

Attachment F
Public Involvement Activities



Rhudes Creek Solar

Proposed 100 MW Solar Photovoltaic
Project for Louisville Gas & Electric –
Kentucky Utilities

Prepared by:

ibV Energy Partners

Development Team

Presented to:

Hardin County

Local Stakeholders

April 1st, 2021

Our Rhudes Creek Solar Team

Please contact us for any questions, comments and concerns!

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Company Background

Our Management Team



Timothy Kim
President

Tim has been part of the renewable energy industry since 2007, leading development and financing teams on over 1,100 MWp of solar, wind and methane gasification projects. Recently, he led the US investment operations of a utility-scale solar company, managing development and M&A on over 400 MWp of solar projects across Oregon, Alabama, Mississippi and Florida. A veteran of the US Navy, Tim served for more than six years with in-country deployments to Iraq and Liberia.



Robin Saiz
Vice President, Business Development

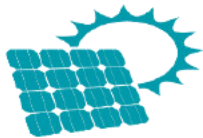
Robin brings more than 11 years of experience in the renewable energy industry, with development expertise in large-scale solar and wind projects. At FPL/NextEra, Robin was instrumental in the development of over 1,500 MWp of wind across Texas, Oklahoma and Colorado. Most recently, Robin originated and led the permitting on over 400 MWp of solar in the southern US. Robin is a veteran with 10 years of service as a Field Artillery Officer in the US Army with deployments to Iraq.



John Schroeder
Head of EPC

After more than a decade of construction and real estate experience in Seattle, Washington, John moved to Germany in 2009 to work for GOLDBECK Solar, primarily focusing on business opportunities in the United Kingdom (responsible for contracting over 250 MWp), as well as in Slovakia and the Czech Republic. He joined ib vogt in 2017 to push its expansion into the US market and heads up the US EPC division, focusing on joint ventures with developers as well as prime contracting EPC initiatives.

Our Group



1.5 GWp
Solar power plants built
+ in construction



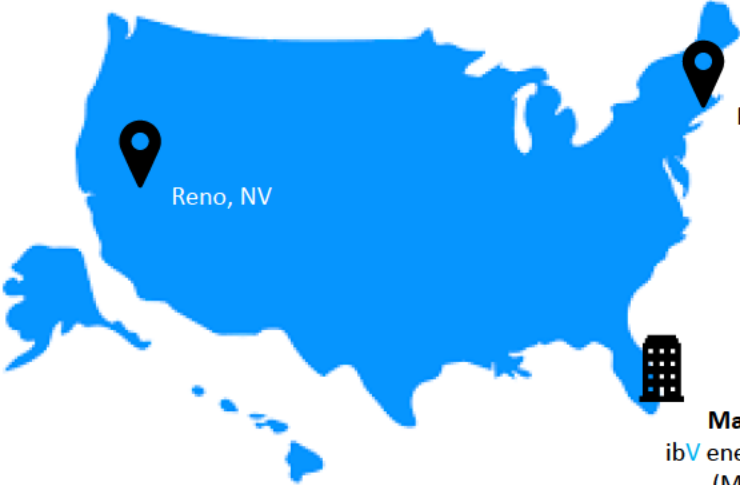
340 MWp
Operations &
maintenance



182 MWp
Solar power asset
management



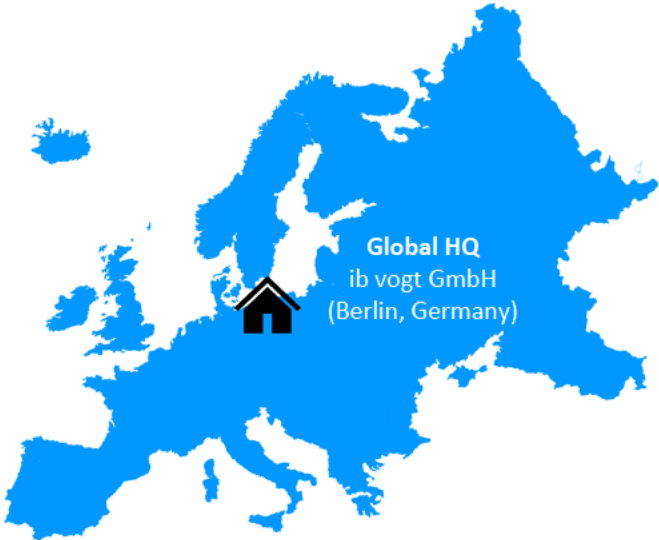
USD 242mn
Group Revenue 2018



Reno, NV

Providence, RI

Main Office
ibV energy partners
(Miami, FL)



Global HQ
ib vogt GmbH
(Berlin, Germany)

Global Footprint



United Kingdom

486.5 MWp developed and constructed
Partnership with BlackRock, Inc.
O&M services performed on all projects



Egypt

64.1 MWp construction complete
166 MWp under construction; 250 MW total
completion



Philippines

22.5 MWp, developed and constructed
3 projects, averaging 7.5 MWp each
Largest contiguous project in Philippines



Australia

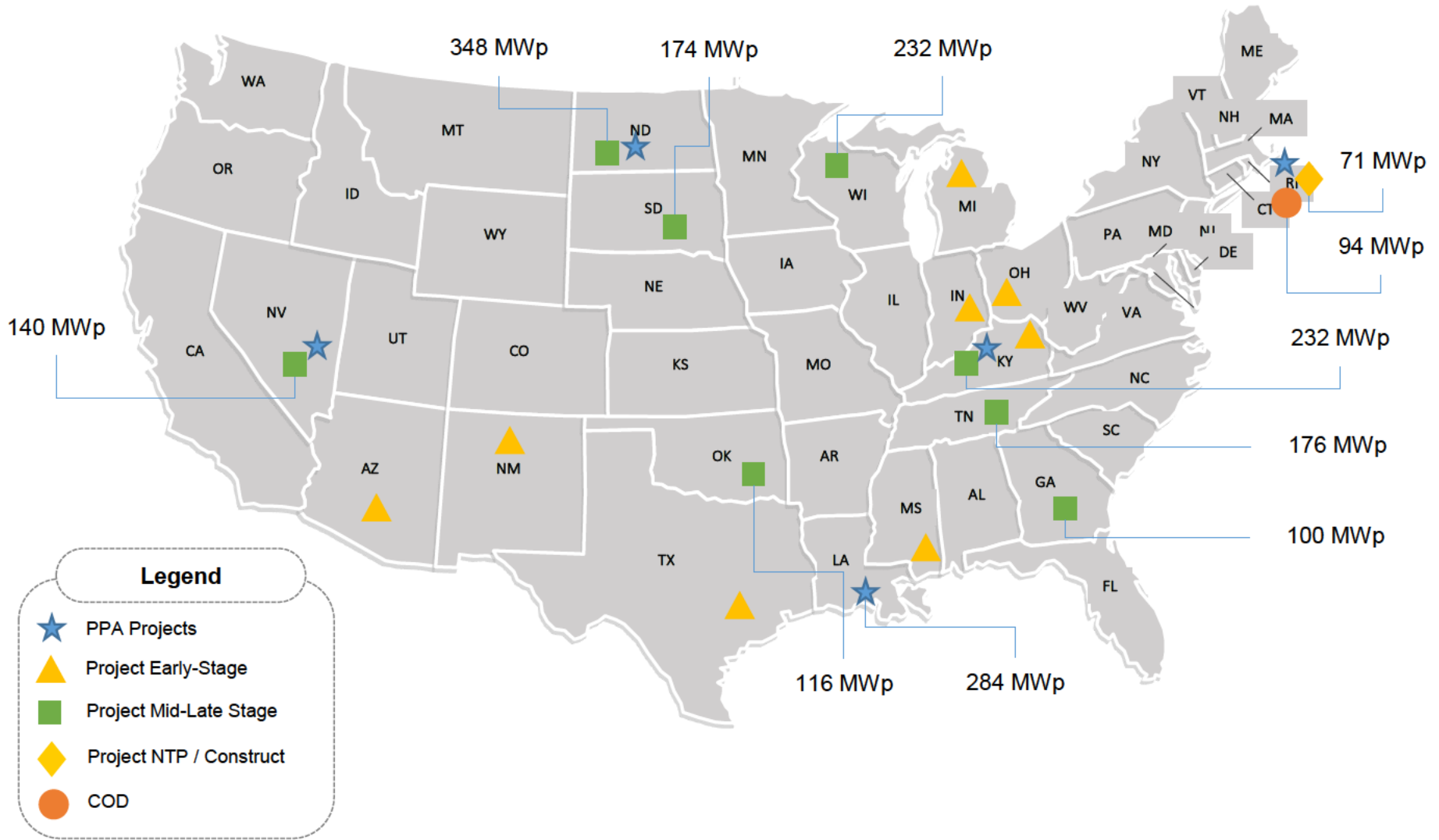
11.1 MWp developed and constructed
Strong JVs in place, active market today
O&M services performed on all projects

Constructed
1.5 GWp

Continents
5

Projects
90+

US Projects



Project Examples

https://www.ibvogt.com/fileadmin/Webdata/Videos/180221_Williamsdale_HD_Web_02.mp4

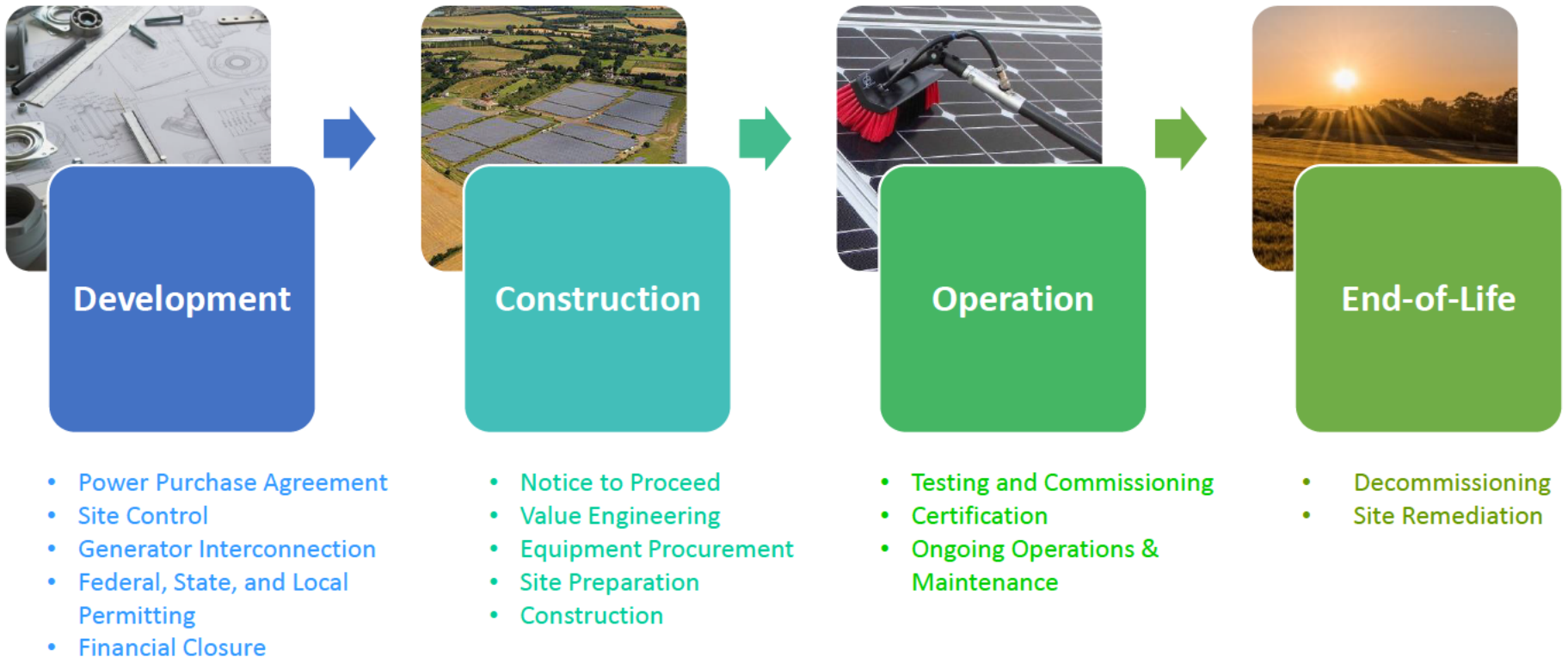


Project Examples



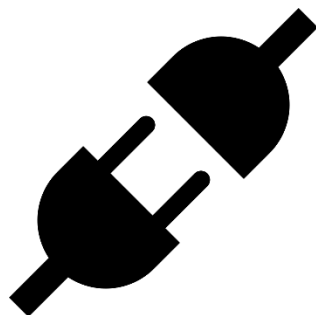
Solar Development

Project Lifecycle



Solar Project Overview

Who Buys the Electricity?



