the local and state communities during construction. Additionally, throughout the first 20 years of operation, Noble is projected to benefit Denton County and the state of Texas through the creation of approximately \$30 million in new tax revenue, several on-site operations and maintenance jobs, and over \$1 million in donations funded by Noble through a local charitable initiative."

"Hershey recognizes the importance of companies reducing their GHG emissions to help protect the environment, and we have made strong commitments to science-based reduction targets to do our part," said Mark Kline, Senior Manager, Nut & Energy Sourcing, Global Commodities Hershey. "Transitioning our operations to clean and renewable energy is one way we will help achieve our substantial reduction commitments, and the Noble project is a key initiative in our drive to shift to clean energy."

"NRG has a long-standing commitment to reducing carbon emissions," said Lynda Clemmons, Vice President, NRG Energy, Inc. "Through the collaboration of local communities and use of renewable energy, we are excited to create a sustainable energy future for our customers."

Noble will utilize next-generation Series 6 thin film solar modules developed and produced by First Solar, Inc.

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"We are excited for the opportunity to partner with National Grid Renewables on the Noble project. National Grid Renewables' commitment to educating and serving the communities impacted by this project aligns with the core principles that is the soul of our company," said Ryan Johnson, President of Signal Energy. "We look forward to furthering our partnership with National Grid Renewables and to being good neighbors to the people of Denton County, Texas."

"The selection of First Solar's uniquely American solar technology completes the circle of local, regional, and national economic impact that Noble represents," said Darin Green, Senior Director, Americas at First Solar. "With our responsibly produced and advanced solar technology, Noble is positioned to deliver decades of clean energy to surrounding communities, while helping drive jobs in America's heartland. First Solar is proud to supply its Series 6 modules alongside valued partners, and we look forward to further growing our partnership with National Grid Renewables to create a sustainable energy future."

"We are proud to support National Grid Renewables' Noble project with industry-leading energy storage technology that will help make the electric system cleaner and more resilient," said John Zahurancik, President, Americas for Fluence. "A uniquely flexible asset, energy storage delivers value to both the electric grid and consumers by enabling greater use of renewable energy and also providing additional critical grid services."

### About National Grid Renewables

National Grid Renewables, part of the competitive, unregulated National Grid Ventures division of National Grid (NYSE: NNG), develops, owns and operates large-scale renewable energy assets across the United States, including solar, wind and battery storage. As a farmer-friendly and community-focused business, National Grid Renewables develops projects for corporations and utilities that seek to repower America's electricity grid by reigniting local

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National Grid Renewables has a robust development pipeline of wind, solar and battery storage projects in various stages of development throughout the United States, as well as geographically diverse operational assets across the country. It supports National Grid's vision of being at the heart of a clean, fair, and affordable energy future for all. To learn more about National Grid Renewables, visit [www.nationalgridrenewables.com](http://www.nationalgridrenewables.com) or follow the company on Twitter or LinkedIn.

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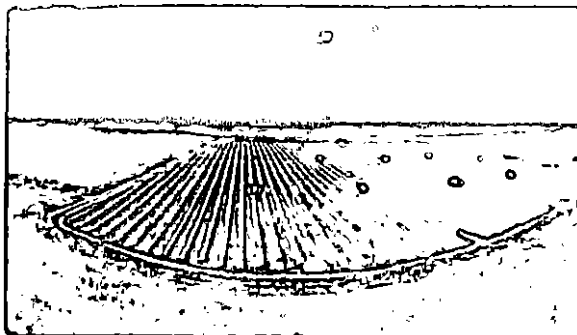


# National Grid Renewables Pledges to Donate \$720,000 to Illinois School District

September 15, 2021 · 3 min read

## Charitable Education Fund part of National Grid Renewables' 200 MW Prairie Wolf Solar Project

MINNEAPOLIS, Sept. 15, 2021 /PRNewswire/ -- Today, National Grid Renewables announced its pledge to donate an estimated \$720,000 to the Kansas, Illinois School District through its 200 megawatt (MW) Prairie Wolf Solar Project (Prairie Wolf or the project) located in Coles County, Illinois. Prairie Wolf will support The Prairie Wolf Education Fund via annual donations of approximately \$36,000 over a twenty-year period.



Example solar project

"This donation allows Kansas Schools the opportunity to add materials and supplies to our curriculum that would otherwise be impossible," commented Cindy Spencer, Superintendent for Kansas School District. "We are very grateful to National Grid Renewables for their generous gift to our district."

## TRENDING

1. 22-year-old Texas A&M student suffered multiple heart attacks and isn't showing brain activity after being hurt at deadly Astroworld concert
2. Buttigieg responds to Ted Cruz on racism in highway design
3. 'It feels harder and harder to not share my truth': Bella Hadid gets real about her mental health
4. 'I Lost Everything': More Than 160 Former Hertz Customers Are Suing Company Over Claims It Falsified Stolen Car Reports, Landing Some Drivers In Jail
5. United will stop flying to 11 US cities indefinitely - see the full list



fund for each of its owned and operational large-scale

renewable energy projects. The purpose of these charitable funds is to engage in, assist, and contribute money to charitable and/or community activities and opportunities within the project communities. The gifts donated by the charitable funds are above and beyond any tax revenue delivered by National Grid Renewables' projects.

The Prairie Wolf Education Fund will receive its first donation from Prairie Wolf approximately one year after the project reaches commercial operation. Prairie Wolf, which is currently under construction, is anticipated to begin operation by the end of 2021, informing an estimated first annual donation in 2022.

"We are committed to acting as good stewards to the communities we serve - and through our projects that are currently under construction or in operation, National Grid Renewables has pledged over \$3.7 million in charitable giving over the next twenty years," stated David Reamer, Head of Development, US Onshore Renewables for National Grid Renewables. "As a dedicated member of our projects' host communities, we are proud to support our nationwide neighbors through these charitable funds."

Using the United States Environmental Protection Agency's (EPA) greenhouse gas equivalencies calculator, Prairie Wolf is estimated to offset carbon dioxide emissions by 285,000 metric tons annually during operation. Prairie Wolf will also benefit local and statewide economies through the production of new tax revenue, the creation of jobs, and increased local spending.

#### About National Grid Renewables

National Grid Renewables, part of the competitive, unregulated National Grid Ventures division of National Grid (NYSE: NRG), develops, owns and operates large-scale renewable energy assets across the United States, including solar, wind and battery storage. As a farmer-friendly and community-focused business, National Grid Renewables develops projects for corporations and utilities that seek to repower America's electricity grid by reigniting local



National Grid Renewables has a robust development pipeline of wind, solar and battery storage projects in various stages of development throughout the United States, as well as geographically diverse operational assets across the country. It supports National Grid's vision of being at the heart of a clean, fair, and affordable energy future for all. To learn more about National Grid Renewables, visit [www.nationalgridrenewables.com](http://www.nationalgridrenewables.com) or follow the company on Twitter or LinkedIn.

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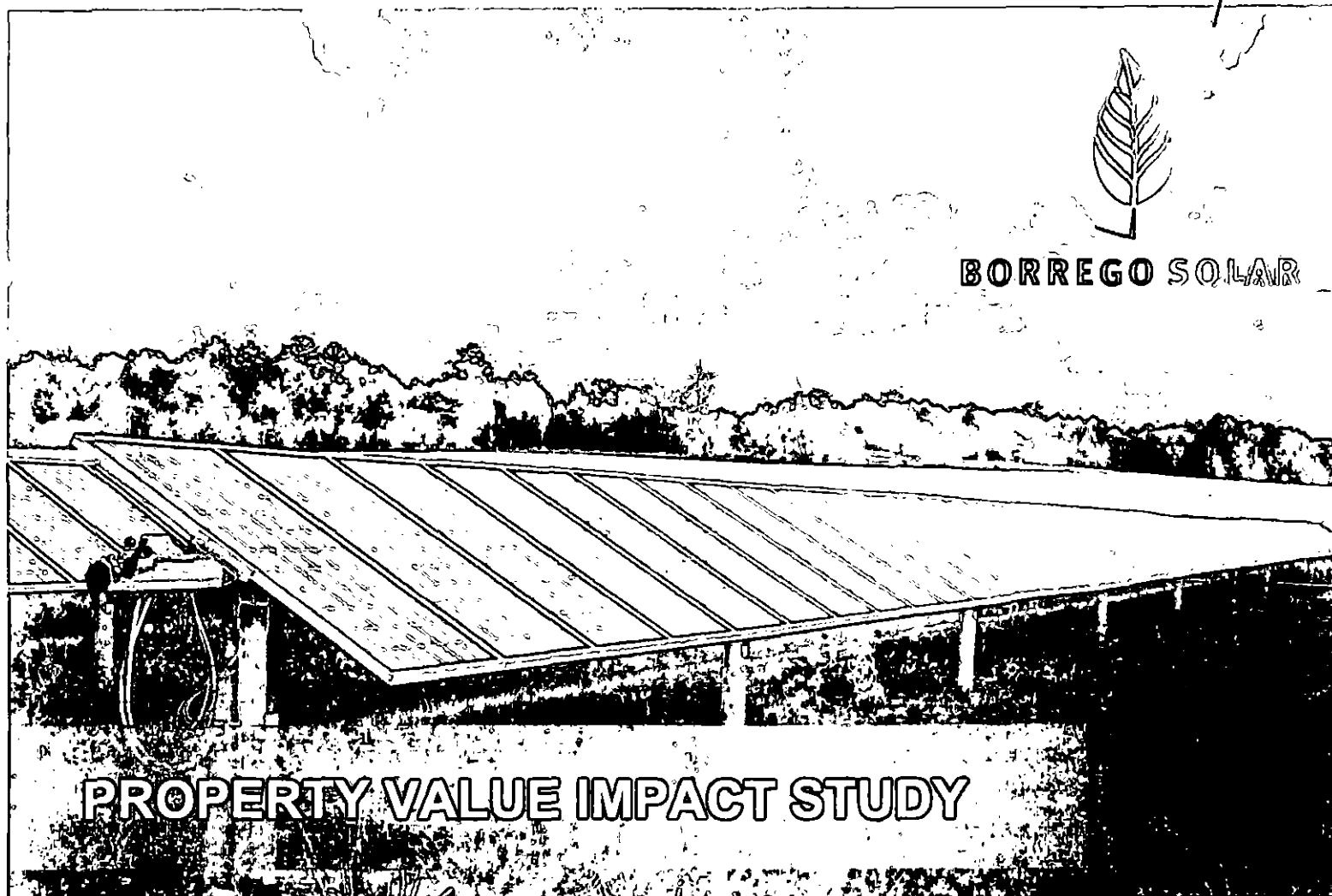
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BORREGO SOLAR



## PROPERTY VALUE IMPACT STUDY

### PROPOSED NEWARK ROAD SOLAR ENERGY USE

Big Grove Township, Unincorporated Kendall County, Illinois

**PREPARED FOR:**

Mr. Justin Hardt  
Senior Project Developer  
Borrego Solar Systems, Inc.  
1 North State Street, Suite 1500  
Chicago, IL 60602

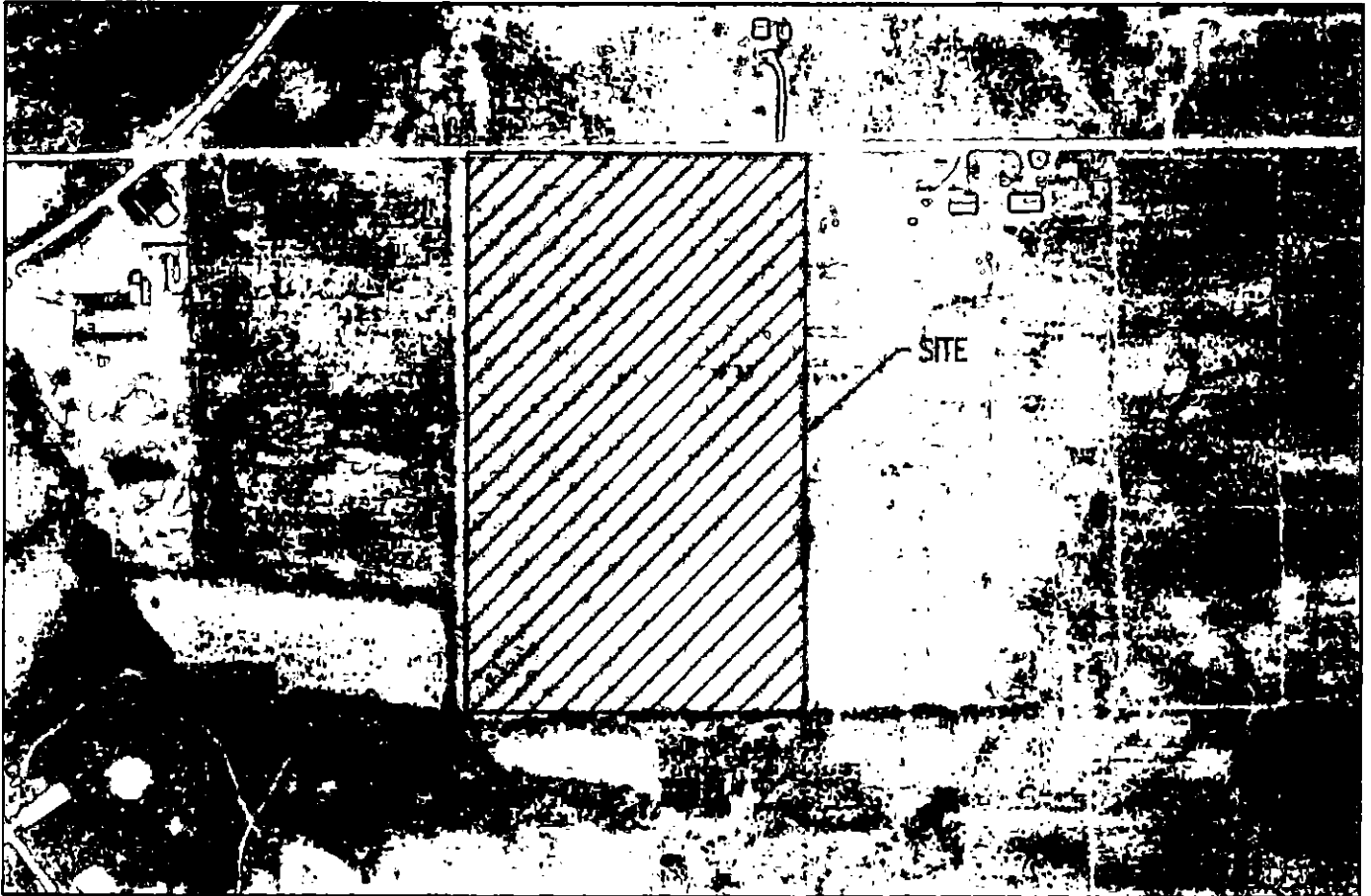
**SUBMITTED BY:**

CohnReznick, LLP  
Valuation Advisory Services  
200 S Wacker Drive, Suite 2600  
Chicago, IL 60606

Patricia L. McGarr, MAI, CRE, FRICS  
patricia.mcgarra@cohnreznick.com  
Direct: (312) 508-5802

May 2, 2018

# PROPOSED NEWARK ROAD SOLAR PROJECT

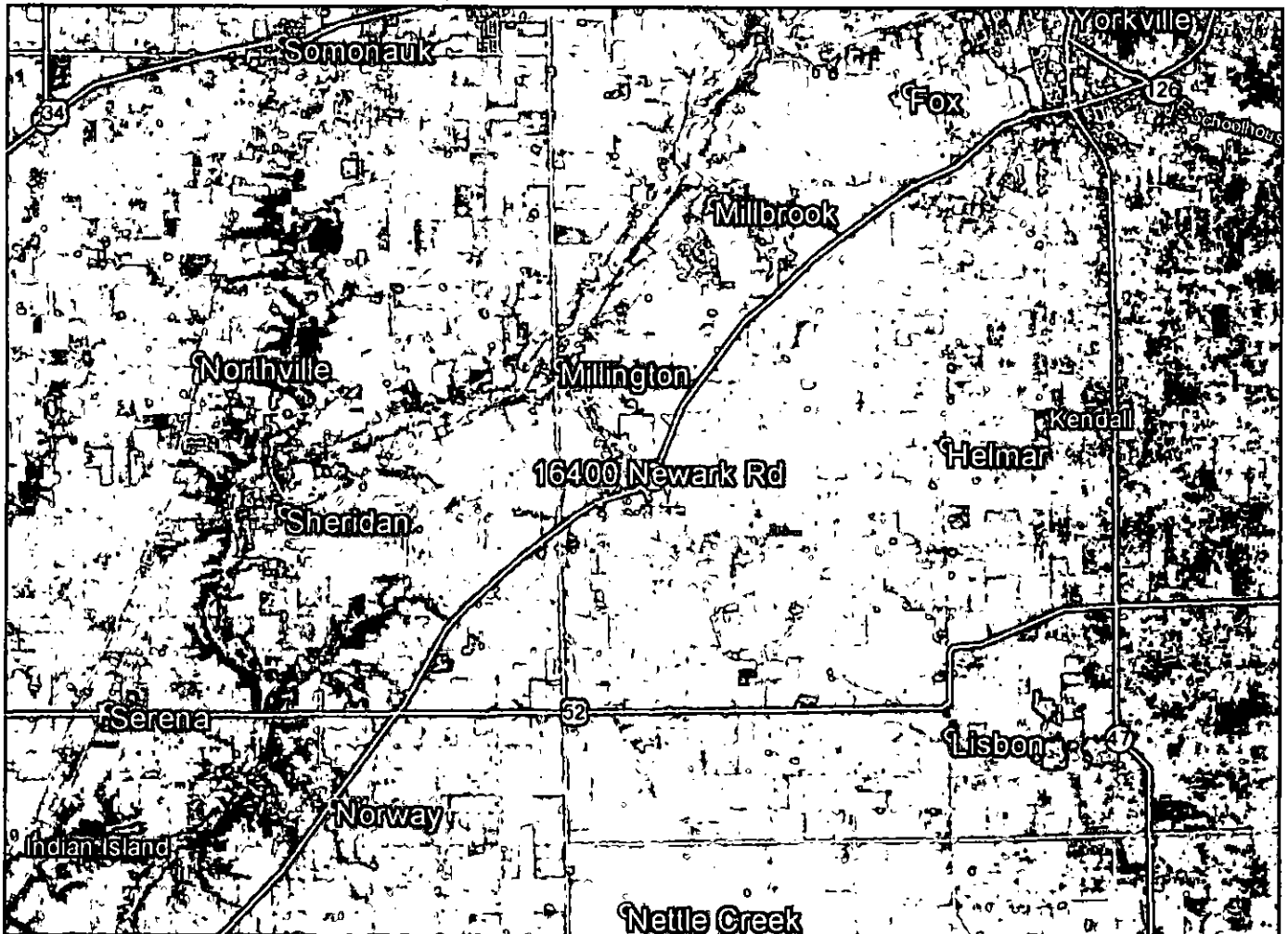


\* Prior exhibit for the proposed solar farm within Kendall County was provided by the client, Borrego Solar Systems, Inc. dated April 12, 2018.

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**COHN REZNICK**

SURROUNDING AREA



## EXECUTIVE SUMMARY

The purpose of this real estate impact study is to determine whether the proposed solar farm use will have a measurable and consistent detrimental impact on the value of adjacent properties.

According to the Solar Energy Industries Association (SEIA) 2017 statistics, Illinois had 83.8 Megawatts (MW) of solar panels installed as of year-end 2017, compared to Indiana which has had 275.6 MW of solar panels installed.

As we are studying the impact of this use on adjacent property values in Illinois, we have only studied established solar farms in the Midwest; this is primarily due to the way soil conditions, climate, and topography differ from region to region and how they contribute to property values.

We have included several of these established solar farms in Illinois and Indiana, focusing on similar rural and suburban areas with neighboring residential homes, that we believe are comparable to those locations proposed in Illinois. Solar farms with a variety of output capacities have been studied because of the existence of residential homes within close proximity. With sales of these adjacent properties, we are able to analyze the property value trends in similar locations as the proposed solar farms.

### Study Features

Our study includes research and analyses of five existing solar panel farms and the property value trends of the adjacent land uses, including agricultural, single family and residential properties; review of published studies, and discussions with market participants, summarized as follows:

- Solar Farm 1 (*Grand Ridge Solar Farm*) is located near the City of Streator in LaSalle County, Illinois, in a primarily rural area, on two contiguous parcels totaling 160 acres. Surrounding uses consist of agricultural land, some with homesteads, and single family homes to the northwest. We found one adjoining property which qualified for a paired sales analysis.
- Solar Farm 2 (*Portage Solar Farm*) is located near the City of Portage, in Porter County, Indiana. This solar farm is situated in a residential area on a 56-acre parcel of land. The surrounding uses consist of agricultural land to the north and east, and residential uses such as single family homes to the west and northwest, and multifamily apartments to the south. We found two adjoining properties that qualified for a paired sales analysis.
- Solar Farm 3 (*Dominion Indy Solar Farm III*) is located in a suburban, yet rural area outside of Indianapolis, in Marion County, Indiana, on a parcel totaling 134 acres. The surrounding uses consist of agricultural land to the east, west and south, and a single family subdivision to the north. We found eight adjoining properties which qualified for a paired sales analysis.
- Solar Farm 4 (*IMPA Frankton Solar Farm*) is located in the Town of Frankton, in Madison County, Indiana. This solar farm is situated in a fairly rural area and is located on a 13-acre parcel. The surrounding uses consist of single family homes to the east, agricultural land to the south, west, and north, and some baseball fields as well. We found two adjoining properties which qualified for a paired sales analysis.

- Solar Farm 5 (*Valparaiso Solar Farm*) is located near the City of Valparaiso, in Porter County, Indiana. This solar farm is situated in a fairly rural area on two contiguous parcels totaling 27.9 acres. The surrounding uses consist of vacant land to the north, and single family homes to the east, south and west. We considered two adjoining properties which qualified for a paired sales analysis.
- We performed a paired sales analysis for each adjoining property that fit the criteria for analysis that were adjacent to the solar farms we studied. The sales adjacent to solar farms, or Test Areas, were compared to agricultural land sales or single family home sales not adjacent to solar farms within the same county or geographical area as the subject solar farms, or Control Areas.
- **We analyzed 15 adjoining property sales in Test Areas and 63 comparable sales in Control Areas**, collectively, for the Grand Ridge Solar Farm, the Portage Solar Farm, the Dominion Indy III Solar Farm, the IMPA Frankton Solar Farm, and the Valparaiso LLC Solar Farm, over the past five years.

## Methodology

The basic premise of this comparative analysis is that if there is any impact on the property values, by virtue of their proximity to a solar farm, it would be reflected by such factors as the range of sale prices, differences in unit sale prices, conditions of sale, and overall marketability. When comparing these factors for properties near the solar farm to properties locationally removed from the solar farm, we would expect to see some emerging and consistent pattern of substantial difference in these comparative elements – if, in fact, there was an effect.

## Results

Illinois is an emerging Solar Farm market, so there are few existing solar farms to study here. We do note that our studies of facilities of various sizes demonstrate the same conclusions: that there is no measurable and consistent difference in property values for properties adjacent to solar farms when compared to similar properties locationally removed from their influence. This is supported by our interviews with local real estate brokers who have stated that there is no difference in price, marketing periods or demand for the homes directly adjacent to the 2 MW facilities in Illinois and Indiana.

We have also reviewed published methodology for measuring impact on property values as well as published studies that specifically analyzed the impact of solar farms on nearby property values. We have also interviewed market participants, including County and Township Assessors, to give us additional insight as to how the market evaluates farm land and single family homes with views of the solar farm. These studies found little to no measurable and consistent difference in value between the Test Area Sales and the Control Area Sales attributed to the proximity to solar farms and are generally considered a compatible use. Considering all of this information, we can conclude that since the Adjoining Property Sales (Test Area Sales) for the existing solar farms analyzed were not adversely affected by their proximity to solar farms, that properties surrounding other solar farms operating in compliance with all regulatory standards will similarly not be adversely affected, in either the short or long term periods.



May 2, 2018

Mr. Justin Hardt  
Senior Project Developer  
Borrego Solar Systems, Inc.  
1 North State Street, Suite 1500  
Chicago, IL 60602

SUBJECT: Property Value Impact Study  
Proposed Newark Road Solar Energy Use  
Big Grove Township, Unincorporated Kendall County, Illinois

Dear Mr. Hardt:

CohnReznick is pleased to submit the accompanying adjacent property values impact study of the above referenced proposed solar energy use. Per the client's request, we have researched the proposed solar farm use to be located just outside of the Village of Newark, in Big Grove Township, in Kendall County, Illinois. The photovoltaic (PV) solar farm use will have a capacity of 2.488 MW DC (megawatts direct current) and 2 MW AC (megawatts alternating current). The anticipated power output of the project is estimated to be enough to power approximately 300 to 400 single-family homes. The power generated from the solar energy system will be interconnected with the existing site electrical system in accordance with the applicable electric code and Ameren requirements.

