PROPOSED ORDINANCE REVISIONS FOR DELAWARE COUNTY'S PROTECTION FROM INDUSTRIAL SOLAR PROJECTS

DELAWARE COUNTY, INDIANA
PLAN COMMISSION

February 17, 2022

PROPOSED ORDINANCE REVISIONS FOR DELAWARE COUNTY'S PROTECTION FROM INDUSTRIAL SOLAR PROJECTS

1. Setbacks. Proper setbacks are necessary for the safety of neighboring property and structures and to help mitigate any negative impacts of a commercial solar project. Citizens are requesting: (i) 1000' from the centerline of any road, (ii) 1320' from the edge of any permanent structure utilized as a dwelling or outbuilding, and (iii) a minimum of 250' from any nonparticipating adjoining property line, unless otherwise agreed upon in writing by the nonparticipating landowner.

2. Property Value Guarantee ("PVG"): Many articles and studies indicate that commercial solar projects can have a negative impact on the value of neighboring properties, with the impact being greater the closer the nonparticipating property is to the commercial solar project. Accordingly, Citizens are requesting that property value guarantees be incorporated into the solar ordinance, as in other counties, to mitigate any such potential loss. Citizens are requesting a PVG be in place for 10 years following the submission of any application/permit for a commercial solar project if such project is a permitted use, or 10 years following any approval of an application for special exception or rezoning (or other approval if not a permitted use), whichever the case may be. Citizens request that the PVG apply to homes within 3 miles of the solar project with the initial baseline value to be determined by two independent appraisers (valuing the home without consideration of any negative impact from the solar project), the costs of which are paid for by the solar project owner / applicant (the "Solar Developer"). If, at the time of a sale for a home subject to the PVG, the homeowner is unable to sell the home for a sales price at least equal to the accepted baseline fair market value (the "Base FMV"), the Solar Developer shall reimburse the homeowner the difference between the Base FMV and the final sale price. At the time of any such sale, determination shall be made as to whether the accepted Base FMV should be upward or downward adjusted based upon inflation or deflation. If the homeowner receives no offers on a listed home for 12 months, Citizens request that the Solar Developer be required to purchase the home for the accepted Base FMV. Citizens further request that the PVG extend to efforts to refinance, to cover any effect of a decreased appraisal value.

3. Water Contaminant and Water Level Testing. To protect the residents of Delaware County, Citizens are requesting that the solar ordinance impose third-party testing to facilitate the creation of a baseline for pre-installation soil quality, ground water quality and levels, as well as surface water levels. Citizens also request that the Solar Developer submit a topography map and watershed plan producing details of how the watershed will work post-production. Throughout and following construction, Citizens request that water quality be tested every 180 days with public notice required to anyone within 3 miles of the project if contaminants are found present.

4. Drainage Outlets. Citizens request that neighboring homes and property owners be provided perimeter drainage to access outlets otherwise blocked by the project.

5. Fire Protection and Control. Citizens request that the solar ordinance incorporate countywide fire and safety standards and training (including retraining on an annual basis to remain current and address turnover), including the provision of necessary equipment, as well as sufficient and proper extinguishing materials so that mutual aid remains beneficial and useful. The training and provision of equipment should be at the expense of the Solar Developer. A detailed fire and safety plan should be made part of the Solar Developer's application, to be considered along with a detailed site layout confirming where structures are located and whether, and to what extent, fire safety equipment is able to gain necessary access.

6. Drainage Accountability. Citizens request that the solar ordinance include a provision imposing liability for damage to private drainage/field tiles that may result from a commercial solar project, including any maintenance expenses.

7. Fencing and Buffers. Citizens request that the solar ordinance be revised to address fencing utilized in connection with commercial solar projects. Citizens request that chain-link fencing not be more than 50%. Citizens request that decorative requirements be imposed for fencing that faces a home or a road, and that each home that is bordered by solar panels have a triple row of alternating conifer and deciduous trees (native to Indiana) to serve as cover. These trees shall be properly maintained at all times and replaced (in the proper growing season) when dead, damaged, or fallen. At least 50% of the chain-link fence shall be wildlife permeable, and all fence lines and open grass covered areas shall be kept cut and trimmed with all trash and debris removed weekly.

8. Decommissioning. Citizens request that the Solar Developer be required to post a bond (or other accepted form of surety) in the amount of 150% of a required estimate of the costs of decommissioning and removal of the commercial solar project system upon the expiration of its useful life, or in the event of its discontinuance or abandonment. The cost estimate should be made by a certified engineer and agronomist, and should be updated every four (4) years to compensate for inflation, possible contamination, and potentially decreased soil quality. There should be no limits on size or depth of what is to be decommissioned - everything that was not present on the project site prior to construction should be removed as part of decommissioning. All land shall be remediated to its original state and relative fertility, as well as the retention or reconstruction of all current pre-project drainage properties and potential for future drainage infrastructure. If the Solar Developer defaults on its decommissioning obligations, Delaware County (or its agents) should retain the right, after appropriate court order, to enter the property and removed any abandoned, hazardous, or decommissioned solar energy system (or component) with funds from the surety on file.

9. Roadway Remediation. Citizens request that roads adjacent to and within the commercial solar project be milled to grade and repaved upon the completion of the project's construction.

10. GREEN Task Force. Citizens request that the solar ordinance include a provision providing for the creation of an oversight committee made up of citizen applicants from each Commissioner District, who then select peers from applicants comprised of already elected county officials. This group (of citizens and elected officials) shall be tasked with remediating issues between the citizens of Delaware County and the solar projects by providing an open line of communication between citizens, county officials, and solar project operators.