Utilities

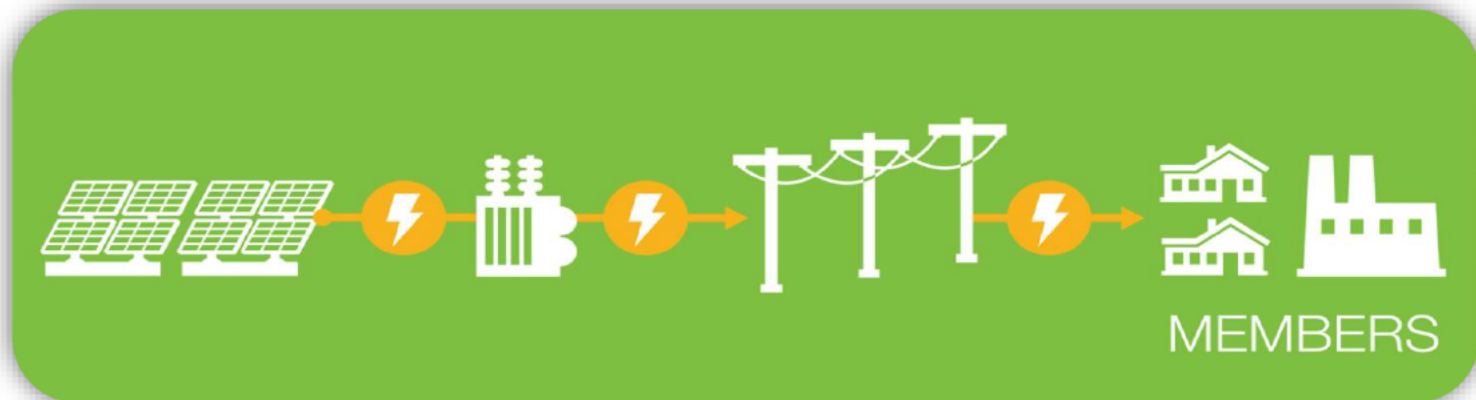
Utilities are identifying utility-scale solar as the cheapest form of energy generation for their customers.



Corporations

There is a growing list of well-known corporations who have made commitments procure renewable energy. These commitments are not just about going 'green'. These corporations see values in the low, fixed costs offered by utility-scale solar generation.

Solar Photovoltaic Power Production Overview



- Photovoltaic modules (aka solar panels) convert sunlight into Direct Current (DC) electricity
- Inverters to convert DC electricity to Alternating Current (AC) electricity
- AC transformers/substation step up voltage from inverters to match the utility transmission system.
- The Rhudes Creek Solar project will interconnect with the nearby transmission system at 138kV.

Rhudes Creek Solar

100 MW Solar Photovoltaic Project

Project Conception

- **LG&E and KU: Pitch us your renewable-power projects** (February 2019)

“LG&E and KU are inviting renewable-energy developers in the region to pitch projects to feed as much as 200 megawatts of electricity into Kentucky’s grid, the utilities’ first such call for clean-power proposals in a dozen years.”

<https://louisvillefuture.com/archived-news/lge-and-ku-pitch-us-your-renewable-power-projects/>

- **LG&E Proposes Largest Solar Field In Kentucky** (January 2020)

“Louisville Gas and Electric is seeking approval from state utility regulators to build the largest solar array in Kentucky.”

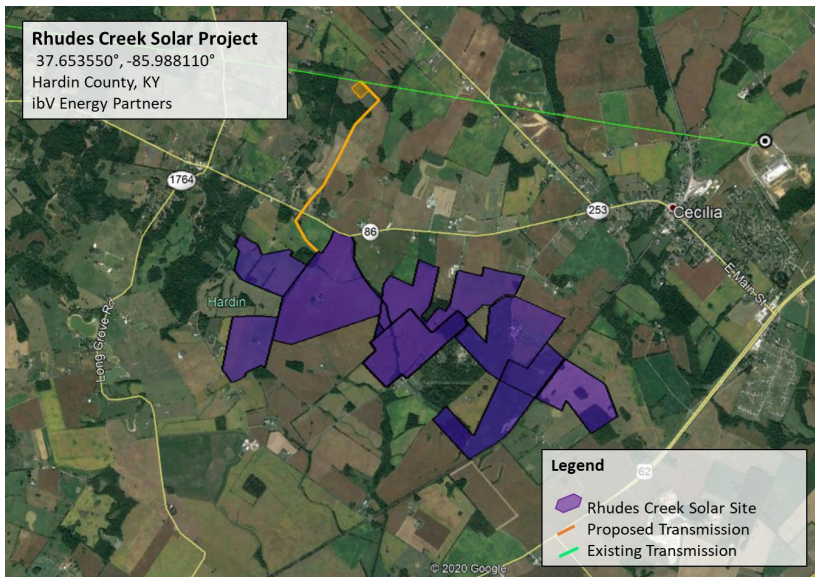
<https://wfpl.org/lge-proposes-largest-solar-field-in-kentucky/>

- **Kentucky PSC approves LG&E/KU to provide solar power to Toyota and Dow** (May 2020)

“Under new renewable power agreements (RPA) approved by the Kentucky Public Service Commission (PSC) this week, the Louisville Gas and Electric Company (LG&E) and Kentucky Utilities Company (KU) will be able to provide solar power to Toyota Motor Manufacturing and Dow Silicones Corporation.”

<https://dailyenergyinsider.com/news/25473-kentucky-psc-approves-lge-ku-to-provide-solar-power-to-toyota-and-dow/>

Rhudes Creek Solar



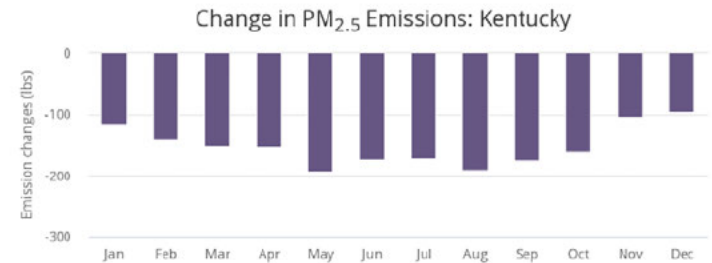
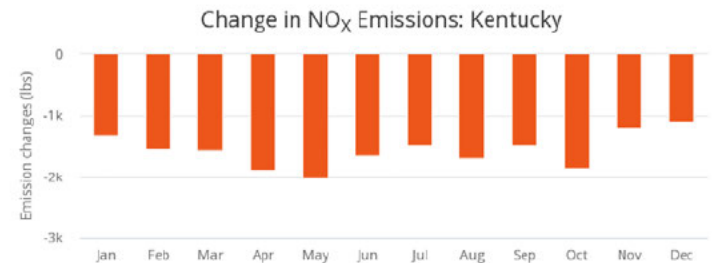
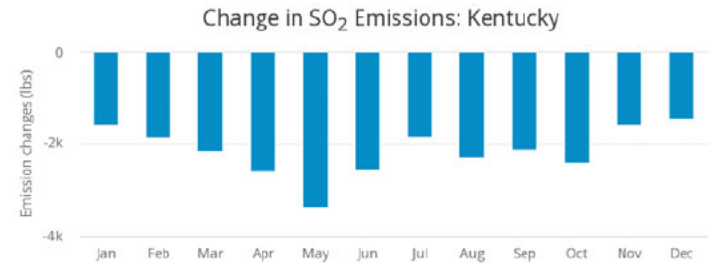
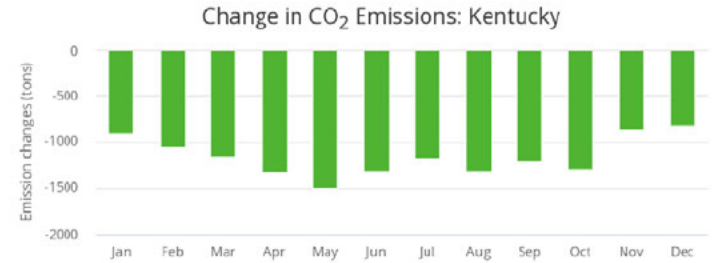
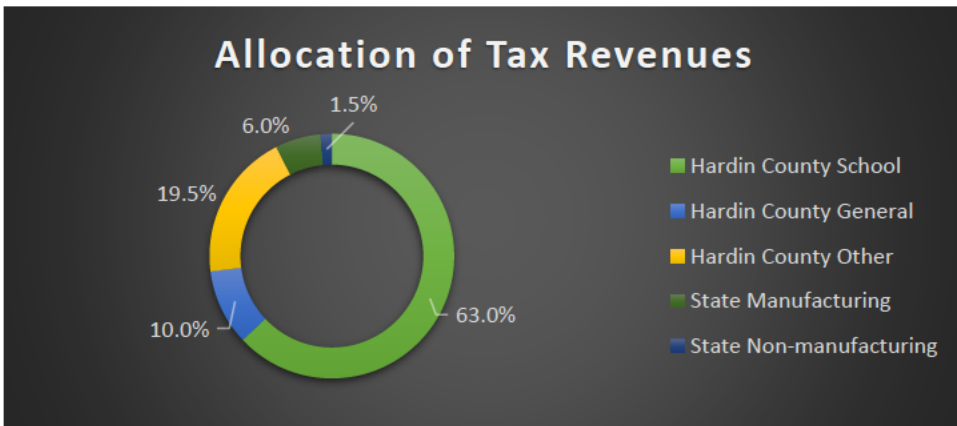
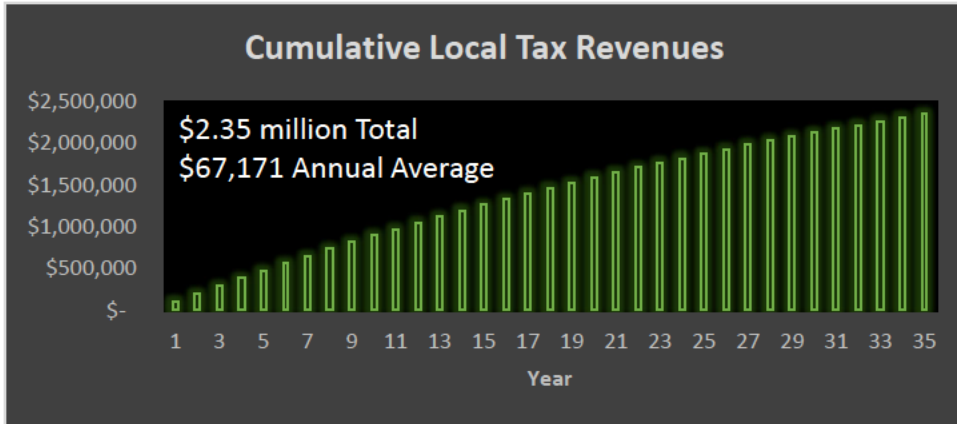
Summary	
State	Kentucky
County	Hardin
Zip Code	42724
Adjacent Streets	<ul style="list-style-type: none"> • Hardinsburg Road • S Black Branch Road • Hansborough Road
Project Status	Development Phase
Year of Construction	2021
Year of Operation	2022
Project Lifespan	35 years

Technical	
Project Size	100 MWac
Technology	Solar Photovoltaics
Equipment	<ul style="list-style-type: none"> • Bifacial Modules • Single-axis Trackers • Central-type Inverters
Utility Offtaker	Louisville Gas & Electric Kentucky Utilities
Point of Interconnection	138 kV Black Branch to New Hardinsburg Transmission Line
Estimated Production	~219,000 MWh/year

