| From:    | PSC Executive Director                 |
|----------|--|
| To:      |  |
| Subject: | 2021-00127 Rhudes Creek Solar LLC      |
| Date:    | Thursday, January 13, 2022 11:43:00 AM |

Thank you for your comments on the application of Rhudes Creek Solar, LLC. Your comments in the above-referenced matter have been received and will be placed into the case file for the Commission's consideration. Please cite the case number in this matter, 2021-00127, in any further correspondence. The documents in this case are available at <u>View Case</u> Filings for: 2021-00127 (ky.gov).

Thank you for your interest in this matter.

From: PSC Public Information Officer <<u>PSC.Info@ky.gov</u>>
Sent: Wednesday, January 12, 2022 4:30 PM
To: PSC Public Comment <<u>psc.comment@ky.gov</u>>
Subject: FW: 2021-00127 Rhudes Creek Solar LLC

From: Trina Martin
Sent: Wednesday, January 12, 2022 12:18 PM
To: PSC Public Information Officer <<u>PSC.Info@ky.gov</u>>
Subject: 2021-00127 Rhudes Creek Solar LLC

Kentucky Public Service Commission 211 Sower Blvd Frankfort, KY 40602

RE: 2021-00127

To whom this may concern,

I attended the public meeting on January 10th and had several questions that I would have liked to have posed to the commission but unfortunately ran out of time. Please review the following:

Rhudes Creek Solar has said that the only noise will be from the fans on the inverters. They have also stated they are using tracking Panels. Do the panels not make noise as they track the sun? Have they provided information on that noise?

Do they have data on the noise from their proposed 1.5-mile transmission line & how it will affect neighboring homes?

Rhudes Creek Solar (specifically Mr. Chang) has explained that their responsibility will stop at the connection with a switchyard. Will LGE/KU be responsible for building this switchyard? Who will that cost be passed onto? Will it be us consumers?

Rhudes Creek Solar (specifically Mr. Saiz) has stated that LGE/KU will have to upgrade 14 transmission lines. Who will that cost be passed onto? Will it be us consumers?

Will the upgrades to these 14 transmission lines create more noise? How will that noise affect nearby homes?

Addington Field Airport is a local airport and within 5 nautical miles of this project. This project is within the direct flight path of both inbound & outbound flights. Will the glare from these panels create problems for aircraft considering the low elevation at the time of "passover"?

Why have they not submitted a decommission plan as part of approval? They say they have a global footprint & many projects across the US. How do they not already have some type of plan & estimate of cost?

Will their decommissioning plan cover the 1.5 mile transmission line that they have to build?

Will their decommission plan cover the switchyard that has to be built? If not, will that be the responsibility of LGE/KU? Who will that cost be passed onto, us consumers?

When the project is finished will those 14 upgraded transmission lines have to be resized appropriately? Who will be responsible for that? Will that cost be passed on to us consumers?

Are the decommissioning plans built into the leases with the land owners?

Rhudes Creek Solar (specifically Mr. Saiz) stated they are going to contract with sheep farmers to raise sheep under the panels. How are they going to give access to these farmers to maintain their sheep? Does it show this in their plans? Sheep are finicky 7 require a lot of maintenance unlike cattle. Farmers need 24/7 access especially during the birthing season. How will they keep the sheep rotated so they don't eat all the vegetation & cause erosion? Is this laid out in their plan? How will they keep the sheep from damaging the panels or chewing on electrical components? Is this laid out in their plan?

If erosion occurs or there are water run-off issues how will that be reported? Who will be responsible for correcting those issues? How long will they have to address & correct issues?

What happens when these panels are 10-20foot under water? There are many areas of these tracts that hold water often.

Are their tax estimates net new?

Do they have a PILOT agreement? Did their tax estimates have the PILOT agreement factored in?

Does their economic impact study state what the tax revenue is now without solar?

Does their economic impact study show what the revenue is that will be lost to local ag businesses?

Does the economic impact study show the loss in payroll for individuals that support farming now?

Thank you for reviewing my questions and concerns & I hope that you may be able to get

some answers.

**Trina Martin** 34 S Black Branch Rd Cecilia, KY 42724 Email: Thank you for your comments on the application of Rhudes Creek Solar, LLC. Your comments in the above-referenced matter have been received and will be placed into the case file for the Commission's consideration. Please cite the case number in this matter, 2021-00127, in any further correspondence. The documents in this case are available at <u>View Case Filings for: 2021-00127</u> (ky.gov).

Thank you for your interest in this matter.