In forming this report, we have researched and visited the existing and proposed solar farms in Illinois and Indiana, researched articles and other published studies, and interviewed real estate professionals and Township Assessors, active in the market where solar farms are located, to gain an understanding of market perceptions.

The purpose of the assignment is to determine whether the proximity of the proposed renewable energy facility use (solar farm) will result in any significant measurable and consistent impact on adjacent property values, given the existing uses and zoning of nearby property at the time of development. The intended use of our opinions and conclusions is to assist the client in addressing local concerns regarding a solar farm's potential impact on surrounding property values, in addition to addressing the required criteria for obtaining approvals for this proposed solar energy use, such as minimizing the impact on adjacent property values. We have not been asked to value any specific property, and we have not done so. The client for the assignment is Borrego Solar Systems, Inc. The report may be used only for the aforementioned purpose and may not be distributed without the written consent of CohnReznick LLP ("CohnReznick").

The 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 opinion is as follows below.

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## CONCLUSIONS

In total, we analyzed 15 adjoining property sales in Test Areas and 63 comparable sales in Control Areas, collectively, for the Grand Ridge Solar Farm, Portage Solar Farm, Dominion Indy III Solar Farm, IMPA Frankton Solar Farm, and the Valparaiso Solar Farm over the past six years. We note that proximity to the solar farms has not deterred sales of nearby agricultural land and residential single family homes, nor has it impacted the development of new homes.

No empirical evidence evolved that indicated a more favorable real estate impact on the Control Area Sales as compared to the adjoining, Test Area Sales with regard to such market elements as:

1. Range of sale prices
2. Differences in unit sale prices
3. Conditions of sale
4. Overall marketability

We have also reviewed published methodology for measuring impact on property values as well as published studies that specifically analyzed the impact of solar farms on nearby property values. We have also interviewed market participants including Township Assessors, to give us additional insight as to how the market evaluates farm land and single family homes with views of the solar farm. These studies found little to no measurable and consistent difference in value between the Test Area Sales and the Control Area Sales attributed to the proximity to solar farms and are generally considered a compatible use. Considering all of this information, we can conclude that since the Adjoining Property Sales (Test Area Sales) for the existing solar farms analyzed were not adversely affected by their proximity to solar farms, that properties surrounding other solar farms operating in compliance with all regulatory standards will similarly not be adversely affected, in either the short or long term periods.

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



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National Director - Valuation Advisory Services  
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Expires 3/31/2020  
DC License No. #GA2002063  
Expires 2/28/2020  
MD License No. #33217  
Expires 4/16/2021

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## SCOPE OF WORK

### CLIENT

Borrego Solar Systems, Inc.

### INTENDED USERS

Borrego Solar Systems, Inc. and Kendall County Municipal Planning Commission. Other intended users may include the client's legal and accounting site development professionals.

### INTENDED USE

The intended use of our opinions and conclusions is to assist the client in addressing local concerns regarding a solar farm's potential impact on surrounding property values, in addition to addressing the required criteria for obtaining approvals for these proposed solar energy uses, such as minimizing the impact on adjacent property values. 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 report is to address local concerns regarding a solar farm use having a perceived impact on surrounding property values, and provide a consulting report that can be submitted to municipal planning departments for the purposes of addressing the required criteria for obtaining approvals for proposed solar energy sites.

### EFFECTIVE DATE

May 1, 2018

### DATE OF REPORT

May 2, 2018

### 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.

We have not previously performed services involving the properties that are the subject of this report for the current client within the three-year period immediately preceding acceptance of this assignment.

## INSPECTION

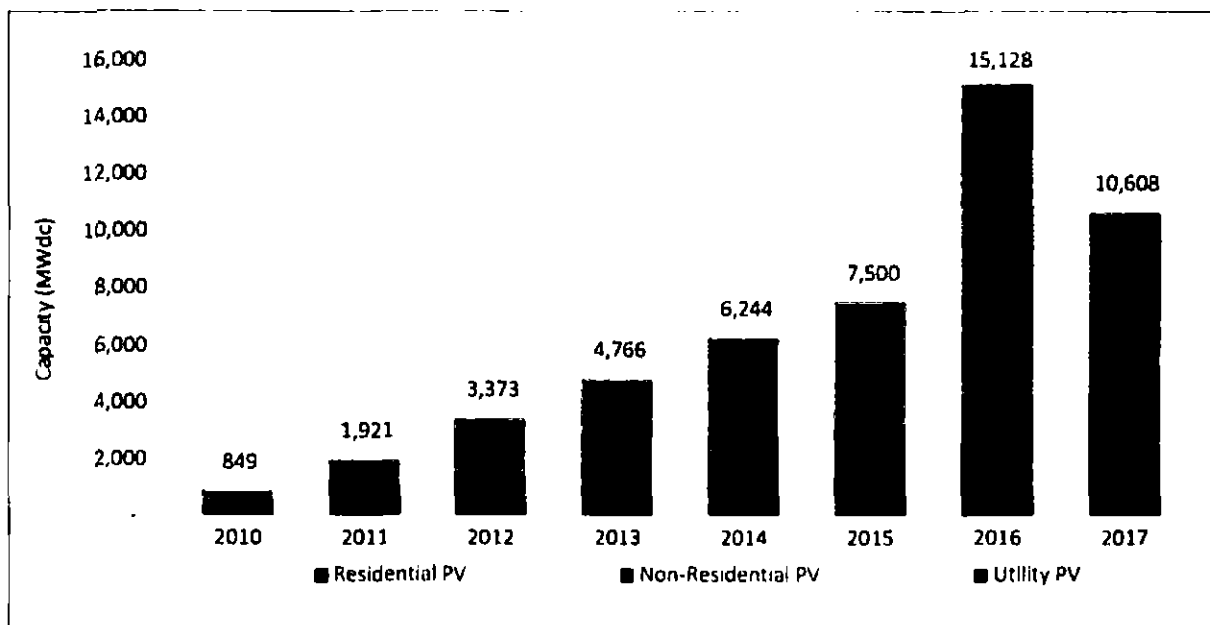
Patricia L. McGarr performed an on-site inspection of the exterior of the proposed solar farm use that is the subject of this impact study on April 27, 2018. The inspection was conducted via public rights of way.

Patricia L. McGarr, Andrew R. Lines, Martin D. Broerman and Sonia K. Singh have viewed the exterior of all comparable data referenced in this report in person, via photographs, or aerial imagery.

## OVERVIEW OF SOLAR DEVELOPMENT

Photovoltaic (PV) cell installations, commonly known as solar cells, 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. A majority of these solar farm installations come from larger-scale solar farm developments for utility purposes. The charts below portray the increases of the solar installations in the US as a whole, on an annual basis, historically, courtesy of Solar Energy Industries Association (SEIA) and GTM Research.

**U.S. Annual PV Installations, 2010 - 2017**



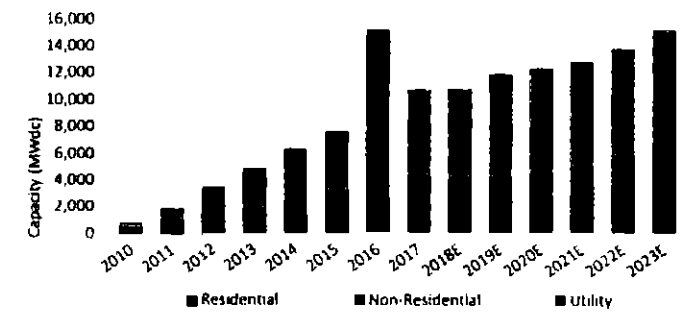
The year 2017 was a transitional year for the solar market. Residential and utility PV both saw installations fall on an annual basis for the first time since 2010, marking a "reset" year for both segments. Meanwhile, the non-residential PV segment was the only market to experience growth in 2017. For residential PV, the downturn in 2017 stems from segment-wide customer acquisition challenges that are constraining growth across most major state markets. Amidst other variables such as loss of state incentives, and competitive landscape trends, there are concerns about the relationship between increasing customer penetration and low installation growth as the pool of attractive early-adopter customers grows increasingly thin in certain markets. While the relationship between market penetration and growth does not fully explain the market downturn, industry experts believe it is increasingly becoming a factor in constraining growth amongst major state markets.

Meanwhile, the year-over-year downturn for utility PV in 2017 was largely expected, due to the massive influx of projects trying to leverage the 30% federal Investment Tax Credit (ITC) in 2016. However, uncertainty surrounding the Section 201 tariffs caused many projects to be shelved in 2017, while other cancellations and interconnection delays resulted in many projects spilling over into 2018.

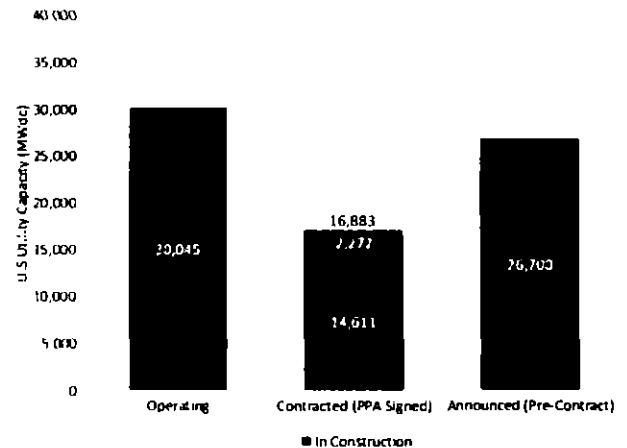
Both closing regulatory windows, and the realization of a robust community-solar pipeline, drove substantial growth in non-residential solar in 2017. This is the second consecutive year for such growth after the space essentially remained flat from 2012-2015.

The pipeline for Utility PV, as of year-end 2017 includes capacity of 43,583 combined from contracted and under construction as well as announced but pre-contract sources, as seen below. This new capacity represents a 45% increase over current operational capacity.

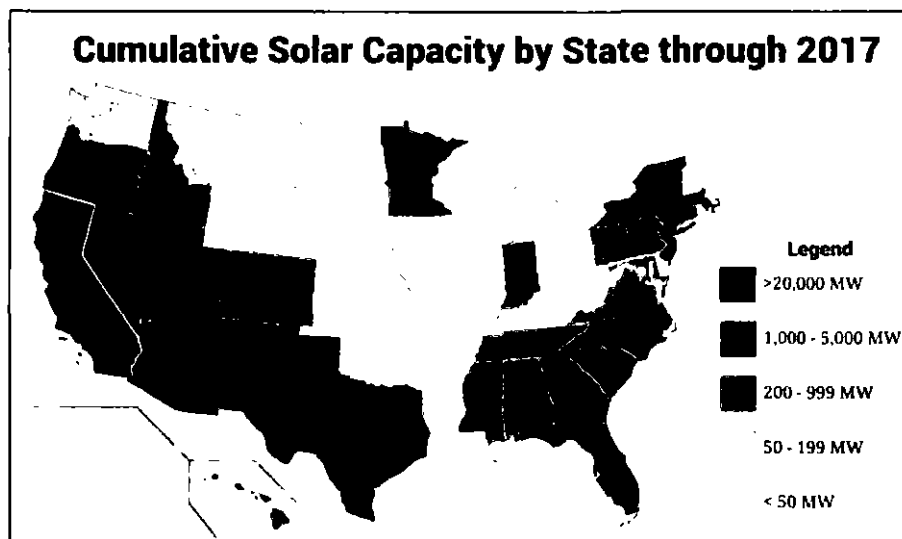
**U.S. Utility PV Pipeline (Year End 2017)**



**U.S. PV Installation Forecast, 2010 – 2023E**



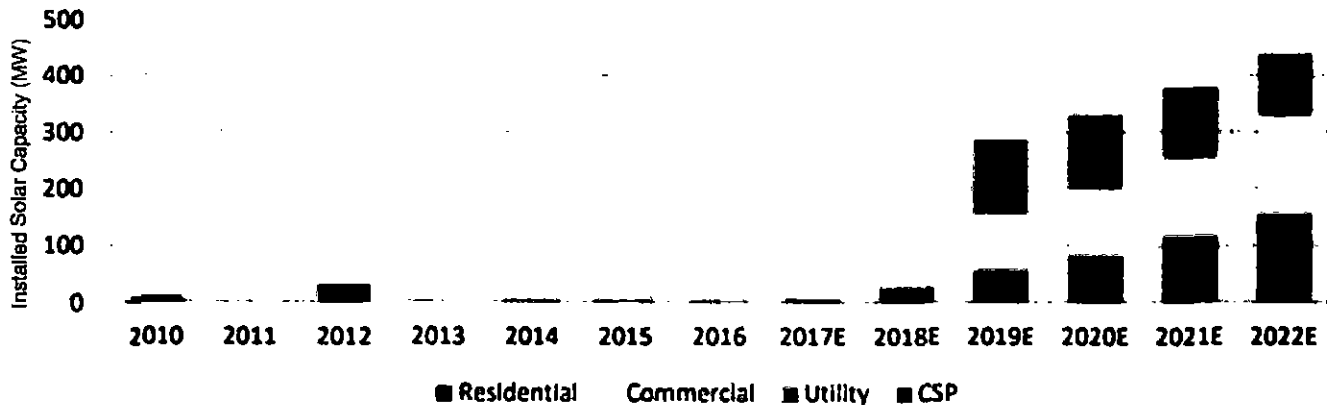
Nearly 250,000 Americans work in the solar industry. The cost to install solar panels has dropped nationally by 70% since 2010, which has been one cause that led to the increase in installations. The map below portrays solar capacity by state.





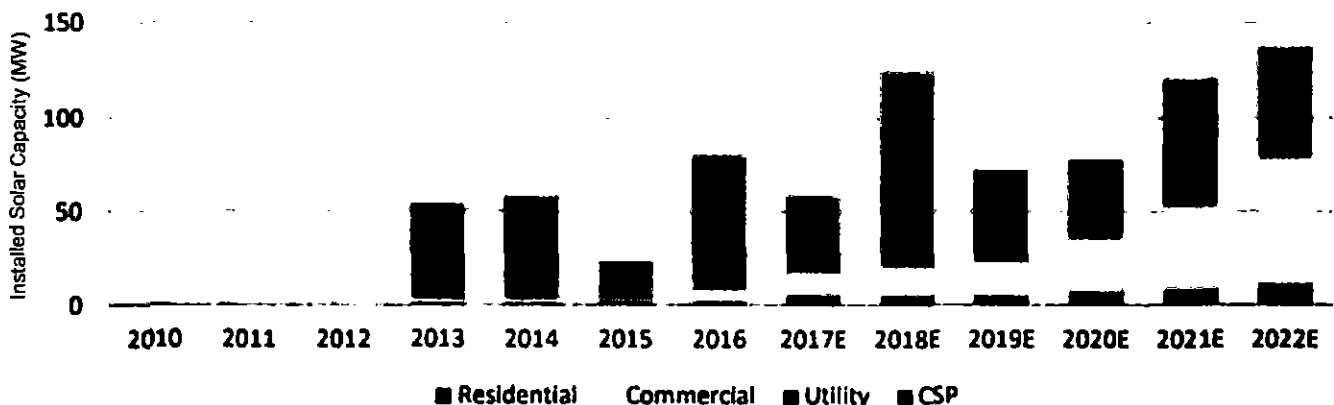
Illinois has recently picked up investment in solar installations. According to the SEIA, there was \$230.62 million invested in solar as of year-end 2017 and \$27.52 million invested in 2017 alone, reflecting nearly a 50% increase in annual investment in comparison to 2016. Illinois was ranked 41<sup>st</sup> in the nation by the SEIA in 2017. Although, Illinois is near the bottom of states with solar production, it ranked 20<sup>th</sup> in solar jobs in 2017.

### Illinois Annual Solar Installations



The state of Indiana has clearly seen a significant uptick in solar investments. According to the Solar Energy Industries Association (SEIA), \$438.09 million invested in solar as of year-end 2017 and \$79.75 million invested in 2017 alone. The increase in solar investments is due to the falling costs of installations. According to the SEIA, solar prices have declined by 52% over the past five years in the state. Currently, solar energy powers 32,000 Indiana homes with 275.6 MW of solar installed. Indiana ranks in the middle of the pack comparatively to other states, at 27<sup>th</sup>.

### Indiana Annual Solar Installations



IDENTIFICATION AND DESCRIPTION OF THE PROPOSED SUBJECT USES

The proposed solar farm use is to be located just outside of the Village of Newark, in Big Grove Township, Kendall County, Illinois. The photovoltaic (PV) solar farm use will have a capacity of 2.488 MW DC (megawatts direct current) and 2 MW AC (megawatts alternating current). The anticipated power output of the project is estimated to be enough to power approximately 300 to 400 single-family homes. The power generated from the solar energy system will be interconnected with the existing site electrical system in accordance with the applicable electric code and Ameren requirements.

The proposed Newark solar farm site consists of an agricultural land parcel, south of Newark Road and directly east of the Village of Newark.

The proposed solar farm site is currently in unincorporated Kendall County and is zoned under the County's authority. The site is zoned in an agricultural district.

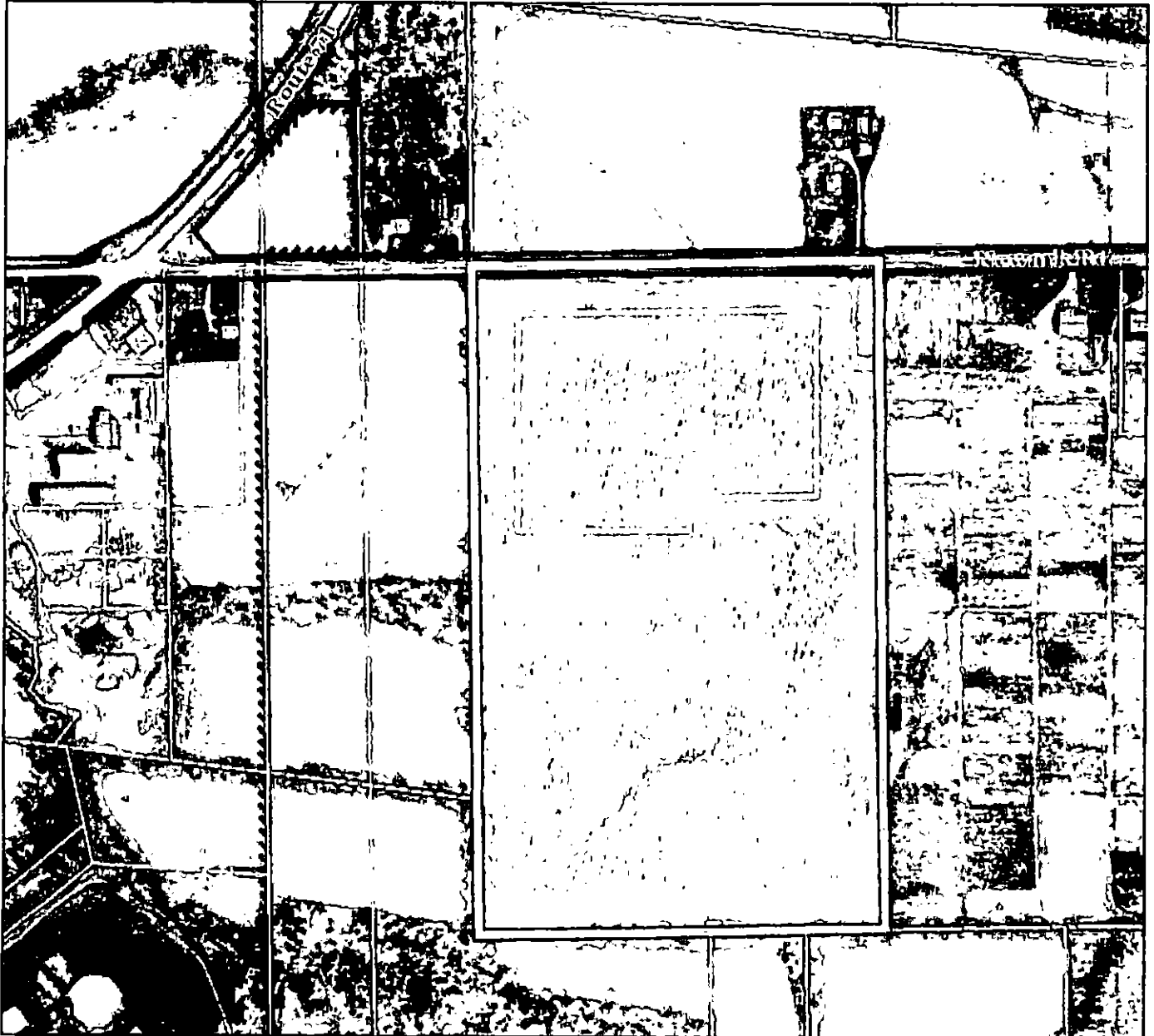
The proposed Newark site is approximately 0.8 miles from the center of the Village of Newark, and 650 feet east of the municipal boundary.

The subject site is identified by PIN number 07-05-400-003 (outlined in yellow on page 17). Total area of the site is approximately 60 acres. However, it is important to note that only the northern 23 acres will be used for the proposed solar farm use. This site is located on the south side of Newark Road at the address of 16400 Newark Road, and is located approximately 1,150 feet from Illinois Route 71.

The proposed solar farm use will be developed in compliance with the Kendall County's Zoning Ordinance, including proper panel height, setback requirements, and screening requirements.

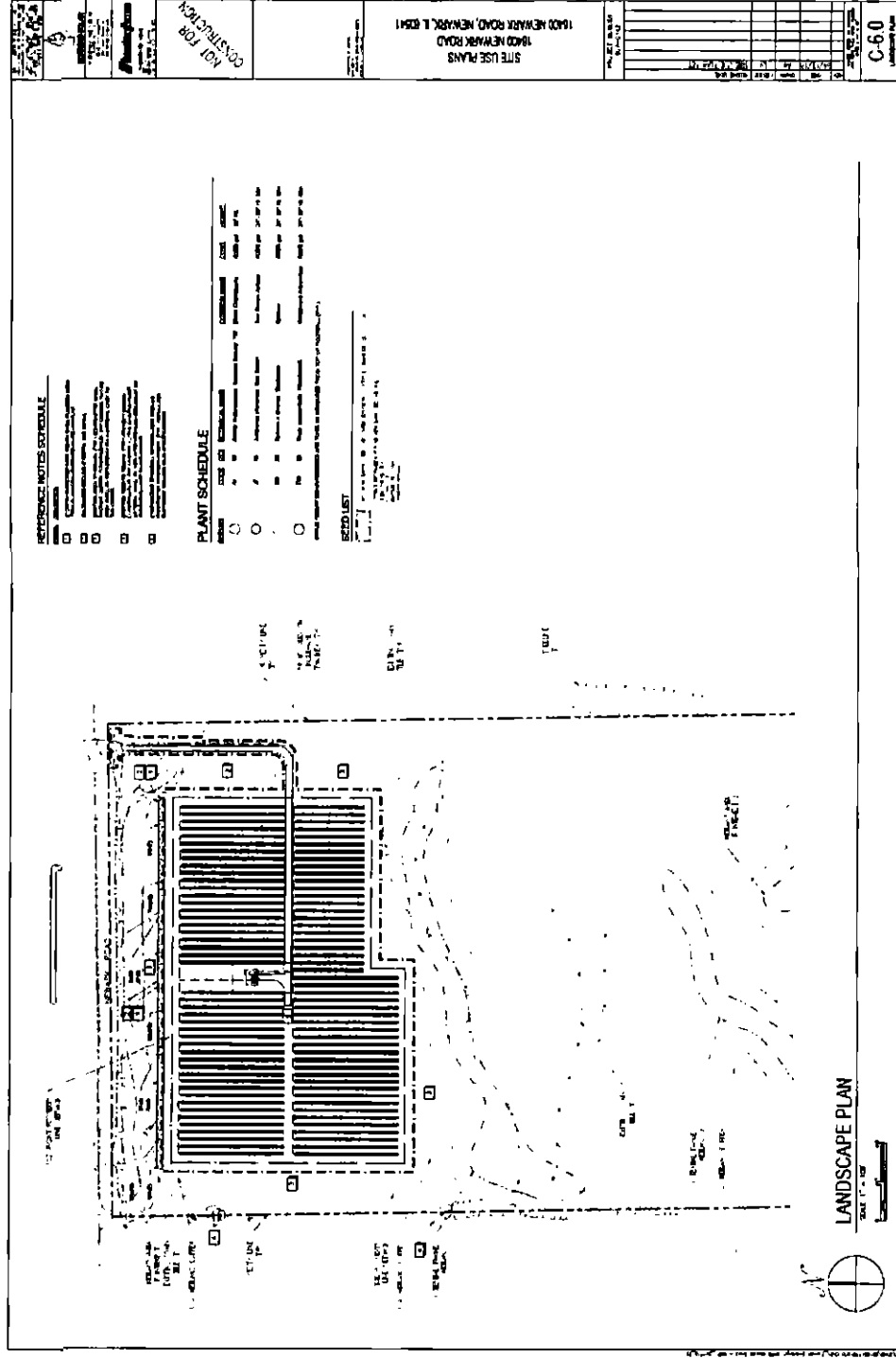
The solar farm will take approximately 4 to 6 months to construct. After construction is completed, maintenance will take place about five times a year. The site does not require any municipal water, sewer, or other services of that nature.