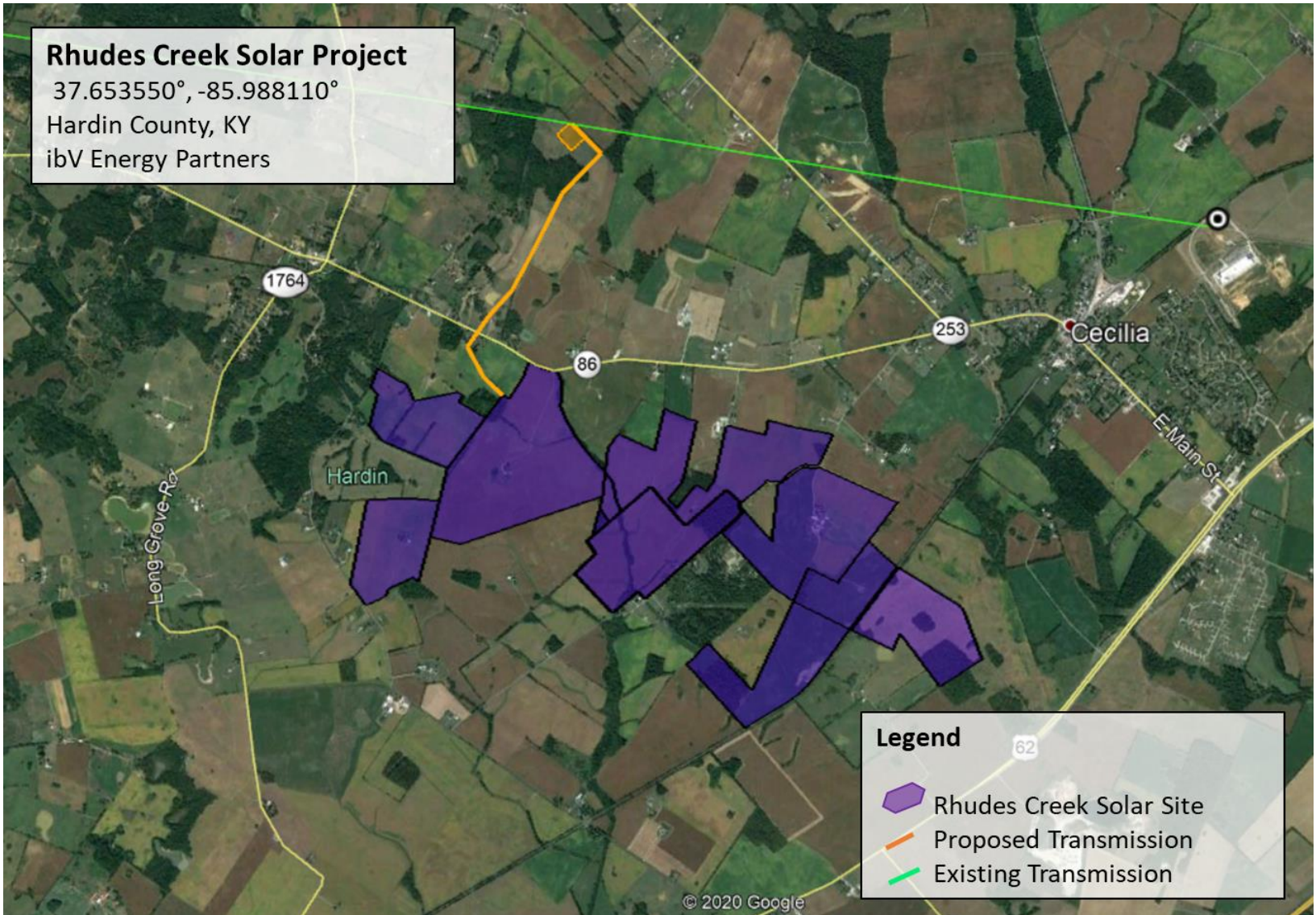
Site	
Zone	R-2
Current Use	Agricultural
Acreage	<ul style="list-style-type: none"> • Total: 968 acres <ul style="list-style-type: none"> • Solar Site: 730 acres • Transmission: 18 acres (1.5 mile 100' ROW) • Switchyard: 5 acres
Completed Studies	<ul style="list-style-type: none"> • Critical Issues Analysis • Phase 1 Environmental • Wetlands Delineation • Boundary and Topographic Survey • Geotechnical Investigations

Project Benefits

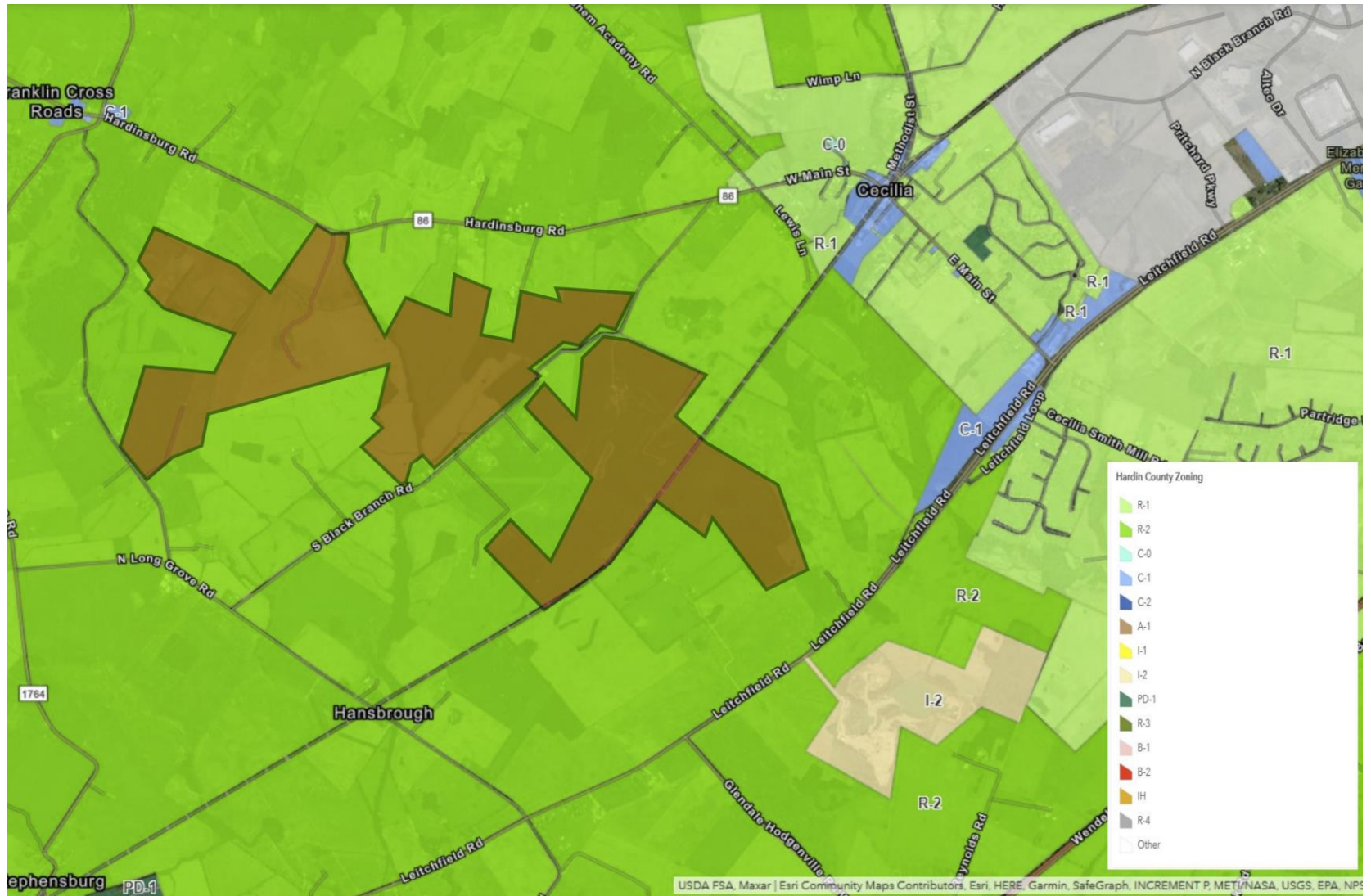
- Approximately 250-300 Construction Jobs
- Enough Power for 16,131 Homes
- Local Tax Revenues for 35 Years
- Greenhouse Gas Reductions
- Lower, long-run wholesale electricity price



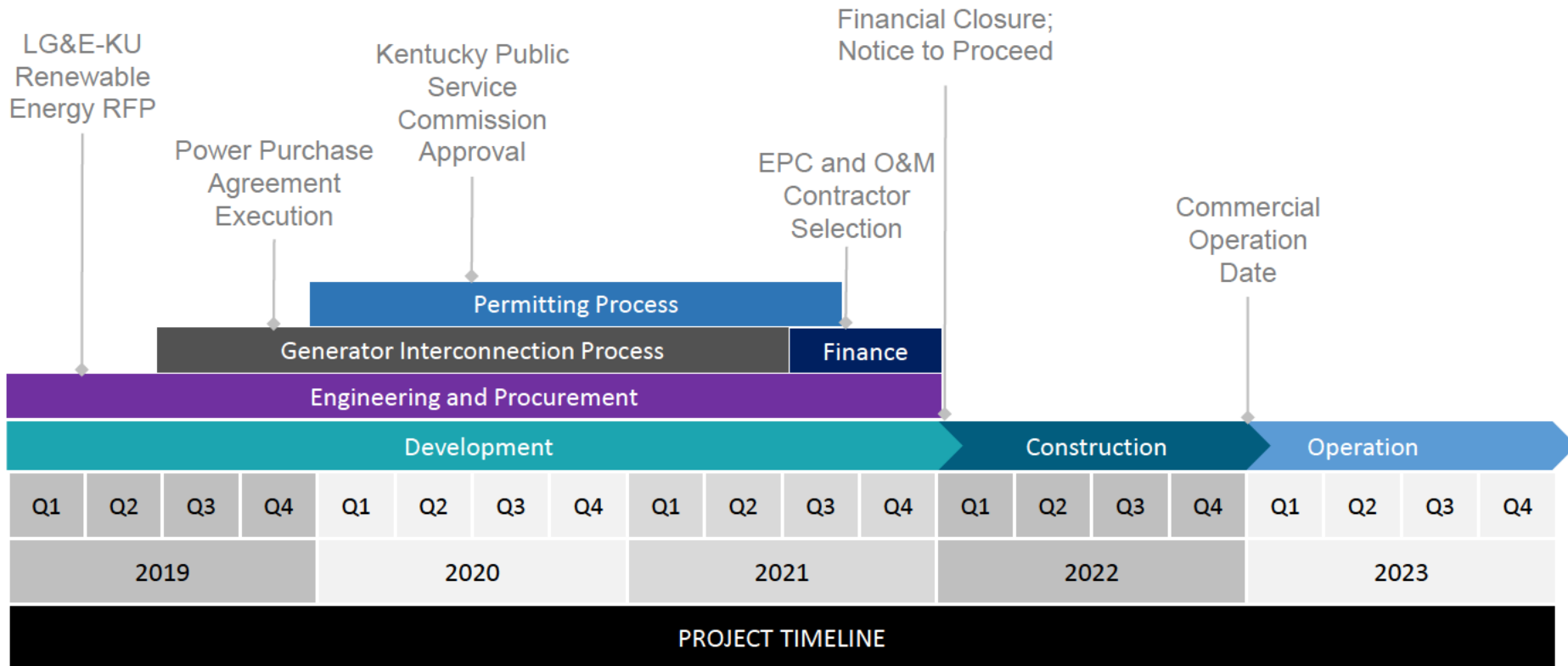
Project Site



Land Use and Zoning (R-2)



Indicative Schedule



Stakeholder Engagement

Public Town Hall Meeting for Rhudes Creek Solar

- Hosted on Thursday, October 8th from 5:30 to 7:30 pm at the Cecilia Ruritan Club Pavilion by Robin, Steve, Wes, and Chad
- 27 local residents attended to learn about the project, ask questions, and provide input
- Organized in a station format focusing on a variety of topics
 - Welcome/Feedback: Sign-in and collect welcome package
 - About ibV Energy Partners: Company background
 - Solar Site and Development: Project location, siting solar, and development process
 - Community Benefits of Solar: Local benefits to Hardin County



RHODES CREEK SOLAR | ibV ENERGY PARTNERS
Rhudes Creek Solar Project Details

Project Location
The project will be constructed across 888 acres of agricultural land west of Cecilia. The solar project will be located along Highway 66. Within each solar field less than half the land will be used for solar panels.

Decommissioning
The project will be decommissioned after its useful life, which is anticipated at 30-40 years. In addition, each lease has a decommissioning clause – further strengthening our commitment to full decommissioning. The land will be enhanced and preserved for future cultivation.

Local Economic Benefits
The project will contribute to the local tax base. At 100 MW, the project is estimated to generate \$2.35 million dollars in tax revenue for Hardin County over the life of the project with \$1.48 million going to the schools.

Screening
Rhudes Creek Solar project will be comprised of multiple fields of solar panels and equipment, surrounded by perimeter fencing. The equipment will have a low profile that follows the contour of the land. Locations near neighboring homes will be screened by existing trees or planted rows of raised evergreen trees and shrubs.

ibV ENERGY PARTNERS SOLAR EXPERTISE

- 71 MW operating in construction in the US
- 2 GW in the development pipeline
- 900 MW in solar development in Southeastern US
- 100 MW Rhudes Creek Solar Project

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an ibv company

The Rhudes Creek Solar project will generate 100 MW of clean, renewable solar energy – enough energy to power over 16,131 homes. Rhudes Creek Solar is estimated to generate \$2.35 million in local tax revenue over the life of the project.

RHODES CREEK SOLAR ENVIRONMENTAL AND HEALTH BENEFITS

- Supply enough clean energy to power over **16,131 HOMES** each year

RHODES CREEK SOLAR PROJECT FACTS

- Generate **100 MW** of solar electricity
- Located on **888 acres** west of Cecilia
- Provide **\$2.35 million** in local tax revenue

RHODES CREEK SOLAR ANTICIPATED ECONOMIC BENEFITS

- **\$2.35 MILLION** in tax revenue over life of project
- **\$1.48 MILLION** to schools
- **250-300 JOBS** during construction
- General permanent jobs created

GROUP KEY FIGURES

- 1.5 GW Built or under construction
- 38 GW Pipeline of solar power projects
- 340 MW Operations and Maintenance
- 182 MW Plants under asset management
- \$242 million Group assets, 2018

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Six Steps to Building a Solar Project

- Step 1: Site Identification**
A site is chosen based on topography, access to the electrical grid, and other factors.
- Step 2: Land Acquisition**
The developer works with the landowner to come to an agreement on a land lease or purchase option.
- Step 3: Interconnection Studies**
The utility studies the point where the project will connect to the grid to determine whether a project is viable in that location.
- Step 4: Public Engagement and Permitting**
Hold community information sessions and public hearings on the project. Local, state and federal government is engaged to ensure that the project is in harmony with the community as well as with environmental and historical resources.
- Step 5: Engineering and Construction**
After field surveys, an engineering firm will design the layout of panels to fit the property. A certified construction team arrives and builds the system.
- Step 6: Operation**
After project is constructed, the Rhudes Creek Solar project will produce 100 MW of clean renewable energy. The power produced by the operation of the project will be enough to power XX,XXX Kentuckians Homes.