From: PSC Public Information Officer <PSC.Info@ky.gov>
Sent: Wednesday, January 12, 2022 4:19 PM
To: PSC Executive Director <PSCED@ky.gov>; PSC Public Comment <psc.comment@ky.gov>
Subject: FW: case 2021-00127

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From:

Sent: Monday, January 10, 2022 10:13 PM

**To:** PSC Public Comment <<u>psc.comment@ky.gov</u>>; PSC Public Information Officer

<<u>PSC.Info@ky.gov</u>>

Cc:

**Subject:** case 2021-00127

\*\*CAUTION\*\* PDF attachments may contain links to malicious sites. Please contact the COT Service Desk <u>ServiceCorrespondence@ky.gov</u> for any assistance.

Presentation file attached on Industrial solar unreliability and decommission cost concerns presented 1/10/22 at the PSC info meeting.

case 2021-00127 Keith Taul 3136 Hardinsburg Road Cecilia, KY 42724

## INDUSTRIAL SOLAR EFFICIENCY AND DECOMMISSIONING PSC 2021-00127

## KEITH TAUL 3136 HARDINSBURG ROAD CECILIA, KY 42724

JANUARY 10, 2022

# **Efficiency/ Reliability Summary**

- Solar "Farms" are an intermittent electrical energy source that can NOT be relied on to support a household or a business, much less a Society
- Regardless of the weather, Solar Power goes to zero at least 14 hours each night
  - >KY winter only 3 hrs peak sun per day!
- Using Solar to replace Conventional Power is obviously impossible, so double systems and expensive switching capability costs – eventually double/triple electric bills
- Decommissioning costs are about \$10M for 100MW and little understanding of whether some kind of bond and if so will the money be there in 25-35 years or 5 years when Solar Developer goes bankrupt

# Introduction

#### How many sunny days do we have in a year?

• Kentucky only averages 195 days (53% of the days) compared to Arizona's 300 sunny days (82%)

#### What happens when there is no sun?

• You pull out the candles or hope that Conventional Power can step up

#### So, Conventional Power is our "Power Guarantee"?

• That's Right!

Then why do the Solar folks claim that Solar will replace Coal, Natural Gas or Nuclear Power?

## VARIABILITY OF SOLAR ENERGY

#### CAPACITY FACTOR Definition

- A capacity factor is a measurement that compares the amount of energy a plant actually produces to the energy that it would produce if operating at full capacity for the same amount of time.
- Note for KY, the average peak sunlight/day is 4.5hrs
  - Capacity Factor is 4.5/24hrs = 19%
- . The **availability of sunlight is inconsistent**, which causes solar power to have a low capacity factor.

Union of Concerned Scientists. (n.d.) Environmental impacts of solar power. Retrieved from <u>http://www.ucsusa.org/clean\_energy/our-energy/choices/renewable-energy/environmental-impacts-solarpower</u>. December 3, 2015



As you can see, nuclear energy has by far the highest capacity factor of any other energy source. This basically means nuclear power plants are producing maximum power more than 93% of the time during the year.

That's about 1.5 to 2 times more as natural gas and coal units, and 2.5 to 3.5 times more reliable than wind and solar plants.

# Can it reliably replace Traditional Energy Sources?

**Background**: The Feds, the Solar Lobby and the National Media have been promoting solar "farms" as a replacement for conventional power sources (Coal, Natural Gas & Nuclear).

Is that replacement possible? Does that make sense?

**Let's look at the Science (not the politics).** How does Solar perform under 4 different weather conditions?

- A sunny day,
- A partly cloudy day,
- A mostly cloudy day,
- A rainy day.

## Understanding the Difference between Conventional Power & Solar Farm Power

- 5 graphs that show the difference visually.
- The Orange area represents the time when power is generated, and Gray presents the time when power is <u>not</u> being generated.
- The Conventional and Solar Plants are both rated at 100 Megawatt, but HUGE differences when compared
- The Horizonal axis represents the time of a single day
- The Vertical axis represents the power generated.

Figure 1. Power Generation Potential – 100 MW Conventional Power Plant (Nat. gas, Nuclear)



#### Notice the consistency 24 hour generation of power.

Megawatt hours (MWh) = Megawatts (MW) x Hours (h)

120

## See Figure 1 100 MW Conventional Power Plant

This Figure shows the POTENTIAL power that a Conventional Power Plant can produce on a typical day.

What does this Figure tell us?

Solid Orange tells us that a 100 MW Conventional Plant has the POTENTIAL to deliver up to 100 MW of power at any time of the day.

Important if you operate a business that needs reliable power 24/7.

Conventional Power has become so reliable that we take it for granted.



