

## **EXHIBIT D PUBLIC NOTICE EVIDENCE AND REPORT**

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### **Requirements**

#### **Solar Facility**

*KRS 278.706(2)(c): Evidence of public notice that shall include the location of the proposed site and a general description of the project, state that the proposed construction is subject to approval by the board, and provide the telephone number and address of the Public Service Commission. Public notice shall be given within thirty (30) days immediately preceding the application filing to:*

- Landowners whose property borders the proposed site; and
- The general public in a newspaper of general circulation in the county or municipality in which the facility is proposed to be located.

*KRS 278.706(2)(f): A complete report of the applicant's public involvement program activities undertaken prior to the filing of the application, including:*

- The scheduling and conducting of a public meeting in the county or counties in which the proposed facility will be constructed at least ninety (90) days prior to the filing of an application, for the purpose of informing the public of the project being considered and receiving comment on it;
- Evidence that notice of the time, subject, and location of the meeting was published in the newspaper of general circulation in the county, and that individual notice was mailed to all owners of property adjoining the proposed project at least two (2) weeks prior to the meeting; and
- Any use of media coverage, direct mailing, fliers, newsletters, additional public meetings, establishment of a community advisory group, and any other efforts to obtain local involvement in the siting process.

#### **Transmission Line**

*KRS 278.714(2)(e): Evidence that public notice has been given by publication in a newspaper of general circulation in the general area concerned. Public notice shall include the location of the proposed line, shall state that the proposed line is subject to approval by the board, and shall provide the telephone number and address of the Public Service Commission.*

### **Compliance**

#### **Notice of Application**

The Exhibit D attachment includes a two-page sample letter that was sent out via registered mail on November 10, 2020, to 63 landowners whose property borders the Unbridled Solar Facility (Project) site. A distribution list is provided; however, personal information has been redacted pursuant to 807 KAR 5:001 Section 4(10).

The following documents are also attached to this exhibit:

- A copy of the November, 11, 2020, public notice containing information on the solar facility and transmission line, and

- The affidavits of publication in *The Gleaner* and *The Journal-Enterprise*, the newspapers of general circulation in Webster and Henderson counties.

### **Public Information Meeting**

Because of limitations on public gathering and social distancing requirements imposed during the COVID-19 State of Emergency in Kentucky, Unbridled Solar, LLC (Unbridled, or the Applicant), was granted approval by the Siting Board on August 5, 2020, to meet the public meeting requirements with use of a Project website and in-person office hours and by holding a virtual public information meeting. Although in-person public information meetings were not feasible, the public was provided multiple opportunities and avenues to engage with the Applicant, submit questions and comments regarding the Project, and receive information about the proposed solar facility.

The Project website (available at <https://nationalgridrenewables.com/unbridled/>) provided the public with details on how to attend the virtual public information meeting, a map showing the Project Area, aerial imagery, parcel information for all participating properties in Henderson and Webster counties, opportunity to submit questions and comments regarding the project, a summary of frequently asked questions and responses, and instructions on how to request more information. Following the virtual public information meeting, a copy of the presentation was posted on the website.

Notice of the public information meeting was published in *The Gleaner* (the Henderson County newspaper) on August 11, 2020, and *The Journal-Enterprise* (the Webster County newspaper) on August 12, 2020. Affidavits of publication and the notice language are attached. Adjacent landowners of the Project were directly notified and invited via mail to participate in the public information meeting. A template letter and list of adjacent landowners is included below however, personal information has been redacted pursuant to 807 KAR 5:001 Section 4(10).

In-person office hours were available in both Henderson County and Webster County on August 26, 2020, prior to the virtual public information meeting. This provided an in-person opportunity for the public to ask questions and obtain information about the Project. The in-person office hours were attended by four participants who were participating landowners and adjacent landowners of the Project. These in-person office hours met all social distancing and public gathering requirements.

On the evening of August 26, 2020, the Applicant conducted a virtual public information meeting. Project representatives and subject matter experts hosted a live presentation with a question and answer session, which was accessible to the public either by the internet or by telephone. The virtual public information meeting was attended by five participants (and was capable of hosting up to 1,000 participants). A copy of the project presentation is attached to this Exhibit.

The following is a brief description of other public involvement activities the Applicant has conducted prior to submission of this Application:

- On multiple occasions from November 2019 to December 2019 Project representatives attended and provided comment at Henderson City-County Planning Commission and Henderson County Fiscal Court meetings while the County's solar ordinance was being reviewed and approved;
- In April 2020, the Applicant sent out an introductory letter with Project information to landowners adjacent to the Project site;

- On May 8, 2020, an Unbridled representative had a one-on-one phone call with the Webster County Judge Executive to provide updates on the status of the Project and to answer questions from the Judge Executive;
- On May 13, 2020, an Unbridled representative had a one-on-one phone call with the Henderson County Judge Executive to provide updates on the status of the Project and to answer questions from the Judge Executive;
- On June 8, 2020, Unbridled representatives gave an introductory Project presentation to the Webster County Fiscal Court;
- On June 9, 2020, Unbridled representatives gave an introductory Project presentation to Henderson County Fiscal Court;
- On June 10, 2020, an Unbridled representative had a one-on-one phone call with the Mayor of Robards to introduce the Project, provide updates on the status of the Project, and answer questions from the Mayor;
- On June 23, 2020, Unbridled representatives gave an introductory Project presentation to the McLean County Fiscal Court;
- On June 24, 2020, Unbridled representatives gave an introductory Project presentation to the Henderson County School District Assistant Superintendent;
- On July 8, 2020, an Unbridled representative presented an introduction of the Project to the Henderson County Economic Development Corp;
- On July 8, 2020, an Unbridled representative presented an introduction of the Project to the Webster County Economic Development Corp;
- On July 22, 2020, an Unbridled representative presented an introduction of the Project to the Henderson County Chamber of Commerce; and
- On August 27, 2020, National Grid Renewables Development, LLC, became a member of the Henderson County Chamber of Commerce.

**ATTACHMENTS**

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# The Gleaner

PART OF THE USA TODAY NETWORK

Affidavit of Publication

**PROOF OF PUBLICATION  
OF LEGAL ADVERTISEMENT**

Account Number:  
9529889000GERO

**STATE OF WISCONSIN  
BROWN COUNTY**

RE: GERONIMO ENERGY  
GERONIMO ENERGY  
AD: 0004457689  
PO:  
Publication Cost: \$83.30  
# of Affidavits<sup>1</sup>  
**This is not an invoice**

**GERONIMO ENERGY**

8400 NORMANDALE LAKE BLVD SUITE 1200

**BLOOMINGTON, MN 55437**

I, being sworn, am an employee of the Evansville Courier Press, publisher of **THE GLEANER**, a newspaper published and having general circulation in the city of Henderson, Kentucky, in said county and state and that the legal advertisement, of which the attached is a true copy, was printed in its issues of:

**EC-Gleaner November 11, 2020 - Wednesday**

  
Signed

Date

11-16-2020



Notary Public

Notary is Resident of **Brown County, State of Wisconsin**

My Commission expires: August 06, 2021

TARA MONDLOCH  
Notary Public  
State of Wisconsin

**NOTICE OF APPLICATION**

Unbridled Solar, LLC, a subsidiary of National Grid Renewables Development, LLC (f.k.a Geronimo Energy, LLC), is proposing to construct and operate a 160-megawatt solar merchant generation facility and associated nonregulated 161 kV transmission line. The proposed Unbridled Solar Project (the Project) generation facility will be located on approximately 1,800 acres in Henderson and Webster County, near the 4 Star Industrial Park. The associated transmission line is proposed to be approximately 3.15 miles long and run east from the Project substation in Henderson County, within the central area of the Project site, and terminate at the existing Reid Substation in Webster County.

Unbridled Solar, LLC is required to file an application for construction and operation of the proposed facility and associated transmission line. This application is subject to the approval of the Kentucky State Siting Board on Electric Generation and Transmission Siting, which can be reached at P.O. Box 615, 211 Sower Boulevard, Frankfort, Kentucky 40602-0615, or via phone at 502-564-3940.

A person who wishes to become a party to a proceeding before the board may, by written motion filed no later than thirty (30) days after the application has been submitted, request leave to intervene.

A party may, upon written motion filed no later than thirty (30) days after an application has been filed, request the board to schedule an evidentiary hearing at the offices of the Public Service Commission, 211 Sower Boulevard, Frankfort, Kentucky, 40602-0615.

A request for a local public hearing or local public information meeting shall be made by at least three (3) interested persons who reside in the county or municipal corporation in which the solar generation facility and transmission line is proposed to be located. The request shall be made in writing and shall be filed within thirty (30) days following the filing of a completed application.

If you have questions, please contact Unbridled Solar, LLC at [UnbridledSolar@nationalgridrenewables.com](mailto:UnbridledSolar@nationalgridrenewables.com) or 364-201-2538.

AFFP

NOTICE OF APPLICATION Unbridle

# Affidavit of Publication

STATE OF KY }  
COUNTY OF WEBSTER } SS

## NOTICE OF APPLICATION

Unbridled Solar, LLC, a subsidiary of National Grid Renewables Development, LLC (f.k.a Geronimo Energy, LLC), is proposing to construct and operate a 160-megawatt solar merchant generation facility and associated nonregulated 161 kV transmission line. The proposed Unbridled Solar Project (the Project) generation facility will be located on approximately 1,800 acres in Henderson and Webster County, near the 4 Star Industrial Park. The associated transmission line is proposed to be approximately 3.15 miles long and run east from the Project substation in Henderson County, within the central area of the Project site, and terminate at the existing Reid Substation in Webster County.

Unbridled Solar, LLC is required to file an application for construction and operation of the proposed facility and associated transmission line. This application is subject to the approval of the Kentucky State Siting Board on Electric Generation and Transmission Siting, which can be reached at P.O. Box 615, 211 Sower Boulevard, Frankfort, Kentucky 40602-0615, or via phone at 502-564-3940.

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If you have questions, please contact Unbridled Solar, LLC at [UnbridledSolar@nationalgridrenewables.com](mailto:UnbridledSolar@nationalgridrenewables.com) or 364-201-2538.

Bobbie Fisher, being duly sworn, says:

That she is Accounting Clerk of the Providence Journal Enterprise, a daily newspaper of general circulation, printed and published in Providence, Webster County, KY; that the publication, a copy of which is attached hereto, was published in the said newspaper on the following

November 11, 2020

That said newspaper was regularly issued and circulated on those dates.

SIGNED:

  
Accounting Clerk

Subscribed to and sworn to me this 11th day of November 2020.

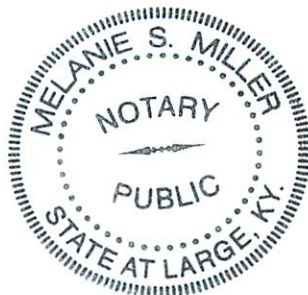


Melanie Miller, , Webster County, KY

My commission expires: September 26, 2023

00157850 00745520

Courtney Pelissero  
National Grid Renewables  
8400 Normandale Lake Blvd. Sutie 1200  
Bloomington, MN 55437





November 10, 2020

Name  
Address

RE: Unbridled Solar Project – Notice of Application

Dear *Landowner*,

We hope this letter finds you and your family healthy and well. We are contacting you as an adjacent landowner or community stakeholder of the Unbridled Solar Project (Unbridled or the Project) as a notice of application. Unbridled is required to file an application for construction and operation of the proposed facility and associated transmission line, subject to the approval of the Kentucky State Siting Board on Electric Generation and Transmission Siting. Unbridled plans to submit the application for construction and operation in the upcoming weeks.

**About the Unbridled Solar Project**

Unbridled Solar, LLC, a subsidiary of National Grid Renewables Development, LLC (f.k.a Geronimo Energy, LLC) is proposing to construct and operate a 160-megawatt solar merchant generation facility and associated nonregulated 161 kV transmission line. The proposed Unbridled Solar Project (the Project) generation facility will be located on approximately 1,800 acres in Henderson and Webster County, near the 4 Star Industrial Park. The associated transmission line is proposed to be approximately 3.15 miles long and run east from the Project substation in Henderson County, within the central area of the Project site, and terminate at the existing Reid Substation in Webster County. The enclosed map identifies the proposed location of the solar generation facility and associated transmission line. Permitting for the project will continue through 2021 with the goal of commercial operation in 2023.