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Planted Buffer Simulation

Before



After: No Planted Buffer



After: Planted Buffer

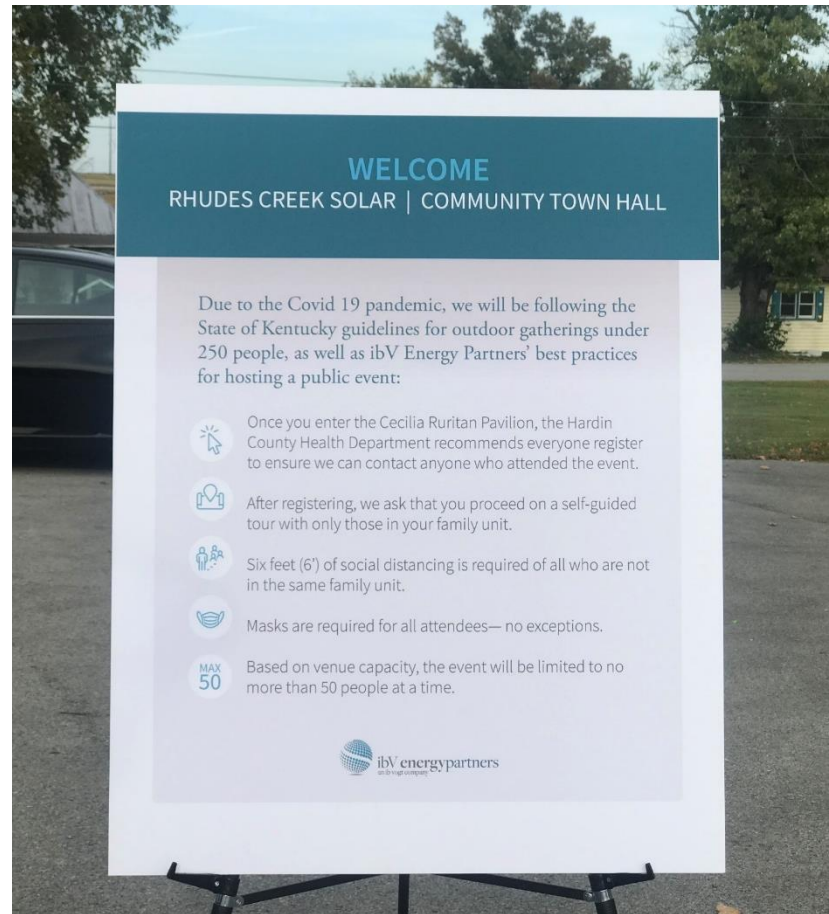


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Stakeholder Engagement

Public Town Hall

- COVID-19 Pandemic Guidelines
 - ✓ Appropriate social distancing was required of all attendees who were not in the same family unit.
 - ✓ The event was limited to no more than 50 people at a time.
 - ✓ Masks were required for all attendees and ibV staff -- no exceptions.
 - ✓ We provided masks for those who do not have their own.
 - ✓ We provided hand sanitizer and encouraged hand washing.



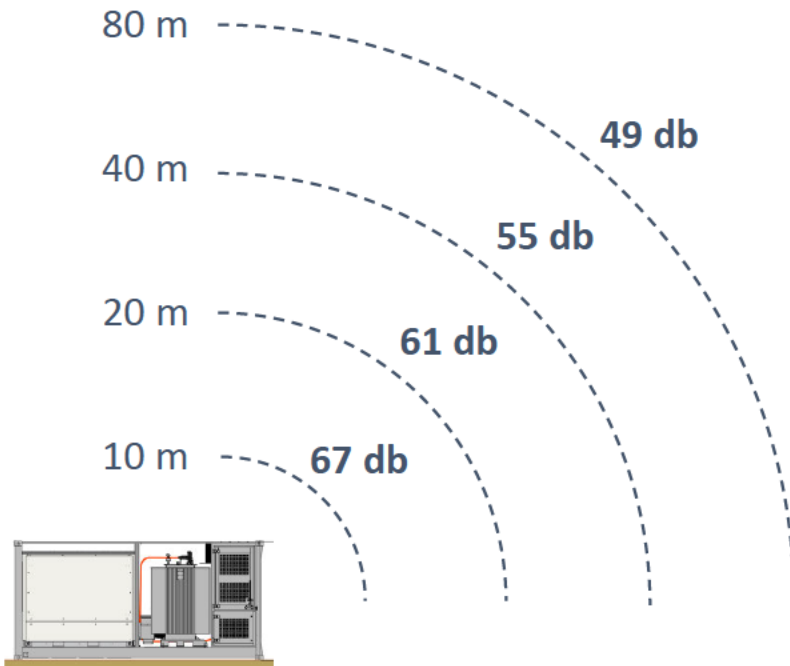
Stakeholder Engagement

Public Town Hall Meeting



Minimal Noise Emissions

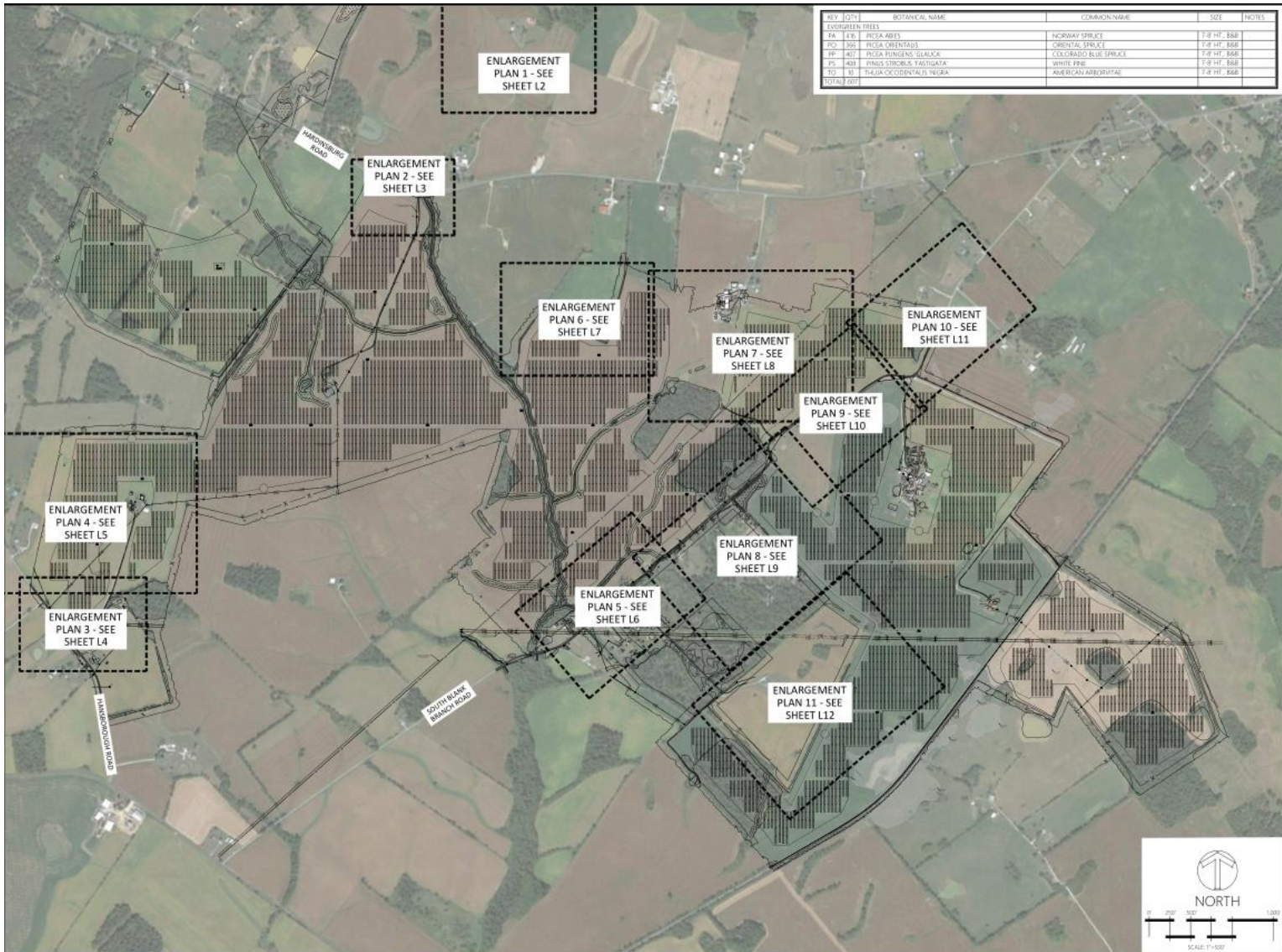
- Inverter stations emit 67 decibels at 10 meters.
- The closest road is at approximately 100 meters.
- Noise levels reduce by 6 decibels at every increment that distance is doubled.



LEVELS OF NOISE In decibels (dB)

PAINFUL & DANGEROUS		
Use hearing protection or avoid	140	• Fireworks • Gun shots • Custom car stereos (at full volume)
	130	• Jackhammers • Ambulances
UNCOMFORTABLE		
Dangerous over 30 seconds	120	• Jet planes (during take off)
VERY LOUD		
Dangerous over 30 minutes	110	• Concerts (any genre of music) • Car horns • Sporting events
	100	• Snowmobiles • MP3 players (at full volume)
	90	• Lawnmowers • Power tools • Blenders • Hair dryers
Over 85 dB for extended periods can cause permanent hearing loss.		
LOUD		
	80	• Alarm clocks
	70	• Traffic • Vacuums
MODERATE		
	60	• Normal conversation • Dishwashers
	50	• Moderate rainfall
SOFT		
	40	• Quiet library
	30	• Whisper
FAINT		
	20	• Leaves rustling

Landscape Design



Landscape Design



AMERICAN ARBORVITAE
 MATURE HEIGHT: 25 TO 30' HEIGHT
 MATURE WIDTH: 3 TO 5' WIDE
 SUNLIGHT: FULL SUN
 GROWTH RATE: MODERATE
 PLANTING ZONE: 3 TO 7



COLORADO BLUE SPRUCE
 MATURE HEIGHT: 40 TO 60' HEIGHT (10 TO 12' TALL IN 10 YEARS)
 MATURE WIDTH: 10 TO 20' WIDE
 SUNLIGHT: FULL SUN
 GROWTH RATE: SLOW
 PLANTING ZONE: 2 TO 8



NORWAY SPRUCE
 MATURE HEIGHT: 70 TO 80' HEIGHT
 MATURE WIDTH: 35 TO 45' WIDE
 SUNLIGHT: FULL SUN
 GROWTH RATE: FAST
 PLANTING ZONE: 2 TO 8



ORIENTAL SPRUCE
 MATURE HEIGHT: 50 TO 60' HEIGHT
 MATURE WIDTH: 20 TO 25' WIDE
 SUNLIGHT: FULL SUN
 GROWTH RATE: SLOW
 PLANTING ZONE: 4 TO 7



WHITE PINE 'FASTIGIATA'
 MATURE HEIGHT: 30 TO 40' HEIGHT
 MATURE WIDTH: 7 TO 10' WIDE
 SUNLIGHT: FULL SUN
 GROWTH RATE: FAST
 PLANTING ZONE: 3 TO 8

L2

L3

L4

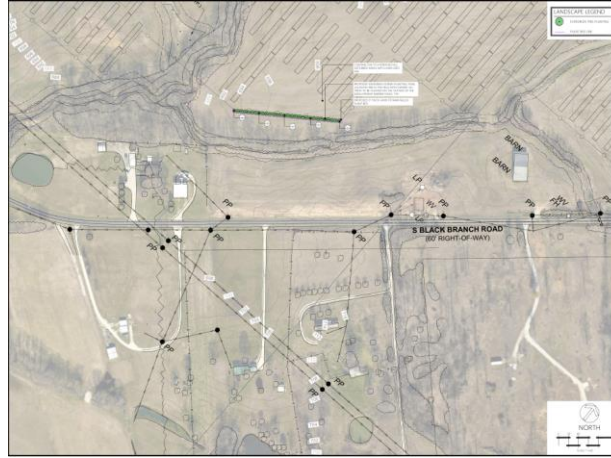


Landscape Design

L5



L6



L7



L8



L9



L10



Landscape Design

L11



L12



Planted Buffering Simulation-Before



Planted Buffering Simulation-After (no planted buffer)



Planted Buffering Simulation-After (planted buffer)



Development Studies

- Critical Issues Analysis (Completed October 2019)
- Phase I Environmental Site Assessment (Completed October 2019)
- Wetlands Delineation (Completed January 2019)
- ALTA Survey (Completed June 2020)
- USACE Jurisdictional Determination (Completed July 2020)
- Interconnection Feasibility Study (Completed October 2020)
- Interconnection System Impact Study (Completed August 2020)
- Interconnection Facilities Study (Completed December 2020)
- Geotechnical Study (Completed December 2020)
- Preliminary SWPPP (Completed November 2020)
- Karst Assessment (Pending Completion March 2021)
- Pile Load Testing (Pending Completion March 2021)