11. USA-Made Guarantee. Citizens request that the solar ordinance require that all project infrastructure and materials be made in the USA to provide assurance that the panels and equipment are quality and manufactured in compliance with all American EPA guidelines and other accompanying safety measures.

12. Insurance. Citizens request that the solar ordinance protect residents and the County by requiring the Solar Developer to: (i) maintain a current general liability policy covering bodily injury and property damage, and cyber insurance to protect from data breaches and other cyber security issues. Delaware County should be named as an additional insured with dollar amount limits per occurrence in the minimum amount of ten million dollars ($10,000,000); and (ii) provide fixed site pollution insurance appropriate for the ownership structure of the site including contractor's pollution liability insurance. The amount of coverage should be negotiated as part of the development planning process but shall include a minimum of $1 million in coverage per 200 acres of fenced project area. Terminology should be include in any and all insurance policies providing policy limit adjustments derived from the US Bureau of Labor Statistics Consumer Price Index ("CPI") to protect against inflation. The Plan Commission may review coverage amounts as often as every five (5) years and modify, as necessary, to determine if appropriate limits have drifted too far from the CPI adjusted level.

13. Land Use Limitations. Citizens request that industrial solar fields only be permitted on certain specified land following a rezoning into that newly created district or, alternatively, to be permitted only upon approval as a special exception. Industrial solar fields should not be allowed as a permitted use, certainly without extremely detailed and rigorous development standards. Land that is currently producing crops and is in the F zoning category should not be utilized for industrial solar fields to be deemed as a permitted use. Instead, if the Ordinance is amended to require a rezoning, a special-use Light Industrial designation shall be placed on land being developed into industrial scale solar fields, which would require properly noticed re-zoning. Also, farm ground that is healthy, productive, and able to be farmed should not be allowed to be designated as an area in need of economic revitalization, without sufficient evidence that the ground is no longer of any use to grow crops or raise livestock. Furthermore, until more data and methods can be shown and proven there should be a 1% limit on the amount of currently producing

cropland that may be eventually put into solar projects, which according to the most recent USDA census report, is around 1,678 acres of Delaware County. If the Ordinance is not revised to require rezoning Citizens request that industrial solar fields only be permitted following approval by the Board of Zoning Appeals (the "BZA") as a special exception. This process will allow for a public hearing, with public comment, and require certain findings by the BZA for approval. The process will also allow the BZA to impose reasonable conditions upon any approval to the extent deemed necessary.

14. Proper Public Notification. In addition to any other notices required by the zoning ordinance or Indiana law, Citizens request that the solar ordinance require any Solar Developer to notify (via certified mail) the local area news outlets, school boards, and any homeowners within five miles of the proposed project prior to submitting any application for the proposed project, and at least three times as follows: approximately one year, six months, and one month prior to presenting any contracts/leases to landowners, and the notice shall include a rough map with an approximate target megawatt and acreage for the area.

15. Noise and Light and Other Potential Pollution. The solar ordinance should provide that all accountability is held by the Solar Developer. Standards should be imposed for impacts on the environment, and neighboring properties (such as obnoxious or abnormal glares, hums, or other noises, none of which should not be humanly perceptible beyond the property on which the commercial solar project is located), with the Solar Developer acknowledging in writing that it is responsible for any violations, and that it will remediate any adverse effects or impacts. Citizens request that the solar ordinance provide for a private right of action for any resident of Delaware County to enforce any violations of the solar ordinance, in addition to any such rights held by Delaware County.

EXHIBIT 1

DLMYERS
& ASSOCIATES, LLC

January 29, 2022

317.787.7355

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To Whom It May Concern:

I have been asked to evaluate a rural setting for a solar panel project and its proposed offset from the road. Specifically, I was asked to determine if 150 feet is a sufficient offset from the road should there be a collision involving one or more vehicles.

It is my understanding that the proposed area for the solar panel project is bordered on at least one side by a paved asphalt county road. Most rural county roads in Indiana have a speed limit of 50 miles per hour.

Published coefficient of friction values for paved asphalt range from .65 to .75 (percent of gravity). Older, "polished", asphalt is typically .65. Wet asphalt ranges between .45 and .55. Ice and/or snow-covered asphalt can range between .25 and .45. Additionally, there is normally grass on either side of rural county roads. The friction value most common for grass is .55.

The standard speed equation for a vehicle skidding to a stop is based upon Isaac Newton's First Law: The Law of Inertia. The equation is:

$$\text{SPEED} = \sqrt{30 \times d \times f}$$

The formula takes the mathematical constant of 30 and multiplies it by the distance a vehicle slides multiplied by the coefficient of friction. Taking the square root of the resulting number will provide the minimum speed the vehicle was traveling prior to applying the brakes. For example, a vehicle sliding 100 feet to a stop with a friction value of .75 would be traveling at least 47.43 miles per hour at the start of the skid.

The speed formula above does not account for any redirection of a vehicle having been struck by another vehicle. Such an impact could reduce the distance of the skid, redirect a vehicle towards a different direction or even cause it to become airborne.

When there is a need to determine the distance in which a vehicle will take to slide to a stop using a known speed and friction factor, the following formula is used:

$$\text{DISTANCE} = \frac{S^2}{30f}$$

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If the speed of 47.43 miles per hour and friction value of .75 is used in the formula above, the resulting distance is 100 feet.