#### Figure 2. Power Generation Potential – Sunny Day, 100 MW Solar Plant

24.9% total output of conv. Plant

# See Figure 2 A 100 MW Solar "Farm" on a Sunny Day

- The smaller Orange area tells us that its generating ability is greatly reduced from the Conventional Power Plant.
- From Midnight to 7 am, we have no power.
- At 8 am, we have about 10 MW.
- At 9 am. We have about 70 MW.
- At noon for an hour or two, we have 100 MW.
- At 2 pm, we have about 80 MW.
- After 5 pm, we have o MW There is no Solar Power available until the next morning.
- Gray Area tells us when Solar Power is <u>NOT</u> available.



#### Figure 3. Power Generation Potential – Partly Cloudy Day, 100 MW Solar Plant

16% total output of conv. Plant

## See Figure 3 100 MW Solar Plant on a Partly Cloudy Day

- Performance is similar to that on a sunny day except more ragged and unpredictable.
- The peaks and valleys will affect reliability.
- 100 Megawatts is seldom, if ever, reached.
- Gray Area (unproductive time) is getting very large.



#### 3.7% total output of conv. Plant

## See Figure 4

## 100 MW Solar Plant on a mostly Cloudy Day

- Performance is a reduced version of a partly Cloudy Day, with limited power potential.
- Customer will be primarily dependent on Conventional Power.
- Gray Area (unproductive time) has gotten very large.

#### Figure 5. Power Generation Potential – Rainy Day, 100 MW Solar Plant

120



#### 2.6% total output of conv. Plant

# See Figure 5 A 100 MW Solar Plant on a Rainy Day

- Performance is essentially under <u>10</u> Megawatts minimal power generation.
- Gray Area (unproductive time) dominates and Solar is essentially a non-factor.
- Customer is primarily dependent on Conventional Power if he wants reliable power.

## **Conventional vs Solar Rainy Day**





Time





2.6% total output of conv. Plant

## What can we conclude

- Solar "Farms" are an intermittent electrical energy source that can NOT be relied on to support a household or a business, much less a Society
- Solar Power changes continuously, even on sunny days.
- Regardless of the weather, Solar Power goes to zero at least 14 hours each night
  - KY winter only 3 hrs peak sun per day!
- Using Solar to reliably replace Conventional Power is obviously impossible.

#### What questions does this raise in YOUR mind? LIKE - WHY ARE WE EVEN CONSIDERING THIS????

# Result: A Dual Electric Generating System

- The US Solar Electric Movement is creating a dual electric generating system
  - > The traditional system
  - ≻A solar one





# Can Solar replace Traditional Energy Sources?

**Conclusion:** 

• Solar Power is too erratic to be considered as a replacement source

What can we conclude?

 Solar Plants need Conventional Energy as a Backup Power Source that must be available ALL THE TIME

What does that cost?

It's expensive!

Why?

 Rapid response equipment is expensive and also increases emissions.

# Efficiency of Land Use In this case – PRIME farm land

- A Megawatt of Solar requires on average 7 10 acres of land.
- •A 100 Megawatt Solar Farm requires about 800 acres.
- •A 100 Megawatt Natural Gas Plant requires about 10 acres.
  - In other words, a solar farm requires <u>80 times more</u> land than a conventional plant.

 Is that an efficient use of one of our most valuable resources – Prime Farm Land?

# Future Growth of Traditional Power Systems

## Because of its backup responsibility

### The Traditional Utility System will

- continue to grow to meet the total system demand
- Unaffected by the amount of solar generation capability available

#### Result:

- Cost of the future industrial solar power an <u>added cost</u>
- Extra high costs passed on to the electric utility customer

## Impact on the Cost of Power??

- As the number of Solar Megawatts increase, how will that affect Consumers Energy Operations?
  - It makes sudden interruptions in power more difficult to adjust to.
  - More combustion turbines, sophisticated controls, better trained operating personnel, and requires more financial support.
- Impact of these changes on the cost of power in leading solar states and countries.
  - California where power costs are <u>double</u> ours
  - Germany where the power costs are <u>triple</u> ours.

Note: Traditional electric utility <u>must</u> accept all green energy

# Solar "Farm" Decommissioning Cost

#### > Decommissioning is the Responsibility of the Solar Developer

- > Two analyses on the Cost of Decommissioning have been conducted.
  - I. Decommissioning US Power Plants Decisions, Costs and Key Issues (NSF)
  - PV Plant Decommissioning, Salvage Value, Conceptual Cost Estimate (EPRI)
  - Average Decommissioning Cost of the two studies = \$77,200 per MW

#### For a 100 Megawatt Solar Farm, the <u>Total Restoration Cost</u> is estimated:

| Total Overall Cost    | \$9,500,000 |
|-----------------------|-------------|
| Land Reclamation Cost | \$1,780,000 |
| Decommissioning Cost  | \$7,720,000 |

- The Solar Industry has claimed that Salvage Value of old equipment will cover Restoration Costs, but the Raimi and EPRI studies have shown this claim to be without merit.
- How can we know that at least \$10M will available in 25-35 years or 5 years if/when Solar developer is bankrupt?