Critical Issues Analysis

Summary of Constraints / Issues

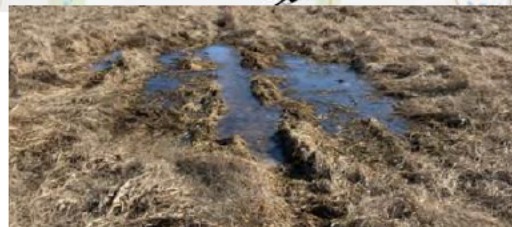
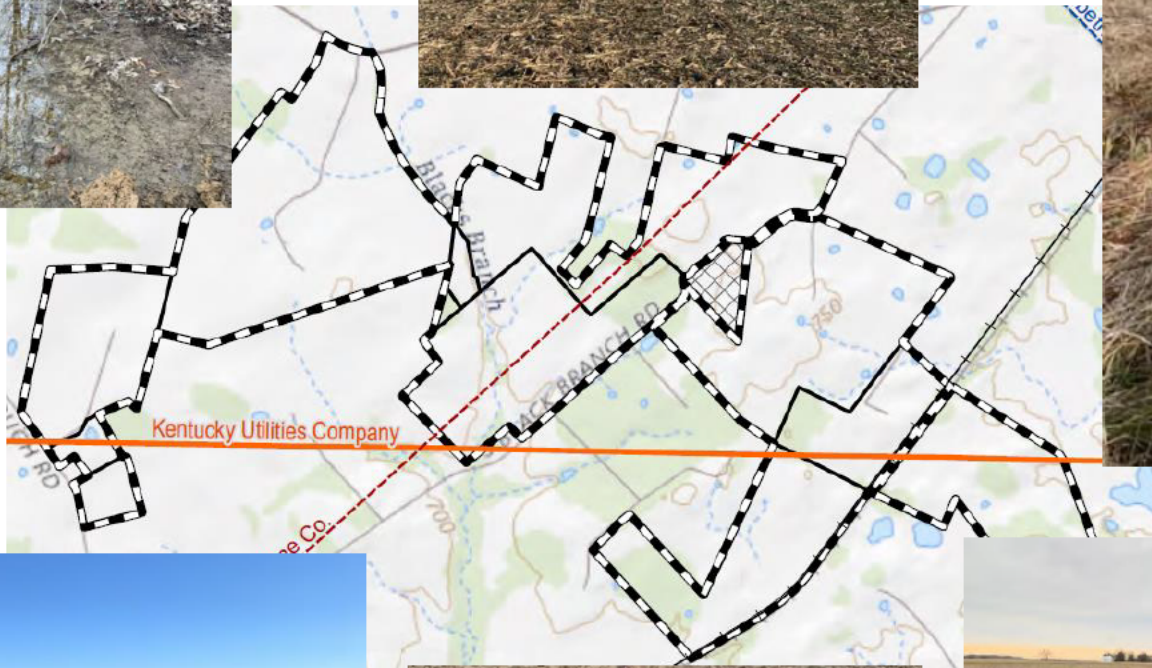
- **Wetland/Stream Surveys** – Impacts to waters under USACE Louisville District jurisdiction may trigger permitting actions under Section 404 of the CWA, particularly impacts to streams and wetlands. TRC recommends utilizing separate permit actions for the utility line crossings and culvert installations, as needed, to avoid an IP and minimize the permitting schedule.
- **Federal and State Protected Species** – Impacts to federally and state-listed protected species are not anticipated as a result of the Project. However, impacts to suitable protected species habitat should be avoided where possible. Consultation with the USFWS and KDFW may be required depending on the amount and severity of protected species habitat loss. If avoidance is not possible, additional consultation, species-specific surveys, and impact mitigation will likely be required.
- **Local Authorizations/Permits** – Rezoning Approval, Building and Electrical Permit, and landscape planting strips will be required through Hardin County.
- **Hardin County Engineer** – Two BMP plans, one during construction and one to address post-construction erosion and sedimentation, must be submitted and approved by the County Engineer.
- **Coordinated Regulatory Review** – Coordinated reviews at both the federal and state levels will be important to maintain Project schedule and ensure a consistent application of regulations.
- **USACE** – The Louisville District is currently handling heavy workloads. TRC strongly recommends participating in a pre-application meeting with the USACE before submitting a permit application to present and discuss the project. Also, TRC recommends submitting a complete wetland delineation report and permit application as early as possible due to the long processing times.

Phase I Environmental Study

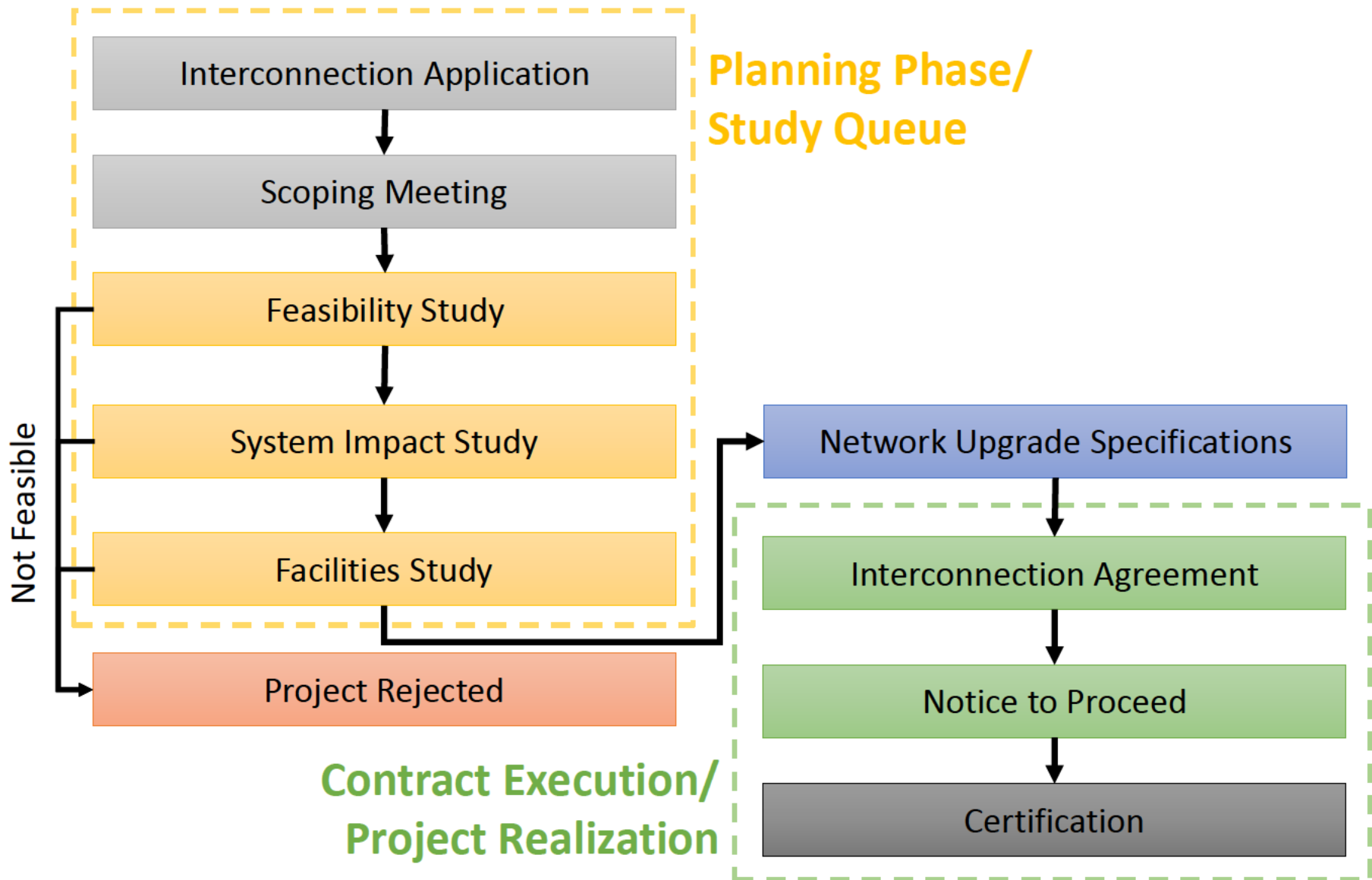
Findings, Opinions and Conclusions

- **No evidence of RECs** defined as presence or likely presence of any hazardous substances or petroleum products in, on, or at a property
- **No evidence of HRECs** defined as past release of any hazardous substances or petroleum products that has occurred in connection with the property
- **No evidence of CRECs** defined as a REC resulting from a past release of hazardous substances or petroleum products
- **No evidence of de minimis conditions** defined as a condition that generally does not present a threat to human health or the environment

Wetlands Delineation



Large Generator Interconnection Process



Engineering



Date: 14-Oct-20 2:56:30 PM ACAD File: n:\3210 rhudes creek\3210.m4.014.b.0_rhudes_creek_inverter_transformer_station.dwg (ANSI B)

Q&A Session

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United States (USA)

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ibV energypartners
an ib vogt company

Thank You!

Please contact us for any questions, comments and concerns!

Robin Saiz

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Manager, Planning & Engineering

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SIGN-IN SHEET – RHUDES CREEK SOLAR COMMUNITY MEETING: 04/01/21

Name	Address	Phone or Email
Chrysler Sney	[Redacted]	[Redacted]
Bobbie Williams	[Redacted]	[Redacted]
Ernest Hammons	[Redacted]	[Redacted]
Bernie L. Hammons	[Redacted]	[Redacted]
Jennifer Frazee, Asa Frazee	[Redacted]	[Redacted]
Denise & David Miller	[Redacted]	[Redacted]
John Heath	[Redacted]	[Redacted]
William Lerner	[Redacted]	[Redacted]
Steve & Mary Alice Feltus	[Redacted]	[Redacted]
Nathan Highboy	[Redacted]	[Redacted]

www.ibvenergy.com
an ib vogt company

USA Office
Miami, FL
Reno, NV
Providence, RI

Group Office
Berlin, Germany

Dear Guest:

On behalf of ibV Energy Partners, we would like to welcome you to the **Rhudes Creek Solar Open House**. The event will be a great opportunity for community members to meet the Rhudes Creek Solar team and have your questions answered about the Rhudes Creek Solar project being proposed near Cecilia.

The open house event will be set-up in a station format, and each station will be staffed with representatives of IbV Energy Partners who are experts in the development of solar projects. They will be ready to discuss anything from solar panel siting to the economic and environmental benefits of solar energy.

Please feel free to visit each station and spend as much time as necessary discussing your questions with one of our subject matter experts. In the packet, we have included a [Feedback Form](#) for you to provide us with any comments or questions once you complete your visit.

A brief description of the stations is listed below.

- **Welcome/Feedback** -- Sign-in and collect your welcome packet. Before you leave, please provide us your feedback and any additional comments about the Rhudes Creek Solar Project.
- **About ibV Energy Partners** -- Learn about IbV Energy Partners and its projects across the United States.
- **Solar Siting and Development** – Find the location of the Rhudes Creek Solar project. Learn about the steps in siting of a solar project and the development process. Learn about the screening and maintenance of solar fields.
- **Community Benefits of Solar** -- Learn about the benefits of solar energy development to Hardin County.

Due to the COVID-19 pandemic, we will be following the State of Kentucky guidelines for gatherings under 250 people, as well as ibV's best practices for hosting a public event. We selected the Cecilia Ruritan Club Pavilion because it was outdoor venue that would allow enough room for adequate social distancing during the event.

- ✓ *Appropriate social distancing will be required of all attendees who are not in the same family unit.*
- ✓ *The event will be limited to no more than 50 people at a time.*
- ✓ *Masks will be required for all attendees and ibV staff -- no exceptions.*
- ✓ *We will provide masks for those who do not have their own.*
- ✓ *Provide Adequate Hand Sanitizer and Encourage Hand Washing*
- ✓ *Ensure Proper Sanitation and Conduct Daily Temperature/Health checks*
- ✓ *Participants will be allowed the opportunity to ask questions at each station.*

We look forward to hosting a safe and informational community open house. In the meantime, please do not hesitate to contact me with any questions, ideas, or concerns.

Respectfully,
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RHODES CREEK SOLAR | ibV ENERGY PARTNERS

Rhodes Creek Solar Project Details

Project Location

The project will be constructed across 869 acres of agricultural land west of Cecilia. The solar project will be located along Highway 86. Within each solar field less than half the land will be used for solar panels.

Local Economic Benefits

The project will contribute to the local tax base. At 100 MW, the project is estimated to generate \$2.35 million dollars in tax revenue for Hardin County over the life of the project with \$1.48 million going to the schools.

Screening

Rhodes Creek Solar project will be comprised of multiple fields of solar panels and equipment surrounded by perimeter fencing. The equipment will have a low-profile that follows the contours of the land. Locations near neighboring homes will be screened by existing trees or planted rows of mixed evergreen trees and shrubs.