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Using the second formula, the following are distances in which a vehicle would travel when sliding to a stop using various speeds and coefficient of friction values:

$$\text{DISTANCE} = \frac{S^2}{30f}$$

SPEED	"F"	=	DISTANCE (FEET)
45	0.25		270
	0.30		225
	0.35		193
	0.40		169
	0.45		150
	0.50		135
	0.55		123
	0.60		113
	0.65		104
	0.70		96
	0.75		90

SPEED	"F"	=	DISTANCE (FEET)
55	0.25		403
	0.30		336
	0.35		288
	0.40		252
	0.45		224
	0.50		202
	0.55		183
	0.60		168
	0.65		155
	0.70		144
	0.75		134

SPEED	"F"	=	DISTANCE (FEET)
50	0.25		333
	0.30		278
	0.35		238
	0.40		208
	0.45		185
	0.50		167
	0.55		152
	0.60		139
	0.65		128
	0.70		119
	0.75		111

SPEED	"F"	=	DISTANCE (FEET)
60	0.25		480
	0.30		400
	0.35		343
	0.40		300
	0.45		267
	0.50		240
	0.55		218
	0.60		200
	0.65		185
	0.70		171
	0.75		160

Based on the figures above, a vehicle traveling at 50 miles per hour on polished asphalt with a friction value of .65 would need 128 feet to slide to a stop.

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The calculations above presume that the vehicle's brakes are all working at 100%. While many people would presume that the braking systems of all vehicles work properly, that is simply not the case.

Once a crash has occurred, a braking system examination can be conducted. Using the vehicle's overall weight and the distribution of that weight on the front and rear axles, a true representation of the vehicle's overall braking efficiency can be determined.

Take for example a vehicle that has 60% of its weight on the front axle and 40% on the rear. After examination, it is determined that the right front brake was not working at the time of the collision. In this example, the vehicle only has 70% braking efficiency.

The first formula used to calculate the speed of a vehicle was:

$$S = \sqrt{30 \times d \times f}$$

Remember that "f" is the coefficient of friction. In the case of our example vehicle, it is not achieving the full friction value because not all its brakes are working (or working to their full potential). The example vehicle has only 70% braking efficiency.

Using the friction value of .75, you would multiply it by 70%. The new friction value for the vehicle is .525.

The initial speed of the example vehicle was 47.43 miles per hour, and it started its skid 100 feet back from its final resting point with a friction value of .75.

The second formula calculates a stopping distance from a speed using a specific friction value. Our example vehicle now has a reduced friction value of .525.

The example vehicle now requires 143 feet to slide to a stop. This is an additional 43 feet just because one brake wasn't working.

During my 26 years as a law enforcement officer, I would routinely find people speeding on country roads and exceeding a reasonable speed based upon the weather and road conditions. Therefore, I will make observations based upon a speed of 55 miles per hour on the same polished asphalt surface (the "road").

The best-case scenario for a vehicle travelling on the road at 55 miles per hour, and with all four brakes working at 100%, would be for it to come to a stop in 155 feet. If the road was wet, that stopping distance increases to up to 224 feet.

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Ultimately, the total stopping distance of an out-of-control vehicle that leaves a country road will vary. The types of surfaces the vehicle would traverse will slow the vehicle to varying degrees. For example, how far did the vehicle skid on the road before leaving it? Did the vehicle slide onto grass and then into a farm field? Was the field wet, dry or frozen? Were crops planted? What time of year did the crash occur? At what angle did the vehicle leave the road?

Also, what was the braking efficiency of the vehicle involved in the crash? A traffic crash reconstructionist would need to examine all these factors before being able to calculate a pre-skid speed or distance traveled.

The question I was given was whether a 150-foot offset for a solar panel project was safe or if that distance should be increased.

My calculations above indicate that it would be prudent to locate any type of development, absent a berm or other barrier, no less than 250 feet from a roadway in a rural setting.

Thank you for the opportunity to be of service to you in this matter. Please contact me with any questions regarding this report.

Very truly yours,

D.L. MYERS & ASSOCIATES, LLC

David L. Myers
Traffic Crash Reconstructionist
Crash Data Analyst

EXHIBIT 2

EXHIBIT 2(A)

Policy Research Project (PRP), LBJ School of Public Affairs,
The University of Texas at Austin, May 2018.

Project Director:
Dr. Varun Rai

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

Leila Al-Hamoodah, Kavita Koppa, Eugenie Schieve, D. Cale Reeves, Ben Hoen, Joachim Seel and Varun Rai

Abstract

Nationwide, electric utilities increasingly rely on solar installations as part of their energy portfolio. This trend begs the question of how they affect nearby home values. Understanding whether these installations are amenities or disamenities and the scale thereof will help policymakers, solar developers, and local utilities to site and build solar installations with minimal disruption to nearby communities. This paper investigates where large solar installations are located, the housing and income characteristics of the surrounding areas, and if the installations affect nearby residential property values. We approach these questions using geospatial analysis and a survey of residential property assessors. Geospatial analysis examines both housing density and median income surrounding these facilities, while the survey gauges local assessors' opinions of the impacts of these installations on property values. Property values can be a useful proxy for various non-market goods like scenic value, tax benefits, and of particular interest here, both positive and negative perceptions of utility-scale solar facilities. Our results show that while a majority of survey respondents estimated a value impact of zero, some estimated a negative impact associated with close distances between the home and the facility, and larger facility size. Regardless of these perceptions, geospatial analysis shows that relatively few homes are likely to be impacted. Though only one component of a larger analysis, these property value impacts are likely to be of growing interest as more solar facilities are built. This exploration of impacts will help inform solar developers, public officials, home assessors, and homeowners about the effects and implications of solar energy infrastructure.