**About the Kentucky State Siting Board on Electric Generation and Transmission Siting**

The Unbridled Solar Project is required to file an application for construction and operation of the proposed facility and associated transmission line. This application is subject to the approval of the Kentucky State Siting Board on Electric Generation and Transmission Siting, which can be reached at P.O. Box 615, 211 Sower Boulevard, Frankfort, Kentucky 40602-0615, or via phone at 502-564-3940.

A person who wishes to become a party to a proceeding before the board may, by written motion filed no later than thirty (30) days after the application has been submitted, request leave to intervene.

A party may, upon written motion filed no later than thirty (30) days after an application has been filed, request the board to schedule an evidentiary hearing at the offices of the Public Service Commission, 211 Sower Boulevard, Frankfort, Kentucky, 40602-0615.

A request for a local public hearing or local public information meeting shall be made by at least three (3) interested persons who reside in the county or municipal corporation in which the solar generation facility and transmission line is proposed to be located. The request shall be made in writing and shall be filed within thirty (30) days following the filing of a completed application.

(see page 2 for more information)





**Estimated Unbridled Solar Local Economic Impacts During First 20 Years of Operation:**

- Direct Economic Impact Total Over \$20 Million+
- Tax Revenue: ~\$4 million (~\$160,000 annually)
- Jobs: ~5 full-time jobs (~\$350,000 annually)
- Education Fund: ~\$640,000 (~\$34,000 annually) - Unique donation for National Grid Renewables projects


Should you have any questions about Unbridled or wish to speak to a member of our staff, please contact us at [unbridledsolar@nationalgridrenewables.com](mailto:unbridledsolar@nationalgridrenewables.com) or 364-201-2586. You can also mail us at the address listed at the bottom of the page.

Sincerely,

Courtney Pelissero  
Permitting Associate  
952-988-9000  
[cpelissero@nationalgridrenewables.com](mailto:cpelissero@nationalgridrenewables.com)

Elle DeBlieck  
Associate Developer  
952-988-9000  
[edeblieck@nationalgridrenewables.com](mailto:edeblieck@nationalgridrenewables.com)

Attachment: Project Map

First Name	Last Name	Company	Address	Address 2
				Atlanta, GA 31139
				Henderson, KY 42420
				Robards, KY 42452
				Henderson, KY 42420
				Robards, KY 42452
				Henderson, KY 42420
				Evansville, KY 47714
				Providence, KY 42450
				Robards, KY 42452
				Robards, KY 42452
				Henderson, KY 42420
				Henderson, KY 42420
				Robards, KY 42452
				Robards, KY 42452
				Robards, KY 42452
Robards, KY 42452				
Robards, KY 42452				
Robards, KY 42452				

	Owensboro, KY 42301
	Henderson, KY 42420
	Robards, KY 42452
	Robards, KY 42452
	Robards, KY 42452
	Robards, KY 42452
	Robards, KY 42452
	Robards, KY 42452
	Robards, KY 42452
	Wayne, PA 19087
	Robards, KY 42452
	Wayne, PA 19087
	Henderson, KY 42420
	Henderson, KY 42420
	Robards, KY 42452
	Robards, KY 42452
	Robards, KY 42452
	Robards, KY 42452



Robards, KY 42452
Robards, KY 42452
Newburg, IN 47630
Henderson, KY 42420
Sebree, KY 42455
Jacksonville, FL 32202
Henderson, KY 42420
Robards, KY 42452
Robards, KY 42452
Henderson, KY 42420
Robards, KY 42452
Robards, KY 42452
Robards, KY 42452
Sebree, KY 42455
Robards, KY 42452
Robards, KY 42452
Henderson, KY 42420
Robards, KY 42452



Robards, KY 42452

Robards, KY 42452

Dixon, KY 42409

Robards, KY 42452

Robards, KY 42452

Robards, KY 42452

Robards, KY 42452

Robards, KY 42452

Sebree, KY 42455

Robards, KY 42452

AFFP

Unbridled Solar, LLC, a subsid

# Affidavit of Publication

STATE OF KY }  
COUNTY OF WEBSTER } SS

Unbridled Solar, LLC, a subsidiary of Geronimo Energy, LLC, a National Grid Company, has scheduled a Public Information Meeting for August 26th, 2020 to outline plans to build the Unbridled Solar Project (Unbridled or Project). The proposed Project is located in Henderson County and Webster County, Kentucky. Unbridled will consist of an up to 160 MW solar merchant generation facility and associated nonregulated 161 kV transmission line.

Bobbie Fisher, being duly sworn, says:

That she is Accounting Clerk of the Providence Journal Enterprise, a daily newspaper of general circulation, printed and published in Providence, Webster County, KY; that the publication, a copy of which is attached hereto, was published in the said newspaper on the following

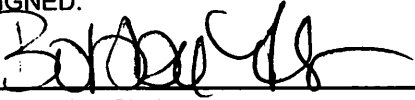
August 12, 2020

Due to the ongoing public health crisis, the public information meeting will be held remotely on August 26th, 2020, beginning at 6:00 pm. The meeting will be accessible by internet or telephone. To register for the meeting, please visit the Project's website <https://geronimoenergy.com/unbridled/>. The Project presentation will be posted to the Unbridled website following the meeting. Comments and questions will be solicited during the meeting and can also be submitted following the meeting.

If the virtual public information meeting is not accessible to you via internet or phone, project representatives will conduct an in-person discussion for the public to ask questions and obtain information about the project in both Webster and Henderson Counties. Webster County office hours will be held on August 26th from 9 AM to 12 PM at the Training Room in the Senior Citizen Center, 80 N College St, Dixon, KY 42409. Henderson County office hours will be held on August 26th from 1 PM to 4 PM at Denton Shelter (Atkinson Park), 1813 N Elm St, Henderson, KY 42420. You may reserve a time to meet during this time window by contacting us by email or phone (details below). The in-person office hours will comply with any social distancing and public gathering requirements.

That said newspaper was regularly issued and circulated on those dates.

SIGNED:

  
\_\_\_\_\_  
Accounting Clerk

If you have questions, please contact Unbridled Solar Project at [UnbridledSolar@geronimoenergy.com](mailto:UnbridledSolar@geronimoenergy.com) or 364-201-2586.

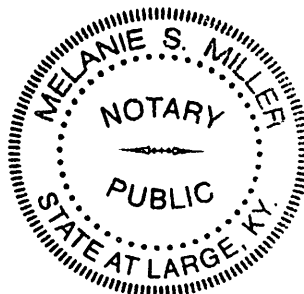
Subscribed to and sworn to me this 12th day of August 2020.

  
\_\_\_\_\_  
Melanie Miller, , Webster County, KY

My commission expires: September 26, 2023

00157850 00729542

Courtney Pelissero  
Geronimo Energy  
8400 Normandale Lake Blvd. Sutie 1200  
Bloomington, MN 55437



# The Gleaner

PART OF THE USA TODAY NETWORK

Affidavit of Publication

**PROOF OF PUBLICATION  
OF LEGAL ADVERTISEMENT**

Account Number:  
9529889000GERO

**STATE OF WISCONSIN  
BROWN COUNTY**

RE: GERONIMO ENERGY  
GERONIMO ENERGY  
AD: 0004322360  
PO:  
Publication Cost: \$79.76  
# of Affidavits 1  
**This is not an invoice**

**GERONIMO ENERGY**

8400 NORMANDALE LAKE BLVD SUITE 1200

**BLOOMINGTON, MN 55437**

I, being sworn, am an employee of the Evansville Courier Press, publisher of **THE GLEANER**, a newspaper published and having general circulation in the city of Henderson, Kentucky, in said county and state and that the legal advertisement, of which the attached is a true copy, was printed in its issues of:

**EC-Gleaner August 11, 2020 - Tuesday**

*Ken Sappalopoulos* *8/13/2020*  
Signed Date

*Tara Mondloch*

Notary Public

Notary is Resident of **Brown County, State of Wisconsin**

My Commission expires: August 06, 2021

TARA MONDLOCH  
Notary Public  
State of Wisconsin

Unbridled Solar, LLC, a subsidiary of Geronimo Energy, LLC, a National Grid Company, has scheduled a Public Information Meeting for August 26th, 2020 to outline plans to build the Unbridled Solar Project (Unbridled or Project). The proposed Project is located in Henderson County and Webster County, Kentucky. Unbridled will consist of an up to 160 MW solar merchant generation facility and associated nonregulated 161 kV transmission line.

Due to the ongoing public health crisis, the public information meeting will be held remotely on August 26th, 2020, beginning at 6:00 pm. The meeting will be accessible by internet or telephone. To register for the meeting, please visit the Project's website <https://geronimoenergy.com/unbridled/>. The Project presentation will be posted to the Unbridled website following the meeting. Comments and questions will be solicited during the meeting and can also be submitted following the meeting.

If the virtual public information meeting is not accessible to you via internet or phone, project representatives will conduct an in-person discussion for the public to ask questions and obtain information about the project in both Webster and Henderson Counties. Webster County office hours will be held on August 26th from 9 AM to 12 PM at the Training Room in the Senior Citizen Center, 80 N College St, Dixon, KY 42409. Henderson County office hours will be held on August 26th from 1 PM to 4 PM at Denton Shelter (Atkinson Park), 1813 N Elm St, Henderson, KY 42420. You may reserve a time to meet during this time window by contacting us by email or phone (details below). The in-person office hours will comply with any social distancing and public gathering requirements.

If you have questions, please contact Unbridled Solar Project at [UnbridledSolar@geronimoenergy.com](mailto:UnbridledSolar@geronimoenergy.com) or 364-201-2586.





August 7<sup>th</sup>, 2020

*Name*

*Address*

*City State Zip*

RE: Unbridled Solar Project – Upcoming Virtual Public Information Meeting

*Dear Name,*

We hope this letter finds you and your family healthy and well. We are contacting you as an adjacent landowner or community stakeholder to invite you to a virtual Public Information Meeting for the Unbridled Solar Project. We would like to take this opportunity to inform you of the proposed project and seek your input regarding the project. The virtual Public Information Meeting will replace the traditional in-person meeting for this Project due to the COVID-19 pandemic. The health and safety of community members is very important to us, as is the dissemination of information regarding our planned local solar energy development. For these reasons, we invite you and your neighbors to attend the virtual Public Information Meeting (via internet or phone) or contact us directly with questions for additional information (details below). If one of these options is not accessible to you, project representatives will also be available for in-person office hours (details below).

#### **About the Unbridled Solar Project**

The Unbridled Solar Project (Unbridled or Project) is an up to 160 MW solar site under development on approximately 1,500 acres south of Robards in Henderson and Webster Counties, Kentucky. The project will interconnect to the transmission grid at the 161 kV Reid substation owned by Big Rivers Electric. The enclosed map identifies the proposed location and the project boundary. Permitting for the project will continue through 2020 with the goal of commercial operation in 2023.

#### **Estimated Unbridled Solar Local Economic Impacts During First 20 Years of Operation:**

- Direct Economic Impact Total Over \$20 Million+
- Tax Revenue: ~\$4 million (~\$160,000 annually)
- Jobs: ~5 full-time jobs (~\$350,000 annually)
- Education Fund: ~\$640,000 (~\$34,000 annually) - Unique donation for Geronimo Energy projects

#### **Public Information Meeting Logistics**

We are planning an approximately one-hour-long online session for the virtual Unbridled Solar Project Public Information Meeting on **August 26, 2020 at 6:00 PM.**

- ✓ The virtual Public Information Meeting will be structured as a presentation about solar energy, Geronimo Energy, the Unbridled Solar Project, and the Kentucky Siting Board permitting process.
- ✓ Throughout the session, we will be answering written questions from attendees.
- ✓ Geronimo Energy will post a compilation of the information session's Q&A, as well as a recording of the information session on the project's webpage at <https://geronimoenergy.com/unbridled/>.

(See page 2 for additional information)



### How to Register for the Public Information Meeting

Geronimo Energy is utilizing the GoToWebinar platform to host this Public Information Meeting.

#### 1. Prior to the Event Date

Please navigate to the project's webpage, <https://geronimoenergy.com/unbridled/>, where there is a link to register for the event.