# CONCLUSION

# \*Solar power is an unreliable energy source

- Solar power is intermittent, inefficient, and cannot meet electricity demand as it is needed.
- Solar power <u>relies</u> on traditional energy sources like fossil fuels to provide backup power- shrinking the positive impact of solar.
  - Kentucky only averages 4.5 hours of sunlight per day (19%).
  - Summer Peak Sun Hours: 5.97 hours per day.
  - Winter Peak Sun Hours: 3.6 hours per day (15%);
  - 170 days no sunshine (10 25% of their normal power output on a rainy/cloudy day)
- The solar industry is heavily dependent on government assistance for its existence.
  - Solar power in Germany and the US indicate that solar incentive programs are extremely costly and the resulting environmental benefits minimal.
- These costs will be passed on to taxpayers and electricity consumers.

Union of Concerned Scientists. (n.d.) Environmental impacts of solar power. Retrieved from <u>http://www.ucsusa.org/clean\_energy/our-energy/environmental-impacts-solarpower</u>. December 3, 2015

# So Finally, Why do Solar Plants Exist?

#### Why is the Government doing this?

- To encourage people to invest in Solar Energy
- Their stated goal is to reduce Global Warming

#### But Solar Farms only have a Capacity Factor of 21% (19% in KY)

• Yes, but that is never stated in the solar propaganda

#### Isn't Nuclear Power the cleanest form of power generation?

- Yes, but that is seldom mentioned in the Media
- So the public isn't aware of it.
- And the Solar Industry certainly won't mention it.

# Extra Slides

# What is impact of Solar Farms on Farmland?

The costs of Mitigation of Contamination and Restoring the Soil Properties to Farmland is at least (IF the soil can be restored)

| <ul> <li>Mitigation of Zinc</li> </ul>                      | \$1,500 per acre       |
|---|------------------------|
| <ul> <li>Mitigation of Herbicides and Compaction</li> </ul> | \$ 50 per acre         |
| <ul> <li>Application of Lime</li> </ul>                     | \$ 130 per acre        |
| <u>Fertilizer Cost</u>                                      | <u>\$ 100 per acre</u> |
| • <u>Total Cost</u>   | \$1,780 per acre       |

Heiniger's Analysis

# Consequences of Dual System Operation

The total cost of constructing and operating two systems will be greater than operating a single system. Some of the additional cost factors are:

- Under present conditions, the solar farm developer sells his power to the utility at a rate higher than the traditional utility's wholesale cost.
   That additional cost will be passed on to the ratepayer.
- 2. Since the solar farm's power generation can be interrupted at any time by a cloud or weather, the traditional utility has to purchase <u>special</u> equipment that can respond instantaneously when the solar power drops off the grid.
  - Furthermore, the cost of this rapid response equipment is not as efficient as baseload power.
  - The cost of this additional equipment and fuel will be passed on the customer.
- 3. To be able to respond to sudden changes in delivered solar power, the traditional utility will have to install new control equipment (so that the customers do not experience sudden losses in power).
  - Interruptions in power would have drastic operational consequences for most industries.
  - The cost of these new controls would have to be passed on to the customers.

# Herbert M. Eckerlin, PhD, PE

Taken mostly from a Presentation to:residents of Monroe County and Surrounding townshipsDecember 9, 2021presented ByProf

Herbert M. Eckerlin, PhD, PE Professor Emeritus

- 10 years of industrial experience with *Dominion Power, Combustion Engineering and Corning Glass Works*.
- Designed <u>650 MW</u> boiler at Duke Energy Progress's Roxboro Plant (formerly CP&L)
- **<u>11</u>** patents filed while with Combustion Engineering and *Corning Glass Works*.
- Professor in Mechanical & Aerospace Engineering at NCSU since <u>1968</u>
- Began developing Energy courses after Arab Oil Embargo in **<u>1973</u>**.
- In 1992, founded the NCSU Industrial Assessment Center (IAC).
  - To conduct Energy Assessments for industrial plants.
  - To educate the next generation of energy engineers.
- Now retired from **NCSU** and designated Professor Emeritus for contributions in the energy field.

| From:        | PSC Executive Director                 |  |
|--------------|--|--|
| То:          |  |  |
| Subject:     | PSC #2021-00127, Record Clarification  |  |
| Date:        | Thursday, January 13, 2022 11:41:00 AM |  |
| Attachments: | PSC Clarification (iBV) SIGNED.pdf     |  |
| Importance:  | High                                   |  |
|              |  |  |

Thank you for your comments on the application of Rhudes Creek Solar, LLC. Your comments in the above-referenced matter have been received and will be placed into the case file for the Commission's consideration. Please cite the case number in this matter, 2021-00127, in any further correspondence. The documents in this case are available at <u>View Case Filings for: 2021-00127</u> (ky.gov).