Introduction

The installation of utility-scale solar facilities continues at a rapid pace across the United States, with over ten gigawatts of new photovoltaic (PV) capacity installed in 2016 alone (Bollinger et al., 2017: p. 1; Perea et al., 2016). These utility-scale PV installations, often informally called solar farms (Fehrenbacher, 2016; New York State PV Trainers Network, 2017), are defined here to include installations one megawatt (MW_{AC}) and larger. Like other power plants, these utility-scale solar installations have the potential to impact nearby home values. The potential adverse impact on home prices due to the installation of solar utilities is relevant to solar developers, public officials, home appraisers, and homeowners, yet no peer-reviewed literature has directly addressed the subject to date.

The primary research question is: Do utility-scale solar PV installations impact the value of nearby homes? This study contributes to the existing literature on amenities and disamenities

Appendix D.7 - Estimating Property Value Impacts in Dollar Terms ($)

To estimate property value impacts in dollar terms, we pulled county-level median home value from the U.S. Census Bureau's 2016 American Community Survey. The below table converts the estimates of property value impacts provided by survey respondents into dollars, based on the median home value in each respondent's county. If this impact were the true impact and the home values were the same for the whole county, then the results suggest that being located 100 feet from a 20MW solar installation would be associated with a $26,252 decline in home value, on average. By contrast, living three miles from a 1.5MW installation would be associated with an average $1,098 gain in value. Of course, variations in median home values and effect sizes across the United States could lead to significant differences by region.

Table: *The below table provides descriptive statistics on the estimate of home value impact translated into dollars. The dollar impacts are estimated by multiplying each respondent's estimate of impact (%) with the median home price in their county.*

Estimates of Property Values Impacts ($) by Size and Distance

	Median	Mean	Min	Max	St. Dev.	n
1.5 Megawatts						
100 feet	$0	-$18,874	-$98,760	$1,613	$31,621	17
500 feet	$0	-$9,926	-$74,070	$3,226	$19,841	18
1000 feet	$0	-$5,787	-$49,380	$4,839	$13,427	18
1/2 mile	$0	$411	$0	$6,452	$1,524	18
1 mile	$0	$877	$0	$9,989	$2,547	18
3 miles	$0	$1,098	$0	$11,416	$3,008	18
20 Megawatts						
100 feet	$0	-$26,252	-$119,400	$6,330	$40,673	18
500 feet	$0	-$17,230	-$76,600	$6,330	$27,051	18
1000 feet	$0	-$9,842	-$59,700	$951	$18,367	18
1/2 mile	$0	-$3,475	-$39,800	$4,281	$10,398	18
1 mile	$0	-$398	-$19,900	$8,562	$5,301	18
3 miles	$0	$866	$0	$11,416	$2,745	18
102 Megawatts						
100 feet	$0	-$24,136	-$119,400	$12,660	$38,859	17
500 feet	$0	-$20,998	-$79,600	$12,660	$31,354	18
1000 feet	$0	-$14,961	-$61,950	$0	$23,540	18
1/2 mile	$0	-$6,971	-$49,560	$951	$14,704	18
1 mile	$0	-$4,065	-$39,800	$2,854	$12,549	18
3 miles	$0	-$637	-$24,780	$11,416	$6,601	18

EXHIBIT 2(B)

ENERGY & ENVIRONMENT

Written by Isaac Orr | October 19, 2020

Study: Solar Panels Reduce Nearby Property Values

A newly-released study from the University of Rhode Island (URI) has found that solar facilities reduce property values for nearby properties.

I'm generally skeptical about studies that claim to be able to model the impact of a given development on neighboring property values because I have reservations about many of the assumptions used to formulate them (sound familiar?), but I'd encourage you all to look at the methods used to come to these conclusions and decide for yourselves whether you think they are reasonable, or not.

Study Results: Solar is Driving Down Property Values

The study examined more than 400,000 housing transactions occurring within one to three miles of 208 different solar installations, meaning the findings are not simply a product of a small or cherry-picked sample.

> *"Our results suggest that solar installations negatively affect nearby property values... property values in the treatment group decline 1.7% (or $5,751) relative to the control group."*

> *"These findings suggest that solar arrays create local, negative externalities, and the average household annual willingness to pay to avoid these externalities is $279. This helps explain local concerns and opposition and gives pause to current practices of not including proximate residents in siting decisions or compensating them after siting has occurred."*

The study also found that homes that are built closer to solar installations suffer a greater decrease in property value than those that are further away:

> *"We find substantially larger negative impacts on homes located within 0.1 mile of solar installations (-7.0 percent)."*

Reductions in property value were also higher in suburban areas than areas that are less heavily populated. SouthCoastToday reports suburban housing prices within a mile of the array dropped by 5 percent. This is probably why we don't see many solar installations and we see no large, industrial wind turbines in ritzier Twin Cities suburbs.

Why should they have to have their property values diminished when they can push projects out into Greater Minnesota?