#### 2. After You Register

Upon completing the online registration form, you will be sent a confirmation email with a link for the live event. If you prefer to join the meeting via phone, there will also be a call-in number for the live event. Save this email and mark your calendar so you have this information on the evening of the session.

#### 3. On the Date of the Meeting

Open the confirmation email you received from GoToWebinar and click on the link provided or call-in to the phone number provided. You will be directed to the online event webpage. If you miss the meeting, a video recording will also be available via the Project website.

#### Using GoToWebinar

We encourage you to learn how to use GoToWebinar by visiting this website: <https://support.goto.com/webinar/how-to-join-attendees>.

#### Should you require GoToWebinar technical assistance at any time:

- ✓ Visit the support webpage: <https://support.goto.com/webinar?labelid=4a17cd95>
- ✓ Chat Support: <https://support.goto.com/ADD YOUR UNIQUE WEBINAR # HERE>
- ✓ Toll Free Phone: +1(833) 851-8340

#### Alternative In-Person Office Hours

If the virtual public information meeting is not accessible to you via internet or phone, project representatives will conduct an in-person discussion for the public to ask questions and obtain information about the project in both Henderson and Webster Counties. The Webster County office hours will take place at the Training Room in the Senior Citizen Center, 80 N College Street, Dixon, KY 42409 on August 26<sup>th</sup> from 9 AM to 12 PM. The Henderson County office hours will take place at Denton Shelter (Atkinson Park), 1813 N Elm Street, Henderson, KY 42420 on August 26<sup>th</sup> from 1 PM to 4 PM. You may reserve a time to meet during this time window by contacting us by email or phone (details below). The in-person office hours will comply with any social distancing and public gathering requirements.

Our team looks forward to speaking with you at the upcoming public information meeting. Should you have any additional questions or wish to speak to a member of our staff, please contact us at [UnbridledSolar@geronimoenergy.com](mailto:UnbridledSolar@geronimoenergy.com) or 364-201-2586. You can also mail us at the address listed at the bottom of the page.

Sincerely,

Courtney Pelissero  
Permitting Associate  
952-988-9000  
[cpelissero@geronimoenergy.com](mailto:cpelissero@geronimoenergy.com)

Elle DeBlick  
Associate Developer  
952-988-9000  
[edeblick@geronimoenergy.com](mailto:edeblick@geronimoenergy.com)

First Name	Last Name	Address	Address 2
			Atlanta, GA 31139
			Henderson, KY 42420
			Robards, KY 42452
			Henderson, KY 42420
			Robards, KY 42452
			Henderson, KY 42420
			Evansville, KY 47714
			Providence, KY 42450
			Robards, KY 42452
			Robards, KY 42452
			Henderson, KY 42420
			Henderson, KY 42420
			Robards, KY 42452
			Robards, KY 42452
			Robards, KY 42452
			Robards, KY 42452
			Robards, KY 42452
			Owensboro, KY 42301
			Henderson, KY 42420
			Robards, KY 42452
			Robards, KY 42452
			Robards, KY 42452
			Robards, KY 42452
			Robards, KY 42452
			Robards, KY 42452
			Robards, KY 42452
			Wayne, PA 19087
			Robards, KY 42452
			Wayne, PA 19087
			Henderson, KY 42420
			Henderson, KY 42420
			Robards, KY 42452
			Henderson, KY 42420
			Robards, KY 42452
			Robards, KY 42452
			Robards, KY 42452
			Robards, KY 42452
			Newburg, IN 47630
			Henderson, KY 42420
			Sebree, KY 42455
			Jacksonville, FL 32202
			Henderson, KY 42420
			Robards, KY 42452
			Robards, KY 42452
			Henderson, KY 42420
			Robards, KY 42452

	Robards, KY 42452
	Robards, KY 42452
	Sebree, KY 42455
	Robards, KY 42452
	Robards, KY 42452
	Henderson, KY 42420
	Robards, KY 42452
	Robards, KY 42452
	Robards, KY 42452
	Dixon, KY 42409
	Robards, KY 42452
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	Robards, KY 42452
	Robards, KY 42452
	Robards, KY 42452
	Sebree, KY 42455
	Robards, KY 42452



# GERONIMO<sup>®</sup> ENERGY

a nationalgrid company



# Welcome!



Andrea Savage  
*Marketing Associate*



Tena Monson  
*Director, Development*



Elle DeBlieck  
*Associate Developer*



Courtney Pelissero  
*Permitting Associate*



Brett Schneider  
*Construction Manager*



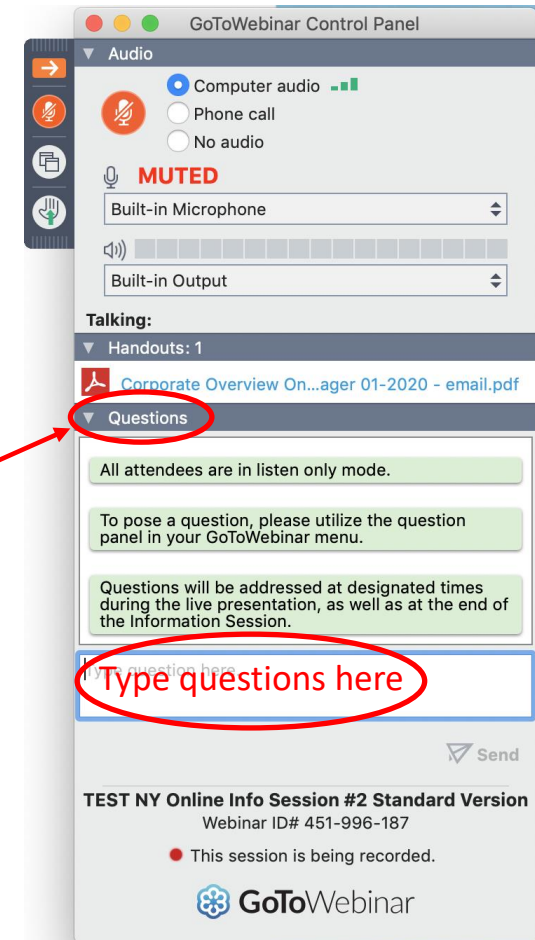
Melissa Schmit  
*Director, Permitting*



Jason R. Bentley  
*Counsel, McBrayer PLLC*

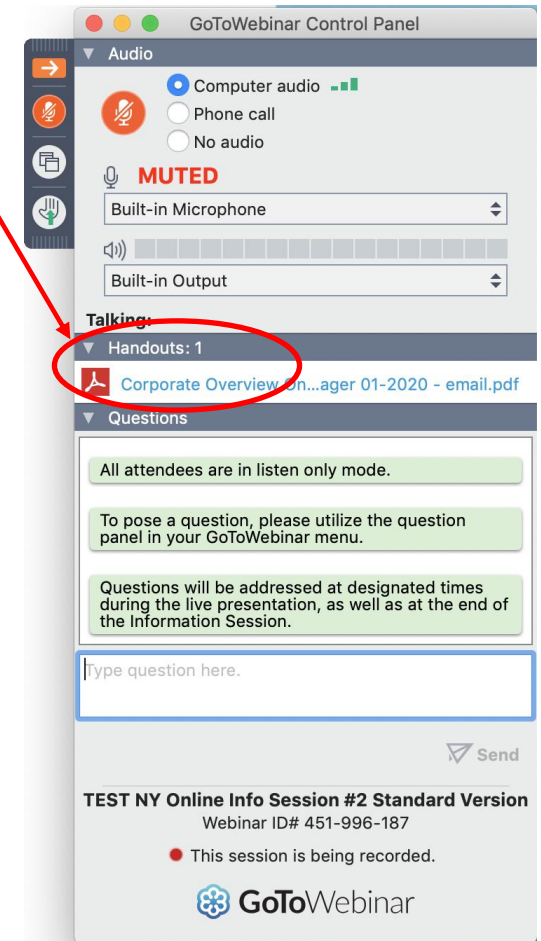
# Housekeeping Items

- **Presentation will be one hour.**
- **If at any time you require IT support, please contact GoToWebinar:**
  - URL: <https://support.goto.com/webinar?labelid=4a17cd95>
  - Chat Support: <https://support.goto.com/webinar#>
  - Toll Free Phone: +1(833) 851-8340
  - Long Distance Phone: +1 (805) 617-7080
- **We will break to address written questions once in the middle of the presentation, as well as at the end of the presentation.**
  - To post a question, utilize the “Questions” section in your GoToWebinar panel.



# Housekeeping Items

- **Handouts available in GoToWebinar access panel.**
- **After the session – complete survey (opportunity to have a member of our team reach out about the project) and watch video**
- **Contact information is on the bottom left of the screen throughout the presentation.**





- ✓ **Introduction to Geronimo Energy and Solar Energy Development**
- ✓ **Unbridled Solar Project Details and Benefits**
- ✓ **The Kentucky Permitting Process**
- ✓ **Solar Energy Project Construction Process**
- ✓ **Solar Energy Project Operations**

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# INTRODUCTION

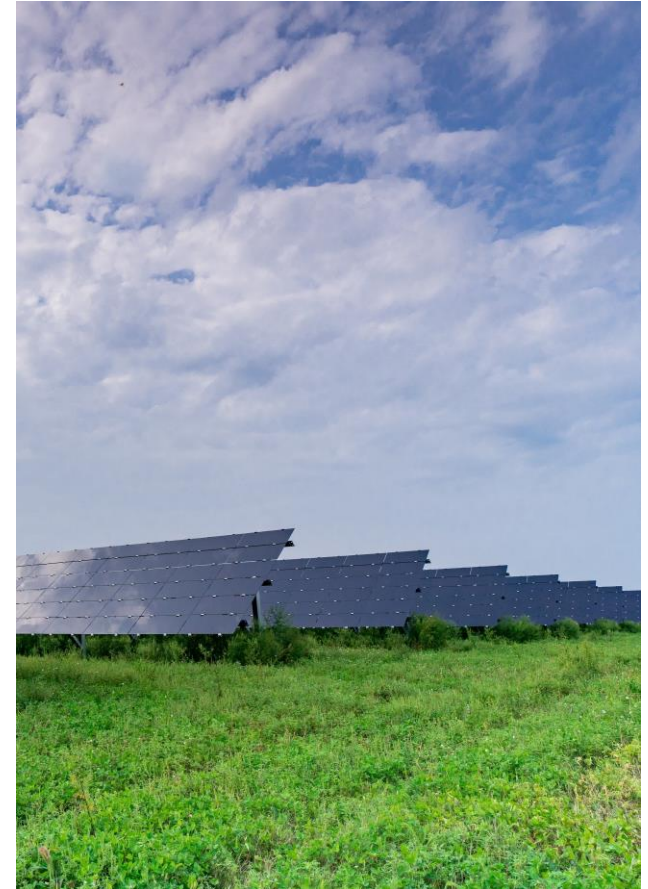
The What, How, and Why of Geronimo Energy and the Solar Development Process



Tena

## Expertise as Top U.S. Renewable Energy Company

- Geronimo is a leading North American independent developer and operator of utility-scale renewable energy projects
- We have successfully developed over 2,400 megawatts (MW) of wind and solar projects (currently in operation or under construction)
- Our experience team of ~100 professionals are experts in development, construction and operations
- The multi-gigawatt Geronimo Energy renewable energy project portfolio stretches across the United States, in various stages of development



*Brooten Community Solar*

# Farmer-Friendly, Community-Driven

---



# Development – Siting Process

---

- ✓ Willing landowner(s) and supportive community
- ✓ Close proximity to existing electrical infrastructure
- ✓ Marketability to power purchasers
- ✓ Compelling solar resource
- ✓ Large, flat parcels of land
- ✓ Minimal impact to environmental features