Decommissioning

The project will be decommissioned after its useful life, which is anticipated at 30-40 years. In addition, each lease has a decommissioning clause -- further strengthening our commitment to full decommissioning. The farmland will be enhanced and preserved for future cultivation.

ibV ENERGY PARTNERS SOLAR EXPERTISE

- **71 MW** operating/in construction in the US
- **2 GW** in the development pipeline
- **900 MW** under development in Southeastern US
- **100 MW** Rhodes Creek Solar Project



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The Rhudes Creek Solar project will generate 100 MW of clean, renewable solar energy – enough energy to power over 16,131 homes. Rhudes Creek Solar is estimated to generate \$2.35 million in local tax revenue over the life of the project.

RHUDES CREEK SOLAR PROJECT FACTS

- Generate **100 MW** of solar electricity
- Located on **869 acres** west of Cecilia
- Provide **\$2.35 million** in local tax revenue

GROUP KEY FIGURES

1.5 GW Built or under construction
30 GW Pipeline of solar power projects
340 MW Operations and Maintenance
182 MW Plants under asset management
\$242 million Group assets, 2018

Robin F. Saiz, *VP Business Development*
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www.ibvpartners.com



RHUDES CREEK SOLAR ENVIRONMENTAL AND HEALTH BENEFITS

- Supply enough electricity to power over **16,131 HOMES** each year
- Measurable reductions in CO2 and Greenhouse Gases



RHUDES CREEK SOLAR ANTICIPATED ECONOMIC BENEFITS

- **\$2.35 MILLION** in tax revenue over life of project
- **\$1.48 MILLION** to schools
- **250-300 JOBS** during construction
- **Several permanent jobs** created



Veterans in the Work Force

The Solar Foundation's 2018 National Solar Jobs Census found the solar industry employed 19,019 veterans throughout the United States, or 7.8% of all solar workers in the nation. This is more than the 6.6% veteran employment percentage of overall workers in the economy.¹ Many of these jobs are in the areas of installation, production, manufacturing, sales or management throughout a number of solar companies. While this number is above the national percentage for industry, there is significant room for growth.

SEIA's Commitment

Since 2015, SEIA has been working to address the challenge that too many of our veterans face at home: finding employment after active duty service. This encouraged the industry to do more for the men and women who serve in our armed forces by promoting more employment opportunities for veterans within the solar industry. SEIA has been taking active steps towards promoting veteran jobs and solar job training for our veterans.

Challenges Facing Veterans

Although there is a push for more veteran job growth within the solar industry, to do this means tackling various challenges that make the transition from active duty to civilian life difficult. The skills that many who have served in the armed forces acquire through their military service can easily be applied to the solar industry. Being able to translate those skills onto a resume or during an interview, however, is a different matter that many veterans struggle with when looking for work post service.

Many veterans learn crafts and technical skills that can benefit the solar industry during their time in active duty. However, veterans also have workforce assets beyond strictly technical skills. The training that veterans receive during their service enables them to both operate on their own and effectively coordinate as part of a team. This, along with their accumulated leadership skills, make many veterans perfect fits for work in the solar industry. It takes a team effort to raise and mount just one panel onto a rooftop, let alone multiple in an array. This is where solar training programs come into play.

SEIA has been taking active steps towards promoting veteran jobs and solar job training for our veterans.

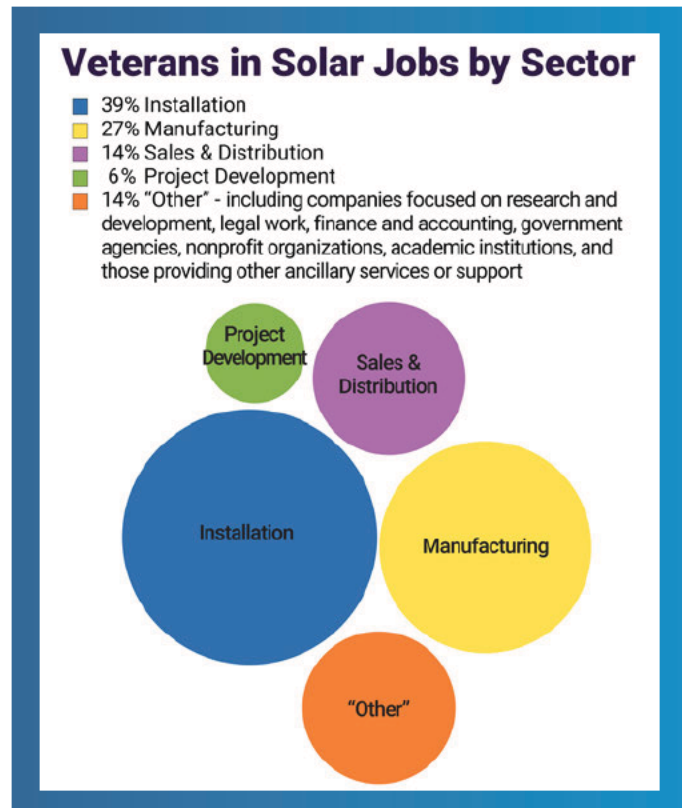
Solar Programs

Solar training programs allow veterans to receive training in the practical skills needed to work in the solar industry, which can give them an edge when applying for jobs. Through these programs, veterans will gain experience and knowledge of solar energy technologies and solar installation. This coupled with learning how to translate their skills and experiences into assets that will draw company's attention make for an impressive combination for securing jobs within the industry. Currently there are a number of solar-industry specific programs aimed at integrating veterans into solar jobs. A few well-known initiatives include:

Solar Ready Vets - The Solar Ready Vets program, originally funded by the U.S. Department of Energy Solar Energy Technologies Office, consists of a 6-week training program for service members on military bases before they are discharged. It is an immersion program where they are taught the basics of solar installation, project management, and other industry necessities. The program now runs independently at 10 military bases.²

Solar Opportunities and Readiness - The new U.S. Department of Energy-funded Solar Opportunities and Readiness³ program takes the training a step further to introduce solar-trained, transitioning veterans to available career opportunities directly with the solar industry at job fair events. Launching in late 2019, this program is managed by The Solar Foundation and includes SEIA and The U.S. Chamber of Commerce (Hiring Our Heroes) as partners.

Troops to Solar - This GRID Alternatives program, founded in 2015, is a project funded by a \$750,000 grant over the course of a three-year life cycle. The program trains veterans and active duty service members in hands-on solar installation experience and utilizes GRID Alternatives' connections within the industry to advance in their careers. While it is nearing the end of its term, this program provides a model for others to continue to train veterans for jobs in the solar industry. By the time the program runs its course, it will have trained 1,000 veterans for solar jobs.⁴



¹ The Solar Foundation, 2018 Solar Jobs Census, www.thesolarfoundation.org/national

² Department of Energy, Solar Ready Vets, energy.gov/eere/sunshot/solar-ready-vets and The Solar Foundation, thesolarfoundation.org/solar-ready-vets2/

³ Department of Energy, Solar Opportunities and Readiness (National Solar Jobs Accelerator), energy.gov/eere/solar/seto-fy2018-workforce-initiatives

⁴ GRID Alternatives, Troops to Solar Initiative, <http://www.gridalternatives.org/programs/workforce-development/troops-solar-initiative>

⁵ Veterans in Solar Jobs by Sector Graph taken from the Solar Foundation's *Veterans In Solar: Securing America's Energy Future Report*, 2014.

For more information about SEIA's work on this issue, contact:
 Evelyn Butler at ebutler@seia.org
 or Dana Sleeper at dsleeper@seia.org

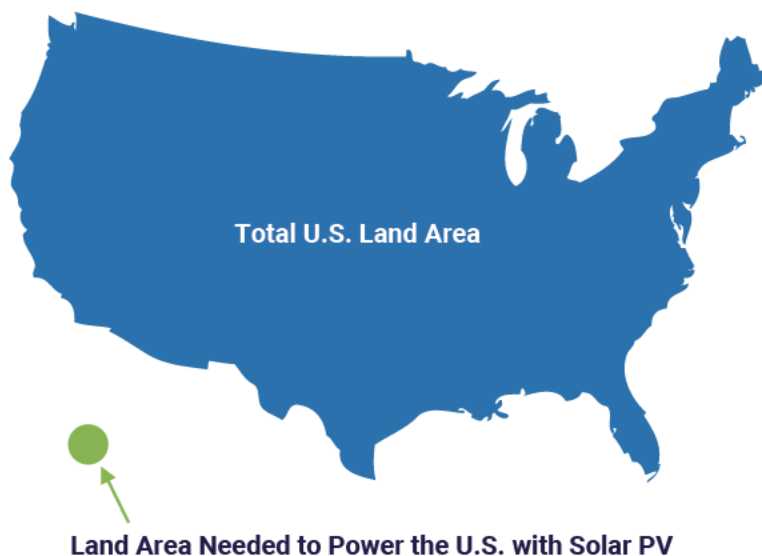
Solar and Agricultural Land Use Can Occur Harmoniously

As solar continues to expand into new markets, both rural and urban, land use discussions are likely to occur. In these discussions, it's important for participants to understand that solar is not a threat to agricultural activity, but rather a harmonious development that can assist the farming community.

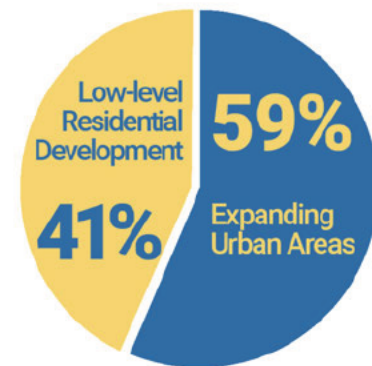
- Solar can provide land with an opportunity to recover, when paired with the planting of native grasses and pollinators and be used for agricultural purposes in the future.
- Farmers can utilize solar as a steady revenue stream to help smooth out the impact of grain and produce market volatility.
- Installations of utility-scale solar continue to expand; however, they are still not a significant cause of the loss of agricultural land.

Solar Land Needs in the U.S.

As ground-mounted solar is expanding into more states, developers and farmers are looking to agricultural land for installations. Though renewable energy critics have claimed that ground-mounted solar farms are taking up large swaths of viable agricultural land, expanding urban areas and residential development accounted for nearly all lost farmland.¹ In the last decade, while North Carolina rose to become the #2 state in the U.S. in solar installations, the state lost one million acres of cropland to development and housing, yet only 1% of that total was due to solar development.² Moreover, many solar developments strengthen agricultural communities and augment local agricultural production.



Agricultural Land Loss



Even as installations of utility-scale solar continue to expand, they still do not pose a significant risk to the loss of agricultural land. To generate enough electricity to power the entire country, solar facilities would need to occupy roughly the same area devoted to surface coal mining,³ with a much cleaner outcome.

In Pennsylvania, the Department of Environmental Protection found that only 124 square miles (79,200 acres) of land will be needed to increase grid solar sufficiently to generate 10 percent of electricity.⁴ This is less than three-tenths of 1 percent of Pennsylvania's total land area of 46,055 square miles. In addition, land that is already in use, such as landfills and abandoned mine land, could also host grid-scale solar installations.

¹ <https://www.agweek.com/business/agriculture/4443480-31-million-acres-lost-development-cuts-us-farmland>

² North Carolina Sustainable Energy Assn, "North Carolina Solar & Agriculture" (April 2017). https://energync.org/wp-content/uploads/2017/04/NCSEA_NC_Solar_and_Agriculture_4_19.pdf.

³ <https://solar.gwu.edu/how-much-land-would-it-take-power-us-solar>

⁴ <https://www.dep.pa.gov/Business/Energy/OfficeofPollutionPrevention/SolarFuture/Pages/Pennsylvania's-Solar-Future-Plan.aspx>

Solar Allows Land to Recover

Soil can be improved by planting native grasses/pollinators and effectively letting the soil rest. In the future, when a solar project is decommissioned, farming can once again resume on that land. This is a stark contrast to other development, which often leaves land unusable for agriculture.^{5,6} After the panels are installed, native vegetation—often friendly to bees and other pollinators—is planted. The deep roots of the planted native vegetation retain more water than turf grass and gravel during heavy storms and periods of drought. They also help retain topsoil and improve soil health over time, even in "brownfield" areas with polluted soils.⁷

Solar Projects Provide Economic Benefits to the Farming Community

Solar paired with native grasses and pollinators can provide overused soil an opportunity to recover and a healthy revenue stream to farmers.

- Keeps farmers on their land
 - Solar lease payments tend to be higher than leasing for traditional agriculture operations.
 - Farming is an extremely low-margin, competitive industry. If a farmer can add solar to a portion of their property and get a long-term steady income, it can help them to keep their farm.
 - Steady income from solar projects means that farmers are less vulnerable to fluctuations in market prices or crop yields.
- Downstream benefits from O&M and tax revenue have lasting positive community impact
- Solar can offset power required for pumping and provide electricity to remote irrigation systems
- Provides substantial tax revenue to local communities.⁸ Detailed data collection in NC shows local tax revenues up 2000% after the state's big solar build up through 2017.⁹
- Provides local construction jobs



NREL, Photos by Dennis Schroeder

Co-location of Agricultural Activities and Solar

Solar and agriculture are not mutually exclusive. In fact, the U.S. Government incentivizes co-locating solar with agricultural production. USDA's REAP program provides grants to those interested in investing in solar energy. However, to qualify, applicants must receive at least 50% of their income from agricultural operations.¹⁰ Additionally, pollinators and sheep farmers are two examples of co-located agricultural activities that exist in harmony with solar projects.¹¹ According to a study, co-location and solar grazing bring net positive benefits for both farmers, in the form of additional income, and solar facilities, through increased energy production and reduced maintenance expenses. Please see SEIA's Multiuse Farming Factsheet for more information.