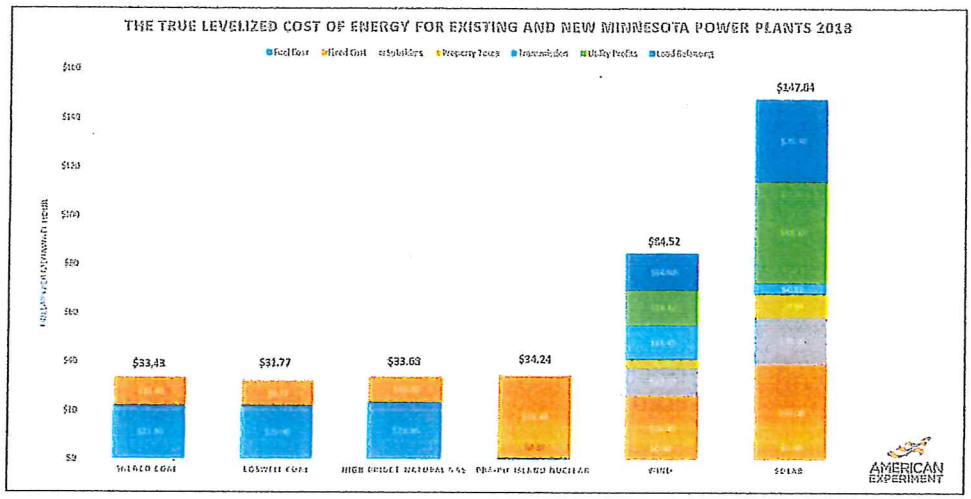
In all, the study found that solar installations reduced regional property values by about $1.66 billion.

Solar is A Net Loser, Even After Accounting for Externalities

Solar advocates almost always try to say that solar is lower cost than other sources of energy like coal, natural gas, or nuclear power by citing the subsidized cost of solar against the cost of building a new coal plant, gas plant, or nuclear power plant in Lazard's Levelized Cost of Energy Analysis, but this is a dishonest comparison.

Electricity demand has been flat in the United States for years, meaning we don't need new power plants. Therefore, the most honest comparison is to look at the cost of generating electricity at existing power plants against the unsubsidized cost of solar. One must also look at all the hidden costs of solar, like transmissions, utility profits, additional property taxes, and the cost of load balancing, or keeping reliable power sources online 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, as you can see in the graph below.



When caught in this lie, solar advocates usually like to turn the conversation to the supposed environmental benefits of solar, which mostly revolve around reducing carbon dioxide emissions. Solar advocates argue that yes, solar may *look* like it costs more, but once the environmental benefits are accounted for, it's actually less expensive.

The URI study found this wasn't the case regarding property values.

> *"Our estimates imply that the global positive external benefits of carbon mitigation are outweighed by local externalities costs. We find that, considering only externalities, the benefit-cost ratio is 0.46, with a net loss of $893 million."*

Authors of the study cautioned against trying to apply the findings of this study to other areas, and I think that's the correct thing to do because the areas studies have higher population density than most areas. However, it certainly lends credence to those who fear that their property values will be affected by allowing solar installations to be cited too close to their property.

At the end of the day, solar panels require a lot of land. The study found that it requires about 5 acres of land for each MW of capacity, and that the facilities create local land use "disamenities," or nuisances. Trying to run our electric grid on wind and solar (which is a very bad idea) will inevitably result in more land use conflicts, and local residents are getting fed up with these projects all over the country. It appears some of their concerns are founded in reality.

Isaac Orr is a Policy Fellow at Center of the American Experiment.
isaac.orr@americanexperiment.org

EXHIBIT 2(C)

The undersigned are Real Estate Brokers with many years of collective experience in the agriculture community in Madison and/or Tipton County.

For those of us who have worked with landowners affected by the wind energy plant, it has been our experience that there is concern from potential Buyers considering properties located near them. While solar energy plants and wind energy plants are different, the 850 country acres that will be covered with solar panels will change the landscape from adjoining properties. Buyers may also be wary of other effects of such a large solar installation as a neighbor, and this may also affect sales. The closer in proximity, the louder the sounds produced by solar energy, and the more the country view that is obstructed, will likely result in increased negative effects on the property value. Therefore, it is our professional opinion that a change in character and view will most likely affect the value and lengthen the time on the market that is necessary to find the appropriate buyer for the properties adjoining the solar energy plant. It is our professional opinion that there are and/or can be negative effects when agricultural land uses are changed to non-agricultural uses in this country setting, and making such a consequential decision should be seriously weighed with the utmost of professional care, & consideration given to voices of current homeowners in this community.

Signed:

Frances Denise Sonner — 5-20-19

Signature — Date

T & D Realty LLC — 13 Years

Name of Company — Number of Years in Business

Other pertinent info, opinions, statements:

I have received negative feedback from agents showing my listings near windmills. I have represented Buyers with criteria to not purchase near windmills, solar plants, electrical power plants/stations.

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Signed:

Julayne Myers — May 22, 2019

Signature — Date

Myers Real Estate — 24 years

Name of Company — Number of Years in Business

Other pertinent info, opinions, statements:

We have already had clients stating they would not purchase property close to the Solar Panels. It will affect our Listings. Why take Beautiful farm ground? take the Solar panels to Vacant parking Lots in Anderson where No one cares.

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For those of us who have worked with landowners affected by the wind energy plant, it has been our experience that there is concern from potential Buyers considering properties located near them. While solar energy plants and wind energy plants are different, the 850 country acres that will be covered with solar panels will change the landscape from adjoining properties. Buyers may also be wary of other effects of such a large solar installation as a neighbor, and this may also affect sales. The closer in proximity, the louder the sounds produced by solar energy, and the more the country view that is obstructed, will likely result in increased negative effects on the property value. Therefore, it is our professional opinion that a change in character and view will most likely affect the value and lengthen the time on the market that is necessary to find the appropriate buyer for the properties adjoining the solar energy plant. It is our professional opinion that there are and/or can be negative effects when agricultural land uses are changed to non-agricultural uses in this country setting, and making such a consequential decision should be seriously weighed with the utmost of professional care, & consideration given to voices of current homeowners in this community.

Signed:

Signature Ray Watson

5-21 2019
Date

Bill Brogdon Realty, LLC
Name of Company

Number of Years in Business 26 years.