*Sunrise Community Solar*

# Solar Project Components – Modules/Panels

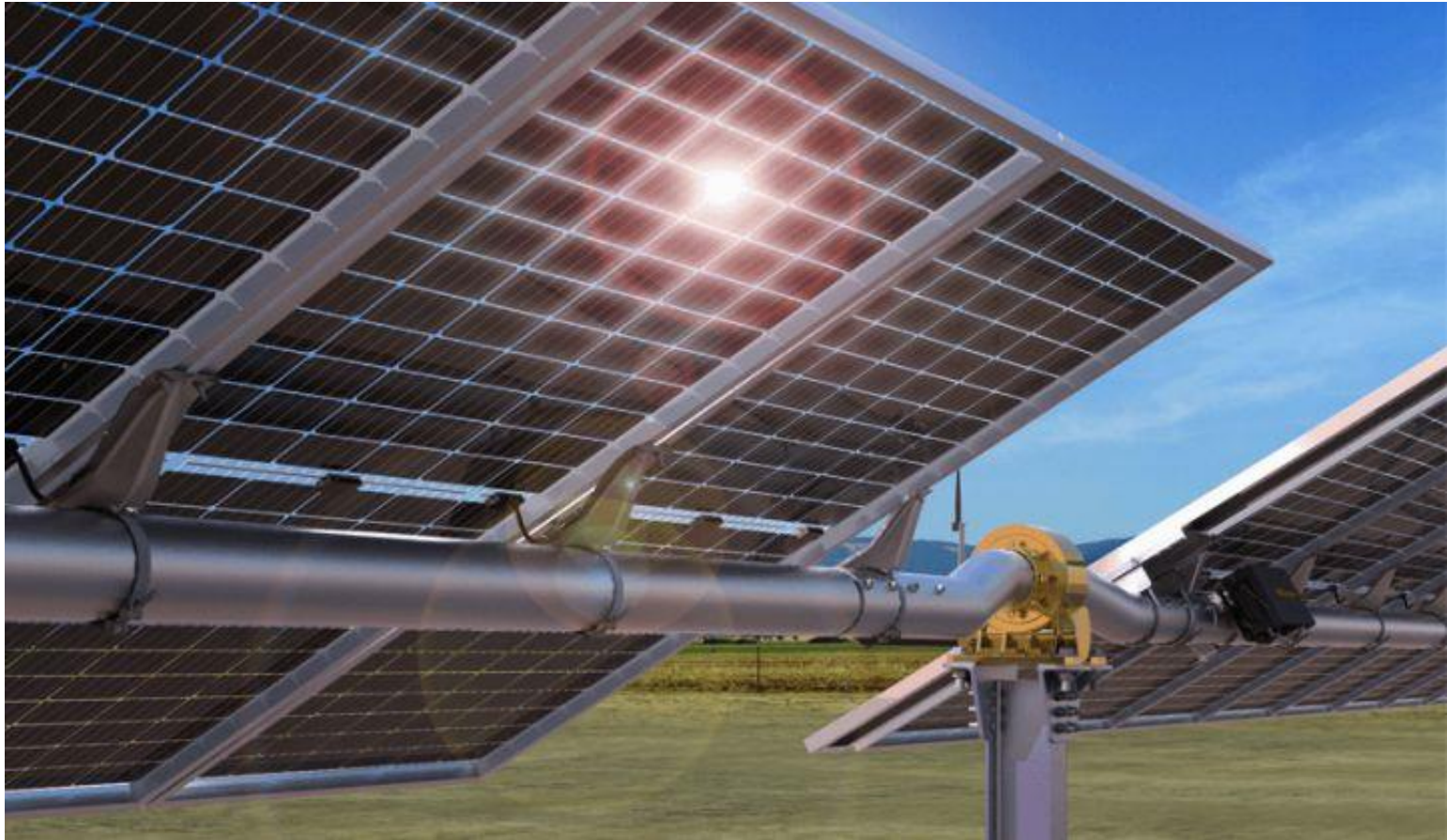


Photo from Greentech Media

# Solar Project Components - Inverters



# Solar Project Components - Racking



FIXED TILT



TRACKING



# Solar Project Components – Access Roads



# Solar Project Components

## Electrical Components and Points of Interconnection



Photo from PV Magazine

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# UNBRIDLED SOLAR PROJECT

## Project Details and Benefits



Tena

# Project Details

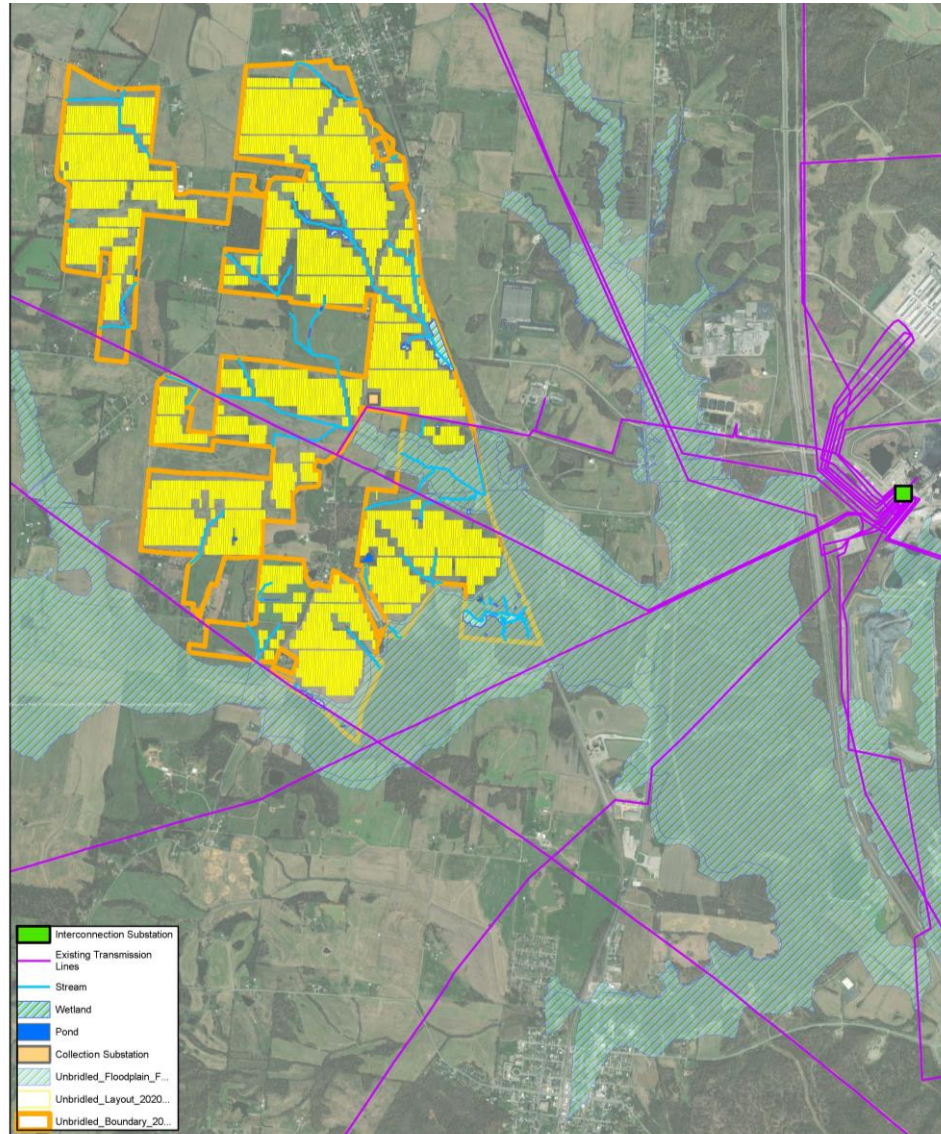
- Operational capacity: 160 MW
- Location: Henderson County and Webster County, KY
- Expected COD: December 31, 2023
- Carbon dioxide emissions offset: ~255,000 metric tons annually\* – the equivalent of taking approximately 55,000 cars off the road
- PSC/Siting Board Case #: 2020-00242  
[psc.ky.gov](http://psc.ky.gov)
- Big Rivers contracted to purchase power generated from the Project



*Pegasus Solar*

*\*Calculations based on the National Renewable Energy Laboratory (NREL) JEDI Model, EPA Greenhouse Gas Equivalencies calculator and current Kentucky tax for solar facilities. Subject to change.*

# Preliminary Project Layout



# Estimated Project Economic Benefits

- ~\$6.5 million in estimated tax revenue over 25 years of operation
- ~\$250 million in capital investment
- ~5 full-time equivalent jobs
- ~150 construction jobs
- Increased local spending
- Unique to Geronimo: charitable fund of ~\$640,000 over 20 years (~\$32,000 annually)



# Solar Projects Are Good Neighbors

- Does not require additional services, so no pressure on local services/resources
- Low profile, no more than 15-18 feet at the highest
- No harmful pollutants or negative health impacts
- No odor and minimal sound produced
- No air or water emissions
- Perennial plantings increase soil stability, improve infiltration, and help promote biodiversity



# QUESTIONS?



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# THE SITING PROCESS

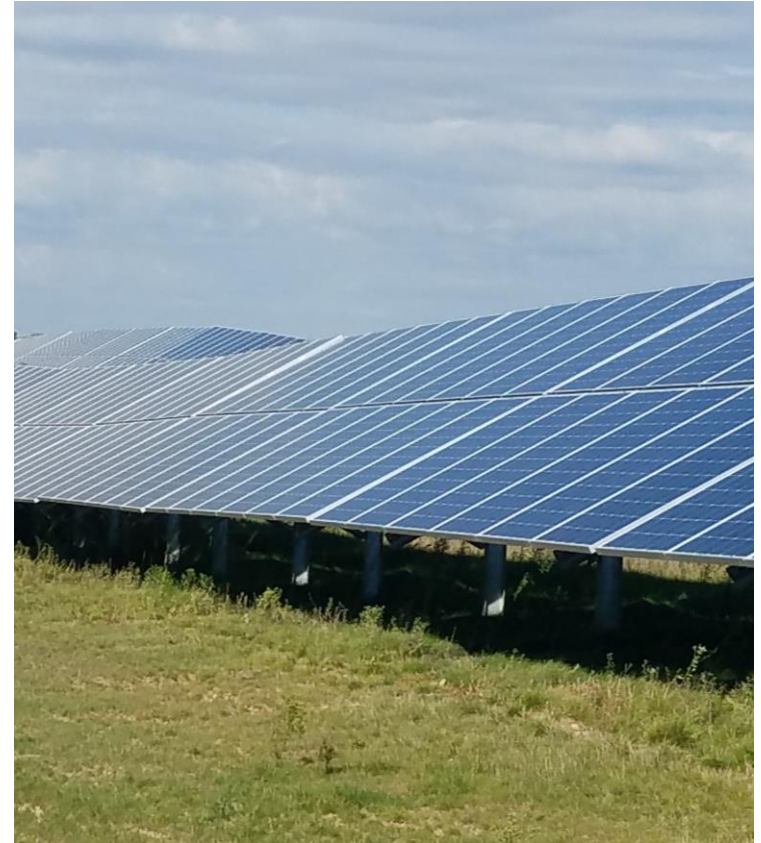
Permitting Large-Scale Renewables in Kentucky



Courtney

# Siting Board Process

- The Kentucky State Board on Electric Generation and Transmission Siting (the Siting Board) issues certificates for the construction of electric generation facilities and transmission lines that are not regulated by the Kentucky Public Service Commission (KY PSC)
- The Siting Board is made up of:
  - The three members of the KY PSC
  - Secretary of the KY Energy & Environment Cabinet (or their designee)
  - Secretary of the Economic Development Cabinet (or their designee)
  - Two local, ad hoc members appointed by the Governor
    - County Planning Commission Chair or Judge Executive
    - Resident of the county



# Siting Board Process Cont. & Local Permitting

- Siting Board review focuses on:
  - Public engagement and outreach
  - Noise and visual impacts of the project
  - Setback requirement
  - Economic impacts
  - Impact on the KY electric transmission grid
  - Compliance with local land use regulations
- Henderson County Land Use Permit
  - Zoning ordinance has solar energy specific regulations
  - Site plan approval required prior to issuance of land use permit



# Typical Studies / Research

- Wetlands, Waters, and Streams: **Complete**
  - Wetland and Stream Delineation
- Cultural Resources: **Near Completion**
  - Archaeological Resources
  - Phase 1A/1B Study
  - Historic Architecture
- Wildlife and Habitat: **Complete**
- Land Use & Property Values: **Fall 2020**
- Noise Evaluation: **Fall 2020**
- Transportation Impact: **Fall 2020**
- Visual Effects: **Fall 2020**
- Economic Impact: **Fall 2020**