Thank you for your interest in this matter.

From: Vinsel, Nancy (PSC) <Nancy.Vinsel@ky.gov>
Sent: Thursday, January 13, 2022 11:39 AM
To: PSC Executive Director <PSCED@ky.gov>
Subject: FW: PSC #2021-00127, Record Clarification
Importance: High

\*\*CAUTION\*\* PDF attachments may contain links to malicious sites. Please contact the COT Service Desk <u>ServiceCorrespondence@ky.gov</u> for any assistance.

From: Daniel London Sent: Wednesday, January 12, 2022 3:57 PM

To: Vinsel, Nancy (PSC) <<u>Nancy.Vinsel@ky.gov</u>>

Cc: ; Robin Saiz <

; Jenny Oldham

**Subject:** PSC #2021-00127, Record Clarification **Importance:** High

\*\*CAUTION\*\* PDF attachments may contain links to malicious sites. Please contact the COT Service Desk <u>ServiceCorrespondence@ky.gov</u> for any assistance.

Ma'am: Please see the attached letter clarifying the record in the above-referenced case.

Daniel London Deputy Judge/Executive Hardin County Government 150 North Provident Way Elizabethtown, KY 42701 Email:


## Hardin County Government

**Deputy Judge/Executive Daniel London** P.O. Box 568, Elizabethtown, Kentucky 42702 The Commonwealth's Premier County To Live, Work, and Raise a Family

January 12, 2022

Nancy J. Vinsel General Counsel Kentucky Public Service Commission 211 Sower Boulevard Frankfort, KY 40602-0615

Dear Ms. Vinsel:

The intent of this letter is to clarify a written statement in PSC Case# 2021-00127, specifically bullet point four (4) on section B, page seven (7), which is attributed to Dr. Paul Coomes.

This this end, Hardin County Government <u>IS NOT</u> negotiating an agreement in relation to Payment in Lieu of Taxes (PILOT) or Industrial Revenue Bonds (IRb). We communicated with Rhudes Creek Solar, LLC officials in December 2020 we do not wish to negotiate or consider these agreements pending further consideration of the project by the Hardin County Planning and Zoning Commission.

Furthermore, we later relayed that we strongly prefer Rhudes Creek Solar, LLC officials explore options with the Kentucky Economic Development Finance Authority (KEDFA), which we understand is occurring.

Thank you for allowing us to clarify the record in this case.

Daniel E. London Hardin County Deputy Judge/Executive

| From:        | PSC Executive Director                 |
|--------------|--|
| To:          |  |
| Subject:     | PSC Case # 2021-00127                  |
| Date:        | Thursday, January 13, 2022 11:47:00 AM |
| Attachments: | PSC Speech 01102022 Dan.pdf            |
|              | PSC Informal Meeting 011022 Ros.pdf    |

Thank you for your comments on the application of Rhudes Creek Solar, LLC. Your comments in the above-referenced matter have been received and will be placed into the case file for the Commission's consideration. Please cite the case number in this matter, 2021-00127, in any further correspondence. The documents in this case are available at <u>View Case</u> Filings for: 2021-00127 (ky.gov).

Thank you for your interest in this matter.

From: PSC Public Information Officer <<u>PSC.Info@ky.gov</u>>
Sent: Wednesday, January 12, 2022 4:23 PM
To: PSC Public Comment <<u>psc.comment@ky.gov</u>>
Subject: FW: PSC Case # 2021-00127

From: <

Sent: Wednesday, January 12, 2022 11:42 AM
To: PSC Public Information Officer <<u>PSC.Info@ky.gov</u>>
Subject: PSC Case # 2021-00127

-----Original Message-----From: \_\_\_\_\_\_\_ To: <u>psc.comment@ky.gov</u> <<u>psc.comment@ky.gov</u>> Sent: Tue, Jan 11, 2022 7:20 pm Subject: PSC Case # 2021-00127

Please accept the attached comments to be included in the case 2021-00127. We attended the Informal Meeting that was held January 10, at 4:00 PM in Elizabethtown, Cooperative Extension Center.