Other pertinent info, opinions, statements:

I recently represented some buyers, showing them a listing in the county North of Jackson. They wanted to make an offer, but declined due to the pending Solar Plant construction

The undersigned are Real Estate Brokers with many years of collective experience in the agriculture community in Madison and/or Tipton County.

For those of us who have worked with landowners affected by the wind energy plant, it has been our experience that there is concern from potential Buyers considering properties located near them. While solar energy plants and wind energy plants are different, the 850 country acres that will be covered with solar panels will change the landscape from adjoining properties. Buyers may also be wary of other effects of such a large solar installation as a neighbor, and this may also affect sales. The closer in proximity, the louder the sounds produced by solar energy, and the more the country view that is obstructed, will likely result in increased negative effects on the property value. Therefore, it is our professional opinion that a change in character and view will most likely affect the value and lengthen the time on the market that is necessary to find the appropriate buyer for the properties adjoining the solar energy plant. It is our professional opinion that there are and/or can be negative effects when agricultural land uses are changed to non-agricultural uses in this country setting, and making such a consequential decision should be seriously weighed with the utmost of professional care, & consideration given to voices of current homeowners in this community.

Signed:

Justin Puckett Justin Puckett 5/22/2019

Signature Date

Berkshire Hathaway Indiana Realty 11 years

Name of Company Number of Years in Business

Other pertinent info, opinions, statements:

This Solar Farm project is currently negatively affecting present and past clients. I have a listing on State Road 28 that is a homesite and 19 acres and the farm ground directly behind it will be part of the solar project. We have already had potential customers decide to not pursue the property because of the idea of these solar panels being directly adjacent to the property. Past clients are extremely worried about their property values declining. It's inevitable that the property values will

go down. I highly doubt that there is 1 person on this planet that would willingly choose to live next to a Solar Farm. Prior to the Solar Farm project conversation, the real estate market in these areas has experienced a 10%-30% increase in property values over the last 24 months. These residents have waited a long time for the real estate market to finally show an increase in property values. Now that they finally have that, this Solar Farm will directly send this real estate market back into a downward spiral.

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Signed:

Tamra Gooding 5-22-19

Signature Date

TAMRA GOODING, MANAGING BROKER/OWNER

Name of Company: DYER REAL ESTATE, INC

Number of Years in Business: 36 YEARS

Other pertinent info, opinions, statements:

WE HAVE HAD CLIENTS SAY THAT THEY WILL NOT PURCHASE A HOME NEAR THE SOLAR SITES. IT WILL AFFECT THE VALUES OF HOMES AROUND THEM.

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For those of us who have worked with landowners affected by the wind energy plant, it has been our experience that there is concern from potential Buyers considering properties located near them. While solar energy plants and wind energy plants are different, the 850 country acres that will be covered with solar panels will change the landscape from adjoining properties. Buyers may also be wary of other effects of such a large solar installation as a neighbor, and this may also affect sales. The closer in proximity, the louder the sounds produced by solar energy, and the more the country view that is obstructed, will likely result in increased negative effects on the property value. Therefore, it is our professional opinion that a change in character and view will most likely affect the value and lengthen the time on the market that is necessary to find the appropriate buyer for the properties adjoining the solar energy plant. It is our professional opinion that there are and/or can be negative effects when agricultural land uses are changed to non-agricultural uses in this country setting, and making such a consequential decision should be seriously weighed with the utmost of professional care, & consideration given to voices of current homeowners in this community.

Signed:

Marie Dunken — 5/22/19

Signature — Date

Carpenter Realtors — 17 years

Name of Company — Number of Years in Business

Other pertinent info, opinions, statements: It is my opinion that the Solar Farm will have a negative effect with buyers and will decrease the home value of property if the solar panels are anywhere close or can be seen by potential home buyers. Buyers tell me if I can't see a windmill from a home I think they maybe interested in. They say "if I can see a windmill its to close" and will not look at it or consider any home that would be close to a windmill, solar farm or electric power plants.

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Signed:

(Alisha Sheaf) 5-23-2019

Signature Date

Berkshire Hathaway 1

Name of Company Number of Years in Business

Other pertinent info, opinions, statements:

Anytime I show property in the proposed solar panel area the interest of prospective clients declines almost immediately upon hearing that the property they are looking at will be anywhere in the vicinity of this solar complex. It is my opinion based on the reactions of my clients that it is not desirable to live in the middle of a solar complex, especially when the idea was to live out in the country with the views of farmland.

Gmail tanddrealty . <tanddrealty@gmail.com>

. w: 13377 N 500 W

1 message

Ray Watson <rwatson9469@yahoo.com> Thu, Sep 19, 2019 at 9:04 AM
To: "Tanddrealty ." <tanddrealty@gmail.com>

----- Forwarded Message -----
From: Sheila Ball <skjball@yahoo.com>
To: "rwatson9469@yahoo.com" <rwatson9469@yahoo.com>
Sent: Wednesday, September 18, 2019, 11:37:08 PM EDT
Subject: 13377 N 500 W

The property you showed us at the above location was lovely. Our main concern for not making an offer was fear of having the solar panels across the road from us and/or behind us. It saddened us to have to pass on this property, but we could only see the value go down if they were to surround the area with these panels. We love the beauty of the land, and if this goes through the beauty will disappear.. Gordon & Sheila Ball

Sent from my iPhone

Board of Zoning Appeals
16 E 9th St.
Anderson, IN 46016

Dear Board Members,

I am very interested in the house for sale at 12759 N 500 W, Alexandria, IN 46001. I am deterred from even pursuing looking any further into the purchase knowing that it may be surrounded by solar panels in the future. The house is listed at $199,900 and as one's home being their biggest investment, what will this property be worth if I were to decide to sell in 15-25 years? This is not a risk I am willing to take along with many other unknowns on the future of this project.