⁵ <https://www.nrel.gov/news/features/2019/beneath-solar-panels-the-seeds-of-opportunity-sprout.html>

⁶ <https://www.energy.gov/eere/solar/farmers-guide-going-solar>

⁷ <https://www.nrel.gov/news/features/2019/beneath-solar-panels-the-seeds-of-opportunity-sprout.html>

⁸ North Carolina Sustainable Energy Assn, "North Carolina Solar & Agriculture" (April 2017). https://energync.org/wp-content/uploads/2017/04/NCSEA_NC_Solar_and_Agriculture_4_19.pdf.

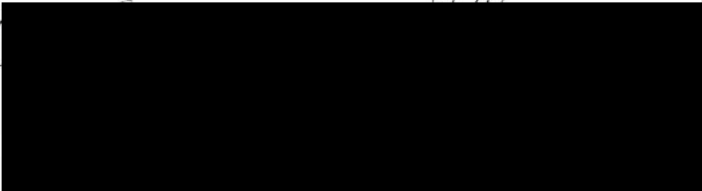
⁹ https://energync.org/wp-content/uploads/2019/07/Small_Increased-NC-County-Tax-Revenue-from-Solar-Developmentv3.pdf

¹⁰ https://www.rd.usda.gov/files/RD_FactSheet_RBS_REAP_RE_EE.pdf

¹¹ https://energync.org/wp-content/uploads/2017/04/NCSEA_NC_Solar_and_Agriculture_4_19.pdf

RHUDES CREEK SOLAR COMMUNITY MEETING – FEEDBACK FORM

Thursday, April 1, 2021

Name	Address	Phone	E-Mail
<i>John Heath</i>		<i>770</i>	
<p>Comments:</p> <p><i>Water</i></p> <p><i>Sound in the ground 42724</i></p>			

From: Mary Parker [mailto: [REDACTED]]
Sent: Wednesday, April 7, 2021 8:35 PM
To: Jeffrey Chang <jeffrey.chang@ibvenergy.com>
Subject: Re: Rhudes Creek Site Plans with Mary Parker

Jeffrey,

Thanks so much for taking the time to meet with me today online so that I could see photos of how the Rhudes Creek Solar Project will impact the view from my home on Hardinsburg Rd. As you have shown me, the project will be far enough from the road so that it will not inhibit our view. That is wonderful news.

I understand that there is possibly a community project in the plans that would provide a walking path in the future in the Cecilia area. I would truly love that, were it to come to fruition. I travel some distance to find a safe place to walk, as it is. Anyway, that would be a nice amenity to have in our small town.

Thanks again for your being so helpful in explaining what plans are for the solar project!

Mary

On Wed, Apr 7, 2021 at 1:49 PM Jeffrey Chang <jeffrey.chang@ibvenergy.com> wrote:

Microsoft Teams meeting

Join on your computer or mobile app

[Click here to join the meeting](#)

[Learn More](#) | [Meeting options](#)

Mary C. Parker

Cell: [REDACTED]

-----Original Message-----

From: Mary Parker < [REDACTED] >

Sent: Friday, April 2, 2021 9:06 AM

To: ibV Energy Info <info@ibvenergy.com>

Subject: Rhudes Solar Project

I live near the Rhudes Solar project and would like to know if there are any job openings in the Cecilia area and if so, how to apply for them.

Thank you!

Mary Parker

From: Jeffrey Chang
Sent: Tuesday, April 6, 2021 8:52 AM
To: Asa Fraze <[REDACTED]>
Subject: RE: Utility Easement Concern_Frazes

Hi Asa and Jennifer, good morning and great to meet you last week. Thanks very much for the input. I will work with our site civil engineering team at TRC to incorporate in our design. Also, if you can capture some good pictures next time a big rain event comes, it would be great reference. If anything comes up, please reach out anytime.

Best,

Jeff

Jeffrey C. Chang
Planning & Engineering Manager

ibV Energy Partners
777 Brickell Ave. Suite 500 | Miami, FL 33131
984.238.4284 | jeffrey.chang@ibvenergy.com
Home Office: Raleigh, NC

From: Asa Fraze [REDACTED]
Sent: Monday, April 5, 2021 7:45 PM
To: Jeffrey Chang <jeffrey.chang@ibvenergy.com>
Subject: Utility Easement Concern_Frazes

Jeff,

We are the Frazes and we spoke with you last Thursday evening during the community meeting in Cecilia. We live at 3562 Hardinsburg Rd, adjacent to Mr. Peterson's property across which the transmission line will run along with a utility easement. A potential concern that we have regarding the easement is the runoff of excess rainwater. The majority of the runoff currently flows into our backyard from the slope that abuts the back of our property. This is due in part, we believe, to the pond that is located in that field along with limited opportunities for the surrounding terrain to abate the volume of water that traverses it during periods of heavy rain. The excess runoff flows down that slope and becomes a substantial volume of rainwater that water stands near our house (at times up to 6 inches in depth adjacent to the foundation). The collection of runoff is significant enough that it requires the use of a sump pump installed in our crawl space to help remove water that comes up around the foundation of our house and would otherwise remain in our crawlspace. This runoff water drains across our property and into the adjacent field over time, usually over 48 hours if the rainfall stops. The field, which is the future location for the transmission line and utility easement, is the primary direction in which the standing water eventually drains. If the flow of this runoff water is interrupted or altered, we are concerned that we run the risk of our property no longer being able to adequately drain excess water to the point of where we could face extended periods where our house is directly in standing water and our crawlspace and sump cannot manage the volume. We believe that these concerns can be alleviated if the utility easement and any corresponding modification in the slope of the surrounding terrain take this drainage issue into account. This likely could be accomplished via drainage ditches, culverts under the easement, or similar means that facilitate or enhance the flow of runoff across our property. Thank you for your time.

Respectfully,
Asa and Jennifer Frazes



Virus-free. www.avast.com

WELCOME

RHUDES CREEK SOLAR | COMMUNITY TOWN HALL

Due to the Covid 19 pandemic, we will be following the State of Kentucky guidelines for outdoor gatherings under 250 people, as well as ibV Energy Partners' best practices for hosting a public event:



Once you enter the Cecilia Ruritan Pavilion, the Hardin County Health Department recommends everyone register to ensure we can contact anyone who attended the event.



After registering, we ask that you proceed on a self-guided tour with only those in your family unit.



Six feet (6') of social distancing is required of all who are not in the same family unit.



Masks are required for all attendees— no exceptions.



Based on venue capacity, the event will be limited to no more than 50 people at a time.



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RHUDES CREEK SOLAR | ibV ENERGY PARTNERS

Rhudes Creek Solar Project Details

Project Location

The project will be constructed across 869 acres of agricultural land west of Cecilia. The solar project will be located along Highway 86. Within each solar field less than half the land will be used for solar panels.

Local Economic Benefits

The project will contribute to the local tax base. At 100 MW, the project is estimated to generate \$2.35 million dollars in tax revenue for Hardin County over the life of the project with \$1.48 million going to the schools.

Screening

Rhudes Creek Solar project will be comprised of multiple fields of solar panels and equipment surrounded by perimeter fencing. The equipment will have a low-profile that follows the contours of the land. Locations near neighboring homes will be screened by existing trees or planted rows of mixed evergreen trees and shrubs.

Decommissioning

The project will be decommissioned after its useful life, which is anticipated at 30-40 years. In addition, each lease has a decommissioning clause -- further strengthening our commitment to full decommissioning. The farmland will be enhanced and preserved for future cultivation.

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- 71 MW operating/in construction in the US
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RHUDES CREEK SOLAR ENVIRONMENTAL AND HEALTH BENEFITS

- Supply enough clean energy to power over 16,131 HOMES each year



RHUDES CREEK SOLAR ANTICIPATED ECONOMIC BENEFITS

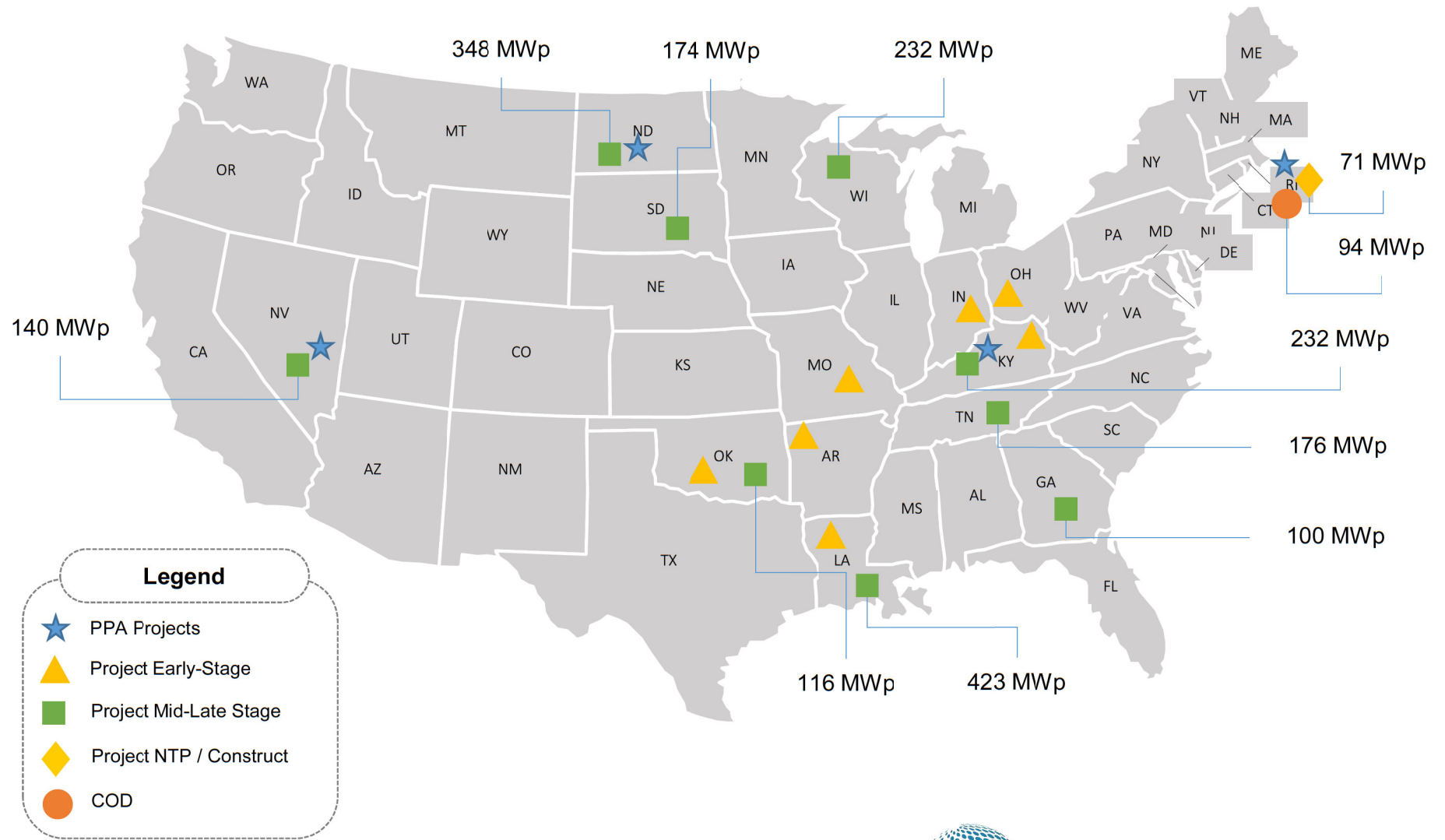
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- Several permanent jobs created



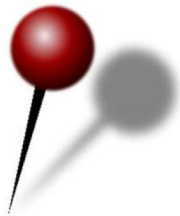
ibV Energy Partners - Projects



ibV Energy Partners - US Projects



Six Steps to Building a Solar Project



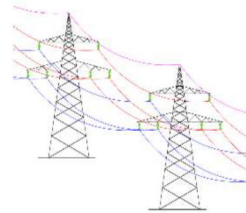
Step 1: Site Identification

A site is chosen based on topography, access to the electrical grid, and other factors.



Step 2: Land Acquisition

The developer works with the landowner to come to an agreement on a land lease or purchase option.



Step 3: Interconnection Studies

The utility studies the point where the project will connect to the grid to determine whether a project is viable in that location.



Step 4: Public Engagement and Permitting

Hold community information sessions and public hearings on project. Local, state and federal government is engaged to ensure that the project is harmony with the community as well as with environmental and historical resources.