# Siting Board Process Timeline

-----August 2020-----November 2020-----January 2021-----May 2021-----



- Environmental studies
- Public Information Meeting
- Notice of Intent

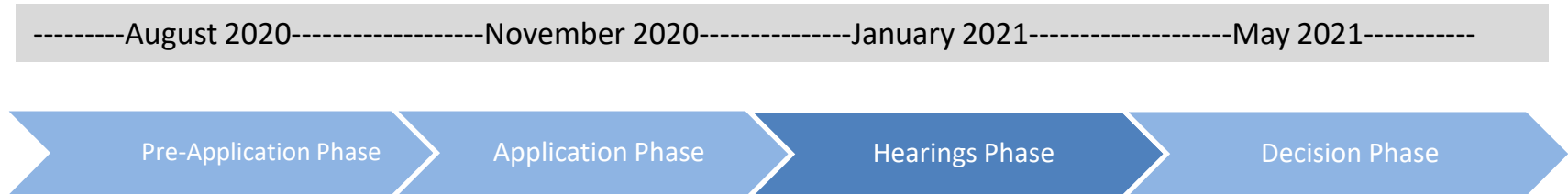
# Siting Board Process Timeline

-----August 2020-----November 2020-----January 2021-----May 2021-----



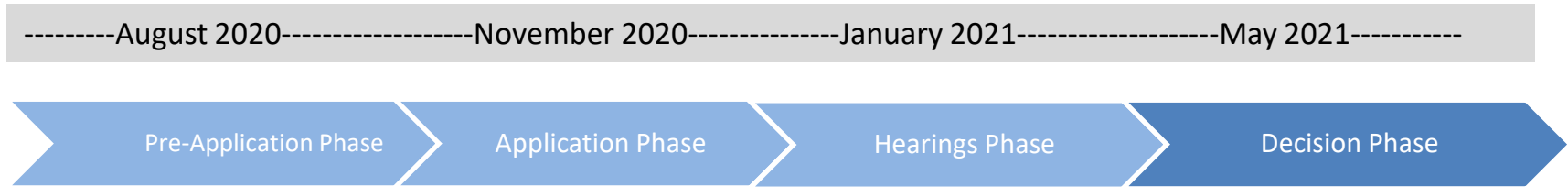
- Application for Construction Certificate submitted
- Siting Board ad-hoc members named
- Siting Board reviews application for completeness
- State hired consultants review application and request more information from applicant if needed

# Siting Board Process Timeline



- Local public hearing held, if requested
- Evidentiary hearing held at KY Public Service Commission office, if requested

# Siting Board Process Timeline



- Siting Board decision on Construction Certificate due within 180 days of application submittal



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# SOLAR ENERGY PROJECT CONSTRUCTION

How We Construct Safely and Respectfully



Brett

# Construction - Components

- Usually takes 12-18 months
- Generally consists of:
  - Site preparation
  - Pier installation
  - Racking installation
  - Module installation
  - Interconnection
  - Re-vegetation



*Pierre Solar*

# Construction – Site Preparation



*Delphinus Community Solar*



*WasecaSun Community Solar*

# Construction – Erosion Control



*Bingham Solar*



# Construction – Pier Installation



*DodgeSun Community Solar*



*Rosemount Community Solar*

# Construction – Racking Installation



*Deneb Community Solar*



*Bingham Solar*

# Construction – Panel Installation



*St. Cloud Community Solar*



*Sunrise Community Solar*

- Electrical collection system will be installed below-ground, above-ground, or a combination of both
  - Below-ground: panels deliver DC power to the inverters through cabling in a trench. AC collection from inverter skids to substation trenched or ploughed.



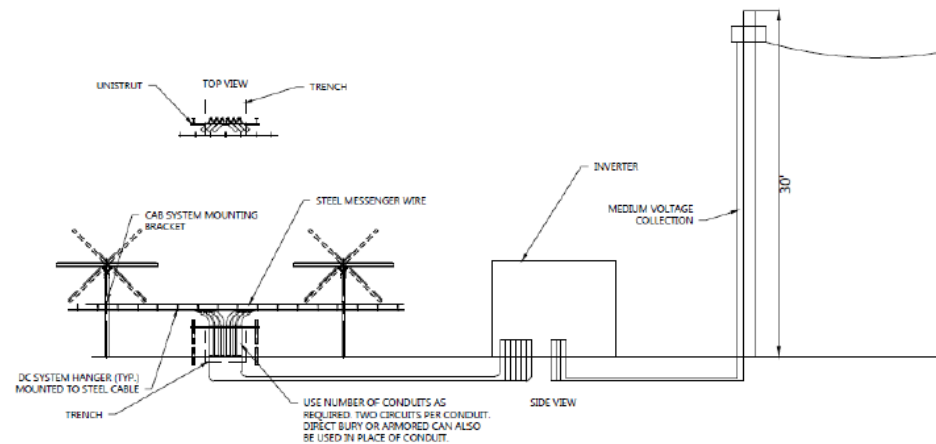


## Above-ground

- DC collection strung under panels on steel arms/cable attached to piles and routed to assigned inverter/transformer skid
- AC collection from inverter skids to substation on distribution-type pole

## Hybrid

- DC strung under panels and routed to assigned inverter/transformer skid
- AC collection from inverter skids to substation trenched or ploughed



# Construction – Restoration and Re-Vegetation



*Koppelman Community Solar*



*St. John's Solar*

---

# SOLAR ENERGY PROJECT OPERATION

How We Operate Safe and Productive Projects



Elle

# Operations and Maintenance – Vegetation Management

- Typically planted with a low growing seed mix
- Vegetation is maintained for the life of the project, including for visual impact mitigation
- Site inspections take place up to three times per year to assess growth and perform care if needed, including spot treatment for weeds
- Sites are generally mowed several times per year



*Pegasus Solar*

# Operations and Maintenance - Decommissioning

- Components are removed and reused or recycled at the end of the project's useful life
- The site can be restored to its previous use or another use based on landowner wishes
- Soil quality generally has improved on sites previously used for agriculture as soils have rested/lain fallow during the project's life



*Kramer Solar*

# Questions?

---

## **Unbridled Solar**

8400 Normandale Lake Blvd., Suite 1200  
Bloomington, MN 55438  
364.201.2586  
unbridledsolar@geronimoenergy.com

## **Geronimo Energy**

8400 Normandale Lake Blvd., Suite 1200  
Bloomington, MN 55437  
952.988.9000  
info@geronimoenergy.com



## **EXHIBIT E**

### **COMPLIANCE WITH LOCAL ORDINANCES, REGULATIONS, AND SETBACK REQUIREMENTS**

---

#### **Requirement**

*KRS 278.706(2)(d): A statement certifying that the proposed plant will be in compliance with all local ordinances and regulations concerning noise control and with any local planning and zoning ordinances. The statement shall also disclose setback requirements established by the planning and zoning commission as provided under KRS 278.704(3).*

*KRS 278.706(2)(e): If the facility is not proposed to be located on a site of a former coal processing plant and the facility will use on-site waste coal as a fuel source or in an area where a planning and zoning commission has established a setback requirement pursuant to KRS 278.704(3), a statement that the exhaust stack of the proposed facility and any wind turbine is at least one thousand (1,000) feet from the property boundary of any adjoining property owner and all proposed structures or facilities used for generation of electricity are two thousand (2,000) feet from any residential neighborhood, school, hospital, or nursing home facility, unless facilities capable of generating ten megawatts (10MW) or more currently exist on the site. If the facility is proposed to be located on a site of a former coal processing plant and the facility will use on-site waste coal as a fuel source, a statement that the proposed site is compatible with the setback requirements provided under KRS 278.704(5). If the facility is proposed to be located in a jurisdiction that has established setback requirements pursuant to KRS 278.704(3), a statement that the proposed site is in compliance with those established setback requirements.*

#### **Compliance**

The Unbridled Solar Facility (Project) will be sited in both Webster and Henderson counties. The Henderson City-County Planning Department has jurisdiction over the portion of the Project located in Henderson County. Webster County does not have a planning and zoning commission with jurisdiction over the site.

Unbridled Solar, LLC (Unbridled, or the Applicant), certifies that the Project will be in compliance with all local ordinances and regulations concerning noise control and with any applicable local planning and zoning ordinances. The Project will meet the requirements of the Henderson County Zoning Ordinance Article XXX, Section 30.02, which regulates solar energy systems, and Unbridled will obtain a Site Plan Approval from the County prior to construction. The Henderson County Zoning Ordinance Article XXX is provided as an attachment to this exhibit.

Henderson County Zoning Ordinance Article XXX, Section 30.02, establishes setback requirements for Level 3 Solar Energy Systems. All equipment must be at least 25 feet from the perimeter property lines of the Project area, except interior property lines of multiple contiguous properties have no setback requirements, and all Solar Energy System equipment must be located at least 100 feet from any residential structure. Pursuant to KRS 278.704(3), the portion of the Project in Henderson County will be subject to and will comply with the Henderson County-established setback requirements.

Webster County does not have a planning and zoning commission with jurisdiction over the Project. The portion of the Project in Webster County is thus subject to the setbacks defined in

KRS 278.706(2)(e) and KRS 278.704(2). Note, however, Unbridled meets, at a minimum, the Henderson County setback requirements across the whole Project. The Project is not proposed to be located on the site of a former coal processing plant, and it will not use any waste coal as a fuel source. The Project site will not have any existing electricity generating facilities onsite. The Project will not include any exhaust stacks or wind turbines. Therefore, the setback requirement of 1,000 feet from the property line of adjacent properties does not apply to the Webster County portion of the project. Pursuant to KRS 278.706(2)(e), all proposed structures or facilities used for generation of electricity must be two thousand (2,000) feet from any residential neighborhood, school, hospital or nursing home facility. As shown on Exhibit J, Figure 1, there are no schools, hospitals, or nursing home facilities within 2,000 feet of any proposed Webster County structure or facility used for electricity generation. There are two clusters of residences near the southwest portion of the Project; one in Henderson County and one in Webster County; that could meet the criteria of a “residential neighborhood” as defined in KRS 278.700(6). Some generation facilities and structures located in Webster County are proposed within 2,000 feet of these two residential communities. Unbridled will file a request, separate from this application, for any deviation needed from the 2,000-foot setback requirement.

In the preliminary layout, the nearest peripheral residences in Henderson County are located from 135 to 200 feet from the closest proposed solar panels, exceeding the requirement of a minimum 100-foot residential buffer. As stated above, the portion of the Project in Henderson County is subject only to, and meets, the county-designated setback requirements.

A statement of compliance with all local ordinances and regulations concerning noise control and with any local planning and zoning ordinances is provided as an attachment to this exhibit.



**ATTACHMENTS**

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**ARTICLE XXX, SOLAR ENERGY SYSTEM (SES)**

**Section 30.01. Design Standards**

The components and subsystems required to convert solar energy into electric energy suitable for use. The area of the system includes all the land inside the perimeter of the system, which extends to any fencing. For the purposes of these zoning regulations, solar energy systems are divided into three (3) classes.

**a. Level 1 Solar Energy System.** A roof mounted system on any code compliant structure or any ground mounted system on an area of up to fifty (50) percent of the footprint of the primary structure on the parcel but not more than one (1) acre and not more than twenty-five (25) feet tall or any building integrated system (i.e. shingle, hanging solar, canopy, etc.)

**b. Level 2 Solar Energy System.** Any ground mounted system not included in a Level 1 SES and meets the following area restrictions:

1. In an agricultural zone the area of the SES shall not exceed one half (1/2) acre in size and shall require a building permit issued by the Henderson County Codes Department. In areas exceeding one half (1/2) acre, a Site Plan shall be required by the Henderson City-County Planning Commission.
2. In an industrial zone the SES shall not exceed ten (10) acres in size.
3. In an Industrial Zone, an SES of any size shall require a site plan approved by the Henderson City-County Planning Commission.