According to the Landscape Plan provided by the client, Borrego Solar Systems, Inc., the project is proposed to have landscape screening including shrubbery along the northern border of the area that will be utilized for the solar panels, as seen on page 17. Additionally, there will be a 150-foot front set back from the property line along Newark Road and 50-foot side setbacks.



*Proposed Newark Road Solar Farm Site  
(Location of solar panels outlined in blue as approximated by CohnReznick, and entire parcel outlined in yellow)*

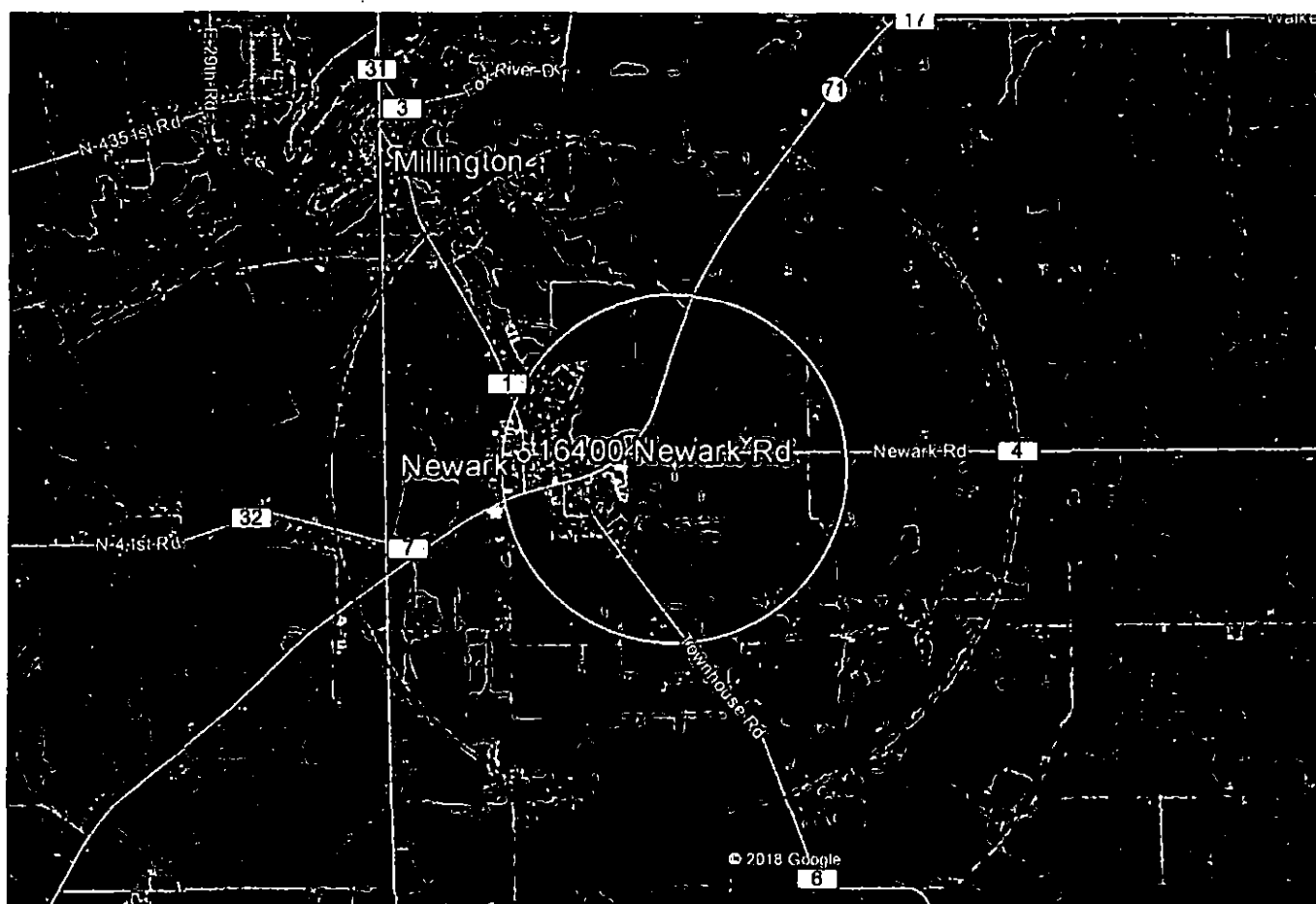
PROPOSED NEWARK ROAD SOLAR FARM LANDSCAPE PLAN



## DESCRIPTION OF THE SURROUNDING AREA

The proposed Newark solar farm use will be situated just outside of the Village of Newark, in Kendall County, Illinois. Properties within a 1-mile radius are primarily utilized for agricultural purposes, except for the Village of Newark which consists mainly of residential homes with some commercial and light industrial buildings. Between the 1- and 2-mile radii from the proposed solar farm use, there are only agricultural uses, with some supporting homesteads.

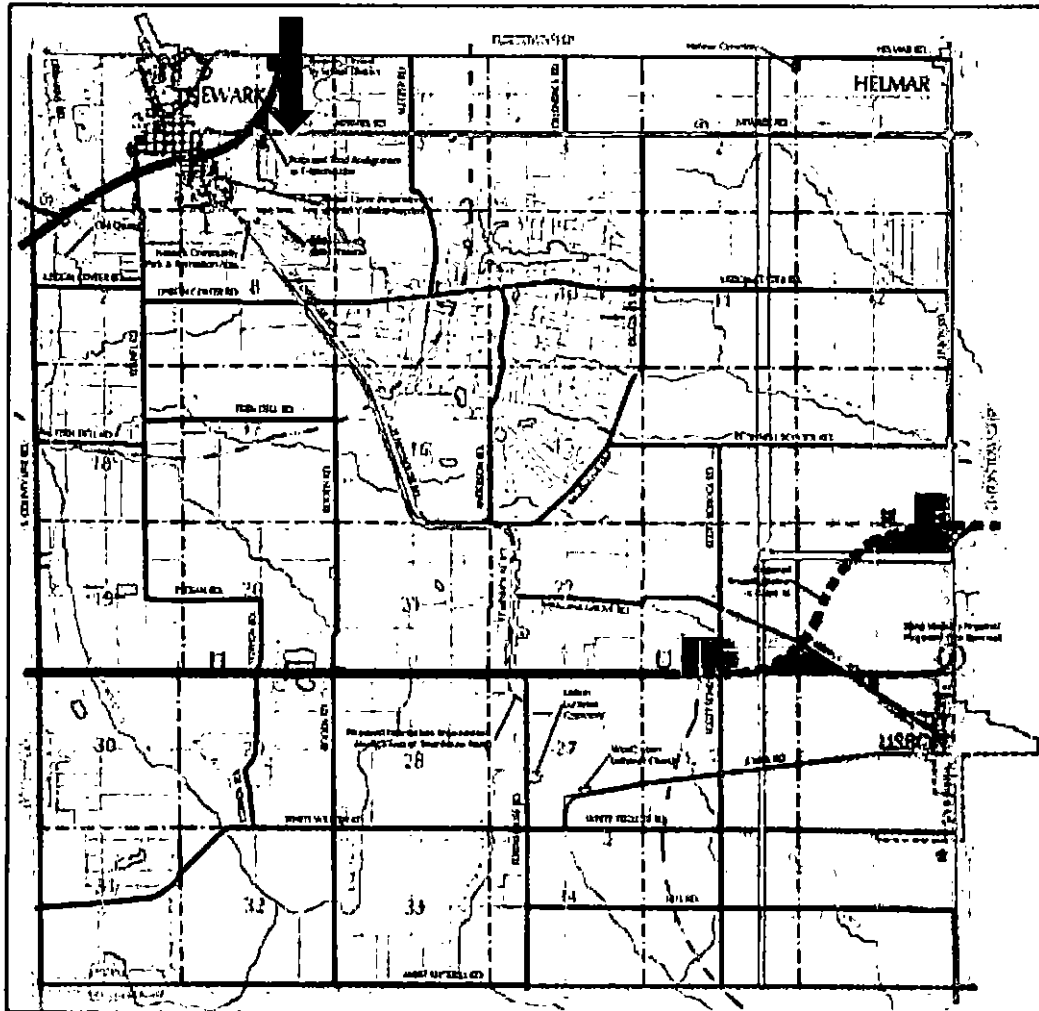
The exhibit below presents the surrounding uses in a 1- mile (yellow circle) and 2-mile radius (red circle) mentioned previously, and shows the rural nature of this area.



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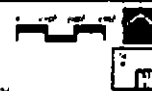
## BIG GROVE TOWNSHIP FUTURE LAND USE PLAN



### LEGEND

- |   |                           |                             |
|---|---------------------------|-----------------------------|
| Planned Rural Residential (max 600 ft x 300 ft)                       | Utility Right-Of-Way      | County Line                 |
| Suburban Residential/Contiguous Growth Area (max 1,000 ft x 1,000 ft) | Arterial Road             | Municipal Boundary          |
| Commercial  | Major Collector Road      | Municipal Planning Boundary |
| Public/Institutional  | Minor Collector Road      | Creek                       |
| Public Open Space   | Scenic Route              |                             |
| Private Open Space  | Proposed Road Improvement |                             |
| Agricultural  |                           |                             |

Scale 1:10,000

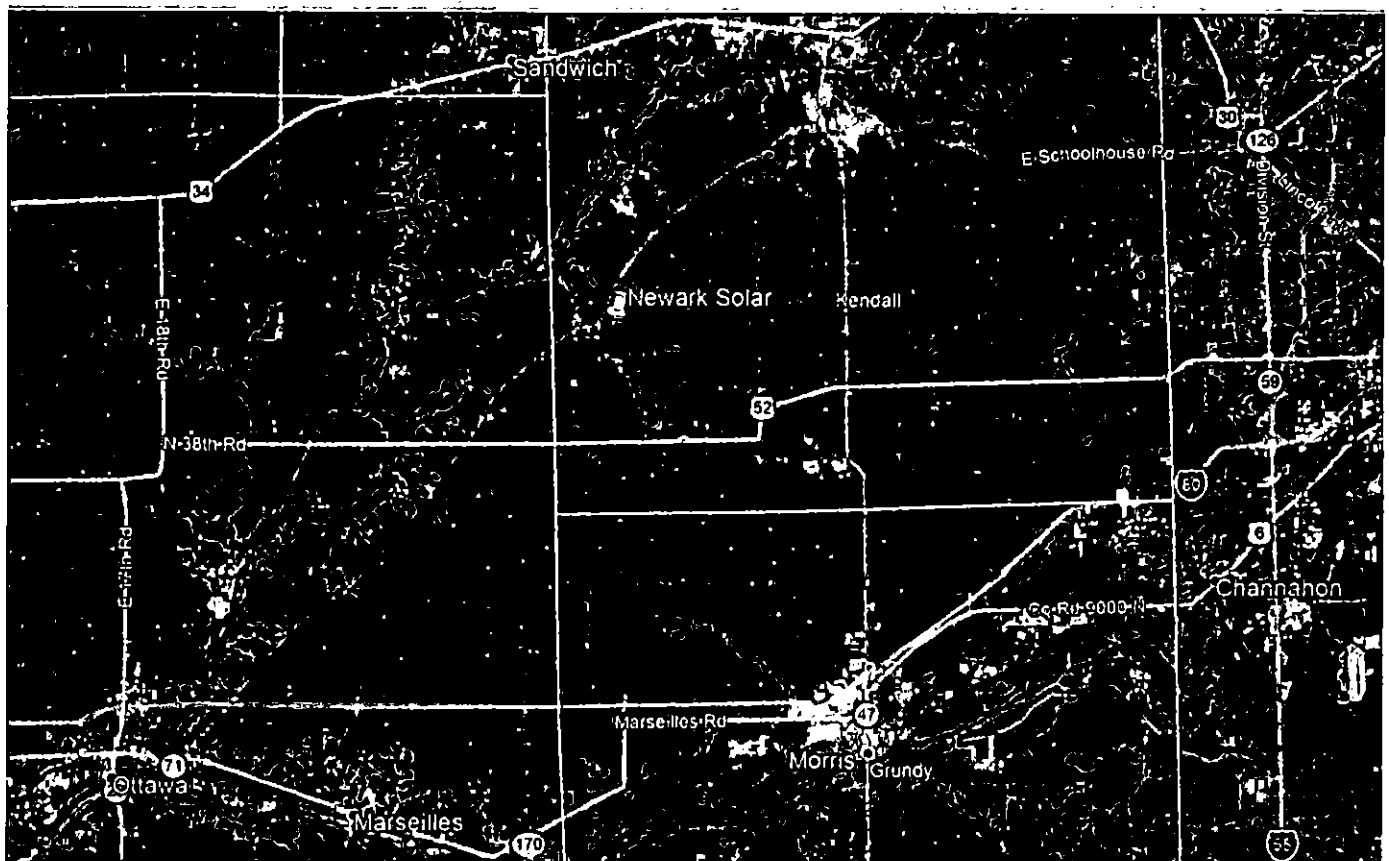


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## TRAFFIC PATTERNS AND CONNECTIVITY

The proposed solar farm site is located to the east of the Village of Newark. A major arterial near the proposed solar farm site is Illinois Route 71, which is located less than half a mile to the west. Illinois Route 71 runs 66 miles long in a southwest to northeast direction from Hennepin to Oswego. The nearest interstate to the proposed solar farm site is Interstate 80, which is located approximately 12 miles southeast of the proposed site. The surrounding area is depicted in the map below.



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**DEMOGRAPHIC FACTORS**

Demographic data is presented next, as compiled by ESRI, which indicates a community in Newark and the surrounding area that is increasing slightly in size.

<b>DEMOGRAPHIC PROFILE</b>			
	<b>Big Grove Twp</b>	<b>Kendall County</b>	<b>Illinois</b>
<b>Population</b>			
<b>2022 Projection</b>	1,687	132,853	13,137,919
<b>2017 Estimate</b>	1,659	123,322	13,027,812
<b>2010 Census</b>	1,647	114,736	12,830,632
<b>Growth 2017 - 2022</b>	1.69%	7.73%	0.85%
<b>Growth 2010 - 2017</b>	0.73%	7.48%	1.54%
<b>Households</b>			
<b>2022 Projection</b>	632	43,806	4,956,307
<b>2017 Estimate</b>	621	40,724	4,915,377
<b>2010 Census</b>	616	38,022	4,836,972
<b>Growth 2017 - 2022</b>	1.77%	7.57%	0.83%
<b>Growth 2010 - 2017</b>	0.81%	7.11%	1.62%
<b>Owner Occupied</b>	74.1%	83.4%	64.8%
<b>Renter Occupied</b>	25.9%	16.6%	35.2%
<b>2017 Avg Household Income</b>	\$79,923	\$104,139	\$59,409
<b>2017 Med Household Income</b>	\$68,418	\$87,551	\$84,983

As shown in the table above, the current population in the Big Grove Township comprises approximately 1.35% of Kendall County. The population in the Big Grove Township has remained very stable and is anticipated to increase moderately over the next five years. The median household income within Big Grove Township is lower than Kendall County, and Illinois as a whole.



## ILLINOIS AGRICULTURE MARKET

Agriculture is a major component of Illinois' economy. From the latest 2012 Census of Agricultural, Illinois agriculture ranks second nationwide in soybean production, second in corn, and fourth in hogs and pigs, and also ranks within the top fifteen states for winter wheat, oats, and grain sorghum. Approximately 26.7 million acres are operated as farmland in Illinois, which is about 74 percent of the state's land area.

Diversity in soil types allows farmers to grow many well-known crops and lesser known specialty crops including alfalfa, amaranth, apples, bell peppers, blueberries, broccoli, buckwheat, Christmas trees, clover, cucumbers, ginseng, grain sorghum, grass seed, horseradish, pumpkins, sod, tomatoes and numerous others.

The total number of farm operators in 2017 was approximately 71,000. This is down 1.6 percent from the prior year of 72,200 operators. According to the Illinois Department of Agriculture (IDOA), the average farm in the state in 2017 currently contains 375 acres, an increase of 1.4 percent from the prior year's average of 370 acres.

Through 2016, planted acres of soybeans continued to increase, although planted acres of corn and wheat have been decreasing over the past decade. According to the National Agricultural Statistics Service (NASS) 2016 Annual Report, Illinois ranked second among all states in corn and soybean production. Production of corn for grain during 2017 totaled 2.20 billion bushels, down 2.65 percent from what was produced in 2016. The total area harvested was 10.95 million acres, averaging 201 bushels per acre for the 2017 corn yield. Soybean production in 2017 was 611.9 million bushels, up 3.2 percent from 2016. The soybean yield in 2016 was 58 bushels per acre, which is down slightly from last year's yield by 1 bushel. We note that the production demonstrated by the Illinois farms has historically exceeded national averages. Although, according to the USDA, crop production in Illinois from 2015 to 2016 saw an uptick; however, is experiencing a decline as of the past year, as noted in the following exhibits.

### ILLINOIS CROP PRODUCTION: Corn for Grain

Year	2015	Change: 2015-2016	2016	Change: 2016-2017	2017
Harvested Acres	11,500,000	-0.4%	11,450,000	-4.4%	10,950,000
Yield (Bu/Acres)	175	12.6%	197	2.0%	201
Production (Bu)	2,012,500,000	12.1%	2,255,650,000	-2.4%	2,200,950,000
Price per Unit	\$3.69 Bu/Acre	-6.5%	\$3.45 Bu/Acre	-2.9%	\$3.35 Bu/Acre
Value of Production	\$ 7,426,126,000	4.8%	\$ 7,781,993,000	-5.3%	\$ 7,373,183,000

### ILLINOIS CROP PRODUCTION: Soybeans

Year	2015	Change: 2015-2016	2016	Change: 2016-2017	2017
Harvested Acres	9,720,000	3.4%	10,050,000	5.0%	10,550,000
Yield (Bu/Acres)	56	5.4%	59	-1.7%	58
Production (Bu)	544,320,000	8.9%	592,950,000	3.2%	611,900,000
Price per Unit	\$9.19 Bu/Acre	7.2%	\$9.85 Bu/Acre	-2.5%	\$9.60 Bu/Acre
Value of Production	\$ 5,002,301,000	16.8%	\$ 5,840,558,000	0.6%	\$ 5,874,240,000

In 2016, Illinois reared more than 5.35 million hogs and pigs, generating over 1.214 billion dollars in revenue. Illinois ranked 4th nationally in 2012 for hog and pig production, and has historically remained within the top 5.

In 2012, Illinois also was ranked 12th in nursery, greenhouse, floriculture and sod; 13th in horses, ponies, mules, burros, and donkeys; 14th in tobacco; 18th in cattle and calves; and 19th in Christmas trees and short rotation woody crops.

Agriculture is also an important industry for Kendall County, where the proposed solar farm will be constructed. According to the 2012 Census of Agriculture, the top two crops produced are corn for grain and soybeans. Relevant statistics are presented in the table below. A vast majority of the county is utilized for farming purposes and a majority of farmland is used as cropland. The 2017 Census of Agriculture was not available for review as of the date of this report.

County	Kendall
Number of Farms	364
Average Size of Farms (Acres)	356
Land In Farms (Acres)	129,741
Total County Size (Acres)	206,080
Percent Farmed	62.96%
Crop Sales	\$86,361,000 84%
Livestock Sales	\$16,684,000 16%
Market Value of Products Sold	\$103,045,000

## SOIL PRODUCTIVITY

### BULLETIN 810 - AVERAGE CROP, PASTURE, AND FORESTRY PRODUCTIVITY RATINGS FOR ILLINOIS SOILS

According to Bulletin 810, prepared by the Office of Research at the College Of Agricultural, Consumer, and Environmental Sciences at the University Of Illinois, "Crop yield trends are important for economic decision makers, as well as for farm owners and operators, because yield performance may influence decisions about levels of agricultural inputs and adoption of new technologies. Furthermore, information about past, present, and future crop yields may be used as a basis for land valuation, crop insurance, and other related farm business."<sup>1</sup> Our conversations with market participants and local farmers have also indicated that crop yields directly influence unit prices of farmland in Illinois since higher soil productivity allows farmers to produce more crops.

Bulletin 810 defines soil productivity as "the capacity of soil to grow crops or plants under specified environmental conditions and is influenced by soil properties, climatic conditions, and management inputs." Crop yields have been the basis for establishing a soil productivity index, and is used by County Assessors, farmers, and market participants in Illinois. As noted, these yields are influenced by a variety of different factors including environmental traits and management inputs. Tracked climate and soil qualities have been proven by researchers to directly explain fluctuations in crop yields, especially those qualities that relate to moisture-holding capacity.

While crop yields are integral part in assessing soil qualities, it is not an appropriate metric to rely on because "yields fluctuate from year to year, and absolute yields mean little when comparing different crops. Productivity indices provide a single scale on which soils may be rated according to their suitability for several major crops under specified levels of management such as an average level."<sup>1</sup> The productivity index, therefore, not crop yields, is best suited for applications in land appraisal and land-use planning.

Information regarding soil productivity that is in use today was taken from the 1970 Circular 1016 *Productivity of Illinois Soils* (Odell and Oschwald, 1970) and has been updated periodically since its initial publication. However, as technology and farming practices have improved over the years, these two factors caused upward trends in crop yield. Past publications have presented soil productivity indices under the assumption of basic level of management; though, this is no longer referenced by Illinois farmers since they have begun to adopt more profitable management styles with improved technology over the years. Examples of new technology include the development and increased use of pesticides, fertilizers, improved crop varieties, reduced row width, and more efficient machinery. To capture the soil productivity for farmland considering improvements, *Bulletin 810* utilized mean 10-year crop yields as of 2000 for Illinois soils under an average level of management, which estimates that half of Illinois farmers obtain a lower crop yield and half obtain a higher crop yield. The Bulletin also states

<sup>1</sup> Olson, K. R., Lang, J.M., Garcia-Paredes, J.D., Majchrzak, R.N., Hadley, C.I., Woolery, M.E., and Rejesus, R.M. *Bulletin 810: Average Crop, Pasture, and Forestry Productivity Ratings for Illinois Soils*. Office of Research, College of Agricultural, Consumer and Environmental Sciences, University of Illinois, Aug. 2008.

characteristics that would be necessary to be categorized as average management level, such as no irrigation and timely weed and insect control.

While the actual crop yields have improved since the time of publication in August 2000, the disparities between lands with differing soil productivity indices have changed little. Therefore, using soil productivity indices is still an effective method to gauge the value of the land and *Bulletin 810* is still used by County Assessors and farmers today.

Soil PIs do not have units since they represent a relationship between average management PIs and yields of each of the major crops. They are not an accurate representation of the absolute measure of productivity capacity. For example, a soil PI of 120 is not the same as 120 bushels per acre of corn. Rather, soil that has an average PI of 120 "should produce approximately 147 bushels of corn, 47 bushels of soybeans, 56 bushels of wheat, 73 bushels of oats, 104 bushels of grain sorghum, 4.4 tons of grass-legume hay per acre, and 5.3 tons of alfalfa hay per acre under an average level of management."<sup>1</sup> Under the average level of management, the baseline Muscatune silt loam soil type has an average PI of 130, which sets the top of the range for the soil productivity index for average management. **For soils in Illinois, average soil PI ranges from 43 to 130.** The exhibit below illustrates this concept at varying crop yields at average level of management.