Thank you, Rosalyn and Dan Feeser 3438 Hardinsburg Road Cecilia, KY 42724

## 01/10/2022 Comments Re: Rhudes Creek Solar PSC # 2021-00217

My name is Dan Feeser. My wife and I live at 3438 Hardinsburg Rd across the street from the proposed Rhudes Creek solar site. We chose to retire in Cecilia because of the rural atmosphere.

On June 15 2021, the Hardin County Planning and Development Commission denied the Conditional Use Permit during a meeting in which over 100 people showed their support against the Rhudes Creek solar facility. It is very evident that the community does not support or want this site. IBV went to court and the Court Judge overturned the CUP outcome on a word in an ordinance. This does not change the fact that IBV was denied the permit that night. My neighbors and I met to discuss what to do next and decided to form a non-profit corporation: Hardin County Citizens for Responsible Solar, Inc.

As president of this group, I represent our 400+ members on Facebook and 1200 people who have signed our petition, opposing these projects and requesting a moratorium on industrial solar in Hardin County.

We have held educational sessions, door to door meetings, and informational mailings to help educate our neighbors. One meeting brought 200 + Hardin County Citizens in for a walk-through informational briefing where we presented all that we had learned since September. Our group is made up of farmers, educators, engineers, a geology professional, soil conservation professionals, real estate professionals, and clergy just to name a few. IBV executives even showed up that night in an attempt to disrupt the proceeding, but most folks attending saw right through their unwanted comments and found it very unprofessional to say the least. IBV's last public meeting had less than thirty people show up and 5 were from our group who came to document their statements.

Unknown by the citizens of Hardin County, IBV approached the Planning and Development Commission in February 2020 about the project. Then in November 2020, at a meeting convinced the Planning and Zoning to pass a Resolution allowing solar to be permitted in Hardin County in A-1 zones. This was done behind closed doors and the citizens in the area were not made aware or asked to comment at that meeting. That Resolution is the prime reason we are here today. This was acquired in an un-scrupulous manner and is in total violation of the Hardin County 2019 Comprehensive Plan. Let's start with the Hardin County Comprehensive Plan definition of A1 zoning, **section 3.6 section A** which reads and I quote:

"The intent of this Zone is to preserve agricultural land, protect agricultural operations and allow for very low-density development."

In addition, the proposed IBV site is in an area designated in the Comprehensive Plan as a **Natural Resource Area**, which once again, clearly states and I quote:

"Agricultural use is perhaps the predominant use in the area. "

## Dr. Allison Davis of University of Kentucky sums it up best, "The protection of prime soils and prime farmland should be prioritized. Other non-farmland and marginal farmland should be pursued for standard ground Mounted solar areas."

It is clear tonight that IBV is not trying to protect agricultural lands and operations, but is here to install an industrial power generating Facility on our most prime farmland in Hardin County. They are more interested in harvesting Federal, State, and Local tax incentives rather than the sun. After all, we only have an average of 4.5 hours/ day of sunshine in Kentucky. Isn't this a waste of prime farmland? Most countries in Europe already forbid such uses.

Corporations who want solar (like Toyota) should install it on their own properly zoned property and own it-- cradle to grave. The practice of leasing land for industrial solar by foreign owned LLC companies, places all the risk on taxpayers. When you peel back the LLC onion, you find that all of the industrial solar companies currently operating in Hardin County are fronts for foreign companies. That's a fact and public record in Frankfort.

We believe solar will be part of our lives and industrial solar companies should be investigating using old landfills, brownfields, marginal land and existing industrial zoned areas.

**Under KRS 100 and Kentucky law,** the Comprehensive Plan sets the stage for all land-uses, and related Planning and Zoning ordinances in the County. Therefore, it is the very foundation for how our community grows and functions...today and in the future.

The Area and Land, for this project, is in a designated **Natural Resources Area** of Hardin County and was established to protect our Natural Resources (prime

farmland and clean drinking water) and it is very clear that this project is not appropriate in this area of Hardin County. Two major goals out of our Comprehensive Plan need to be stated to show our resolve:

**GOAL 12**: TO PRESERVE THE LIFESTYLE, HISTORY AND NATURAL SURROUNDINGS OF THE PEOPLE OF HARDIN COUNTY. This is our county viewshed

#### Goal 14: Stewardship of the land:

Objective 1 "Discourage the conversion of prime agricultural land to other uses and to protect all agricultural land from conflicting development activities."