Thank you for your time,

Andrea Mayfield
(317) 847-9450

I appear before the Board of Zoning Appeals on August 29, 2019 to give the following statement:

Hello. My name is Bethany Keller. I am here tonight on behalf of my husband, Timothy Keller, myself, and my son Theodore. You may have seen him in here; he is four months old. I currently reside at 1650 Plum Street, Terre Haute, IN. We want to move our family to Madison County. We want to live here the rest of our lives. We are in the processes of buying property at 3764 W State Road 28, Alexandria, IN. It is smack dab in the middle of this project. I have an appraisal report here, if you are interested. I also have a purchase agreement. We wanted this property. Then after we found out about the solar farm, we were very hesitate. We are moving forward with it, because this is our dream. We are buying it for $117,000. Its 18.5 acres with a 2000 square foot house. It appraised for $140,000. We are getting this at 16.5% less than appraisal value, and we are still gambling our financial future, our son's financial future, and our future health on this. So, [illegible] not willing to pay more than this, be[illegible]'s been in her family for 97 year[illegible] the only local that is going to be [illegible]is [solar farm] is going to affect my [illegible].5 acres, 2000 square foot house, [illegible]or the time.

This home sale is proof that the proposed solar plant hurt the property values. This was a 16.5% decline in value

Respectfully subm[illegible]

Bethany

Bethany Keller

EXHIBIT 3

EXHIBIT 3(A)

2) Operation and Maintenance

a) Operator

(1) Unless otherwise specified through a contract or agreement, the property owner of record will be presumed to be the responsible party for owning and maintaining the Solar Energy System.

b) Insurance and Guarantees - Commercial SES

(1) The owner or operator of any commercial SES shall maintain a current general liability policy covering bodily injury and property damage, and cyber insurance to protect from data breaches and other cyber security issues. Franklin County shall be named as an additional insured with dollar amount limits per occurrence in the amount of ten million dollars ($10,000,000) minimum for all SES with a liability study by three (3) independent insurance companies to determine adequate coverage. Proof of liability insurance shall be sent to the Executive Director annually; failure to maintain said insurance shall result in cancellation of the Improvement Location Permit by the Executive Director.

(2) The owner or operator of any commercial SES shall provide a hold harmless agreement with all adjacent non-participating landowners with property boundaries adjacent to the site. To prevent moral hazard, such hold harmless provision shall only apply to negligence and not to willful, wanton, or reckless conduct and shall only hold the adjacent non-participating property owner harmless for damages greater than $100,000 per occurrence.

(3) The owner or operator of any commercial SES shall provide fixed site pollution liability insurance appropriate for the ownership structure of the site including contractor's pollution liability insurance. The amount of coverage shall be negotiated as part of the development planning process but shall include a minimum of $1 million in coverage per 200 acres of fenced project area.

(4) The owner or operator of any commercial SES shall agree to a property value guarantee agreement drafted by the County with the purpose of protecting against diminished value of a non-participating adjoining landowner with a residence located within one thousand (1000) feet of any commercial SES. Such agreement shall include at least the following:

(a) Within twelve (12) months of the completion of a SES system, an affected property owner may request an appraisal of their residential property based on similar properties located at least two miles away from the SES system. Such appraisal shall be conducted at the expense of said Owner/Operator and be conducted by a mutually agreeable appraiser. (If no agreement on an appraiser can be reached, the affected adjacent property owner and the project owner/operator shall each select an appraiser and those appraisers shall cooperatively select a third, independent appraiser to conduct the appraisal).

(5) It is the responsibility of the owner or operator listed in the application to inform the Executive Director of all changes in ownership of any insurance policy or guarantee agreement. during the life of the project, including the sale or transfer of ownership or policy cancellations. The county shall be named as a notified party by the insurance provider in the event there is a lapse in coverage.

(6) Cost adjustments: Terminology shall be included in any and all insurance policy or guarantee agreement that provides policy limit adjustments derived from the US Bureau of Labor Statistics Consumer Price Index (CPI) to protect against inflation. The Area Plan Commission (APC) may review coverage amounts as often as every Five (5) years and modify, as necessary, to determine if appropriate limits have drifted too far from the CPI adjusted level.

c) Fire Protection and Emergency Management

(1) The owner or operator shall provide fire suppression equipment, appropriate training and supplies necessary to enable the Fire Department and Emergency Medical Services to respond effectively to an emergency event such as fire or life-threatening event at the site. If the owner/operator and emergency services provider cannot reach an agreement on such

EXHIBIT 3(B)

2. A property-value guarantee (PVG) shall be afforded to non-participating, presently constructed property for properties where a boundary of which is within 1 mile of a parcel upon which a solar-energy site is built so long as they meet the following stipulations:

a. The property owner must apply to participate in the PVG program no later than the start of construction of the solar site nearest to the property in question. The PVG shall expire 12 years after the start of construction.

b. The PVG applies only to the original applicant-owner and to structures in place at the time of registration in the PVG program. Persons who purchase property in the affected area knowing that a solar-energy system will be developed, is under development, or is operational, are not eligible for the PVG, nor are structures built after construction has begun of the solar-energy project.

c. The PVG shall apply only to buildings. Land committed to plant-agricultural production, forests, or pasture or left fallow shall not be included except in such cases in which incontrovertible evidence may be provided that noxious externalities created by the project have negatively impacted the usability of such land, regardless of the distance between a solar-energy site and the property in question. In these cases, determination of loss of value shall be based on real-time comparisons to comparable properties not in the vicinity of a solar-energy site or its range of impact.

d. The benefits of the PVG shall be enjoyed only upon the sale of the property.

i. At the time of registration in the PVG program, an appraisal of the subject property shall be conducted by a certified appraiser of the County plan administrator's choosing and at the developer's cost. If the homeowner is not satisfied by the appraised value, they may hire another appraiser, at their own cost, to conduct a second appraisal. If the second appraised value is higher than the first, the average of the two shall be used as the accepted fair market value (FMV). If the second appraised value is lower than the first, than it shall be discarded, and the first, higher value shall be used as the accepted FMV for the homestead.