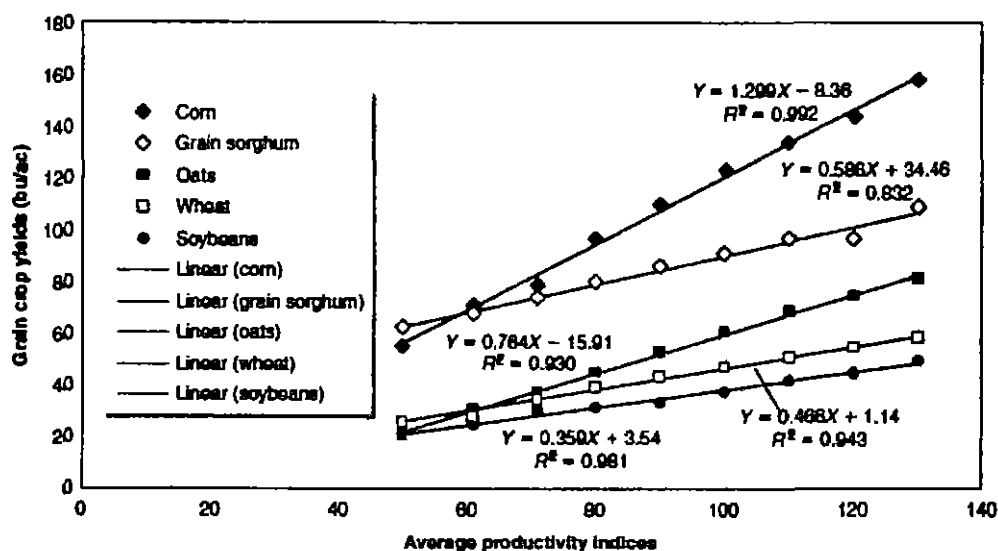


Figure 4A. Relationship between ten-year average crop yields and productivity indices under an average level of management.

**BULLETIN 811 - OPTIMUM CROP PRODUCTIVITY RATINGS FOR ILLINOIS SOILS**

As a supplement to *Bulletin 810*, the Office of Research at the College Of Agricultural, Consumer, and Environmental Sciences at the University Of Illinois prepared *Bulletin 811*, which illustrates differences in crop yields at an optimum level of management. Optimum level of management is defined as "the crop yields that were achieved by the top 16% of farmers in Illinois in the 1990s."<sup>2</sup> These yields were achievable with inputs required for maximum profit with 1990's technology. Under the optimum level of management, the baseline Muscatine silt loam soil type has an optimum PI of 147, which sets the top of the range for the soil productivity index for optimum management. **For soils in Illinois, optimum soil PI ranges from 47 to 147.** Soil productivity ratings under optimum management for Illinois farmland on this scale are as follows.

Soil Rating	PI Range	Soil Class
Excellent	133-147	Class A
Good	117-132	Class B
Average	100-116	Class C
Fair	Less than 100	

We have relied on Surety Maps to determine the optimum PI for the comparable sales used in our analysis. The Surety Map is based on data supplied by the U.S. Department of Agriculture (USDA) and Natural Resources Conservation Service (NRCS). This data is the same data analyzed above in *Bulletin 811*, reflecting "optimum level of management".

The Surety Map displayed on page 29 reflects the subject site as having a productivity index of 128.1, indicating a Good soil rating.

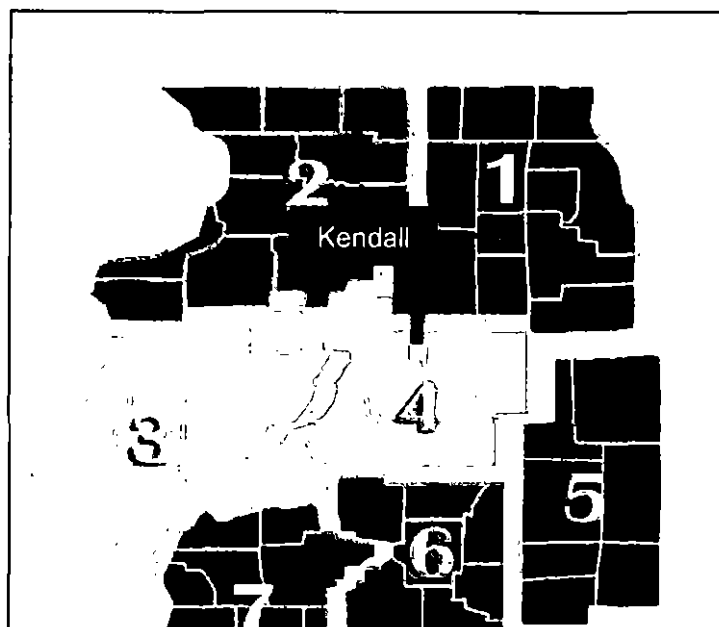
<sup>2</sup> Olson, K. R., Lang, J.M. *Bulletin 811: Optimum Crop Productivity Ratings for Illinois Soils*. Office of Research, College of Agricultural, Consumer and Environmental Sciences, University of Illinois, Aug. 2008.

## AREA TRENDS

The 2017 Illinois Farmland Values and Lease Trends Report prepared by the Illinois Society of Professional Farm Managers and Rural Appraisers summarizes trends for various regions in Illinois. The subject is located in Region 1 as designated by the report (see map below), located in the northeast portion of the state, which includes Kendall County. According to the report, the median reported sale prices for Excellent farmland has reflected a decrease over the past three years. Farmers were the main land buyers of excellent soil land. Supply was tight and there were 9 sales still over \$12,000 per acre. Good farmland in Region 1 reflected a stable value trend over the same period as well. Buyers were mostly farmers but investors were picking up opportunities in a wide price range. The trends can be seen in the chart below.

**Median Values of Reported Sales by Year and Class: Region 1**

Year	Excellent		Good		Average	
2010	\$8,600	-	\$5,750	-	\$5,000	-
2011	\$9,714	13%	\$8,650	50%	\$6,190	24%
2012	\$10,429	7%	\$9,475	10%	\$7,643	23%
2013	\$12,995	25%	\$9,050	-4%	\$9,250	21%
2014	\$12,765	-2%	\$9,003	-1%	\$8,150	-12%
2015	\$11,550	-10%	\$9,082	1%	\$7,076	-13%
2016	\$10,700	-7%	\$9,200	1%	\$5,800	-18%



Between soil classes, average unit prices increase 10% to 59% based on soil productivity, which clearly reflects the importance the market places on soil quality.

**Difference Between Average Unit Price Between Soil  
Classes By Year: Region 1**

Year	Excellent to Good	Good to Average
2010	50%	15%
2011	12%	40%
2012	10%	24%
2013	44%	-2%
2014	42%	10%
2015	27%	28%
2016	16%	59%
Average 2010-2016	29%	25%

The report states that crop input costs have increased dramatically over the past several years. With seed corn costs as high as \$130 per acre, farmers are willing to pay a premium for better soils when compared to lesser quality farm lands that have basically the same per acre cost of production.

We also conducted a review of 73 farmland sales retrieved from the Land Sales Bulletin for Kendall County. These sales occurred beginning January 2015 through the current date of value and are all 20 acres or greater. Partial interest transfers and sales between related parties were excluded since these do not reflect market transactions, or prices that a willing buyer and willing seller would agree upon. In our review, we have consistently seen that one of the largest contributors to unit sale prices is soil quality, and this was reflected in our analysis of average unit sale prices for each class of soil for the county.

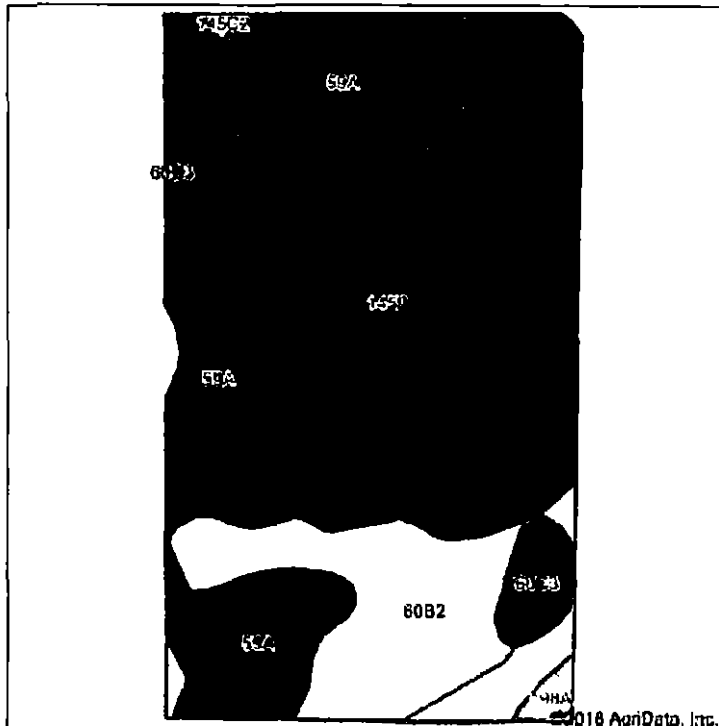
**Median Values of Reported Sales by Class: Kendall County (2015 - Present)**

Soil Quality Rating:	Excellent	Good	Average	Fair
Kendall County (Per Acre)	\$10,173	\$8,741	\$8,092	\$9,330
Difference between Class	16.4%	8.0%	-13.3%	-

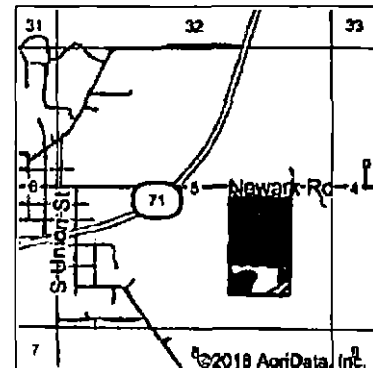
Further analysis also indicated that unit sale prices are generally not influenced by size within the 30- to 100-acre range. Above this range a slight discount may be observed, as the pool of buyers decreases since fewer buyers have the ability to secure large capital outlays to fund acquisitions. It is important to note that there were only two sales of fair soil quality, which sold for \$ 7,477 per acre and \$11,184 per acre. Overall, Good quality soil tracts' land values are anticipated to continue to remain stable into the remainder of 2018.

The proposed Newark Road solar site's soil map is presented on the following page, which reflects the site as having Good quality soils (Crop Productivity Index for Optimum Management, weighted average of 128.1).

## Soils Map



Soil data provided by USDA and NRCS.



State: Illinois  
 County: Kendall  
 Location: 5-35N-6E  
 Township: Big Grove  
 Acres: 54.28  
 Date: 4/27/2018

Map Provided By

**surety**  
 C Agronomy, Inc. 2018  
 www.Agronomy.com



## Area Symbol: IL093, Soil Area Version: 14

Code	Soil Description	Acres	Percent of Total	IL State Productivity Index Legend	Subsoil rating a	Corn Bu/A	Soybeans Bu/A	Wheat Bu/A	Oats Bu/A	Sorghum b Bu/A	Alfalfa d hay, T/A	Grass-legume e hay, T/A	Crop productivity index for optimum management
**1453	Soybrook s.l. loam, 2 to 5 percent slopes	31.08	57.3%		FAV	**177	**58	**68	**94	0	**8.21	0.00	**131
59A	Urbon s.l. loam, 0 to 2 percent slopes	11.98	22.0%		FAV	188	53	74	104	0	0.00	5.64	138
**60B2	La Rose s.l. loam, 2 to 5 percent slopes, eroded	7.68	14.1%		FAV	**151	**49	**60	**70	0	**4.77	0.00	**112
**60C3	La Rose clay loam, 5 to 10 percent slopes, severely eroded	1.54	2.8%		FAV	**137	**45	**54	**64	0	**4.32	0.00	**101
**60C2	La Rose s.l. loam, 5 to 10 percent slopes, eroded	1.48	2.7%		FAV	**148	**48	**59	**69	0	**4.67	0.00	**110
198A	Elburn s.l. loam, 0 to 2 percent slopes	0.43	0.8%		FAV	197	81	74	94	0	0.00	5.77	143
**145C2	Soybrook s.l. loam, 5 to 10 percent slopes, eroded	0.13	0.2%		FAV	**168	**53	**64	**88	0	**5.83	0.00	**123
Weighted Average						174	55.2	67.6	91.3	0	4.49	1.29	128.1

**Disclaimer:** This report is limited to the intended use, intended users (Borrego Solar Systems, Inc. and Kendall County Zoning Board), and purpose stated within. No part of this report may be reproduced or modified in any form, or by any means, without the prior written permission of CohnReznick, LLP.

**COHNREZNICK**



MARKET ANALYSIS OF THE IMPACT ON VALUE FROM SOLAR FARMS

METHODOLOGY

According to Randall Bell, PhD, MAI, author of *Real Estate Damages*, published by the Appraisal Institute in 2016, the paired sales analysis is an effective method of determining if there is a detrimental impact on surrounding properties.

*"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 measurable and consistent difference 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>3</sup>

As an approved method, this technique 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>4</sup> The text further describes that this method is theoretically sound when an abundance of market data is available for analysis. It may be impractical for those property types that do not frequently sell, such as commercial properties. *The Appraisal of Real Estate* states that the lack of data can reduce the strength of the analysis, and that "an adjustment derived from a single pair of sales is not necessarily indicative" of the value of the single difference.

We also utilized a Trend Analysis to adjust our comparable Control Sales to a constant valuation date, the date of the Test Area sale. According to the *Dictionary of Real Estate Appraisal*, 6th edition, a Trend Analysis is defined as:

*"A quantitative technique used to identify and measure trends in the sale prices of comparable properties; useful when sales data on highly comparable properties is lacking but a broad database on properties with less similar characteristics is available. Market sensitivity is investigated by testing various factors that influence sale prices."*

<sup>3</sup> Bell, Randall, PhD, MAI. *Real Estate Damages*. Third ed. Chicago, IL: Appraisal Institute, 2016.  
<sup>4</sup> *The Appraisal of Real Estate 14<sup>th</sup> Edition*. Chicago, IL: Appraisal Institute, 2013.

We utilized a Trend Analysis to adjust the Control Sales for market conditions, as this is a variable that affects all properties similarly and can be adjusted for. Given the reduced amount of sale data and sales with highly similar characteristics to the Test Area sales, we concluded that adjusting only for market conditions is reasonable as this is explainable by a linear regression analysis, a form of Trend Analysis. This involved plotting our Control Sales unit sale prices against their sale dates and plotting a "Line of Best Fit" to explain market condition trends. We extracted a monthly appreciation rate for each set of Control Sales and applied that to each respective grouping to normalize the sales to a common valuation date.

## PUBLISHED STUDIES

We have also considered various studies that consider the impact of solar farms on surrounding property values. The studies range from survey-based formal research to less formal analyses.

The studies 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. The incentives made the solar photovoltaic (PV) industry economically attractive for many consumers and as a result set the conditions for the boom. A significant amount of farmland trades have been to solar developers, transaction prices for these deals were reported to be between 30 to 50 percent above normal agricultural land prices in 2016. Clean Energy Trends, a publication developed by Clean Edge, reported in 2013 that investments in new capacity of solar farms increased from approximately \$3 billion USD in 2000 to approximately \$91 billion USD in 2013, just short of the record of \$92 billion USD in 2011. Solar PV installations increased from 31 Gigawatts (GW) in 2012 to a record of approximately 37 GW in 2013. As a result, annual solar PV installations exceed annual wind installations for the first time. Before 2011, annual wind installations were double annual solar PV installations.

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>5</sup> The Solar Foundation measured that the solar industry employed 22 percent more workers in the period from 2013 to 2015. 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. According to Duke University's Center on Globalization, Governance, and Competitiveness ("DUCGCC"), study of solar projects in North Carolina indicated despite the 80% tax abatement, the taxable value of a parcel with a solar farm is significantly larger than the taxable value of that same land under agricultural zoning.

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<sup>5</sup> "Electromagnetic Field and Public Health." Media Centre (2013): 1-4. World Health Organization.

Beyond creating jobs, solar farms are also benefiting the overall long-term agricultural health of the community. As explained by ReThink Energy, a conservation foundation, a typical solar farm has more than two-thirds of the field left open and uncovered by solar panels. This unused land, and also all the land beneath the solar panels, will be left to repair 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 in and year out.

A solar farm can greatly increase the value of land, offering 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>6</sup>

Studies have also noted that the installation of utility-scale solar on a property has no negative impact on its value. According to a report titled "Mapleton Solar Impact Study" from Kirkland Appraisals, LLC, conducted in Murfreesboro, North Carolina in September 2017, the study found that the proposed solar farm had no impact to adjacent vacant residential, agricultural land, or residential homes. The adjoining land for the paired data sales analysis in the report was primarily low density residential and agricultural uses, although there was one case where the solar farm adjoined to two dense subdivisions of homes.

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<sup>6</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>

## ADJACENT PROPERTY VALUES IMPACT STUDY

We have studied established solar farms in the Midwest specifically, because of the way that regional soil conditions, climate, and topography contribute to property values and their potential for impact on property values. In total, we identified five solar farms to study with comparable sales where generally the only difference was the attribute under study: proximity to a solar farm.

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 development of the solar farm were excluded from further analysis. Adjoining properties that sold during construction were not considered for a paired sales analysis because the impact of being proximate to the solar farm could not be differentiated from the impact of the construction. Adjoining 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 price levels. The adjoining properties that remained after exclusions were considered for a paired sale analysis.

The difference in price is considered to be the impact of the proximity to the solar farm. Two types of paired sales analyses were considered based on the availability of data:

- Comparing sales of adjoining properties prior to the announcement of the solar farm to sales of adjoining properties after the completion of the solar farm.
- Comparing sales of adjoining properties after the completion of the solar farm to sales of comparable properties that are proximate to solar farms, but not adjoining to them.

We have considered only one type of paired sales analysis, which was comparing sales of properties proximate to the solar farm (Control Area) to the sales of adjoining properties after the completion of the solar farm project (Test Area). We were unable to compare any sales of adjoining properties that occurred prior to the announcement of the solar farm with the sales of the adjoining properties after the completion of the solar farm project as there were no adjoining properties that sold prior to the announcement of the solar farm, within a reasonable period of time.

We have found Control Area sales data through the Northern Illinois Multiple Listing Service (MLS), Zillow, the Indiana Gateway Sales Disclosure Form website, and the Land Sales Bulletin for Illinois and Indiana, and verified these sales through county records, conversations with brokers, and the County Assessor's office. It is important to note that these Control Area Sales are not adjoining to any solar farm, nor do they have a view of a solar farm from the property. Therefore, the announcement nor the completion of the solar farm use could not have impacted the sales price of these properties.

To make direct comparisons, the sale price of the Control Area sales will need to be adjusted for market conditions to a common date. In this analysis, the common date is the date of the Adjoining Property Sale after the completion of the solar farm. After adjustment, any measurable difference between the sale prices would be indicative of a possible price impact of the solar farm, if any. A summary of the analyses completed for each of solar farms studied is presented on the following pages is. Detail of these analyses is retained within our workfile.

**SOLAR FARM 1: GRAND RIDGE SOLAR FARM, STREATOR, IL**

**Location:** Grand Ridge Solar Farm in LaSalle County, IL

**Coordinates:** Latitude 41.143421, Longitude -88.758340

**PINs:** 34-22-100-000, 34-22-101-000

**Total Land Size:** 160 acres

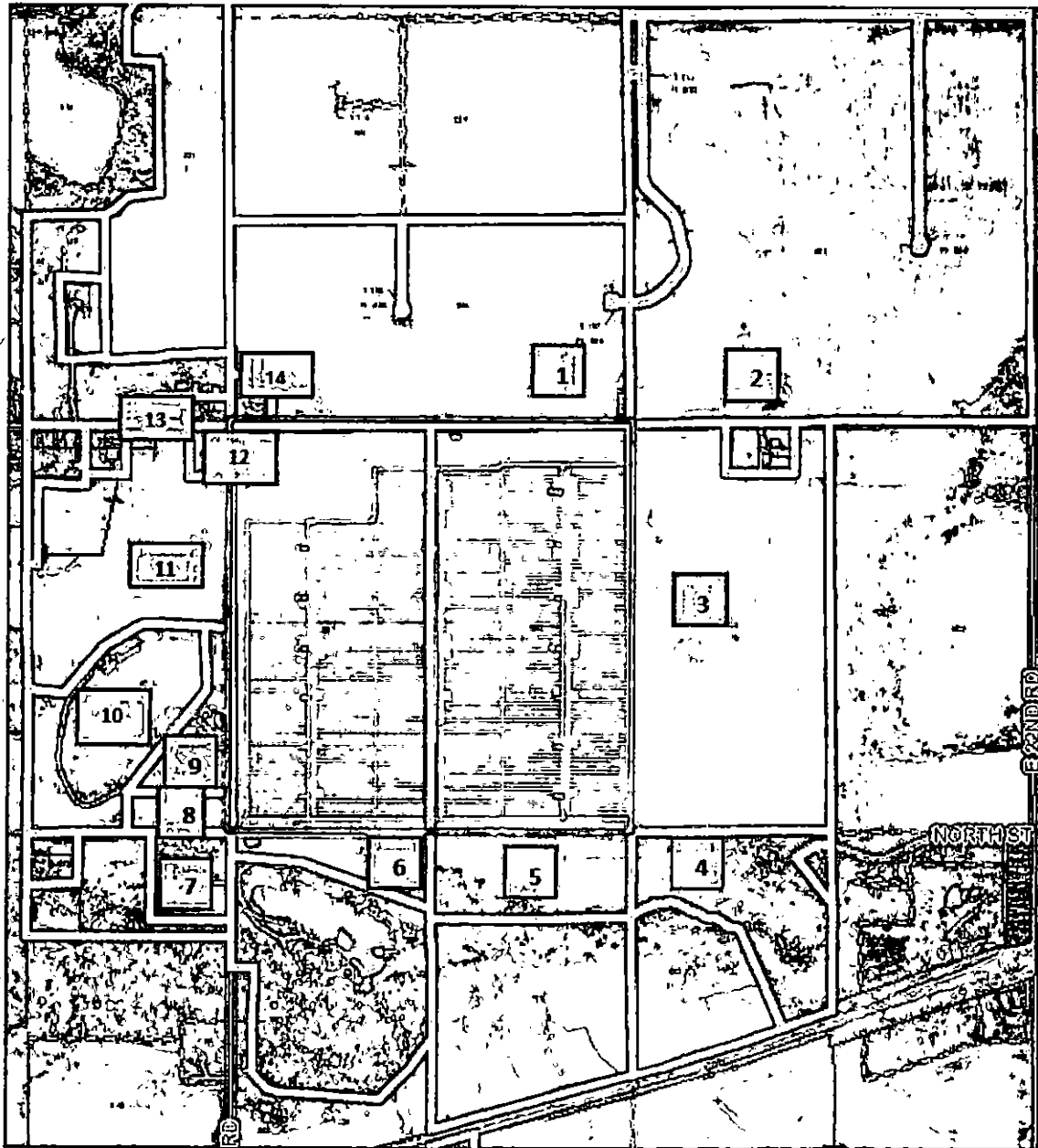
**Date Project Announced:** December 31, 2010

**Date Project Completed:** July 2012

**Output:** 23 MW DC (20 MW AC)

This solar farm is located at the southeast corner at the intersection of 21<sup>st</sup> and 15<sup>th</sup> roads. The solar farm was developed by Invenenergy and is considered to be one of the largest renewable energy centers in the world. It includes a 210 MW wind farm, 20 MW AC project solar and 1.5 MW advanced-energy storage project all in one location. The solar facility consists of twenty individual 1 MW solar inverters and over 155,000 photovoltaic modules supplied by General Electric. The solar farm has vacant agricultural land to the north and east, and natural vegetation to the east and south. The solar plant is located adjacent to Invenenergy's wind farm.

**Real Estate Tax Info:** Prior to development of the solar farm, during the period between 2009 and 2011, this 160 acre farm paid real estate taxes of about \$1,500 per 80 acre parcel (\$3,000 per year in total). In the 5 years since the solar farm has been operating, the real estate taxes have increased to about \$1,600 per acre (\$255,000 per year in total). The map on the following page displays the parcels within the solar farm is located (outlined in red). Properties adjoining this parcel are numbered for subsequent analysis.



Solar Farm 1 Adjoining Properties

Adjoining Property 12 (Test Area) was considered for a paired sales analysis, and we analyzed this property as a single-family home use. We analyzed five Control Area single family home sales on similar lot sizes that sold within a reasonable using a time frame from Adjoining Property 12's sale date, and adjusted the Control Area sales for market conditions using a regression analysis to identify the appropriate monthly market conditions adjustment. The result of our analysis for Solar Farm 1 is presented below.

CohnReznick Paired Sale Analysis - Solar Farm 1		
	Potentially Impacted by Solar Farm	Adjusted Median Price Per SF
Control Area Sales (5)	No: Not adjoining solar farm	\$74.35
Adjoining Property 12 (Test Area)	Yes: Solar Farm was completed by the sale date	\$79.90
Difference		7.46%

Noting the relatively small price differential over 7%, it does not appear that Solar Farm 1 impacted the sales price of Adjoining Property 12 in either direction (positive or negative).