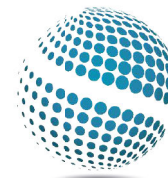
Step 5: Engineering and Construction

After field surveys, an engineering firm will design the layout of panels to fit the property. A certified construction team arrives and builds the system

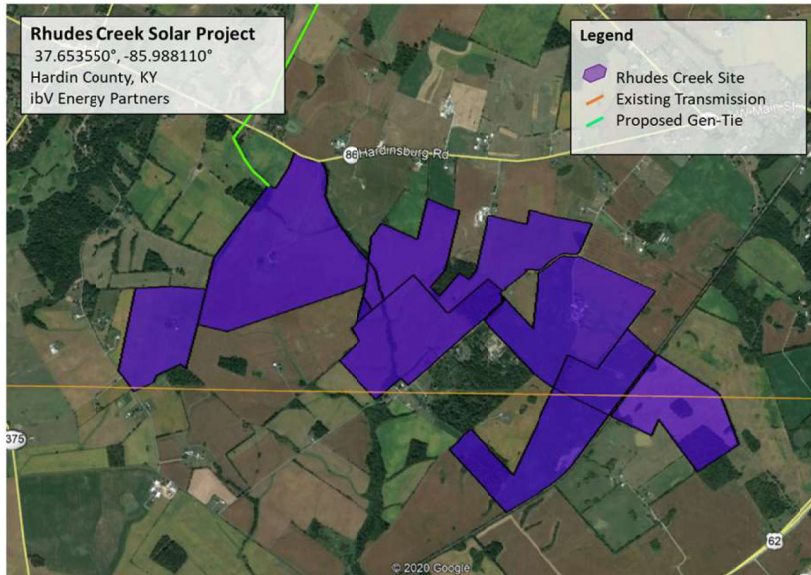


Step 6: Operation

After project is constructed, the Rhudes Creek Solar project will produce 100 MW of clean renewable energy. The power produced by the operation of the project will be enough to power XX,XXX Kentuckians Homes.



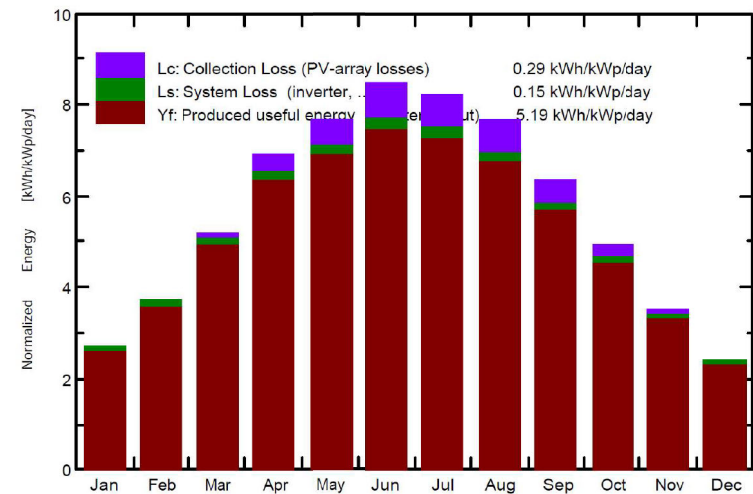
Rhudes Creek Solar Project Overview



Summary	
State	Kentucky
County	Hardin
Zip Code	42724
Adjacent Streets	<ul style="list-style-type: none"> • Hardinsburg Road • S Black Branch Road • Hansborough Road
Project Status	Development Phase
Year of Construction	2021
Year of Operation	2022
Project Lifespan	35 years

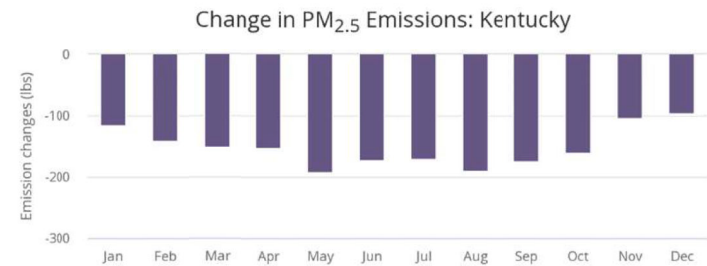
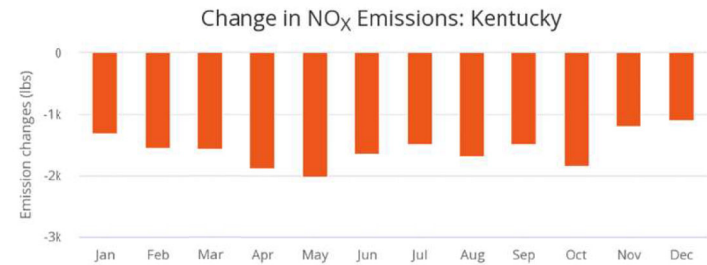
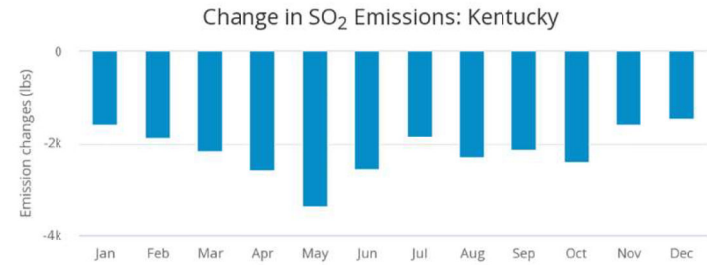
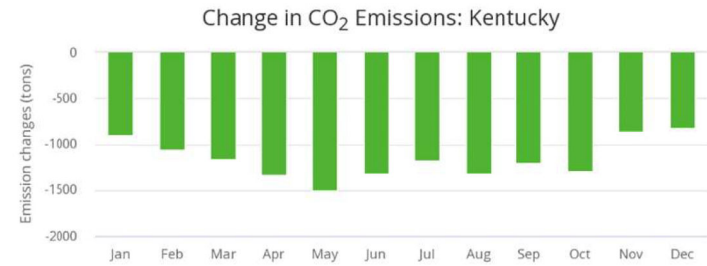
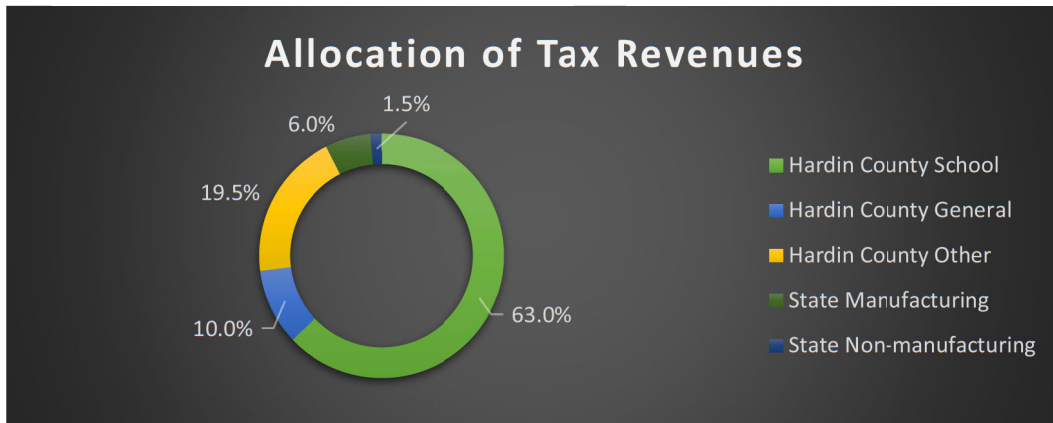
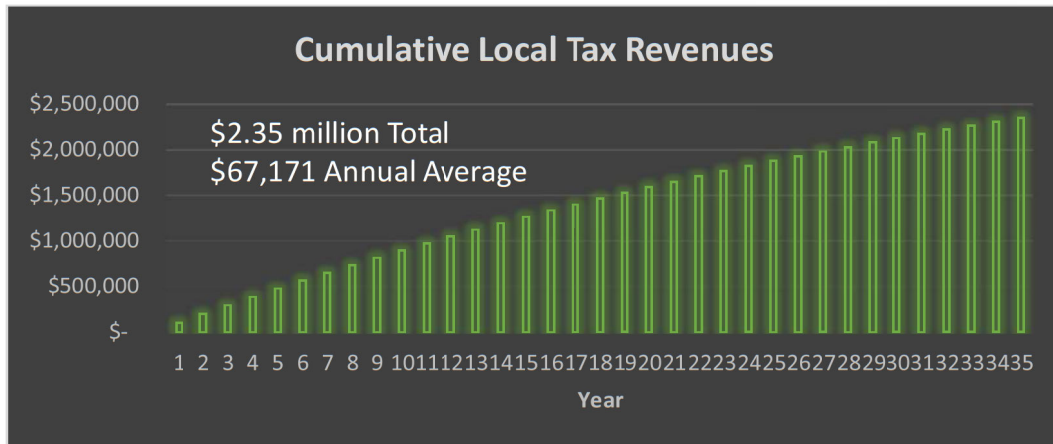
Technical	
Project Size	100 MWac
Technology	Solar Photovoltaics
Equipment	<ul style="list-style-type: none"> • Bifacial Modules • Single-axis Trackers • Central-type Inverters
Specific Yield	1,894 kWh/kWp/year
Annual Production	218,732 MWh/year
Performance Ratio	92.2%
Capacity Factor	25.0%

Normalized productions (per installed kWp): Nominal power 115488 kWp

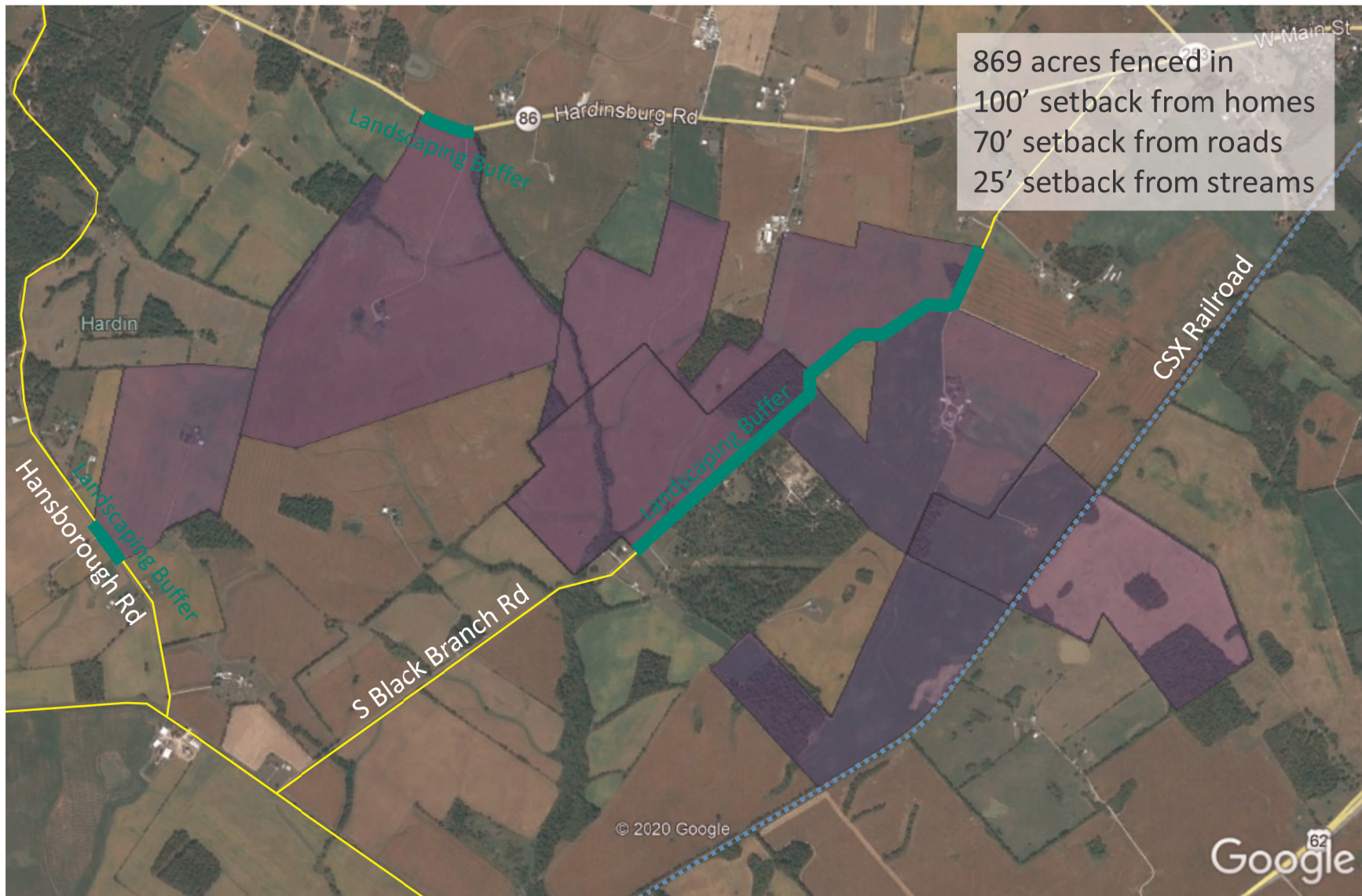


Rhudes Creek Solar Project Benefits

- Approximately 250-300 Construction Jobs
- Enough Power for 16,131 Homes
- \$2.35mm in Local Tax Revenues for 35 Years
- Greenhouse Gas Reductions



Rhudes Creek Solar Site Plan



Planted Buffer Simulation

Before



After: No Planted Buffer



After: Planted Buffer



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