We should not be trading the Agricultural Industry for the industrial power industry. An industrial power generating Facility --whether it is coal, gas, or solar, is not appropriate in our Natural Resource Area and is being proposed in total disregard for Hardin County's Comprehensive Plan and its citizens.

The second area I want to talk about today is the IBV SWPPP plan. I have reviewed the SWPPP, the Geophysical Investigation, Terracon soils report, and TRC Wetlands report.

These have all been brushed over during past hearings.

The present farm area for the site is classified as an intense Karst area by U of K and the US Geological Service. This site has 38 wetlands, 48 streams, 11 ponds, and 35 upland drainage ditches. ANS Geology, the IBV geology team, states and I quote, "The area is characterized by surface features that indicate karst is present in the subsurface." During a preliminary karst study, a total of 29 potential high risk karst sites were located, some deep, some shallow. In two cases erosion creeks led right into an existing sinkhole. Many areas of the project were flooded at the time of the study and are currently flooded. IBV's answer to everything is we will just work around it.

The SWPPP plan states that all non-road ground is classified pervious, which means the first ½" of rain water is absorbed into the ground. Kentucky has no direct guidelines on 'pervious' as it relates to solar panels. However, the statement is somewhat true if the panels follow the land contour that has a less than 5-degree slope angle. That is not the case in large areas of this project. The 200,000 + panels act as umbrellas and divert the water to a dripline at the edge of the panel. The worst-case scenario is when the panels are perpendicular to the

contour. This concentrates the water, and accelerates down the panel. The rain water cuts channels in the ground between panels, making uncontrolled streams and leads to heavy runoff. If runoff reaches a karst area, it has the potential to enter the ground water table. This becomes serious when ground water tables get contaminated with surface herbicides, topsoil, and chemical pollutants. The ground water throughout this Natural Resource Area provides the drinking water aquafer for Hardin County, is part of the watershed for Nolin River and many local residents' wells. With the tornadic weather events of the last month all around Hardin County and with 20 tornados in the last 10 years, we could end up with a 1072-acre toxic waste dump and the land would never be usable again. Is Rhudes Creek electric generation facility engineered for high shear winds??? Having the solar site here only jeopardizes Hardin County's watershed, farmers' personal wells, the habitat and safety of our entire community.

The transmission line right of way is another area where misleading information was used by IBV. Their VP assured the community at multiple meetings that the transmission line was only a single line on single wooden poles and that the substation for the site was possibly going to be at the LGE tie-in location 1.2 miles away. The utility power line right of ways were obtained based on that misleading information, which I am sure the VP of a major solar company should have known the unsugar coated truth. Owners who signed the land leases did not know the truth. The proposed right of way now has 60 ft, H-framed towers with 3 high voltage lines on it running over top of the houses to the site. These home values have been destroyed, ruined our viewshed and provided unsafe conditions for people to live around the right of way. Another area of misinformation.

The PSC should not be able to approve a project that has had the Conditional Use Permit rejected once and at present has no approved CUP permit, destroys a designated Natural Resource Area land mark, destroys the most prime farmland in Hardin County for generations to come, endangers the watershed of an entire county, states the project viewshed is protected with 2 rows of 8' high trees and a chain link fence around a 1100-acre site and has signatures from over 1200 citizens in Hardin County against this project. The PSC must stand up, support the citizens of Hardin County, and do what is right by rejecting this application.

#### Dan Feeser

3438 Hardinsburg Road, Cecilia, KY 42724

# Comments for PSC # 2021-0127 ibV Rhudes Creek Solar January 10, 2022, 4:00 PM at Cooperative Extension Center

First, thank you for holding this local meeting.

My name is Rosalyn Feeser

I live at 3438 Hardinsburg Rd – right across the road from this proposed ibV site.

My husband and I moved here just 1 ½ years ago because we loved the beautiful farmland surrounding the house.

We would **NOT** have moved here if we knew a merchant electric generating facility would be across the street. Contrary to Mr. Kirkland's report, common sense tells you that no one is going to purchase a home next to a merchant power plant and certainly not for top dollar.

Also near my house will be the electric transmission line for this power plant, which will be on 60 foot tall H frame structures with galvanized steel poles. Although ibV told us numerous times that it would be just a single line on single poles. Obviously, that was far from the truth.

One of my serious concerns is that this area is karst landscape. James Currens from The University of Kentucky has published many studies about Kentucky's karst landscape. Most of our Kentucky karst landscape is formed over limestone bedrock.

Water filters through cracks in the limestone and flows to springs to supply drinking water to people in the karst areas.

However, if these cracks break open, then a sinkhole forms. Anything that enters the sinkhole will flow directly into the underground streams **without being filtered and** can reach our drinking water.