**SOLAR FARM 2: PORTAGE SOLAR FARM, PORTAGE TOWNSHIP, IN**

**Location:** Portage Solar Farm in Porter County, IN

**Coordinates:** Latitude 41.333263, Longitude -87.093015

**PIN:** 64-06-19-176-001.000-015

**Recorded Owner:** PLH Inc

**Total Project Size:** 56 AC

**Date Project Announced:** February 2012

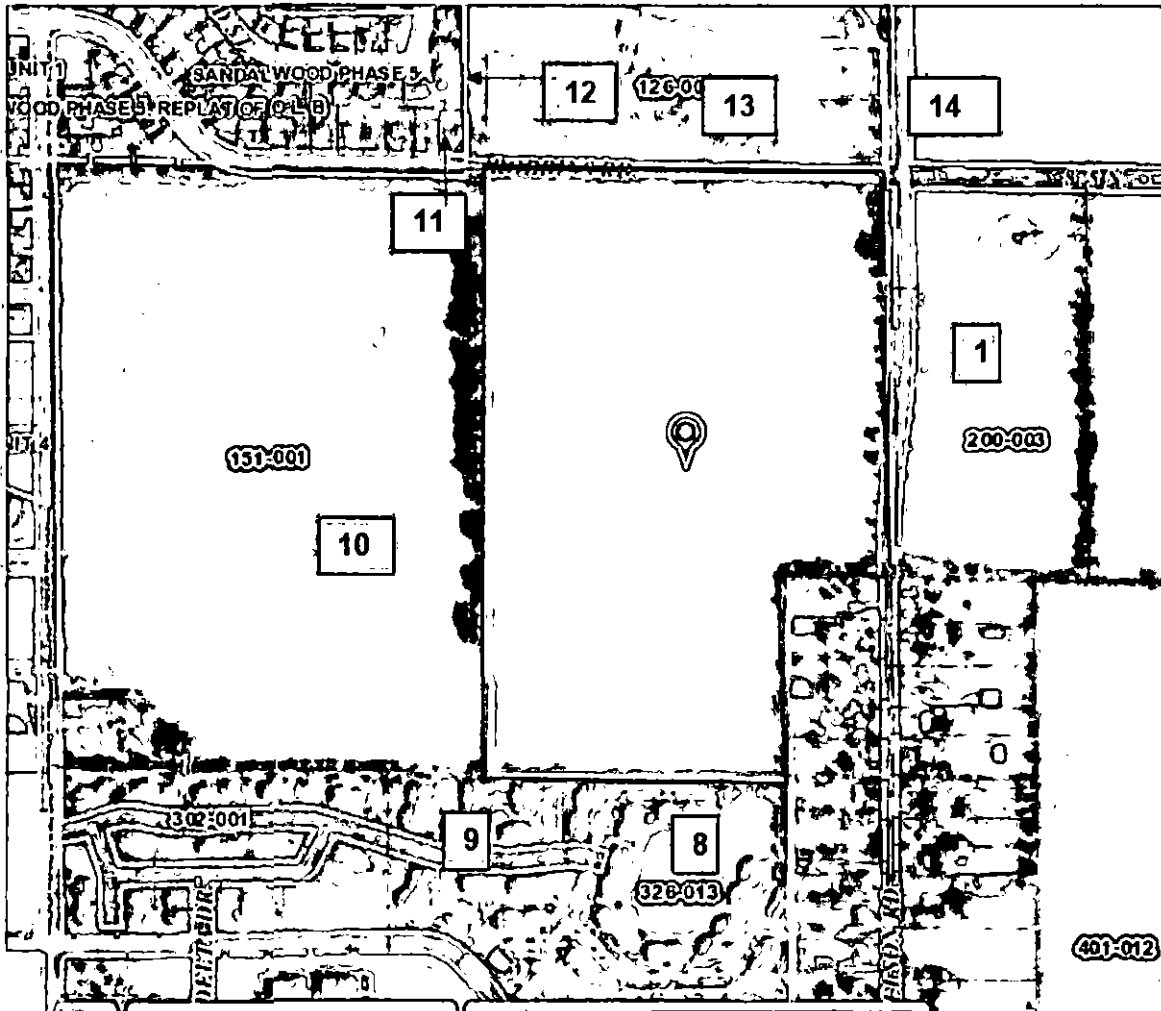
**Date Project Completed:** September 2012

**Output:** 1.5 MW DC (1.96 MW AC)

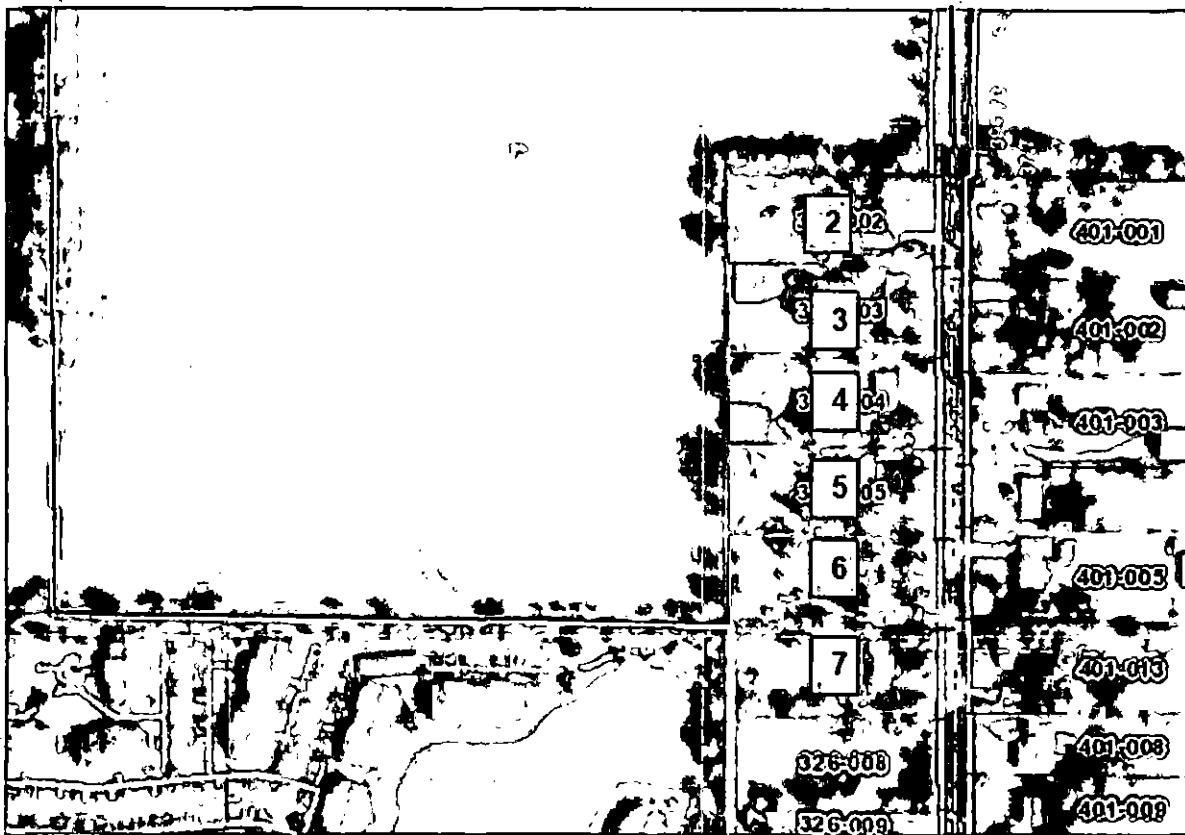
This solar farm is located on the south side of Robbins Road, located just outside the City of Portage. The solar farm was developed by Ecos Energy, who is a subsidiary of Allco Renewable Energy Limited. This solar farm is ground mounted has the capacity for 1.5 Megawatts (MW) of power, which is enough to power 300 homes. This solar farm consists of 7,128 solar modules which are of a fixed tilt installation, and contains three inverters. The solar farm is fenced from adjacent properties by a fence that surrounds all of the solar panels. Natural vegetation borders the western and northern sides of the solar farm.

**Real Estate Tax Info:** The 56 acres of farm land was paying \$1,400 per year in taxes. After the solar farm was developed, only 13 acres (23% of the site) was reassessed and the remaining 43 acres continued to be farmed. The total real estate tax bill increased to \$16,350 per year after the solar farm was built, including both uses on the site. This indicates that the real estate taxes for the solar farm increased from \$25 per acre to \$1,175 per acre after the solar farm was developed. The map on the following page displays the parcels within the solar farm is located (outlined in red). Properties adjoining this parcel are numbered for subsequent analysis.





Solar Farm 2 Adjoining Properties



Solar Farm 2 Adjoining Properties

Adjoining Properties 1 and 7 (Test Areas) were each considered for a paired sales analysis. Adjoining Property 1 was analyzed as homestead/small farm land tract since at the time of purchase the site was used as agricultural land. The buyer bought it as vacant land and subsequently built a home on site. Adjoining Property 7 was analyzed as a single-family home use.

For Adjoining Property 1, we analyzed nine Control Area homestead/small farm land tract sales that sold within a reasonable time frame from Adjoining Property 1's sale date. For Adjoining Property 7, we analyzed seven Control Area single family home sales that sold within a reasonable time frame from Adjoining Property 7's sale date. All Control area sales were adjusted for market conditions using regression analysis to identify the appropriate monthly market conditions adjustment.

The result of our analyses for Solar Farm 2 is presented below.

CohnReznick Paired Sale Analysis - Solar Farm 2		
	Potentially Impacted by Solar Farm	Adjusted Median Price Per Acre
Control Area Sales (9)	No: Not adjoining solar farm	\$7,674
Adjoining Property 1 (Test Area)	Yes: Solar Farm was completed by the sale date	\$8,000
<b>Difference</b>		<b>4.25%</b>

CohnReznick Paired Sale Analysis - Solar Farm 2		
	Potentially Impacted by Solar Farm	Adjusted Median Price Per SF
Control Area Sales (7)	No: Not adjoining solar farm	\$84.27
Adjoining Property 7 (Test Area)	Yes: Solar Farm was completed by the sale date	\$84.35
<b>Difference</b>		<b>0.10%</b>

Noting the relatively small price differential, with both adjacent sales (Adjoining Property 1 or 7) having higher unit sale prices than the Control Area sales, it does not appear that Solar Farm 2 had any negative impact on adjacent property values.

**SOLAR FARM 3: DOMINION INDY SOLAR III, INDIANAPOLIS, IN**

**Location:** Dominion Indy Solar III, in Indianapolis, Marion County, IN

**Coordinates:** Latitude 39.3914.16, Longitude -86.153485

**PIN:** 49-13-13-113-001.000-200

**Recorded Owner:** PLH Inc

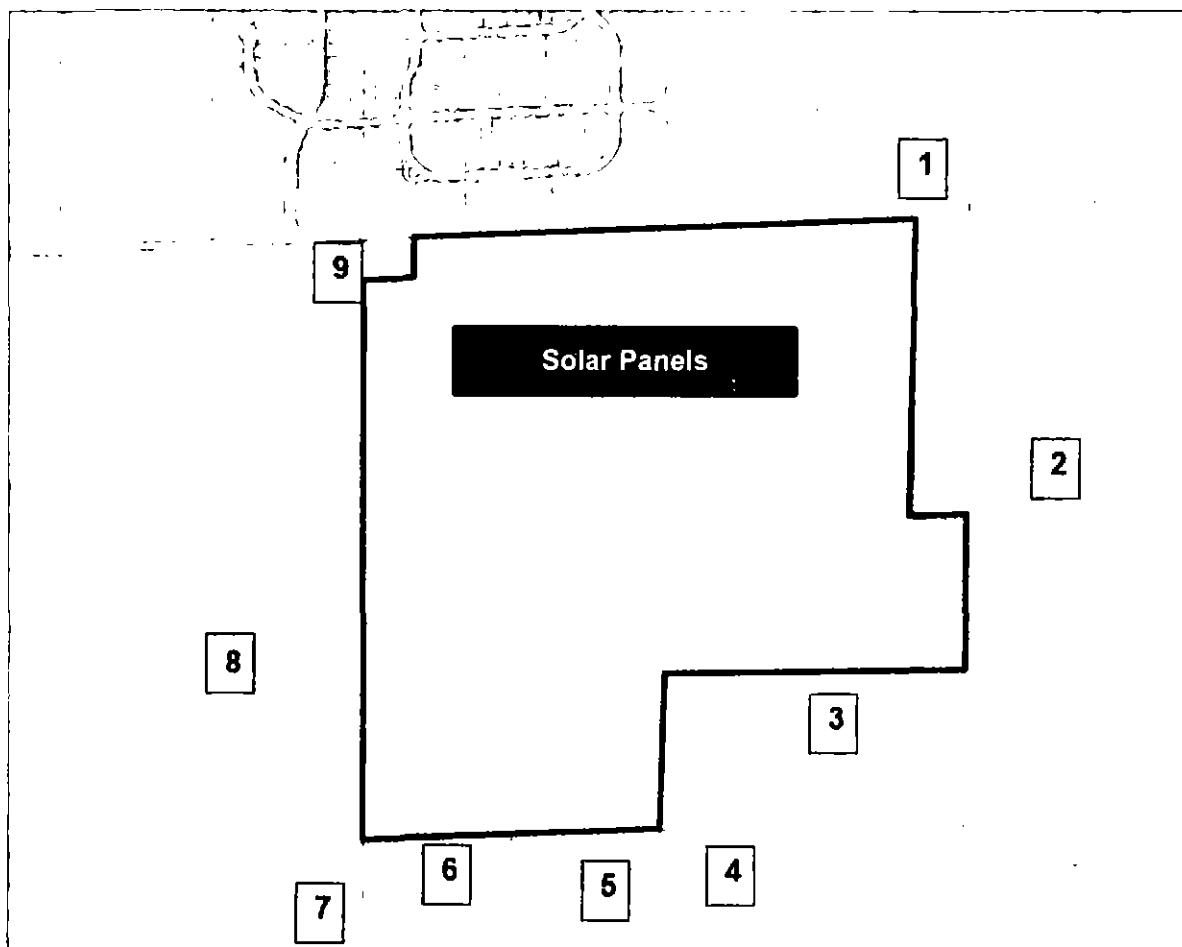
**Total Land Size:** 134 acres

**Date Project Announced:** August 2012

**Date Project Completed:** December 2013

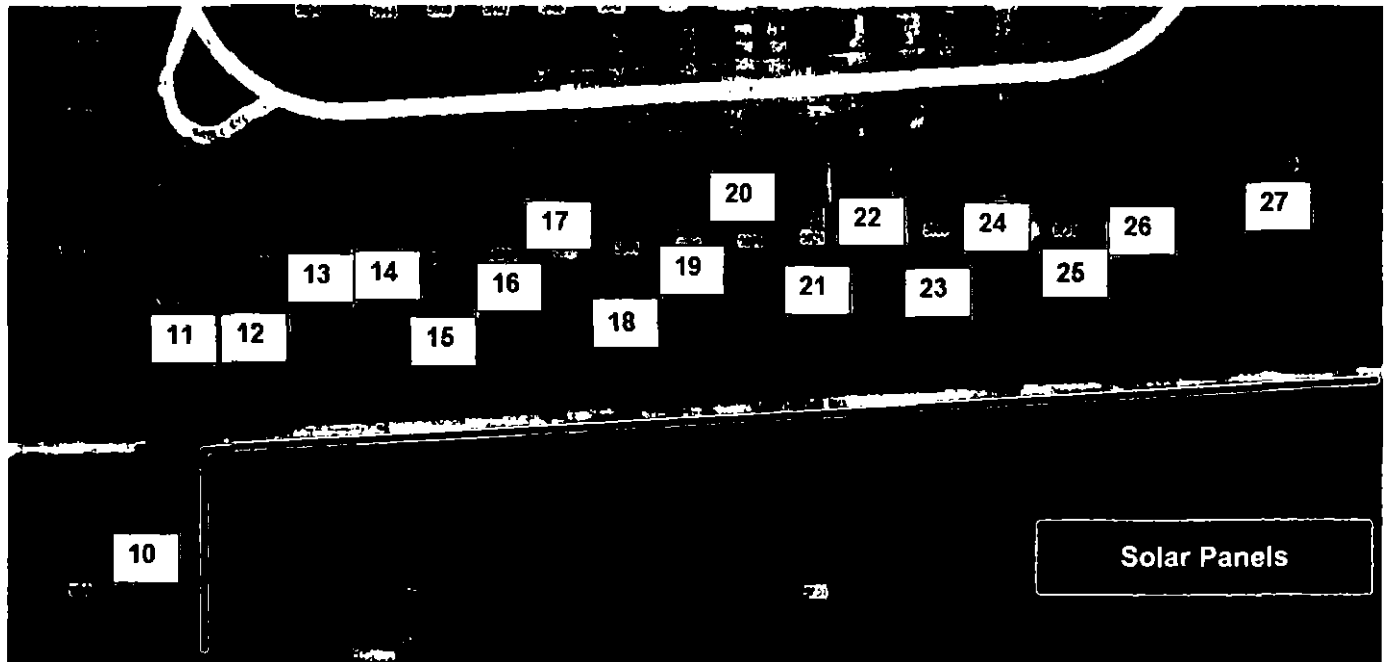
**Output:** 11.9 MW DC (8.6 MW AC)

This solar farm is located on the southern side of West Southport Road, located approximately eight and a half miles from the heart of Indianapolis. The solar farm was developed by Dominion Renewable Energy. This solar farm is ground mounted has the capacity for 11.9 Megawatts (MW) of power. The panels are mounted in a fixed tilt fashion and there are 12 inverters in this solar farm. The solar farm is lined by a chain link fence that surrounds all of the solar panels. Additionally, there are some natural bushes and trees on all sides of the property; this vegetation has been in place since before development of the solar farm. The maps on the following pages display the parcels within the solar farm is located (outlined in blue). Properties adjoining this parcel are numbered for subsequent analysis.



Solar Farm 3 Adjoining Properties

*Adjoining homes in the Crossfield Subdivision*



*Solar Farm 3 Adjoining Properties*

We identified a total of eight adjoining properties that were considered for a paired sale analysis. Adjoining Properties 11, 13, 14, 18, 20, 22, and 24 were analyzed as single-family home uses and separated into Groups 1 and 2 (Test Areas). Adjoining Property 2 (Test Area) was analyzed as agricultural land in Group 3.

Due to the developed nature of Marion County, there were few parcels of agricultural land in Marion County that transacted within a reasonable period around the sale of Adjoining Property 2; we identified and analyzed four Control Area Sales within the county. The Control Area Sales for Adjoining Property 2 are land tracts that were larger than 20 acres and utilized specifically as farmland. We excluded sales between related parties, split transactions, and those with significant improvements.

Control Area sales for Adjoining Property 2 were adjusted for market conditions using both a regression analysis and another trend analysis to identify the appropriate monthly market condition adjustment. Due to the limited nature of large agricultural land sale transactions in Marion County, we analyzed the southern neighboring counties of Hendricks, Morgan, Johnson, Shelby, and Hancock to extract the appropriate monthly market conditions adjustment. Using the sale data published in the *Land Sales Bulletin*, from January 2016 through December 2017, which includes reliable and credible data for analysis, we extracted a monthly rate of change of 0.50%. The results of our analysis for Adjoining Property 2 for Solar Farm 3 is presented on the following page.

CohnReznick Paired Sale Analysis - Solar Farm 3		
	Potentially Impacted by Solar Farm	Adjusted Median Price Per Acre
Control Area Sales (4)	No: Not adjoining solar farm	\$8,091
Group 3 Adjoining Property 2 (Test Area)	Yes: Solar Farm was completed by the sale date	\$8,210
Difference		1.47%

The remaining seven of the Adjoining Properties (Test Areas) were considered for a paired sales analysis and were analyzed as single-family home uses. Due to the similarities of the adjoining properties that were included in our paired sales analysis, we conducted the paired sales analysis in two groupings, grouped around sale dates of the Control Sales, as detailed below.

Group	Adj. Property #	Address	Sale Price	Site Size (AC)	Beds	Baths	Year Built	Square Feet	Sale date	PSF
1	11	5933 SABLE DR	\$ 140,000	0.31	3	1.5	2006	2412	12/9/2015	\$ 58.04
2	13	5921 SABLE DR	\$ 160,000	0.24	4	1.5	2006	2412	9/6/2017	\$ 66.33
2	14	5915 SABLE DR	\$ 147,000	0.23	3	2.5	2009	2028	5/10/2017	\$ 72.49
2	18	5841 SABLE DR	\$ 149,000	0.23	3	2.5	2009	1962	10/3/2017	\$ 75.94
1	20	5829 SABLE DR	\$ 131,750	0.23	4	2.5	2011	2190	12/9/2015	\$ 60.16
1	22	5813 SABLE DR	\$ 127,000	0.23	4	1.5	2005	2080	3/4/2015	\$ 61.06
1	24	5737 SABLE DR	\$ 120,000	0.23	3	2.5	2010	2136	2/3/2014	\$ 56.18

For Group 1, we analyzed eight Control Area sales that sold within a reasonable time frame from the average sale date of the Group 1 Test Area sales. For Group 2, we analyzed a separate grouping of nine Control Area sales that sold within a reasonable time frame from the average sale date of the Group 2 Test Area sales.

Control Area sales in Groups 1 and 2 were adjusted for market conditions using a regression analysis to identify the appropriate monthly market condition adjustment.

The results of our analyses for Groups 1, 2 and 3 for Solar Farm 3 are presented on the following page.

<b>CohnReznick Paired Sale Analysis - Solar Farm 3</b>		
	<b>Potentially Impacted by Solar Farm</b>	<b>Adjusted Median Price Per SF</b>
Control Area Sales (8)	No: Not adjoining solar farm	\$57.84
Group 1 (Test Area)	Yes: Solar Farm was completed by the sale date	\$59.81
<b>Difference</b>		<b>3.40%</b>

<b>CohnReznick Paired Sale Analysis - Solar Farm 3</b>		
	<b>Potentially Impacted by Solar Farm</b>	<b>Adjusted Median Price Per SF</b>
Control Area Sales (9)	No: Not adjoining solar farm	\$71.52
Group 2 (Test Area)	Yes: Solar Farm was completed by the sale date	\$73.47
<b>Difference</b>		<b>2.74%</b>

<b>CohnReznick Paired Sale Analysis - Solar Farm 3</b>		
	<b>Potentially Impacted by Solar Farm</b>	<b>Adjusted Median Price Per Acre</b>
Control Area Sales (4)	No: Not adjoining solar farm	\$8,091
Group 3 Adjoining Property 2 (Test Area)	Yes: Solar Farm was completed by the sale date	\$8,210
<b>Difference</b>		<b>1.47%</b>

Noting the relatively small price differential, in which the Test Area Sales were slightly higher than the median for the Control Areas Sales, it does not appear that Solar Farm 3 had any negative impact on adjoining property values.