Alternatively, a PVG program applicant-homeowner may submit an existing appraisal, performed by a certified appraisal, no more than 18 months old.

ii. If, at the time of sale, a participant-homeowner is unable to secure a sale price at least equal to the accepted FMV, then the solar-energy–system developer shall be responsible for reimbursing the participant for the difference between the accepted FMV and the final sale price. At the time of any such sale, determination shall be made as to whether the accepted FMV should be upward or downward on account of inflation or deflation.

iii. If the applicant-homeowner receives no offers on the home within 12 months, due to no fault of theirs or their heirs own, then the solar-energy–system developer shall purchase the home for the accepted FMV, as determined by the original appraisal which was completed at the time of registration in the PVG program.

EXHIBIT 3(C)

P. Dust Control - Reasonable dust control measures will be required by the County during construction of the CSES.

Q. Sewer and Water

1. Any facility shall comply with existing septic and well regulation as required by the Kosciusko County Health Department and the State of Indiana Department of Public Health.

2. Wells within one mile of each site shall be inspected by a licensed certified Indiana well installed prior to and following construction. All expenses associated with the inspections shall be at the expense of the developer. Any damage/pollution caused by the operations of CSES or their construction shall be repaired at the expense of the developer and construction companies and these companies are required to provide commercial water tanks and water to affected homes until an investigation is complete and problems, if caused by CSES construction or operation, are mitigated.

R. Fire Prevention and Emergency Response Plan and Requirements.

1. Description of the potential fire and emergency scenarios that may require a response from fire, emergency medical services, police or other emergency responders.

2. Designation of the specific agencies that would respond to potential fire or other emergencies.

3. Description of all emergency response training and equipment needed to respond to a fire or other emergency including an assessment of the training

S. The site plan and other documents shall illustrate and describe mitigation measures to minimize potential impacts on the natural environment including, but not limited to wetlands, avian and wildlife (migratory bird patterns and bat population effects), other fragile ecosystems, historical/cultural sites and antiquities.

T. Glare - At no time shall a (CSES) create glare on any non-participating landowner's property. For the purpose of this section a non-participating landowner shall be defined as a landowner on which no part of the CSES does not physically sit.

U. Property Value Guarantee will be offered by the solar developer to all residents and landowners within two miles of a CSES. Fair market value will be established by, at minimum, two reputable appraisers of the Kosciusko County Plan Commission's choice to establish baseline data for property values at the solar developer's expense. If the property value of a home decreases and a home or landowner is unable to sell his property after the CSES is erected, the

developer will pay that landowner the difference or buy the property at the baseline fair market value determined prior to construction of the solar project.

V. Prior to meeting with landowners in Kosciusko County to secure leases and holding private meetings with residents, the solar developer must notify every household and landowner within five miles of a planned solar project of their intentions to develop a CSES in the area via certified letter. The solar developer must also contact the Kosciusko County Plan Director and inform the Kosciusko County Planning Commission of their intent to develop a CSES in Kosciusko County prior to notice being sent to residents and landowners and prior to meeting with landowners to secure solar lease contracts in Kosciusko County.

W. Screening & Buffering -Proper screening and buffering shall be installed to reduce the visual impact on adjacent properties as deeded necessary by the Kosciusko County Board of Zoning Appeals.

3.30.5.4.2 SPECIAL EXCEPTION APPROVAL REQUIRED

A. All CSES shall be subject to special exception approval and all requirements for special exception uses in Article 5, section 5.4. In addition to the general standards of approval for special exception, all special exceptions regulated under this Article shall comply with the following standards of approval:

1. The use shall meet all general requirements listed above in Section 3.30.5.1

2.-All decommissioning money paid to Kosciusko County to be placed in an interest accruing account controlled by Kosciusko County prior to the approval of any permits. In order to ensure the proper removal as required under section 3.30.5.4.4 of any abandoned or dangerous CSES.

3. The special exception, if granted by the BZA, for a proposed project shall be valid for a period of one (1) year in which to apply for an Improvement Location Permit, after which, approval shall terminate and be of no further force or effect if construction in earnest of the approved tower/s has not commenced. The Applicant shall be granted a one (1) year extension to result in a total of two (2) years from the date of the BZA approval if the Applicant presents a request for an extension to the BZA and provides a report to the BZA which shows the progress made on the project. Thereafter, an additional extension shall be at the BZA's discretion.

B. APPLICATION REQUIREMENTS
Prior to the construction of a CSES, the Applicant shall obtain approval for the following: (1) an Application for an Exception Use from the Kosciusko County Board of Zoning Appeals ("BZA") to permit a CSES in any zone list under table A, (2) Request for Variance for any variances anticipated on the CSES Project, and (3) Drainage approval as required under the Kosciusko County Stormwater and Erosion Control Ordinance when deemed necessary, (4) an Improvement