**(c) Level 3 Solar Energy System.** Any system that does not satisfy the parameters for a Level 1 or Level 2 SES.

**Section 30.02. Requirements**

**Solar Energy Systems (SES) shall comply with the following criteria:**

a. The height of any ground mounted SES shall not exceed twenty-five (25) feet as measured from the highest natural grade below each solar panel (excludes utility poles, substations and

antennas constructed for the project).

b. Setback requirements for Level 1 and Level 2 SES shall be in compliance with the zoning classification for the parcel.

c. Setback requirements for Level 3 SES shall be as follows: (1) All equipment shall be at least twenty-five (25) feet from the perimeter property lines of the project area; (2) No interior property line setbacks shall be required if the project spans multiple contiguous properties,; (3) All equipment shall be located at least one hundred (100) feet from any residential structure and; the maximum height of any individual component will be 25 feet measured from the local ground level of the component.

d. All Level 3 SES shall be screened with a seven (7) foot tall fence and, to the extent reasonably practicable, a visual buffer that provides reasonable screening to reduce the view of the SES from residential dwelling units on adjacent lots (including those lots located across a public right of way). A vegetation screening plan to reduce the view of the SES from residential dwelling units on adjacent lots will be submitted for approval of the Henderson City-County Planning Commission. The existing natural tree growth and natural land forms along the SES perimeter may create a sufficient buffer and shall be preserved when reasonably practicable. When no alternative vegetation screening plan is approved by the Henderson City-County Planning Commission, a double row of staggered evergreen trees will be planted 15' on center from adjacent non participating residential dwellings including the outdoor living space immediately near residential dwellings. Parcel boundaries with no proximity to residential dwellings shall not require screening. The proposed evergreen trees shall be placed on the exterior of security fencing. The use of barbed wire or sharp pointed fences shall be prohibited in or along any boundary adjoining residential properties.

e. There shall be no signs permitted except those displaying emergency information, owner contact information, warning or safety instructions or signs that are required by a federal, state or

local agency. Such signs shall not exceed 5 square feet in area.

f. Excessive lighting shall be prohibited except that required by federal or state regulations.

g. Decommissioning of Level 3 SES shall be as follows:

1. The developer shall post a Surety Bond, or other form of Security acceptable to the County, for the abandonment of the site and in the event the Commission must remove the facility. Abandonment shall be when the SES ceases to transfer energy on a continuous basis for twelve (12) months. The surety bond or other form of security, shall be one (1) percent of the total project cost re-calculated every 5 years during the project life.

2. A decommissioning plan shall be submitted at the time of application by the developer responsible for decommissioning and must include the following: (1) Defined conditions upon which the decommissioning will be initiated. i.e. there has been no power production for 12 months, the land lease has ended, or succession of use of abandoned facility, etc.; (2) Removal of all non-utility owned equipment, conduit, structures, fencing, roads, and foundations to the depth of three (3) feet; (3) Restoration of the property to substantially similar physical condition that existed immediately prior to construction of the SES; (4) The time frame for completion of decommissioning activities; (5) the party currently responsible for decommissioning, and; (6) Plans for updating the decommissioning plan.

**KENTUCKY STATE BOARD ON ELECTRIC  
GENERATION AND TRANSMISSION SITING**

**UNBRIDLED SOLAR, LLC  
CASE NO. 2020-00242**

**Statement of Certification  
(KRS 278.706(2)(d))**

Comes the Affiant, Nathan Franzen, and after first being duly sworn, hereby states as follows:

1. I am over the age of 18 and have personal knowledge of the information contained herein, and have further conducted an inquiry into the facts contained in this Statement and have found them to be true to best of my knowledge; and,
2. I am the Vice President, Development of National Grid Renewables, the direct parent company of Unbridled Solar, LLC; and,
3. I have overseen the proposed facility project, the subject of this Application in Case No. 2020-00242, by reviewing the proposed plan and design for the project; and,
4. I hereby certify that proposed plant will be in compliance with all local ordinances and regulations concerning noise control and with any local planning and zoning ordinances.
5. The setback requirements established by the planning and zoning Commission as provided under KRS 278.704(3) for the portion of the project located in Henderson County are attached hereto.
6. There is no planning and zoning commission with jurisdiction over the portion of the site located in Webster County.

Further Affiant sayeth naught.

*Nathan Franzen*

\_\_\_\_\_  
Nathan Franzen., Affiant

STATE OF MINNESOTA )  
 )  
COUNTY OF HENNEPIN )

Subscribed, acknowledged and sworn to before me by Nathan Franzen on this the 4<sup>th</sup>  
day of December 2020.

*Danielle M DeBlieck*  
\_\_\_\_\_  
NOTARY PUBLIC, STATE AT LARGE

My Commission Expires: JAN . 31 , 2023



## **EXHIBIT F**

### **EFFECT ON KENTUCKY ELECTRICITY TRANSMISSION SYSTEM**

---

#### **Requirement**

*KRS 278.706 (2)(i): An analysis of the proposed facility's projected effect on the electricity transmission system in Kentucky.*

#### **Compliance**

Unbridled Solar, LLC is sited within the Midcontinent Independent System Operator's (MISO) Central Zone 6. The Unbridled Solar Facility (Project) is currently part of the MISO-Central-DPP-2020 Cycle 1 and was assigned Queue Number J1619. (DPP stands for Definitive Planning Phase.) MISO is anticipated to begin DPP Phase 1 in March 2021, with Phase 1 study results projected to be complete in August 2021. DPP Phase 2 is scheduled to be complete in October 2021, and DPP Phase 3 is scheduled to be complete in March 2022. Prior to Unbridled's submission of its application to MISO, a third-party consultant conducted a transfer study to review the injection of Unbridled at the Reid Substation. The results of the transfer study indicated a favorable interconnection. A formal Feasibility Study Report and System Impact Study will be issued prior to Project construction. Those studies will determine the potential impacts to the regional electric grid and the need for any network upgrades to mitigate potential impacts.

Unbridled entered into a Solar Contract with Big Rivers Electrical Corporation (BREC) which was approved by the Kentucky Public Service Commission (PSC) in a final order issued September 28, 2020, in Case No. 2020-00183. Page 5 of that Order notes about the power purchase agreements, including the Unbridled Solar Contract:

“BREC asserted that the Solar Contracts are necessary to allow it to fulfill its wholesale obligations to the distribution cooperatives it serves and to have sufficient power available to satisfy the requirements of its native load and its existing contracts to supply power to Owensboro Municipal Utilities (OMU) and the Kentucky Municipal Energy Agency (KyMEA). Specifically, BREC states that the Solar Contracts will support BREC's obligations to provide solar power to Meade County Rural Electric Cooperative Corporation (Meade County RECC) necessary for Meade County RECC to supply solar power to Nucor Corporation (Nucor).”

In approving the Solar Contracts, the PSC expressly found (p.15) that they “are for a lawful object within the corporate purposes of BREC's utility operations, are necessary and appropriate for and consistent with the proper performance of BREC service to the public, and will not impair BREC ability to perform that service, are reasonably necessary and appropriate for such purposes.”

## **EXHIBIT G**

### **EFFECT ON LOCAL AND REGIONAL ECONOMIES**

---

#### **Requirement**

*KRS 278.706(2)(j): An analysis of the proposed facility's economic impact on the affected region and the state.*

#### **Compliance**

An Economic Impact Report that provides an analysis of the Unbridled Solar Facility's (Project's) economic impact on the affected region and the state was performed by Unbridled Solar, LLC's consultant Cardno, and was issued on November 30, 2020. The full Report is provided as a following attachment. In the concluding summary, the Economic Impact Report states:

“The construction and operation of the Project will have a positive economic impact on SAOs [socioeconomic areas of interest], including increases in employment and income, elevated tax revenues, and a variety of other ancillary benefits. The total economic impact for Kentucky is estimated to be approximately \$37.8M during construction and approximately \$2.4M annually during operation. The total economic impact for Henderson and Webster counties is estimated to be approximately \$0.5M during construction and less than \$0.1M annually during operation. Detailed economic impacts are provided in Tables 2 and 3. Government tax revenues and local education funding paid by the Applicant estimated to exceed \$7M over the life of the Project are also noteworthy and are described in Section 6. Cumulatively, these positive economic impacts are likely to have outsized beneficial effects because of the Project's proposed location in the relatively rural and economically undiversified setting of Webster and Henderson counties.”



**ATTACHMENT**

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# Unbridled Solar Facility Economic Impact Analysis

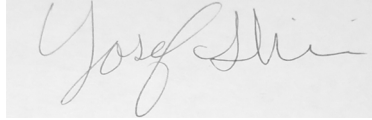
Kentucky State Board on Electric  
Generation and Transmission  
Application

Case No. 2020-00242



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Author(s) Yosef Shirazi  
Project Economist



Approved By Bruce Moreira  
Project Manager

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Courtney Pelissero  
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Telephone: 952.988.9000

Project Name Unbridled Solar Facility Economic  
Impact Analysis  
Kentucky State Board on Electric  
Generation and Transmission  
Application

Job Reference E320301100

Case No. 2020-00242

Site Assessment  
Report: KRS 278.700, et seq., and  
807 KAR 5:110

Date: November 2020

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## Acronyms

Applicant	Unbridled Solar, LLC
GDP	Gross Domestic Product
JED	Jobs and Economic Development Impact
Project	Unbridled Solar Facility
SAOI	Socioeconomic Area of Interest
Unbridled	Unbridled Solar, LLC

# 1 Overview and Context

Unbridled Solar, LLC (Unbridled, or the Applicant), a wholly owned subsidiary of National Grid Renewables Development, LLC, is proposing the Unbridled Solar Facility (the Project) that will be an up to 160-megawatt alternating current photovoltaic electricity generation facility. The Project is associated with high levels of both upfront and ongoing capital investment to construct and maintain the facility. These investments will generate positive economic and fiscal impacts in the socioeconomic areas of interest (SAOIs). For the purpose of this analysis, there are two SAOIs. The first SAOI is the state of Kentucky as a whole. The second SAOI is the regional area, defined as Henderson County, Kentucky, and Webster County, Kentucky. For both SAOIs, positive impacts will result from short-run effects during the construction phase and from annual impacts during the operational phase.

Initial construction-related impacts include the creation of hundreds of construction jobs, meaningful increases in annual tax revenues, and increased economic activity more generally in adjacent businesses, among other positive impacts. Operational-phase impacts include the creation of a smaller set of ongoing jobs; a meaningful contribution to the local tax base, primarily through property taxes; the long-term presence of a responsible corporate citizen with a commitment to the regional economy through charitable giving to local schools; and the provision of green, renewable electricity, which is attractive to many businesses in their siting locations.

The Project will be located in two predominantly rural counties, both with per capita income levels below that of Kentucky and the nation. In addition, these two counties are associated with poverty levels that are equal to or exceed the statewide average and the national average. See Table 1 for a comparison of the SAOIs against national values for select socioeconomic metrics.

**Table 1 Socioeconomic Metrics for National and Socioeconomic Area of Interest Populations**

	Population (2019) <sup>a</sup>	Population per Square Mile, <sup>a</sup> 2010	Per Capita Income <sup>a</sup> (2014–2018)	Population in Poverty <sup>a</sup>	Gross Domestic Product for Year 2018 <sup>b</sup> (millions)
USA	328,239,523	87	\$32,621	10.5%	\$18,638,164
Kentucky	4,467,673	110	\$26,948	16.3%	\$187,216
Henderson County, Kentucky	45,210	106	\$25,376	16.3%	\$1,917
Webster County, Kentucky	12,942	41	\$21,880	18.4%	\$590

<sup>a</sup> US Census Bureau (2020)

<sup>b</sup> US Bureau of Economic Analysis (2019)

## 2 Capital Investment

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A meaningful proportion of the spending for this Project and employment will occur within the SAOIs. Project-related spending on materials and wages will suffuse new money into the local and statewide economies. Each dollar invested will lead to a more than one-for-one benefit as money circulates throughout different sectors of the economy. This “multiplier effect” will magnify the positive economic impacts of Project construction and operation. In addition, the capital investments associated with this Project are poised to have outsized positive impacts relative to more developed and economically advantaged areas. In other words, a given amount of investment will provide a relatively larger stimulus in a smaller local economy than the same investment in a larger economy.

### 3 Methodology for Quantifying Economic Impacts

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In order to quantify economic impacts within the SAOIs, the Applicant conducted an analysis using the solar-power specific version of the Jobs and Economic Development Impact (JEDI) tool. The JEDI tool, developed by National Renewable Energy Laboratory, is a widely used and recognized model for determining economic impacts of various utility-scale power generation projects. The results below are based on a 160-megawatt alternating current facility.