Many sinkholes and karst features have already been identified on this site for the proposed power plant.

How much rain will it take running off these impervious solar panels to open more sinkholes?

Will pounding 20,000 posts into the ground for the solar panels open more cracks in the limestone?

This area already has a flooding problem.

If a merchant electric generating facility is installed here, how many more sinkholes will form and contaminate our drinking water?

Another serious concern is that the major pollution will come from the solar panels themselves. The list of heavy metals in these panels is long and many are used during the manufacturing process. Experts are split on the amount of leaching from rain water.

Fact: the Federal government and California both have Leaching tests for the panels.

Fact: 67% of all panels come from China, so who knows what's in them.

Fact: Solar panels are classified as hazardous waste when they are removed from the site. I do know that if they are broken or crushed, the toxicity goes through the roof, that is why recycling is so difficult and expensive.

Another very serious concern I have is that ibV has not submitted a decommissioning plan.

In fact, to quote ibV's response to this question on the PSC website:

"The decommissioning plan has not yet been developed for the Rhudes Creek Solar project...... The decommissioning plan shall be completed at least one month prior to construction of the Project."

One month prior to construction?!?!?!

How can their application be approved without a decommissioning plan?

ibV does not have a decommissioning plan to submit because they do not plan to be here by the end of the project.

Decommissioning is a <u>huge financial burden</u> that could be dumped onto all Hardin County taxpayers. North Carolina University professors have estimated this cost to be **at least 13 million dollars!!** 

Please do not approve this application

Rosalyn Feeser

3438 Hardinsburg Road, Cecilia, KY 42724

Thank you for your comments on the application of Rhudes Creek Solar, LLC. Your comments in the above-referenced matter have been received and will be placed into the case file for the Commission's consideration. Please cite the case number in this matter, 2021-00127, in any further correspondence. The documents in this case are available at <u>View Case Filings for: 2021-00127</u> (ky.gov).

Thank you for your interest in this matter.

From: PSC Public Information Officer <<u>PSC.Info@ky.gov</u>>
Sent: Wednesday, January 12, 2022 4:26 PM
To: PSC Public Comment <<u>psc.comment@ky.gov</u>>
Subject: FW: Public Comment Rhudes Creek Solar

From: Judy Lundquist
Sent: Wednesday, January 12, 2022 4:13 PM
To: PSC Public Information Officer <<u>PSC.Info@ky.gov</u>>
Subject: Public Comment Rhudes Creek Solar

## Kentucky Public Service Commission Case Number: 2021-00127

In my view, the Rhudes Creek Solar project is incompatible with Kentucky's values regarding farmland.

The nonprofit American Farmland Trust, which "is working to save the land that sustains us by protecting farmland, promoting sound farming practices, and keeping farmers on the land" has investigated the treatment of ground-mounted solar energy infrastructure in the context of Kentucky's farmland protection policies to help advance renewable energy development while protecting the state's agricultural land. Here I quote from that report the stated purpose of two of Kentucky's programs:

### **Agricultural Districts**

The statutory purpose of the program is as follows: "It is the policy of the state to conserve, protect and to encourage development and improvement of its agricultural lands for the production of food and other agricultural products. It is also the policy of this state to conserve and protect the agricultural land base as a valuable natural resource which is both fragile and finite. The pressure imposed by urban expansion, transportation systems, water impoundments, surface mining of mineral resources, utility rightsof-way and industrial development has continually reduced the land resource base necessary to sufficiently produce food and fiber for our future needs. It is the purpose of this section to provide a means by which agricultural land may be protected and enhanced as a viable segment of the state's economy and as an important resource."

## **Purchase of Agricultural Conservation Easement Program**

The program purpose is to:

"(1)...retain agriculture and enhance the contribution that agriculture makes to its economy. A program to retain and enhance agriculture is in the economic best interests of the Commonwealth and, consequently, constitutes a public benefit that contributes to the health, safety, and general welfare of the residents of the Commonwealth and the nation... '

In addition, Kentucky provides for property tax relief for farmers by allowing the locally elected Property Valuation Administrators to assess farmland at its agricultural value rather than its fair cash value. (The Kentucky Department of Revenue advises that large, commercial solar arrays are to be valuated as commercial.)

So, as regards the Rhude solar project, what's it going to be, Kentucky? Do we really want to conserve and protect the agricultural land base as a valuable natural resource?

It's time to find better places to site solar energy than Hardin County's best agricultural land.

Judy Lundquist 1054 Clay Burgin Road Lawrenceburg KY 40342

https://farmlandinfo.org/publications/solar-energy-agriculture-kentucky/

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