**SOLAR FARM 4: IMPA FRANKTON SOLAR FARM, FRANKTON, IN**

**Location:** IMPA Frankton Solar Farm in Madison County, IN

**Coordinates:** Latitude 40.125701; Longitude -85.4626.88

**PIN:** 48-08-06-500-012.001-020

**Recorded Owner:** IMPA

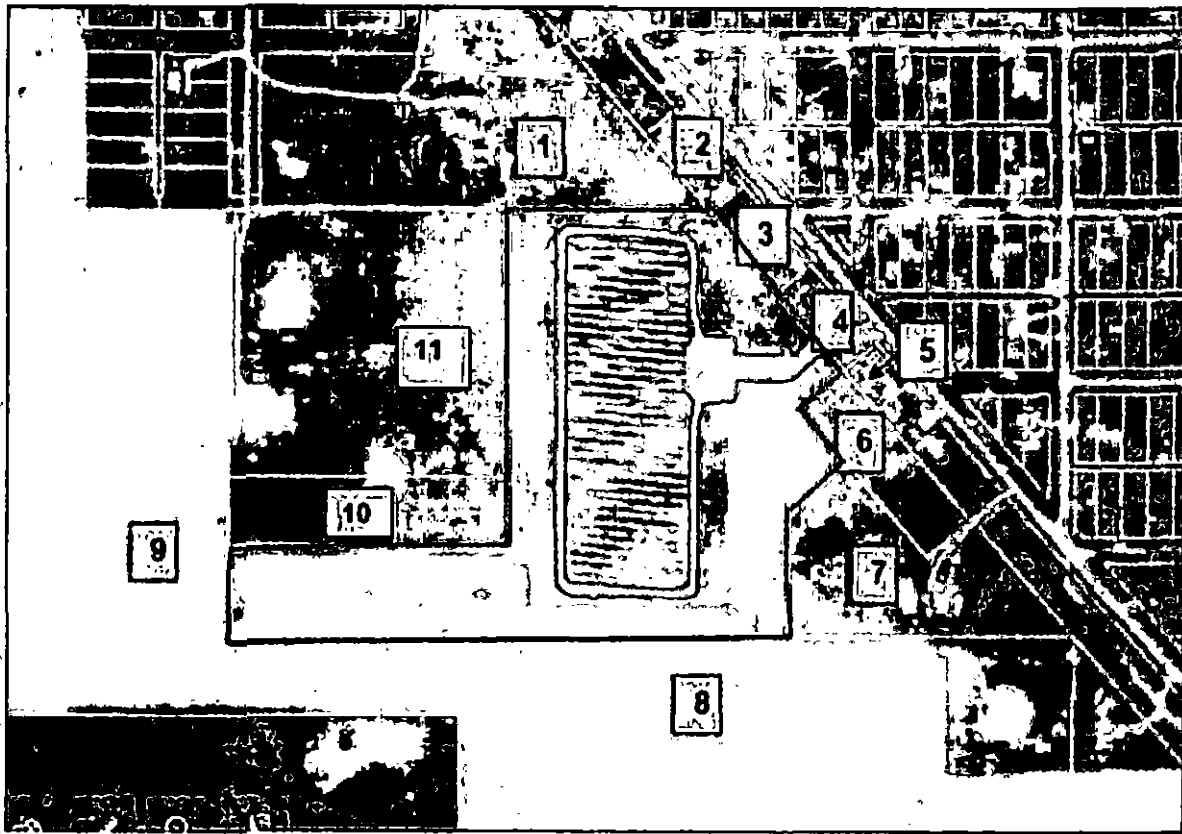
**Total Land Size:** 13 acres

**Date Project Announced:** November 2013

**Date Project Completed:** June 2014

**Output:** 1.426 MW

This solar farm is located on the west side of South Lafayette Street, located in the Town of Frankton. IMPA Frankton Solar Farm was built in 2014 in joint effort by Inovateus Solar and Indian Municipal Power Agency (IMPA). This solar farm has the capacity for 1 MW and its expected annual output is 1,426 MWh (megawatt hours). The solar farm is separated off from their adjacent properties by a 6' fence that surrounds the entirety of the solar panels. From our inspection of the site we note that the driveway to access the panels slopes downward and allows some views of the site. The map on the following page displays the parcels within the solar farm is located (outlined in red). Properties adjoining this parcel are numbered for subsequent analysis.



Solar Farm 4 Adjoining Properties

Adjoining Properties 2 and 7 (Test Areas) were each considered for a paired sales analysis. Adjoining Property 2 was manufactured single family home use. Adjoining Property 7 was analyzed as a single-family home use.

For Adjoining Property 2, we analyzed six Control Area sales that sold within a reasonable time frame from Adjoining Property 2's sale date. For Adjoining Property 7, we analyzed five Control Area sales that sold within a reasonable time frame from Adjoining Property 7's sale date. All Control area sales were adjusted for market conditions using regression analysis to identify the appropriate monthly market conditions adjustment.

The result of our analyses for Solar Farm 4 is presented below.

<b>CohnReznick Paired Sale Analysis - Solar Farm 4</b>		
	<b>Potentially Impacted by Solar Farm</b>	<b>Adjusted Median Price Per SF</b>
Control Area Sales (6)	No: Not adjoining solar farm	\$28.42
Adjoining Property 2 (Test Area)	Yes: Solar Farm was completed by the sale date	\$28.58
<b>Difference</b>		<b>0.56%</b>

<b>CohnReznick Paired Sale Analysis - Solar Farm 4</b>		
	<b>Potentially Impacted by Solar Farm</b>	<b>Adjusted Median Price Per SF</b>
Control Area Sales (5)	No: Not adjoining solar farm	\$51.47
Adjoining Property 7 (Test Area)	Yes: Solar Farm was completed by the sale date	\$52.40
<b>Difference</b>		<b>1.81%</b>

Noting the relatively small price differential, in which both Adjoining Property Sales 2 and 7 sold at a slightly higher unit sale price than the Control Area Sales, it does not appear that Solar Farm 4 had any negative impact on adjoining property sales.

**SOLAR FARM 5: VALPARAISO SOLAR LLC, VAPARAISO, IN**

**Location:** Valparaiso Solar LLC, in Porter County, IN

**Coordinates:** Latitude 41.301180, Longitude -87.094055

**PIN:** 64-09-07-152-001.000-019, 64-09-07-152-002.000-019

**Recorded Owner:** PLH Inc

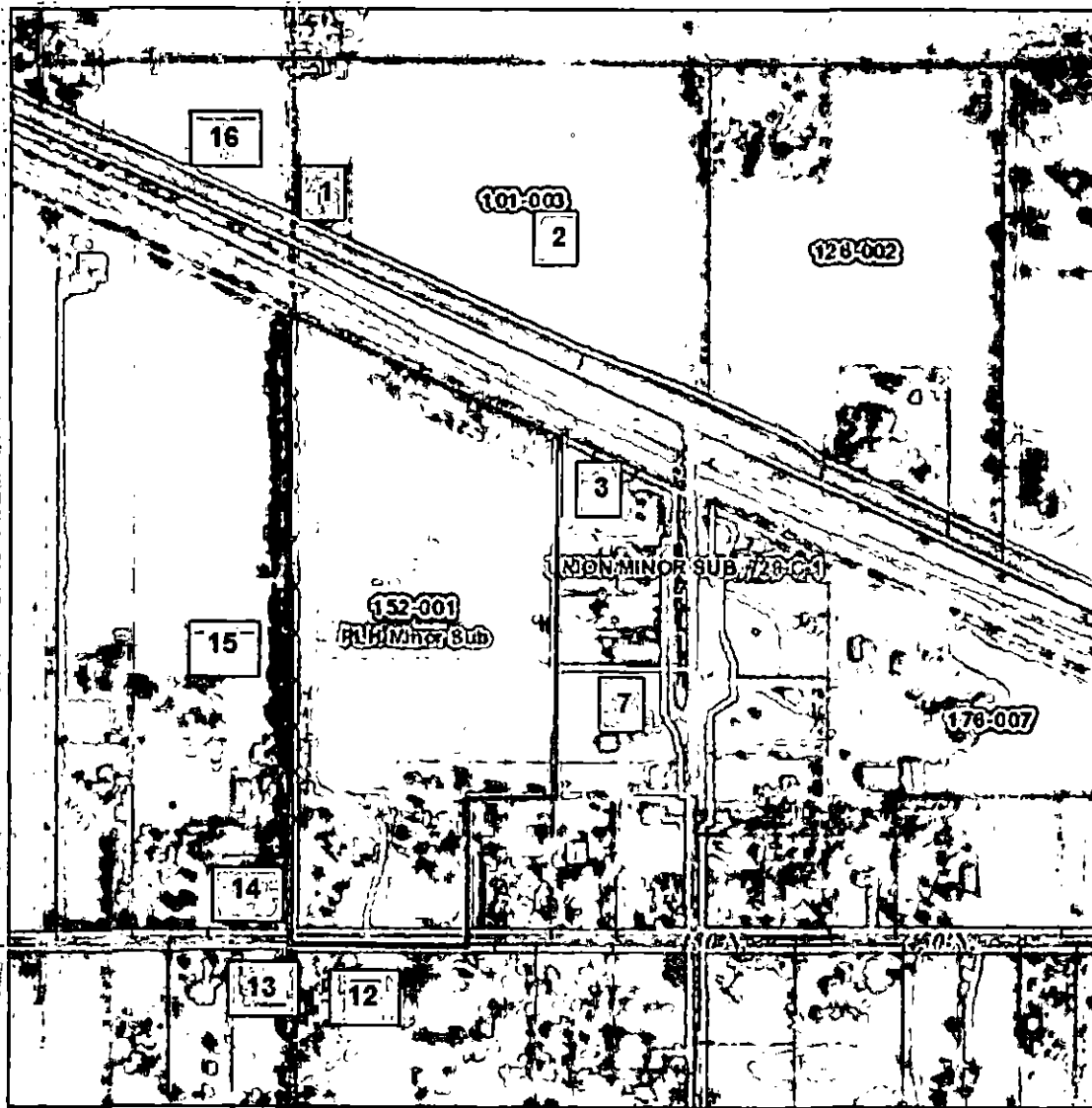
**Total Land Size:** 27.9 acres

**Date Project Announced:** March 2012

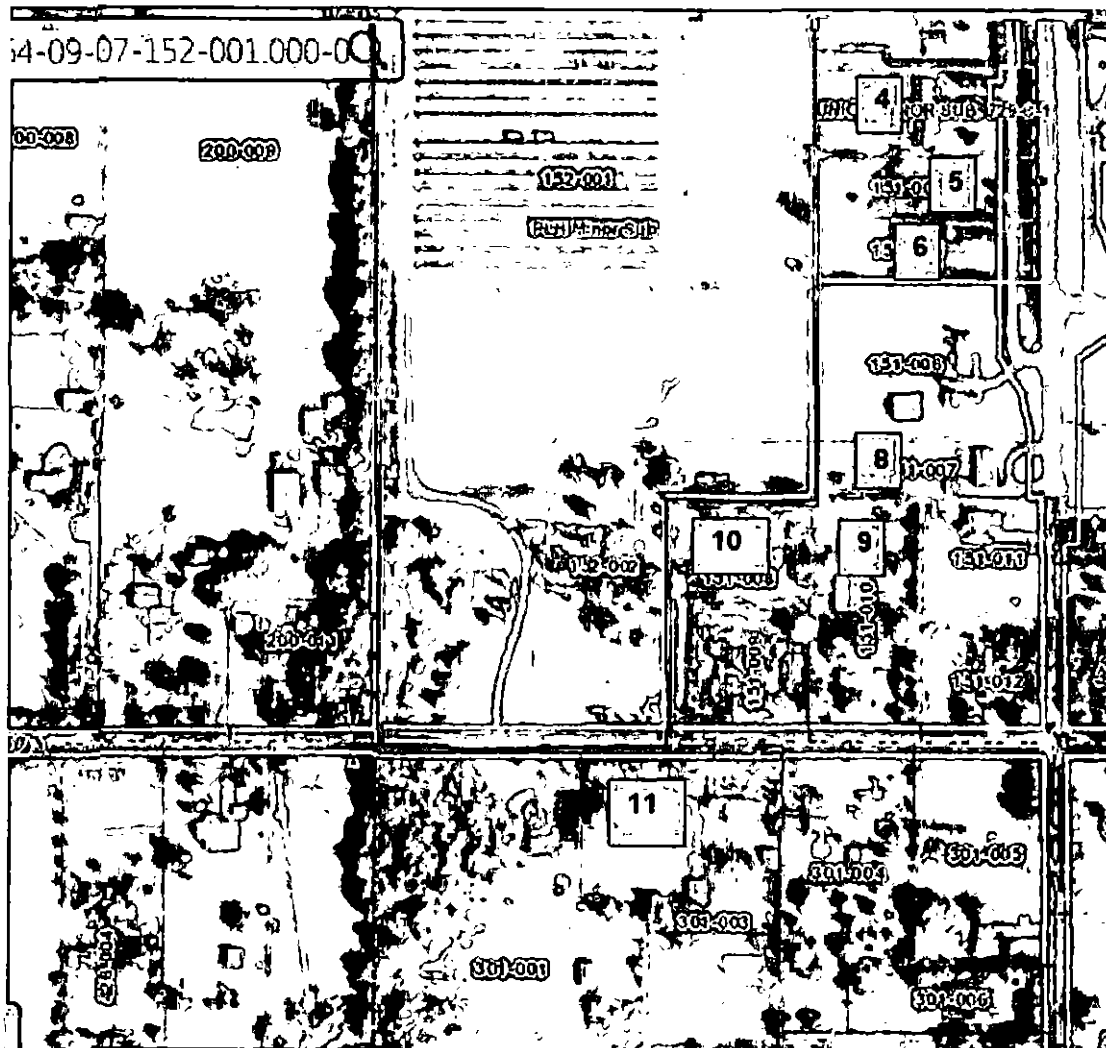
**Date Project Completed:** December 20, 2012

**Output:** 1.3 MW DC (1 MW AC)

This solar farm is located on the southern side of Indiana Route 130 (Railroad Ave), located approximately 35 miles southwest of the Chicago Loop. The solar farm was developed by Sustainable Power Group LLC and has ground mounted capacity for 1.3 Megawatts (MW) of power. The panels are mounted in a fixed tilt fashion and there are 2 inverters in this solar farm. The solar farm is lined by a chain link fence that surrounds all of the solar panels. Additionally, there are some natural bushes and trees to the north and west of the solar panels; this vegetation has been in place since before development of the solar farm. Other small trees were planted spaced out around the perimeter of the solar farm after development. From our inspection, the solar panels cannot be seen from Indiana State Route 130 from the north, nor on N 475 W Road to the east as this is a raised roadway. The adjacent properties to the east of the solar panels have full view of the panels from their backyards. The maps on the following pages displays the parcels within the solar farm is located (outlined in red). Properties adjoining this parcel are numbered for subsequent analysis.



Solar Farm 5 Adjoining Properties



Solar Farm 5 Adjoining Properties

Adjoining Properties 10 and 14 (Test Areas) were each considered for a paired sales analysis. Both were analyzed as single-family home uses.

For Adjoining Property 10, we analyzed five Control Area sales that sold within a reasonable time frame from Adjoining Property 10's sale date. For Adjoining Property 14, we analyzed five Control Area sales that sold within a reasonable time frame from Adjoining Property 14's sale date. All Control area sales were adjusted for market conditions using regression analysis to identify the appropriate monthly market conditions adjustment.

The result of our analyses for Solar Farm 5 is presented below.

CohnReznick Paired Sale Analysis - Solar Farm 5		
	Potentially Impacted by Solar Farm	Adjusted Median Price Per SF
Control Area Sales (5)	No: Not adjoining solar farm	\$79.95
Adjoining Property 10 (Test Area)	Yes: Solar Farm was completed by the sale date	\$82.42
Difference		3.09%

CohnReznick Paired Sale Analysis - Solar Farm 5		
	Potentially Impacted by Solar Farm	Adjusted Median Price Per SF
Control Area Sales (5)	No: Not adjoining solar farm	\$64.07
Adjoining Property 14 (Test Area)	Yes: Solar Farm was completed by the sale date	\$62.11
Difference		-3.06%

Noting the relatively small price differential, with one matched pair reflecting a unit sale price of 3% higher for the Adjoining Property sale and the other Adjoining Property sale reflecting a 3% lower unit sale price, it does not appear that Solar Farm 5 negatively impacted the sales price of Adjoining Property 10 or 14 in any consistent way.

## SUMMARY OF ADJOINING USES

The table below summarizes each of the existing solar farm's adjoining uses.

Solar Farm	Parcel ID	Owner	Acreage % of Surrounding Agricultural Uses	Acreage % of Surrounding Residential Uses	Acreage % of Surrounding Industrial Uses	Acreage % of Surrounding Office Uses	Acreage % of Surrounding Other Uses	Average Distance from Panels to Improvements
Grand Ridge	34-22-100-000; 32-22-101-000	Missel, Eugene / Dorothy Ttee	97.60%	1.40%	0.00%	0.00%	1.00%	553
Portage	64-06-19-176-001.000-015	PLH LLC	65.50%	34.50%	0.00%	0.00%	0.00%	991
IMPA Frankton	48-08-06-500-012.001-020	IMPA	76.30%	5.70%	0.00%	0.00%	18.00%	236
Indy Solar III	49-13-13-113-001.000-200	Indy Solar Development LLC	97.70%	2.30%	0.00%	0.00%	0.00%	474
Valparaiso Solar LLC	64-09-07-152-001.000-019, 64-09-07-152-002.000-019	PLH Inc	81.60%	18.40%	0.00%	0.00%	0.00%	659

Overall, the vast majority of the surrounding acreage for each comparable solar farm is made up of agricultural land, some of which have homesteads. There are also smaller single family home sites that adjoin to the solar farms we have studied. We have found that these comparable solar farms are sound comparables in terms of adjoining uses, location, and size.

Nine of the ten paired sales analyses reflected sales of property adjoining an existing solar farm in which the unit sale prices were effectively the same or higher (+0.10% to +7.46%) than the comparable Control Area sales that were not near any solar farms.

Considering this analysis, we conclude that there was no demonstrated measurable and consistent impact on adjacent property values that was associated with proximity to solar farms.



## MARKET COMMENTARY

We have additionally contacted market participants such as appraisers, brokers, and developers familiar with property values around solar farms in Illinois and Indiana. Our conversations with these market participants are noted below.

In Otter Creek Township, in LaSalle County, Illinois, we spoke with Viki Crouch, the Township Assessor, and she said that there has been no impact on property values due to their proximity to the **Grand Ridge Solar Farm**.

We also contacted the selling broker of the Adjoining Property 12 of the **Grand Ridge Solar Farm**, Tina Sergenti with Coldwell Banker, and were told that the proximity of the solar farm had no impact on the marketing time or selling price of the property.

We spoke with Ken Crowley, Rockford Township Assessor in Winnebago County, Illinois, who stated that he has seen no impact on property values in his township as an effect of proximity to the **Rockford Solar Farm**.

We spoke with James Weisiger, the Champaign Township Assessor in Champaign County, where the **University of Illinois Solar Farm** is located and he noted that no one has petitioned to have their property assessments lowered and there appears to have been no impact on property values as a result of proximity to the solar farm.

We interviewed Missy Tetrick, a Commercial Valuation Analyst for the Marion County Indiana Assessor. She mentioned the **Indy Solar III sites** and stated that she saw no impact on land or property prices from proximity to this solar farm.

We spoke with Ken Surface, a Senior Vice President of Nexus Group. Nexus Group is a large valuation group in Indiana and has been hired by 20 counties in Indiana regarding property assessments. Mr. Surface is familiar with the solar farm sites in Harrison County (**Lanesville Solar Farm**) and Monroe County (**Ellettsville Solar Farm**) and stated he has noticed no impact on property values from proximity to these sites.

We spoke to Mendy Lassaline, the County Assessor for Perry County, Indiana. She stated that she has seen no impact on land or residences from proximity to the solar farm in her county (**IMPA Tell City Solar Park**).

We interviewed Patti St. Clair, the Chief Deputy to the St. Josephs County Assessor in Indiana. She stated that she has seen no impact from proximity to the solar farm on land or properties in her county (**Olive PV Solar Farm**). Additionally, she stated that no appeals have come in to her office stating that this solar farm has had any negative effect.

According to Betty Smith-Hanson, the Wayne County Assessor in Indiana, there has been no impact on land or property values from proximity to the solar farm in her county (**IMPA Richmond Solar Park**).

## SOLAR FARM FACTORS ON HARMONY OF USE

The data from the solar farms included in this Property Value Impact Study, clearly indicates that solar farms are generally a compatible use with agricultural and residential uses.

The following section analyzes specific physical characteristics of solar farms and is based on research and our solar farm site visits.

**Appearance:** Most solar panels have a similar appearance to a greenhouse or single story residence and are usually not more than 10 feet high. As previously mentioned, developers generally surround a solar farm with a fence and often leave existing perimeter foliage, which minimizes the visibility of the farm. The physical characteristics of solar farms are compatible with adjoining agricultural and residential uses.

**Noise:** Solar panels in general are effectively silent and noise levels are minimal, similar to ambient noise. The only two sources of noise include the tracking motors and inverters housed in a sound-proofed container, which produce a quiet hum. However, neither source is typically heard outside the facility fence.

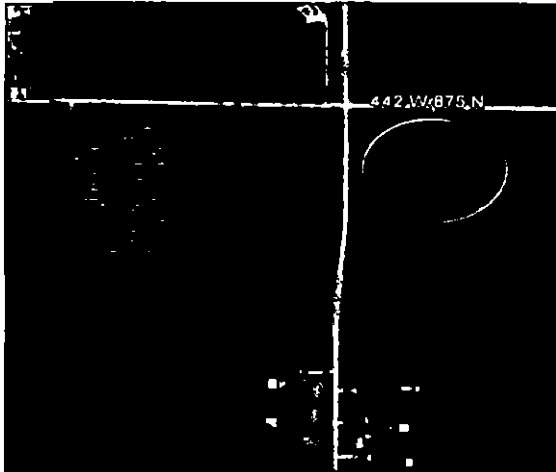
**Odor:** Solar panels do not produce any byproduct or odor.

**Traffic:** The solar farm does not require regular maintenance from on-site employees and as a result does not attract traffic during daily operation aside from the initial construction and installation of the farm.

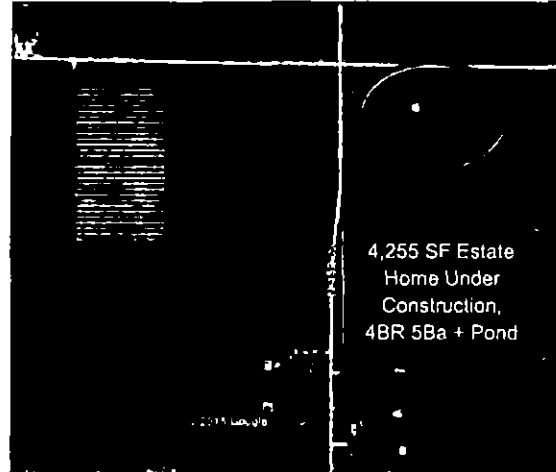
**Hazardous Material:** Modern solar panel arrays are constructed to U.S. government standards. Testing shows that modern solar modules are both safe to dispose of in landfills, and are also safe in worst case conditions of abandonment or damage in a disaster.

## COMPATIBILITY WITH EXISTING USES

We have examined multiple instances where adjoining property owners have developed homes next to an operational solar farm, which shows that the presence of solar farms has not deterred new development. Supporting images are presented below and on the following page.



*Portage Solar Farm (Solar Farm 2)  
October 2015*

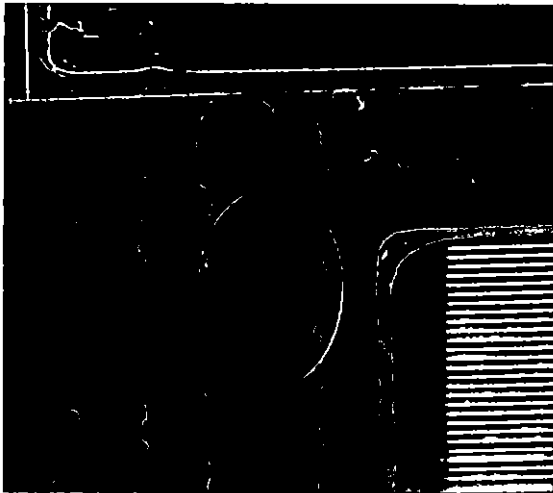


*Portage Solar Farm (Solar Farm 2)  
October 2016*

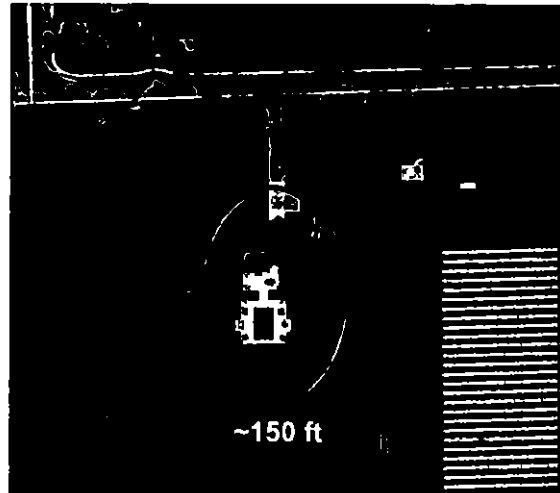


*4,255 square foot estate home under construction, adjacent to Portage Solar Farm (Solar Farm 2)  
On-site pond, pool and attached garage (Cost estimated at \$465,000) April 2018*

For Solar Farm 3, Dominion Indy III, the adjacent land to the west was purchased and subsequently developed with a large estate home – after the solar panels had been in operation for years.



*Dominion INDY III Solar Farm (Solar Farm 4)  
September 2014*



*Dominion INDY III Solar Farm (Solar Farm 4)  
October 2016*

## SUMMARY AND FINAL CONCLUSIONS

We have reviewed published methodology for measuring impact on property values as well as published studies that analyzed the impact of solar farms on property values. We have also interviewed market participants to give us additional insight as to how the market evaluates farm land and single family homes with views of the solar farm. These studies found little to no measurable and consistent difference between the Test Area Sales and the Control Area Sales attributed to the solar farms, and are generally considered a compatible use. We then can conclude that since the Adjoining Property Sales (Test Area Sales) were not adversely affected by their proximity to the solar farm, that properties surrounding other proposed solar farms operating in compliance with all regulatory standards will similarly not be adversely affected, in either the short or long term periods.