The JEDI model estimates results natively at the state level. Therefore, economic impacts from the Kentucky-wide SAOI reported here are those outputs estimated by the JEDI model. Economic impacts for the regional SAOI are determined through a scaling approach by adjusting statewide results downward by the ratio of their respective 2018 Gross Domestic Products (GDPs). The combined 2018 GDP of Henderson and Webster counties were divided by the 2018 GDP of Kentucky. The resulting scaling factor is determined as 0.0134, or 1.34%.<sup>1</sup> Therefore, reported economic impacts for the regional SAOI are equal to the statewide SAOI multiplied by 0.0134.<sup>2</sup>

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<sup>1</sup> When this scaling is based upon population rather than the GDP, a very similar value of 0.0130, or 1.30%, is derived.

<sup>2</sup> This approach may yield underestimates of local impacts because local purchases and local hires are generally more favorable from a logistical perspective, all else equal. For example, local purchases and hires are associated with reduced transportation time and cost. On the other hand, this approach may yield overestimates of local impacts because the rural, economically modest, and economically undiversified characteristics of the regional economy make purchases and hires of specialized equipment and labor available only in limited quantities or not at all. Whether the estimates presented here, on net, are over- or under estimates of the true values depends on the relative importance of these factors among others. For the purpose of this analysis, it is assumed that the forces pushing toward overestimates and the forces pushing toward underestimates are equal in magnitude and cancel out each other.

## 4 Economic Impacts: Statewide

Statewide economic impacts of the construction phase are estimated to create approximately 130 direct jobs filled by skilled and contract workers from within Kentucky, as displayed in Table 2. Another 164 jobs in Kentucky will be supported through indirect and induced impacts of Project construction. In total, these 294 jobs represent an estimated \$17.5M in new wages into the statewide economy, which are expected to drive increased economic activity of an additional \$20.2M. The total construction phase economic impact of the Project (exclusive of the capital investment and tax revenues) is estimated to be approximately \$37.7M.

Economic impacts of the operational phase are anticipated to create approximately five direct jobs<sup>3</sup> for the duration of operations, as displayed in Table 2. Another four jobs in Kentucky will be supported through indirect and induced impacts of Project operations. In total, these nine jobs represent an estimated \$0.6M in new annual wages, which will drive increased economic activity of an additional \$0.6M. The total construction phase economic impact of the Project (exclusive of the capital investment and tax revenues) is estimated to be approximately \$1.1M annually.

**Table 2 Estimated Economic Impacts: Statewide**

	Construction Phase			Operational Phase (Annual)		
	Number of Jobs	Value of Earnings (000s)	Total Economic Output (000s)	Number of Jobs	Value of Earnings (000s)	Total Economic Output (000s)
Direct	130	\$8,910	\$14,019	5	\$301	\$301
Indirect & Induced	164	\$8,588	\$23,681	4	\$269	\$819
<b>Total</b>	<b>294</b>	<b>\$17,498</b>	<b>\$37,700</b>	<b>9</b>	<b>\$570</b>	<b>\$1120</b>

Note: May not sum to "total" due to independent rounding.

<sup>3</sup> An estimate of anticipated direct employment for the operational phase of this Project was revised based on the Applicant's recent experience from similar projects. Estimates of direct employment wages, induced economic impacts and total economic impacts for the operational phase have been updated to account for revised estimates of direct employment during operation.



## 5 Economic Impacts: Regional

Regional economic impacts of the construction phase are estimated to create approximately two direct jobs filled by craft and contract workers from the regional SAOI, as displayed in Table 3. Another two jobs will be supported through indirect and induced impacts of Project construction. In total, these four jobs represent an estimated \$0.2M in new wages into the regional economy annually, which will drive increased economic activity of an additional \$0.3 annually. The total construction phase economic impact of the Project (exclusive of the capital investment and tax revenues) is estimated to be approximately \$0.5M annually.

Economic impacts of the operational phase in the regional SAOI will be relatively modest as shown in Table 3. These estimates, which are scaled down from statewide impacts, likely underestimate regional impacts because the 5 long-term jobs during operation are likely to preferentially filled by individuals who live nearby (or will move nearby) the Project.

**Table 3 Henderson County and Webster County, Kentucky**

	Construction Phase			Operational Phase (Annual)		
	Number of Jobs	Value of Earnings (000s)	Total Economic Output (000s)	Number of Jobs	Value of Earnings (000s)	Total Economic Output (000s)
Direct	1.7	\$119	\$188	0.1	\$4	\$4
Indirect & Induced	2.2	\$115	\$317	0.0	\$4	\$11
<b>Total</b>	<b>3.9</b>	<b>\$234</b>	<b>\$505</b>	<b>0.1</b>	<b>\$8</b>	<b>\$15</b>

Notes: Values in this table are scaled from the statewide values by applying an adjustment factor of 0.0134. May not sum to "total" due to independent rounding.

## 6 Government Revenue Impacts

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This Project will have a meaningful positive tax impact on governments within the SAOs. The Applicant, will pay significant new state sales tax and county property taxes over the life of the Project, which will support local schools, infrastructure, and other services. These new taxes are especially valuable because solar energy projects require minimal community services such as schools, roads, water, or sewer in return for the taxes they generate. In total, an estimated \$0.8M will be paid in Kentucky state sales tax for materials required for construction. In addition, an estimated \$6.6M will be paid in state and local taxes during the operational life of the Project. Furthermore, the Applicant is committed to providing approximately \$640,000 to a local education fund over 20 years.

## 7 Additional Investments in Community and Ancillary Benefits

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In addition to increased economic activity and tax payments, this Project will make an important contribution to the diversification of the economy in SAOI, particularly at the regional level. This Project will help poise Kentucky and the region to accelerate renewable energy job and spending growth, to the benefit of state and regional citizens.

Finally, many large businesses are considering availability and proximity to renewable electricity resources when making siting decisions. Corporate commitments to renewable electricity support local jobs and allow corporations to leverage positive marketing opportunities to enhance brand image. Growing more attractive to prospective businesses provides a myriad positive economic impacts to the state and region.

## 8 Summary

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The construction and operation of the Project will have a positive economic impact on SAOIs, including increases in employment and income, elevated tax revenues, and a variety of other ancillary benefits. The total economic impact for Kentucky is estimated to be approximately \$37.8M during construction and approximately \$2.4M annually during operation. The total economic impact for Henderson and Webster counties is estimated to be approximately \$0.5M during construction and less than \$0.1M<sup>4</sup> annually during operation. Detailed economic impacts are provided in Tables 2 and 3. Government tax revenues and local education funding paid by the Applicant estimated to exceed \$7M over the life of the Project are also noteworthy and are described in Section 6. Cumulatively, these positive economic impacts are likely to have outsized beneficial impacts because of the Project's proposed location in the relatively rural and economically undiversified setting of Webster and Henderson counties.

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<sup>4</sup> As described in Section 3, Methodology, economic estimates for the regional SAOI are estimated by scaling down statewide impacts by a factor determined by the relative GDP of Henderson and Webster counties to the GDP of Kentucky. For operational-phase impacts in particular, this scaling methodology is likely to yield an estimate that under predicts actual economic impacts.

## 9 References

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US Census Bureau. 2020. Quickfacts. Available at:

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US Bureau of Economic Analysis. 2019. Local Area Gross Domestic Product, 2018. Available at:

<https://www.bea.gov/system/files/2019-12/lagdp1219.pdf>. Accessed: October 21, 2020.

## About Cardno

Cardno is an ASX-200 professional infrastructure and environmental services company, with expertise in the development and improvement of physical and social infrastructure for communities around the world. Cardno's team includes leading professionals who plan, design, manage, and deliver sustainable projects and community programs. Cardno is an international company listed on the Australian Securities Exchange [ASX:CDD].

## Cardno Zero Harm

*Cardno*  
**ZERO  
HARM**  
EVERY JOB. EVERY DAY.

At Cardno, our primary concern is to develop and maintain safe and healthy conditions for anyone involved at our project worksites. We require full compliance with our Health and Safety Policy Manual and established work procedures and expect the same protocol from our subcontractors. We are committed to achieving our Zero Harm goal by continually improving our safety systems, education, and vigilance at the workplace and in the field.

Safety is a Cardno core value and through strong leadership and active employee participation, we seek to implement and reinforce these leading actions on every job, every day.

## EXHIBIT H ENVIRONMENTAL PERMITS

### Requirement

*KRS 278.704(1): The certificate shall be conditioned upon the applicant obtaining necessary air, water and waste permits.*

*KRS 224.10-280 Cumulative environmental assessment and fee required before construction of facility for generating electricity*

### Compliance

All necessary air, water, and waste permits have been or will be obtained before construction and operation of the Project, and may include:

Permit	Regulatory Agency	Activity	Authority
Kentucky Pollutant Discharge Elimination System (KPDES) Individual Permit	Kentucky Division of Water (DOW)	Discharge of process wastewater, non-process wastewater or stormwater from a point source.	KRS 224.10-100, 224.16-050, 224.70-110, 224.70-120, 401 KAR 5:001, and 401 KAR 5:055–5:080
KPDES Construction Storm Water Discharge General Permit	DOW	Stormwater discharges from construction activities that disturb one or more acres.	KRS 224.16-050, 224.16-060, 401 KAR 5:055 and 5:060
KPDES Wastewater Facility Construction Permit	DOW	If installation of sewers or pump stations is involved, a Wastewater Facility Construction Permit is required.	KRS 224.10-100, 224.16-050, 224.70-110, and 401 KAR 5:005
General Permit for Floodplain Development	DOW, Webster County, and Henderson County	Development in, along, or across a stream requires a floodplain permit.	KRS 151.230
Water Withdrawal Permit	DOW	Withdrawal of public water.	KRS 151.140, 401 KAR 4:010 and 4:200
Section 404 Clean Water Act Permit / Section 10 Rivers and Harbors Act Permit (Individual)	U.S. Army Corps of Engineers	Permit for structures and/or work in or affecting navigable Waters of the United States.	33 CFR 322.3
Section 401 Water Quality Certification	DOW	Any discharge into waters of the Commonwealth. associated with any federally licensed or permitted activity.	§ 401 CWA KRS 224.16-050 401 KAR Ch. 5

A Cumulative Environmental Assessment, as required pursuant to KRS 224.10-280 is provided as an attachment following this exhibit. The report includes an environmental assessment of potential air, water, and waste impacts from construction and operation of the Unbridled Solar Facility.



**ATTACHMENT**

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# Unbridled Solar Facility Cumulative Environmental Assessment


Kentucky State Board on Electric  
Generation and Transmission  
Application


Case No. 2020-00242



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Project Name Unbridled Solar Facility Cumulative  
Environmental Assessment  
Kentucky State Board on Electric  
Generation and Transmission  
Application

Job Reference E320301100

Case No. 2020-00242

Site Assessment  
Report: KRS 278.700, et seq., and  
807 KAR 5:110

Date: November 2020

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## Acronyms

Applicant	Unbridled Solar, LLC
BMP	Best Management Practice
CEA	Cumulative Environmental Assessment
CO	Carbon Monoxide
Kentucky DOW	Kentucky Energy & Environment Cabinet, Department for Environmental Protection, Division of Water
NAAQS	National Ambient Air Quality Standards
NO <sub>2</sub>	Nitrogen Oxide
O&M	Operations and Maintenance
Pb	Lead
PM	Particulate Matter
Project	Unbridled Solar Facility
PV	photovoltaic
SO <sub>2</sub>	Sulfur Dioxide
Unbridled	Unbridled Solar, LLC
USACE	United States Army Corps of Engineers
USEPA	United States Environmental Protection Agency
USGS	United States Geological Survey

# Introduction

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Section KRS 224.10-280 of the Kentucky statutes for the Energy and Environment Cabinet states that an electrical facility may not be constructed until the developing party submits a cumulative environmental assessment to the Kentucky Energy and Environment Cabinet as part of their application documents.

In compliance with KRS 224.10-280, this cumulative environmental assessment discusses potential impacts and impact mediation plans for the following categories:

1. Air Pollutants
2. Water Pollutants
3. Wastes
4. Water Withdrawal

# 1 Air Pollutants

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In accordance with the Clean Air Act, the United States Environmental Protection Agency (USEPA) developed National Ambient Air Quality Standards (NAAQS) to regulate air pollutants that are deemed harmful to public health and the environment. Maximum allowed concentrations and safety margins were established for six principal pollutants, referred to as “criteria” pollutants: ozone, particulate matter (PM), carbon monoxide (CO), nitrogen oxide (NO<sub>2</sub>), sulfur dioxide (SO<sub>2</sub>), and lead (Pb).