The purpose of this property value impact study is to determine whether the presence of a solar farm has caused a measurable and consistent difference in values between the Test Area Sales and the Control Area Sales. A summary of our findings for the paired sales analyses is presented below.

CohnReznick Impact Study Analysis Conclusions						
	Solar Farm	Adj. Property Number	Adjoining Property Sale (Test Area) Price Per Unit	Control Area Sales Median Price Per Unit	% Difference	Impact Found
1	Grand Ridge Solar	12	\$79.90	\$74.35	+7.46%	No Impact
2	Portage Solar	1	\$8,000	\$7,674	+4.25%	No Impact
	Portage Solar	7	\$84.35	\$84.27	+0.10%	No Impact
3	Indy Solar III Solar	Group 1	\$59.81	\$57.84	+3.40%	No Impact
	Indy Solar III Solar	Group 2	\$73.47	\$71.52	+2.74%	No Impact
	Indy Solar III Solar	2	\$8,210	\$8,091	+1.47%	No Impact
4	IMPA Frankton Solar	2	\$25.58	\$28.42	+0.56%	No Impact
	IMPA Frankton Solar	7	\$52.40	\$51.47	+1.81%	No Impact
5	Valparaiso Solar	10	\$82.42	\$79.95	+3.09%	No Impact
	Valparaiso Solar	14	\$62.11	\$64.07	-3.06%	No Impact
<b>Average Variance in Sale Prices for Test to Control Areas</b>					<b>+2.18%</b>	

Based upon our examination, research, and analyses of the existing solar farm uses, the surrounding areas, and an extensive market database, we have concluded that **no consistent negative impact has occurred to adjacent property that could be attributed to proximity to the adjacent solar farm**, with regard to unit sale prices or other influential market indicators. This conclusion has been confirmed by numerous County Assessors who have also investigated this use's potential impact.

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

Respectfully submitted,

CohnReznick, LLP



Patricia L. McGarr, MAI, CRE, FRICS  
National Director - Valuation Advisory Services  
Certified General Real Estate Appraiser  
Illinois License No. #553.000621  
Expires 9/30/2019  
Indiana License No. #CG49600131  
Expires 6/30/2018



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Senior Manager  
Certified General Real Estate Appraiser  
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Expires 9/30/2019  
Indiana License No. #CG41400050  
Expires 6/30/2018



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Expires 6/30/2018



Sonia K. Singh  
Manager  
Certified General Real Estate Appraiser  
VA License No. #4001017615  
Expires 3/31/2020  
DC License No. #GA2002063  
Expires 2/28/2020  
MD License No. #33217  
Expires 4/16/2021

## CERTIFICATION

We certify that, to the best of our knowledge and belief:

1. The statements of fact and data reported are true and correct.
2. The reported analyses, opinions, and conclusions in this consulting report are limited only by the reported assumptions and limiting conditions, and are our personal, impartial, and unbiased professional analyses, opinions, and conclusions.
3. We have no present or prospective interest in the property that is the subject of this report and no personal interest with respect to the parties involved.
4. We have performed no services, as an appraiser or in any other capacity, regarding the property that is the subject of this report within the three-year period immediately preceding acceptance of this assignment.
5. We have no bias with respect to the property that is the subject of this report or the parties involved with this assignment.
6. Our engagement in this assignment was not contingent upon developing or reporting predetermined results.
7. Our compensation for completing this assignment is not contingent upon the development or reporting of a predetermined value or direction in value that favors the cause of the client, the amount of the value opinion, the attainment of a stipulated result, or the occurrence of a subsequent event directly related to the intended use of this report.
8. Our analyses, opinions, and conclusions were developed, and this report has been prepared, in conformity with the requirements of the Code of Professional Ethics and Standards of Professional Appraisal Practice of the Appraisal Institute, which includes the Uniform Standards of Professional Appraisal Practice (USPAP).
9. The use of this report is subject to the requirements of the Appraisal Institute relating to review by its duly authorized representatives.
10. Patricia L. McGarr, MAI, CRE, FRICS has made a personal inspection of the proposed solar site that is the subject of this work. Patricia L. McGarr, MAI, CRE, FRICS, Martin D. Broerman, MAI, Andrew R. Lines, MAI and Sonia K. Singh have viewed the exterior of all comparable data referenced in this report in person, via photographs, or aerial imagery.
11. We have not relied on unsupported conclusions relating to characteristics such as race, color, religion, national origin, gender, marital status, familial status, age, and receipt of public assistance income, handicap, or an unsupported conclusion that homogeneity of such characteristics is necessary to maximize value.
12. Michael F. Antypas and Amanda G. Edwards provided significant appraisal consulting assistance to the persons signing this certification.
13. We have experience in reviewing properties similar to the subject and are in compliance with the Competency Rule of USPAP.
14. As of the date of this report, Patricia L. McGarr, MAI, CRE, FRICS, Andrew R. Lines, MAI, and Martin D. Broerman, MAI have completed the continuing education program of the Appraisal Institute.

15. As of the date of this report, Sonia K. Singh has completed the Standards and Ethics Education Requirements for Candidates of the Appraisal Institute.

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

Respectfully submitted,

CohnReznick, LLP



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National Director - Valuation Advisory Services  
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DC License No. #GA2002063  
Expires 2/28/2020  
MD License No. #33217  
Expires 4/16/2021



## ASSUMPTIONS AND LIMITING CONDITIONS

This report is based on the following assumptions, except as otherwise noted in the report.

1. The title is marketable and free and clear of all liens, encumbrances, encroachments, easements and restrictions. The property is under responsible ownership and competent management and is available for its highest and best use.
2. There are no existing judgments or pending or threatened litigation that could affect the value of the property.
3. There are no hidden or undisclosed conditions of the land or of the improvements that would render the property more or less valuable. Furthermore, there is no asbestos in the property.
4. The revenue stamps placed on any deed referenced herein to indicate the sale price are in correct relation to the actual dollar amount of the transaction.
5. The property is in compliance with all applicable building, environmental, zoning, and other federal, state and local laws, regulations and codes.
6. The information furnished by others is believed to be reliable, but no warranty is given for its accuracy.

This report is subject to the following limiting conditions, except as otherwise noted in the report.

1. An appraisal is inherently subjective and represents our opinion as to the value of the property appraised.
2. The conclusions stated in our appraisal apply only as of the effective date of the appraisal, and no representation is made as to the effect of subsequent events.
3. No changes in any federal, state or local laws, regulations or codes (including, without limitation, the Internal Revenue Code) are anticipated.
4. No environmental impact studies were either requested or made in conjunction with this appraisal, and we reserve the right to revise or rescind any of the value opinions based upon any subsequent environmental impact studies. If any environmental impact statement is required by law, the appraisal assumes that such statement will be favorable and will be approved by the appropriate regulatory bodies.
5. Unless otherwise agreed to in writing, we are not required to give testimony, respond to any subpoena or attend any court, governmental or other hearing with reference to the property without compensation relative to such additional employment.
6. We have made no survey of the property and assume no responsibility in connection with such matters. Any sketch or survey of the property included in this report is for illustrative purposes only and should not be considered to be scaled accurately for size. The appraisal covers the property as described in this report, and the areas and dimensions set forth are assumed to be correct.
7. No opinion is expressed as to the value of subsurface oil, gas or mineral rights, if any, and we have assumed that the property is not subject to surface entry for the exploration or removal of such materials, unless otherwise noted in our appraisal.
8. We accept no responsibility for considerations requiring expertise in other fields. Such considerations include, but are not limited to, legal descriptions and other legal matters such as legal title, geologic considerations such as soils and seismic stability, and civil, mechanical, electrical, structural and other engineering and environmental matters.

9. The distribution of the total valuation in the report between land and improvements applies only under the reported highest and best use of the property. The allocations of value for land and improvements must not be used in conjunction with any other appraisal and are invalid if so used. The appraisal report shall be considered only in its entirety. No part of the appraisal report shall be utilized separately or out of context.
10. Neither all nor any part of the contents of this report (especially any conclusions as to value, the identity of the appraisers, or any reference to the Appraisal Institute) shall be disseminated through advertising media, public relations media, news media or any other means of communication (including without limitation prospectuses, private offering memoranda and other offering material provided to prospective investors) without the prior written consent of the person signing the report.
11. Information, estimates and opinions contained in the report, obtained from third-party sources are assumed to be reliable and have not been independently verified.
12. Any income and expense estimates contained in the appraisal report are used only for the purpose of estimating value and do not constitute predictions of future operating results.
13. If the property is subject to one or more leases, any estimate of residual value contained in the appraisal may be particularly affected by significant changes in the condition of the economy, of the real estate industry, or of the appraised property at the time these leases expire or otherwise terminate.
14. No consideration has been given to personal property located on the premises or to the cost of moving or relocating such personal property; only the real property has been considered.
15. The current purchasing power of the dollar is the basis for the value stated in our appraisal; we have assumed that no extreme fluctuations in economic cycles will occur.
16. The value found herein is subject to these and to any other assumptions or conditions set forth in the body of this report but which may have been omitted from this list of Assumptions and Limiting Conditions.
17. The analyses contained in the report necessarily incorporate numerous estimates and assumptions regarding property performance, general and local business and economic conditions, the absence of material changes in the competitive environment and other matters. Some estimates or assumptions, however, inevitably will not materialize, and unanticipated events and circumstances may occur; therefore, actual results achieved during the period covered by our analysis will vary from our estimates, and the variations may be material.
18. The *Americans with Disabilities Act (ADA)* became effective January 26, 1992. We have not made a specific survey or analysis of any property to determine whether the physical aspects of the improvements meet the *ADA* accessibility guidelines. In as much as compliance matches each owner's financial ability with the cost to cure the non-conforming physical characteristics of a property, we cannot comment on compliance to *ADA*. Given that compliance can change with each owner's financial ability to cure non-accessibility, the value of the subject does not consider possible non-compliance. A specific study of both the owner's financial ability and the cost to cure any deficiencies would be needed for the Department of Justice to determine compliance.
19. The appraisal report is prepared for the exclusive benefit of the Client, its subsidiaries and/or affiliates. It may not be used or relied upon by any other party. All parties who use or rely upon any information in the report without our written consent do so at their own risk.

20. No studies have been provided to us indicating the presence or absence of hazardous materials on the subject property or in the improvements, and our valuation is predicated upon the assumption that the subject property is free and clear of any environment hazards including, without limitation, hazardous wastes, toxic substances and mold. No representations or warranties are made regarding the environmental condition of the subject property and the person signing the report shall not be responsible for any such environmental conditions that do exist or for any engineering or testing that might be required to discover whether such conditions exist. Because we are not experts in the field of environmental conditions, the appraisal report cannot be considered as an environmental assessment of the subject property.
21. The person signing the report may have reviewed available flood maps and may have noted in the appraisal report whether the subject property is located in an identified Special Flood Hazard Area. We are not qualified to detect such areas and therefore do not guarantee such determinations. The presence of flood plain areas and/or wetlands may affect the value of the property, and the value conclusion is predicated on the assumption that wetlands are non-existent or minimal.
22. CohnReznick is not a building or environmental inspector. CohnReznick does not guarantee that the subject property is free of defects or environmental problems. Mold may be present in the subject property and a professional inspection is recommended.
23. The appraisal report and value conclusion for an appraisal assumes the satisfactory completion of construction, repairs or alterations in a workmanlike manner.
24. CohnReznick an independently owned and operated company, has prepared the appraisal for the specific purpose stated elsewhere in the report. The intended use of the appraisal is stated in the General Information section of the report. The use of the appraisal report by anyone other than the Client is prohibited except as otherwise provided. Accordingly, the appraisal report is addressed to and shall be solely for the Client's use and benefit unless we provide our prior written consent. We expressly reserve the unrestricted right to withhold our consent to your disclosure of the appraisal report (or any part thereof including, without limitation, conclusions of value and our identity), to any third parties. Stated again for clarification, unless our prior written consent is obtained, no third party may rely on the appraisal report (even if their reliance was foreseeable).
25. The conclusions of this report are estimates based on known current trends and reasonably foreseeable future occurrences. These estimates are based partly on property information, data obtained in public records, interviews, existing trends, buyer-seller decision criteria in the current market, and research conducted by third parties, and such data are not always completely reliable. CohnReznick and the undersigned are not responsible for these and other future occurrences that could not have reasonably been foreseen on the effective date of this assignment. Furthermore, it is inevitable that some assumptions will not materialize and that unanticipated events may occur that will likely affect actual performance. While we are of the opinion that our findings are reasonable based on current market conditions, we do not represent that these estimates will actually be achieved, as they are subject to considerable risk and uncertainty. Moreover, we assume competent and effective management and marketing for the duration of the projected holding period of this property.
26. All prospective value estimates presented in this report are estimates and forecasts which are prospective in nature and are subject to considerable risk and uncertainty. In addition to the contingencies noted in

the preceding paragraph, several events may occur that could substantially alter the outcome of our estimates such as, but not limited to changes in the economy, interest rates, and capitalization rates, behavior of consumers, investors and lenders, fire and other physical destruction, changes in title or conveyances of easements and deed restrictions, etc. It is assumed that conditions reasonably foreseeable at the present time are consistent or similar with the future.

27. While this appraisal has been proofed for typographical errors, mathematical inaccuracies, and other discrepancies, others may be discovered in subsequent reviews performed by the client or their designated agent. We reserve the right to correct any typographical errors, mathematical inaccuracies, or other discrepancies that may affect the estimate of value contained in the report. These corrections will be corrected promptly upon the written request of the client.

**APPRAISER ADDENDUM A:  
QUALIFICATIONS**

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**COHNREZNICK**



**Patricia L. McGarr, MAI, CRE, FRICS, CRA**  
Principal,  
National Director, Valuation Advisory Services

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Patricia L. McGarr, MAI, CRE, FRICS, CRA, is a principal and National Director of CohnReznick Advisory Group's Valuation Advisory Services practice who is based in Chicago. Pat's experience includes market value appraisals of varied property types for acquisition, condemnation, mortgage, estate, ad valorem tax, litigation, zoning, and other purposes. Pat has been involved in the real estate business since 1980. From June 1980 to January 1984, she was involved with the sales and brokerage of residential and commercial properties. Her responsibilities during this time included the formation, management, and training of sales staff in addition to her sales, marketing, and analytical functions. Of special note was her development of a commercial division for a major Chicago-area brokerage firm.

Since January 1984, Pat has been exclusively involved in the valuation of real estate. Her experience includes the valuation of a wide variety of property types including residential, commercial, industrial, and special purpose properties including such diverse subjects as quarries, marinas, riverboat gaming sites, shopping centers, manufacturing plants, and office buildings. She is also experienced in the valuation of leasehold and leased fee interests. Pat has performed appraisal assignments throughout Illinois and the Chicago Metropolitan area as well as Wisconsin, Indiana, Michigan, New York, New Jersey, California, Nevada, Florida, Utah, Texas, and Ohio. Pat has gained substantial experience in the study and analysis of the establishment and expansion of sanitary landfills in various metropolitan areas including the preparation of real estate impact studies to address criteria required by Senate Bill 172. She has also developed an accepted format for allocating value of a landfill operation between real property, landfill improvements, and franchise (permits) value.

Over the past several years, Pat has developed a valuation group that specializes in serving utility companies establish new utility corridors for electric power transmission and pipelines. This includes determining acquisition budgets, easement acquisitions, and litigation support. Pat has considerable experience in performing valuation impact studies on potential detrimental conditions and has studied properties adjoining landfills, waste transfer stations, stone quarries, cellular towers, schools, electrical power transmission lines, "Big Box" retail facilities, levies, properties with restrictive covenants, landmark districts, environmental contamination, airports, material defects in construction, stigma, and loss of view amenity for residential high rises.

Pat has qualified as an expert valuation witness in numerous local, state and federal courts.

Pat's has participated in specialized real estate appraisal education and has completed more than 50 courses and seminars offered by the Appraisal Institute totaling more than 600 classroom hours, including real estate transaction courses as a prerequisite to obtaining a State of Illinois Real Estate Salesman License.

Pat has earned the professional designations of Counselors of Real Estate (CRE), Member of the Appraisal Institute (MAI), Fellow of Royal Institution of Chartered Surveyors (FRICS) and Certified Review Appraiser (CRA). She is also a certified general real estate appraiser with active licenses in California, District of Columbia, Florida, Illinois, Indiana, Las Vegas, Maryland, New Jersey, New York, Texas and Wisconsin.

Education

- North Park University: Bachelor of Science, General Studies

Professional Affiliations

- National Association of Realtors
- CREW Commercial Real Estate Executive Women
- IRWA International Right Of Way Association



## Andrew R. Lines, MAI

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Andrew R. Lines, MAI, is a partner for CohnReznick Advisory Group's Valuation Advisory practice who is based in the Chicago office and has been a CohnReznick employee for over six years. Andrew has been involved in the real estate business for more than 15 years and has performed valuations on a wide variety of real property types including single- and multi-unit residential (including LIHTC), student housing, office, retail, industrial, mixed-use and special purpose properties including landfills, waste transfer stations, marinas, hospitals, universities, telecommunications facilities, data centers, self-storage facilities, racetracks, CCRCs, and railroad corridors. He is also experienced in the valuation of leasehold, leased fee, and partial interests, as well as purchase price allocations (GAAP, IFRS and IRC 1060) for financial reporting.

Valuations have been completed nationwide for a variety of assignments including mortgage financing, litigation, tax appeal, estate gifts, asset management, workouts, and restructuring, as well as valuation for financial reporting including purchase price allocations (ASC 805), impairment studies, and appraisals for investment company guidelines and REIS standards. Andrew has qualified as an expert witness, providing testimony for eminent domain cases in the states of IL and MD. Andrew has also performed appraisal review assignments for accounting purposes (audit support), asset management, litigation and as an evaluator for a large Midwest regional bank.

Andrew has earned the professional designation of Member of the Appraisal Institute (MAI). He has also qualified for certified general commercial real estate appraiser licenses in Arizona, California, Maryland, Florida, Wisconsin, Georgia, Illinois, Indiana, New Jersey and New York. Temporary licenses have been granted in Connecticut, Colorado, Ohio, Pennsylvania, Idaho, Kansas, Minnesota and South Carolina.

### Education

- Syracuse University: Bachelor of Fine Arts

### Professional Affiliations

- Chicago Chapter of the Appraisal Institute - Alternate Regional Representative (2016 - Present)
- International Real Estate Management (IREM)
- National Council of Real Estate Investment Fiduciaries (NCREIF)

### Community Involvement

- Fellows Alumni Network - World Business Chicago, Founding member
- Syracuse University Regional Council - Active Member
- Syracuse University Alumni Association of Chicago, Past Board member
- Chicago Friends School - Board Member

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## Martin D. Broerman, MAI

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Martin D. Broerman, MAI is a senior manager in CohnReznick Advisory Group's Valuation Advisory Services practice and is based in the Chicago office. He has been involved in the commercial real estate valuation business for more than 11 years. Martin's experience includes market value appraisals of varied property types for portfolio analysis, acquisition/disposition, condemnation, financing, estate planning, tax appeal, litigation, and other purposes. He performs valuations on a wide variety of real property types including retail, industrial, office, residential, and special purpose properties.

Martin's retail assignments have ranged from freestanding retail stores to shopping centers of all varieties. His industrial assignments include distribution warehouses, cold storage warehouses, R&D facilities, truck terminals, manufacturing facilities and data centers. Martin's office assignments include hi-rise downtown offices, low- to mid-rise suburban offices, and medical office buildings. His residential assignments include single family homes, apartment projects of all sizes, residential subdivisions, and condominium developments/conversions. Martin's specialized real estate assignments include portfolio analysis, utility corridors, right-of-way projects, pipelines, mixed-use properties, ground leaseholds, healthcare facilities, parking garages, vacant land, and various easement valuations. His extensive experience in commercial real estate is focused on properties located in the Chicago metropolitan area, but includes significant assets located nationwide.

Martin has served an array of clients, including municipalities, lenders, law firms, investment firms, utility companies, private corporations, educational institutions, developers, and various governmental agencies including the Illinois Department of Transportation (IDOT) and General Services Administration (GSA).

Martin is a certified general real estate appraiser with active licenses in Illinois, Indiana and Ohio.

#### Education

- DePaul University: Bachelor of Science, Commerce, Finance
- Triton College: Associate of Arts, Business Administration

#### Professional Affiliations

- Appraisal Institute
- International Right-of-Way Association



## Sonia K. Singh

Manager – Real Estate Valuation

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Sonia K. Singh is a manager in CohnReznick Advisory Group's Valuation Advisory practice who is based in the Bethesda office. She has been engaged in real estate valuation and other real estate consulting services for the past six years and has valued over \$3.5 billion in real property.

She is adept at valuing a variety of real estate property types across the United States, including the following: right-of-way acquisitions for utility corridors; single- and multi-tenant industrial buildings; historic redevelopment projects; freestanding and retail shopping centers; trophy, class A office buildings; continuing care retirement communities; marinas; car dealerships; athletic clubs; boutique and luxury flag hotels with for-sale residential villas; and medical office buildings with a surgical center. Real estate appraisals have been prepared for pending litigation matters, estate planning, estate & gift tax purposes, and asset management.

In addition to real estate appraisal services, she has completed over 2,500 hours related to generating purchase price allocations for the acquisition of tangible and intangible assets for financial reporting purposes under the guidance of ASC 805 and early adoption of ASU 2017-01. Other experienced real estate consulting services include appraisal review and statistical analysis. Several impact studies were prepared by her and her peers measuring the impact, if any, of economic and environmental influences on property values.

Other services she provided significant assistance with include useful life analysis of real estate assets and valuation of minority interests for gift and estate tax purposes. In addition, she has developed several financial forecasts for proposed real estate development to illustrate profit measures as well as return on capital for potential investors.

Sonia is a certified general real estate appraiser with active licenses in the District of Columbia, Maryland, and Virginia. She has also completed the following actuarial exams: Probability, Financial Mathematics, and Models for Financial Economics.

### Education

- University of Illinois: Bachelor of Science, Actuarial Science

### Professional Affiliations and Licenses

- Appraisal Institute, Candidate for Designation
- Urban Land Institute, Associate Member
- Certified General Real Estate Appraiser Licenses in the States of DC, MD, and VA

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## Michael F. Antypas

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Michael Antypas is a consultant in CohnReznick Advisory Group's Valuation Advisory Services practice and is based in the Bethesda office. He has assisted other associates and appraisers in the valuation of a variety of retail shopping centers, hotels, market rate and restricted rental apartment properties, Class A office complexes with GSA tenants, mixed-use properties, developable land, and single family rental home portfolios owned by REITs. He has also completed solar farm impact studies, appraisals for eminent domain disputes, as well as purchase price allocations on various senior living facilities, medical office buildings, and retail centers. In addition, Michael is certified in working with Argus Enterprise valuation software. He is a practicing affiliate in the Appraisal Institute and is working towards becoming a Certified General Real Estate Appraiser.

He graduated from the Villanova School of Business in May of 2016. Some of his other experience working in Real Estate originated through interning with commercial brokers. Throughout his senior year in college, Michael interned with Newmark Grubb Knight Frank as a Capital Markets intern. There he helped create and revise many marketing packages for the firm's senior managing directors. He also assisted in developing underwriting models and projections for offering memorandums. He also worked with a boutique restaurant broker in Washington D.C, Papadopoulos Properties where he compiled market research for his client's use and surveyed prospective restaurants to gauge their interest in expanding to the Washington D.C. market.

### Education

- Villanova University: Bachelor of Business Administration, Finance and Real Estate, Minor in Business Analytics

### Certifications

- Argus Enterprise Certified

### Professional Affiliations

- Appraisal Institute, Practicing Affiliate

## Amanda G. Edwards

Consultant, Valuation Advisory Services

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Amanda Edwards is a consultant in CohnReznick's Valuation Advisory Services practice group and is based in Chicago. Amanda has assisted other associates and appraisers in the valuation of a variety of industrial properties, medical office, hotels, rental apartment properties, condominium developments, retail and mixed-use properties, developable and open space land, and single family subdivisions. She has also assisted with appraisals and continuing consulting for eminent domain disputes. Amanda is a practicing affiliate in the Appraisal Institute and is working towards becoming a Certified General Real Estate Appraiser.

Before joining CohnReznick, Amanda worked at the Inland Group of companies valuing and underwriting as well as assisting in the closing of commercial mortgage loans, nationwide. Property types included industrial, office, multi-family, retail and hotel, with an emphasis on value-add properties and construction projects. Amanda has also worked as a commercial lender for builder-developer housing at Fifth Third Bank. She has also worked valuing senior housing properties and associated business models for a senior housing firm with properties throughout the Chicago area.

Amanda has spent considerable time in the consulting environment, developing and conducting in-depth interviews for primary research for a variety of industries such as technology, financial institutions, and industrial manufacturing.

### Education

- Bryn Mawr College, Bachelor of Arts

### Professional Affiliations

- Appraisal Institute, Practicing Affiliate
- Chicago Real Estate Council - Member

### Other Affiliations

- Bryn Mawr College Club of Chicago - President

November 10, 2021

National Grid Renewables - Dodson Creek Solar Case#20-1814-EL-BGN  
RE: Public Hearing Testimony

My name is Annette Houck and I live at 9711 St. Rt. 73, Hillsboro, Ohio 45133.

I am here in support of the Dodson Creek Solar Project. My husband and I reside in Highland County and are landowners and farmers in both Clinton and Highland Counties.

I am here to ask: have you ever thought about how convenient some things are? We have become so dependent upon convenience - we often think we can't live without it. But do you realize there is a price for convenience and we DO have to be held accountable for that expense?

For example; a typical morning may be waking up to an alarm clock, flipping on the TV, turning on the coffee maker, stepping into a hot shower, dressing in a well lit walk-in closet, dropping a bagel in the toaster before hurrying to the car to start the work day. Do you realize I just listed 6 electrical uses in the first hour of your day? All of which are conveniences and NOT essential for life! These things are not only convenient; they are actually a luxury.

When I was 14 years old, a classmate invited me to spend the night at her house after school. Not long after the school bus dropped us off; I learned my friend's home had running water in the kitchen but no other indoor plumbing in the rest of the house. I immediately realized the convenience of indoor bathroom plumbing and also appreciated it very much. And instantly missed it in this situation.

This brings me to the price of convenience; you see, .... my friends family could not afford to install the septic and plumbing needed for a bathroom and therefore; it was a few more years before they could enjoy the convenience of flushing a toilet indoors. And that's another thing -- We each FLUSH the toilet OR WASTE after each use so it is CLEAN for the next person to use. Cleaning up after ourselves is JUST simple courtesy. It just makes sense that we approach our use of electricity with this same cleanliness concept.

So....getting back to those 6 morning rituals of electrical uses, the alarm clock, TV, coffee maker, hot water heater, closet light and toaster -- were we actually accountable for cleaning up the OFFSET WASTE created by the energy use of those actions? I think not....Just like flushing the toilet so it's clean for the next person...we should be creating the energy in a clean way TOO but we currently are not.

In fact, at the current United Nations Climate Change Conference, COP26; Glasgow, Scotland; farmers are being blamed for 10% or more of the current carbon emissions and we are being targeted to do our part to NOW help clean up this crisis of previously NOT being held accountable in the first place for our own energy consumption.

So now that Utility Solar is literally knocking on our doors; farmers are being given the opportunity to step up and help be accountable and do our part to sequester carbon emissions, stop wasting our fossil fuels and start putting our sun arrays to use. We can use the sun as a resource that shows up almost every morning like clockwork and produces clean arrays that convert to green energy instead of depleting our fossil fuels. Farmers can now be sunshine harvesters. Farmers can now diversify their crops or "portfolio" of wealth.

If you are willing to move forward with Dodson Creek Solar; NOW, when you flush the toilet and turn off the bathroom light; you TRULY can know that you are leaving the bathroom as "CLEAN" as you can for the next person to use.

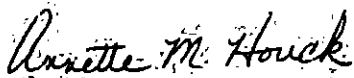
The realization that our sun has been showing up for work everyday; and we have not utilized this resource; strongly suggests that our business model on this planet earth -- is simply out of alignment. Continuing to burn up irreplaceable fossil fuels make no business sense at all. The sun arrays should and can be viewed as a farm commodity and given a financial value.

If solar opposition believes in flushing their toilets; perhaps its time for them to practice clean energy use ALSO every time they flip on their lights or TVs in their homes. It's just clean courtesy. Electricity and septic/sanitation BOTH are public utilities: Do you consider them a convenience or an essential? Think about this carefully because - at the end of the day - BOTH generate waste that we have to be held accountable for.

As a SIDEBAR: fast-food restaurants offer Drive-Thru services. Especially convenient during the pandemic, BUT creates a lot of food packaging waste. If you eat on the run; and choose to throw this waste out the car window; if caught -- you could be fined up to \$500 dollars for littering. However, energy waste NOT immediately visible to the eye (or carbon emissions) has remained exempt from the law at this point; however numerous efforts are being made to create a carbon tax or laws addressing this very issue. For now, it is voluntary; So I ask you; "Should energy waste created by the burning of coal continue to be exempt?" from EPA clean air efforts? Or is it wiser to be voluntarily conscientious of this now and be pro-active?

Should opposers who paid an attorney a retainer fee to fight solar be fined INSTEAD for contributing to the littering up of our ozone layer and choosing to do nothing about it? Is "Keeping Ohio Clean" or our earth for that matter; something that ANYONE should be EXEMPT from doing?

Thank you for your time and allowing me to share my thoughts,

A handwritten signature in cursive script that reads "Annette M. Houck". The ink is dark and the signature is fluid.

Annette M. Houck

Hi my name is Debra McKee, I live at : 3298 Roush Rd, Hillsboro, Oh 45133 in Dodson/ Hamer Township.

The Dodson Creek Solar project will be behind my property and it will be less than ¼ mile beside me.

Our Highland county commissioners refuse to intervene on the behalf of Dodson Creek residents concerning setbacks or any other property rights issues concerning homeowners in the Dodson Creek project area.

Our commissioners have shown more bias against homeowners .

In the Highland County Press article, commissioners stated they want to establish a resolution concerning prohibition zones that circumvents residential voters that own less than ten acres.

I will leave my statement with you allowing you to read our commissioner's published words.

\*\*\*\*\*

Senate Bill 52 became law on the 11th of October, 2021. Commissioner, David Daniels said, "We have been trying to determine what our options are as far as what the law allows us to do."

One of the things it allows us to do is designate exclusion zones in unincorporated areas of the county.

He outlined a "process" that the commission has drafted for consideration of designating a exclusion zone, which is similar to the steps described in SB 52. According to a handout from the commissioners office, a request for such a designation "must be made by resolution by a unit of local government"- a village, city or township" that will, in detail, show the area to be designated."

That "unit of local government" is also required to conduct a public hearing about the request and provide a " transcription" of the hearing to commissioners.

"The unit of local government will notify all entities by mail that would receive property tax or a portion of a PILOT [Payment in Lieu of Taxes] payment inside the zone " The handout says, A majority of those entities must approve of the designation with a letter of support or board resolution.

✕ "The unit of local government shall notify all property owners inside the area by mail and inform them that a restricted zone is being considered. A majority of property owners of 10

acres or more must approve the zone with a letter of support.”

Once those steps are completed, “if the commissioners believe the restricted zone is appropriate, they shall adopt by resolution” such a designation, according to the handout.

“Since we are limiting somebody’s ability to lease and/or sell their property, we feel that there needs to be a public process,” Daniels said. “We want to make sure everybody is understanding of the process and make sure everyone has the ability to be heard through the process.”

“We have other responsibilities as far as [SB] 52 is concerned. We’re still trying to work through some of the processes along those lines. This is kind of an initial outline of what the exclusion zone process will look like.”

Daniels added that the commission “can exclude projects up front, and I think that we still need to consider under what conditions we would do those things.”

“We’ve heard from a lot of different people,” Daniels said. “ We’re trying to take all those comments and all those concerns into consideration and balance that against the rights of the people that are leasing and selling their property. It’s a work in progress, more to come.”

Daniels and commissioner Terry Britton also noted that an “exclusion zone” could be virtually any size, ranging from a particular road or small area to even “an entire township.”

“There are implications with power siting,” Daniels said, “there are facilities that we have no control over as a result of [SB] 52. It does not allow us to give any kind of approval over projects under 50 megawatts. We’re still trying to figure out what our responsibilities are and what our options are, as far as that’s concerned, to address the concerns that we’ve heard from people.”

Commission president Jeff Duncan said the commission will “continue to work on” developing plans in response with SB 52. “We’re still learning,” he said.

“There’s multiple steps to Senate Bill 52,” Britton added. “We’re working on each of those steps.” This is the first of that part.

\*\*\*\*\*

On Oct. 8 , 2021, legal representative Mike Settineri appeared for National Grid Renewables LLC.



## **Case No. 21-902-GE-BRO Workshop - Virtual Morning Session Oct 8, 2021**

Source information <https://www.youtube.com/watch?v=4FxbEsnDuvU> to hear Mr. Settineri at the 1 hour 40 minute point on the video.

Paraphrasing Mr. Settineri's statements, the OPSB can not exceed the statutory framework given to it by the general assembly.

(a) The board cannot design solar projects, citing setbacks, fencing and landscape. Compared to 4906.20 and 4906.201 that the OPSB can implement setbacks for wind farms but cannot for solar.

The board has 4906.03 which is general authority to require information from persons in hearings and investigations and studies.

(b) Mr. Settineri reminded the board of where it has authority and where it does not. Ohio Revised Code (ORC) 121.95 agency review of rules. No new restrictions can be adopted unless another restriction is removed.

(c) The Board can not merge a new restriction into another restriction and his last point, the rules should not have conditions written into rules. 4906.10(a) does have conditions.

We the residents of Dodson Creek suggest to the OPSB that rules the Utility Scale Solar Energy Coalition (USSEC) have made with staff and the lack of guidance that has been given by the General Assembly, suggest that SOLAR projects rules are incomplete and unfair to residents; they are biased in favor of developers to do as they think.

Project rules for solar power need more attention from the general assembly to guide construction of power plants. Proof is Mr. Settineri's statements about setbacks, fencing and landscape and the lack of authority of the OPSB caused by the general assembly's lack of diligence.

These incomplete and incomprehensive rules place an unfair financial burden on residents who cannot afford legal counsel to negotiate fair protection of property rights of residents in the Dodson Creek project area.

Please consider the public interest, convenience and necessity of the Dodson Creek Project. We **Do Not** want Industrial Solar Project's in our community. I would like to repeat this: We **Do Not** want Industrial Solar Project's in our community.

We ask you the OPSB to deny certification to Dodson Creek project based on the evidence presented.

This is the notice published for the Dodson Creek project. I am going to suggest that the OPSB staff investigative report shows that Dodson Creek LLC has not shown public need, necessity, or convenience, nor have they presented that they will follow the rules established by the OPSB and the biased USSEC and OFB Ohio Farm Bureau.

In reviewing an application to construct, operate, and maintain a generation facility, such as the facility proposed by Dodson Creek LLC. The OPSB considers the following criteria set forth in Ohio Revised Code (R.C.) 4906.10(A):

(1) The nature of the probable environmental impact;

(Reply) This project will remove topsoil and subsoil, drive piles into the ground, lay conduit with electrical wires, build miles of road and it will be impossible to restore to its original composition.

From the genesis of the soil and through eons of time and nature's weatherization's soil forming process, this prime agricultural land will be destroyed never to be rebuilt to nature's creation again.

(2) That the facility represents the minimum adverse environmental impact, considering the state of available technology and the nature and economics of the various alternatives, and other pertinent considerations;

(Reply) This project will install acres of solar panels that will change the speed and flow of rainfall creating ephemeral streams that have the potential to cause flooding of ditches and roads. This project will change the wildlife habitat and movement, forcing contiguous property to be over-populated for available food sources.

The project has not disclosed the methods that will be used to clean and maintain these solar panels ( tractor, robotic or manual ).

This project has not disclosed any specific amount of water to be used for operation and maintenance but has used ambiguous language.

The aquifer in the project's area parameters has a limited water supply, and if compromised will induce financial injury to residents dependent upon wells as a source for water.

(3) That the facility is consistent with regional plans for expansion of the electric power grid of the electric systems serving this state and interconnected utility systems and that the facility will serve the interests of electric system economy and reliability;

(Reply) The reliability and resilience of solar are questionable. The electricity produced is not necessary but is excess.

(4) That the facility will comply with R.C. 3704, 3734, and 6111 and all rules and standards adopted under those chapters and under R.C. 1501.33, 1501.34, and 4561.32;

(5) That the facility will serve the public interest, convenience, and necessity;

(Reply) We have not seen statements proving public interest, convenience, and necessity.

We do have an example of the OPSB's logic. This information comes from Hecate 2 and Hecate 4.

The budget director of Cincinnati stated that the power from that project would be budget neutral to a saving of one million seven hundred thousand dollars over a twenty-year period.

That is neutral to eighty-five thousand dollars a year, Cincinnati has a one billion two hundred million dollars annual budget. That is insignificant.

This shows that the logic used to justify public interest, convenience, and necessity is questionable.

(6) What the facility's impact will be on the viability as agricultural land of any land in an existing agricultural district established under R.C. 929 that is located within the site and alternative site of the proposed major utility facility;

(Reply) Certifying the construct of this potential facility will have a negative impact on this agricultural land and it can never be restored to its undisturbed natural state again.

(7) That the facility incorporates maximum feasible water conservation practices as determined by the OPSB, considering available technology and the nature and economics of the various alternatives.

(Reply) This comes from rules made by the USSEC that allows the developer to use ambiguous and not impact specific language so that all can have understanding of the water consumption of a utility facility of this magnitude.

The rule making is made with input from a group of developers led by Jason Rafeld. Let's read this statement.

*Olivia Perry*  
(a) USSEC strongly believes in community engagement as an opportunity for the project developers to understand concerns, incorporate modifications and appropriate permitting conditions to the project design, educate landowners on the benign environmental impact of solar technology, and share the positive local fiscal impact of solar projects. We believe, though, that the sequencing of expanded community engagement should come after the project is comfortable and the initial steps of project development can be achieved.

[https://puco.ohio.gov/static/OPSB/2020\\_rules/USSEC.pdf](https://puco.ohio.gov/static/OPSB/2020_rules/USSEC.pdf)

(b) Written testimony from Jenna Reese Ohio Farm Bureau:

That said, there are many issues with the current siting process our members want to address. Depending on the developer, local officials are often ignored in the Ohio Power Siting Board (OPSB) procedure. The current process allows developers to simply go through the motions of local outreach and "box-checking" knowing their project proposal is likely to be approved regardless of the thoroughness of their work. They are not actually engaging communities because there is no real consequence of local opposition. The opportunity for public comment is so far into the siting process that it is evident it has no meaningful impact in most cases. Moreover, there is no responsibility on the developer or the OPSB to respond to the comments filed in a public hearing by the local community. Local residents are not given due consideration.

(c) Consider that Oct. 4 & 8, 2021, Dodson Creek residents can now take part in a workshop to give input to the making of administrative rules.

The hearing for Dodson Creek is Nov. 10, 2021. I suggest that DUE PROCESS has been denied to the residents of Dodson Creek and that the OPSB has acted with bias and has not allowed residents the justice that any citizen of the State of Ohio should be entitled to but instead the OPSB has taken the rules made by the USSEC and placed an unfair burden on the residents of Highland County.

(d) In our July 8, 2021, meeting with OPSB staff, Director White made the statement that the staff had never been to the Hillcrest project and inspected it and that to go and inspect any facility they had to schedule an appointment. This is a conflicting statement made by Director White in the house hearing on SB52.

Staff Investigation and Report. Staff begins the in-depth analysis of the application as guided by the eight statutory criteria outlined in ORC 4906.10. Staff relies on internal expertise as well as on various state and federal agencies to provide expertise, guidance, and review of relevant portions of the application for potential impacts. During its analysis, staff makes multiple site visits to inspect and confirm conditions as necessary. Staff also reports on the public comments within its written report to the Board and uses the public comments to inform data requests made to the applicant. These measures ensure the public's concerns are addressed. Staff provides its findings and recommendations to the Board in the form of a staff report. The staff report is due 15 days prior to the scheduled public hearing and typically is submitted between 60 and 90 days after the letter of completeness has been issued. This staff report and all public comments are entered into the docket along with the public testimony transcripts from hearings. All this material then goes to the Board as they are considering their decision on the application.

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Again, we suggest that the OPSB staff are acting biased and ambiguous in the decision-making process and the OPSB ( board ) are making certification decisions based on false assumptions.

The articles a, b ,c and d suggest that residents in the Dodson Creek project area have not been given a fair due process and were intentionally brought into the process after this project was COMFORTABLE in the process.

Residents had not been invited to a stakeholders meeting until Oct. 4 and 8, 2021.

The enrollment of SB52 by lawmakers is proof that Ohio legislatures feel that the process that certifies renewable projects are unfair and discounts local communities' rights and denies justice to residents.

The rules made for solar are incomplete and allow too much discretion of developers to build as they please. A simple house built in a zoned area uses a better set of rules than these power plants that affect a much larger area than a house built on a small lot.

We ask that Dodson Creek LLC. be denied because fair due process has been denied to Dodson creek residents.

Thank you.

This is the notice published for the Dodson Creek project. I am going to suggest that the OPSB staff investigative report shows that Dodson Creek LLC have not shown public need , necessity or convenience nor have they presented that they will follow the rules established by the OPSB and the biased USSEC and OFB Ohio Farm Bureau.

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**Thank you.**

My husband and I live on a farm in southern Highland County. We have two sons, and their wives and 6 grandsons who also live on that family farm. Our farm is an Ohio Century Farm, in fact it has been in our family for 6 generations.

Over the years our family has had discussions about the importance of that farm remaining as an agricultural entity. We value using our farm for raising crops and animals, for producing agricultural products for our community. We have even talked about putting it into the farmland preservation program. Now we find that within an 8 mile radius of our farm are 8 industrial solar utilities in some stage of development encompassing approximately 15,000 acres.

Currently, Highland County has 13,262 acres of prime farmland in some type of solar development in 7 separate solar farms. Another 1350-acre solar facility is located in Brown County just across the border of Highland County and the Yellow Wood Energy Center is just across the county line in Clinton County. The village of Lynchburg will be surrounded by 3 Industrial Solar Facilities on a total of 7,500 acres. These solar facilities are all within a 3-mile radius of the village of Lynchburg. There are an estimated 15-20 more solar facilities projected for this area. Dodson Creek will be almost within sight of the Palomino facility.

Based on information found on the Ohio Siting Board website in 10 years we could end up with 13 mil solar panels in this area.

You will hear tonight about what a good deal this is for farmers. We need to remember that not all of the landowners who have sold or leased to the solar companies are farmers. Some rent their property to area farmers. Some don't even live in the area or even in Ohio. It may be good deal for the farmers who have sold or are leasing their land to the solar companies. Or it may not. Ron Heiniger, a NCSU Professor and Extension Crop Specialist gives several facts that indicate solar farming is not a good use agricultural land.

Fact 1. Solar farming will change the future productivity of the land.

Fact 2. Because of this lost productivity and the resulting changes in the farming communities caused by the loss of land, it is highly unlikely this land will ever be farmed again. Over the 20-30 years of this project "agriculture will change such that even when the land comes available you will not be able to afford to put it back into production."

Fact 3. You could be stuck with the cost of decommissioning these solar farms. Why are solar companies leasing land rather than buying it outright? These panels are considered toxic waste and are very hard to recycle. There are not currently places that recycle panels so it is highly likely these panels will be abandoned on your land. The concept of decommissioning is just a pipe dream.

It's not a good deal for the farmers who have may have been renting this land and now will have less income. It's not a good deal for the agricultural product suppliers. They will sell less seed, less fertilizer, fewer tractors and combines. Grain elevators will have less grain to sell. Truckers will have fewer loads to go to market.

It's not a good deal for families who live surrounded by solar panels. It's not a good deal for families who live on the edges of these solar facilities. It's not a good deal if you live across the road or beside a huge substation that looks like something out of Star Wars.

There are 19 landowners who have sold or leased property to Dodson Creek. There are 232 properties that will be within 1500 feet of a solar panel. For every 1 landowner that got a good deal there are 12 landowners who will probably see their properties decrease in value and will have to look out their windows everyday and see solar panels.

Is it a good deal for the Lynchburg-Clay Schools? It has been reported that LC will get \$1.3 from PILOT for the 3 facilities that will surround Lynchburg. How many of the 232 families who live in residences that are within 1500 feet of the Dodson Creek will move away from the area because of that solar facility? Perhaps 10% or 23 families. If each family has 2 children that's 46 children who would leave the LC school system. Now multiply that number by the 3 solar facilities closest to LC. That's a decrease of 138 students, 12% of their current student population. This does not include numbers from the 3 facilities in the eastern part of the school district. Is this a good deal for schools if they lose 12% of their enrollment? LC gets approximately \$10,000 per student in state aid. Multiply that \$10,000 times the 138 students that might reasonably leave the district and that would be a reduction of \$1.3+mil in state aid. So is a 1.3 mil in a PILOT payment a good deal. Let me repeat that. LC could lose \$1.3+ in state aid in exchange for \$1.3 mil in PILOT payments.

You most likely will also hear from Unions who will say what a good deal this is for their members. Good jobs----for the 18-24 months of construction. Then according to Dodson Creek's application there will be 5 jobs for the remainder of the 30 yr project.

You may also hear that solar energy is a good deal for the environment

- A study done by the University of Rhode Island states that "Solar installations require over 10 times more land area than non-renewable sources to generate the same amount of energy."

- After 20 years and billions of dollars in govt. subsidies solar energy still only supplies about 3% of our energy.

--The manufacturing of the equipment needed to produce wind and solar energy is expensive and pollutes the atmosphere. Recycling of the equipment is also not climate friendly and what kind of a landfill will it take for 13 mil 4'X8' solar panels

Quoting from a study reported by Isaac Orr-- "Solar has hidden costs, like the cost of transmission, utility profits, additional property taxes, and the cost of keeping reliable power sources online for when the sun isn't shining or every single night. Once these costs are accounted for, solar is far more expensive than traditional energy sources."

Why are so many solar energy companies interested in our area? As the real estate agents say its location, location, location.

We have flat land, connections to transmission lines that will carry the power **away from** our area, and we are considered an impoverished Appalachian area that needs financial assistance. Project developers dangle the good deal of the PILOT money as an incentive for our schools, fire districts, libraries, etc.

According to the Ohio Dept. of Taxation, using a 200 Mega Watt facility as an example, \$1.8 mil per year would be collected with a PILOT agreement, but w/o the PILOT tax cut, the county would receive \$4.2 mil annually. A difference of \$2.4 mil per year. If southern Ohio is the perfect spot for solar development, why would a county accept a payment that is 57% less than the taxes that could be collected? It seems like we hold all the cards in this deal—location, flat, cleared land, power transmission lines, and an impoverished population. So is it a good deal to accept a PILOT payment that is 57% less than what we would get if Dodson Creek paid their full tax bill?

So who is it a good deal for? Solar companies who are receiving millions of dollars in subsidies such as Federal Investment Tax Credits, solar renewable energy credits, production tax credits, etc. The US Treasury estimates that the Production Tax Credit will cost taxpayers \$40.12 billion from 2018-2027 making it the most expensive tax subsidy under current law. Ohio HB6 gives 20 million a year to 6 solar facilities in Ohio including Hillcrest, Hecate, and Willowbrook. Who pays for those subsidies—you the taxpayer.

At the end of the day it is balancing act.

\*There are 19 landowners who have sold or leased to Dodson Creek and 232 families who will live everyday looking out their windows at a 1500 acre commercial utility plant.

Do the land rights of 19 landowners, some of who do not even live in the area, supersede the right of 232 families who do not want to live within or next to a 1500 acre industrial size utility plant. Or the

farmers who have rented this land and now have a loss of income, or the agriculture business who lose business and income. Or the schools who lose students.

If I was a betting person I'd be bet that industrial solar energy is not going to be around in 20 years.

1. Solar power is inefficient
2. Intermittent—no good way to store the large quantities of power that will be needed to power homes, industry etc.
3. Panels are not environmentally clean to manufacture
4. It takes up too much land
5. This industry is highly subsidized. Highly subsidized projects seldom succeed.
6. There are already more efficient, consistent , cleaner solutions being developed.
7. Recycling is in its infancy. All these solar panels are going to wear out at the same time and we are going to end up with 15,000 acres of solar panel junkyards.

A truism that I often use is: "my rights stop where yours begin." So when we come upon a sticky situation or decision we need to step back and consider how that situation or decision is going to affect my friend, my neighbor, and my community. Just because I can do something doesn't mean it's always the right thing to do.

A handwritten signature in black ink, reading "Karen Faust". The signature is written in a cursive, flowing style with a long, sweeping underline that extends to the right.