Based on daily measurements of regional air quality, areas that fall below the NAAQS threshold are designated as an attainment area. Regions that exceed the NAAQS are deemed nonattainment. When a nonattainment area improves in air quality and meets the NAAQS, it becomes a maintenance area.

The Unbridled Solar Facility (Project) proposed by Unbridled Solar, LLC (Unbridled), will be located in Webster and Henderson counties (Figure 1). Both counties are within an air quality control region that was deemed as nonattainment for SO<sub>2</sub> in August 2020 (USEPA 2020). The state of Kentucky implements further air quality protection through the Kentucky Administrative Regulations Title 401, Chapter 50 through Chapter 68.

Air quality impacts from construction will occur during daylight hours over the approximately 12-month construction period. Construction teams will be onsite using equipment and machinery, which may include bulldozers, backhoes, flatbed semi-trucks, forklifts, tractors, bobcats, augers, pile drivers, and concrete trucks. If construction falls behind schedule or if a critical deadline requires extra time, then use of this machinery may extend beyond daylight hours.

Construction and operation of the completed facility will produce air pollutants. Emissions will come predominantly from construction and operating equipment, and personnel vehicles. Vehicles and equipment with internal combustion engines will produce PM, NO<sub>2</sub>, carbon dioxide (CO<sub>2</sub>), SO<sub>2</sub>, and volatile organic compounds. The anticipated emissions generated by construction activities are expected to be minor because of the scale and duration of operations. Estimating the precise quantity of emissions produced by heavy machinery will require factoring in engine horsepower, machine age, task duration, soil type (for ground-breaking equipment), and other variables tied to efficiency. Proper maintenance and use of ultralow sulfur diesel fuel will aid in reducing air pollutants generated by machinery.

In addition to criteria pollutants, construction activities will generate dust and other suspended particulate (temporary fugitive air pollutant emissions). Unpaved roads, parking lots, and exposed soil at the construction site provide sources of fugitive dust. Best management practices (BMPs) will be implemented onsite, requiring the implementation of measures such as covering loads and applying water for dust suppression. Dispersal of air pollutants across the Project area and offsite will be influenced by the type and intensity of construction activity, extent of control measures, and natural factors such as wind and precipitation. With the use of appropriate BMPs, ambient air quality standards will not be exceeded, and construction activities will result in temporary, negligible impacts to air quality.

Any emissions from Project operation will be generated by worker vehicles and maintenance equipment. Operating solar panels does not produce any emissions, including criteria pollutants, volatile organic compounds, or Hazardous Air Pollutants, during energy production. Therefore, facility operations will generate negligible levels of air pollutants. The Project will yield an overall benefit to air quality at both local and regional levels by reducing the use of non-renewable energy and offering an alternative, minimal to zero-emission electricity source. The Project does not require an air quality permit.

## 2 Water Pollutants

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### 2.1 Surface water

The Project is located within Hydrologic Unit 05110005, also referred to as the Lower Green River Watershed. Water from this region ultimately drains into the Ohio River. The Project area is located on an alluvial floodplain (United States Army Corps of Engineers [USACE] 2011) and is characterized by well-drained, sandy soils (United States Geological Survey [USGS] 2020a). Hydrology is influenced by these geological characteristics and agricultural land use. The Green River and Ohio River converge within this watershed, and waterbodies are located within the proposed Project boundary. However, none of the waterbodies within the Project area or directly adjacent to it have been designated as Kentucky Special Waters by the Kentucky Energy & Environment Cabinet, Department for Environmental Protection, Division of Water (Kentucky DOW 2020).

Wetlands, ponds, and creeks are present within the proposed Project boundary. These waterbodies could be impacted by erosion and sedimentation generated by ground-disturbing construction activities. As with minimizing the release of fugitive dust into the air, Unbridled will implement BMPs to limit surface water pollution from dust and sediment. Such BMPs will include keeping ground-disturbing activities, such as grading and clearing, to a minimum because these actions generate conditions for erosion and sedimentation. Additionally, disturbed ground is prone to colonization by invasive species, which often require herbicide application to control.

Existing roads will be used as much as possible to minimize construction of additional access. If grading is deemed necessary and unavoidable, effort will be made to avoid drainages. Grading will follow the natural topography of surrounding region to lower the risk of erosion. Some Project access roads will be sited within mapped floodplains, requiring state and county approvals to ensure the risk of damage to from a flood is significantly reduced. Any impacts to Waters of the United States will be covered under a Nationwide Permit through the USACE and will be obtained prior to Project construction. In order to protect all surface waters within the proposed Project area, construction and operational activities will comply with the National Pollutant Discharge Elimination System requirements of the Clean Water Act. Unbridled will implement all mitigation measures required in the Kentucky Department of Environmental Protection Stormwater Construction General Permit, which will be obtained from the Kentucky DOW.

Erosion control and sedimentation prevention measures will also apply to construction assembly areas and could result in overland sediment migration into wetlands. Staging or laydown areas will be in place and located entirely within the Project boundary for the full construction phase. Approximately 5.74 square acres of the overall Project space will be used for staging areas.

Project construction may result in stormwater discharge. To mitigate effects from these activities, Unbridled will implement BMPs to protect jurisdictional wetlands and streams from sedimentation and prevent the offsite migration of silt and sediment. Silt fences, sediment basins, and 25-foot buffer zones will be used to prevent sedimentation of wetlands. Erosion control measures will be used in disturbed areas, including the application of water to prevent dust and help compact the soil, to prevent sediment from entering jurisdictional waters and from moving offsite.

In compliance with Kentucky DOW, Unbridled will design and implement a stormwater pollution prevention plan. Furthermore, Unbridled will ensure that the Project complies with the Kentucky DOW Construction Storm Water Discharge General Permit on actions that will influence one or more acres of land. A Notice of Intent and Notice of Completion will be submitted prior to and upon completion of construction.

Construction may generate hazardous materials such as fuel, lubricants, and hydraulic fluids that could potentially contaminate groundwater. While the use of these materials will be limited to essential use only, there remains a small risk of onsite spills. Unbridled will implement BMPs to minimize spill risk and immediately address any spills that occur. Proper maintenance of machinery and vehicles will further reduce the risk. Hazardous materials will be appropriately stored, and chemicals such as herbicides and fertilizers will be used sparingly. Unbridled does not anticipate further sources of groundwater pollution from facility operations. The completed photovoltaic (PV) panels will not include a runoff collection system, allowing rain to filter through vegetated soils into the groundwater table.

Once construction is complete, vegetation cover will be planted to stabilize disturbed soils. Seed mixes will be purchased from local, reputable sources. The vegetation will consist of low-growing, herbaceous plants and grasses from certified weed-free seed mixes. As soils stabilize, herbicide spot treatment may be necessary to prevent the establishment of invasive species. In these instances, herbicides will be applied by certified commercial pesticide applicators who are licensed within the state of Kentucky. Applicators will use USEPA-registered and approved herbicides and strictly follow the herbicide's application instructions. Chemical application will be restricted near wetlands to prevent aquatic impacts.

Ongoing facility maintenance may generate sediment and pollution runoff. BMPs will be implemented and permit requirements will be adhered to in order to reduce impacts to surface water. Design of the solar facility will only require small, dispersed areas of impervious surfaces in the form of access roads, gravel pads, operations and maintenance (O&M) buildings, and the substation, resulting in no or negligible impacts to surface waters from runoff. Much of the current land use is dedicated to cultivated crops and pasture, which introduces fertilizers, herbicides, and pesticides to the system. Application of these chemicals will be substantially reduced by converting agricultural land to solar fields. As such, surface water conditions may improve over the life of the Project.

## **2.2 Groundwater**

Aquifers are permeable bodies of rock and sediments that store water and allow for underground movement of water. Rain and other precipitation permeates the ground, enters the aquifer, and can resurface as a natural spring, be extracted through man-made wells, or discharge into waterbodies such as streams and lakes. The subterranean water is referred to as groundwater (USGS 2020b). A USGS monitoring well (374014087323901), located immediately adjacent to the northeastern portion of the Project area, recorded a depth to water of 68 feet (USGS 2020c).

The Project is not expected to generate adverse impacts to groundwater. Hazardous materials, including but not limited to, fuel, lubricants, hydraulic fluids, herbicides, and fertilizers will be limited to essential use only and will be properly stored, and their use will follow proper techniques. Proper maintenance of machinery, spill prevention protocols, and readily available spill kits will be used to reduce the risk of groundwater contamination. The conversion of the Project area from agricultural land use to solar energy production will produce a net reduction in fertilizer, herbicide, and pesticide use, thereby reducing chemical application to the landscape. Minor benefits to groundwater systems are anticipated as a result.



## 3 Waste

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Project construction will generate waste, including hazardous waste. To avoid any onsite and offsite impacts, all waste will be stored, handled, and disposed of in accordance with local, state, and federal regulations. Unbridled will develop a hazardous material business plan to ensure materials are handled, used, and stored according to BMPs, with resources and operating procedure guidelines in place in case of a spill. The hazardous material business plan will include spill prevention measures, proper training of personnel, providing appropriate personal protection equipment, making available Safety Data Sheets for all hazardous materials, and maintaining spill kits and other clean-up materials onsite.

Materials will be properly stored in containers most appropriate for each type of waste. Containers will be acquired from proper waste disposal contractors. All hazardous material storage units will include secondary containment so that in the unlikely event of primary container failure, a spill will not reach the environment.

Solid construction waste will be recycled if possible. Non-recyclable solid materials will be removed from the Project site and disposed of at an appropriate facility. Anticipated solid waste includes construction debris, recyclables, and garbage, including packaging materials, storage boxes, wooden pallets, and building materials. Designated personnel will conduct daily inspections to ensure proper handling of wastes, including storing, labeling, cleaning up, disposing of, and recording generated amounts of waste for Project records.

The primary sources of waste are expected to come from maintenance of equipment, vehicles and machinery and the replacement of damaged or worn-out materials. Construction machinery and vehicles will include semi-trucks, work trucks, excavators, and other equipment that uses gasoline, diesel, engine oil, and other petroleum-based products. These machines will produce hazardous liquid wastes such as used oil, diesel fuel, gasoline, hydraulic fluid, and other lubricants. Some vehicles may be refueled or undergo maintenance onsite. Spill prevention measures will consist of maintaining proper storage and material handling techniques and following procedure instructions for material use. Spill kits will be kept on all refueling vehicles and at strategic onsite locations. They will be easily accessible for any tasks that may incur a risk of spills.

Liquid supplies stored onsite may include cleaning supplies, pesticides and herbicides, air conditioning fluids, machinery maintenance supplies (hydraulics fluids, degreasers), fuels (gasoline or diesel), paints, and propane. It is expected that these materials will be kept in small quantities, measuring less than 55 gallons, 500 pounds, or 200 cubic feet of each substance.

Construction will result in human waste, but no negative impacts are expected to environmental resources. To accommodate increased personnel during construction, portable chemical toilets will be provided. These portable toilets will be properly maintained and regularly pumped by a licensed sewage waste contractor. The waste will be disposed of at a regulated wastewater treatment plant. If a permanent septic system is not already present, the addition of bathroom facilities may be required for the standard facility operations.

Small quantities of waste will be produced during both construction and facility operations. Appropriate disposal plans are in place for removing waste from the Project site to appropriate disposal or recycling facilities. Therefore, while facility construction and operations will generate hazardous and non-hazardous waste, such waste is not expected to negatively impact onsite or offsite resources because of the limited quantities and implementation of spill prevention measures.

## 4 Water Withdrawal

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Construction and standard facility operations will require water. Wells that currently exist within the Project area that are fed by underground aquifers will be used for water supply. There is enough natural movement of groundwater to maintain current demand on water supplies. If there are no existing wells or if existing wells are not sufficient for construction and operations, a new well may be developed.

Construction activities will use water to prevent dust and sediment pollution into onsite air and wetlands. Ground-disturbing activities, such as grading, require water for soil compaction and dust control. Water used for any dust control measures will be properly handled using BMP protocols. Water may also be used for construction of building foundations and equipment pads, washing equipment, and other minor uses. The stormwater pollution prevention plan will include regulations for using water to clean equipment and appropriately disposing of this wastewater.

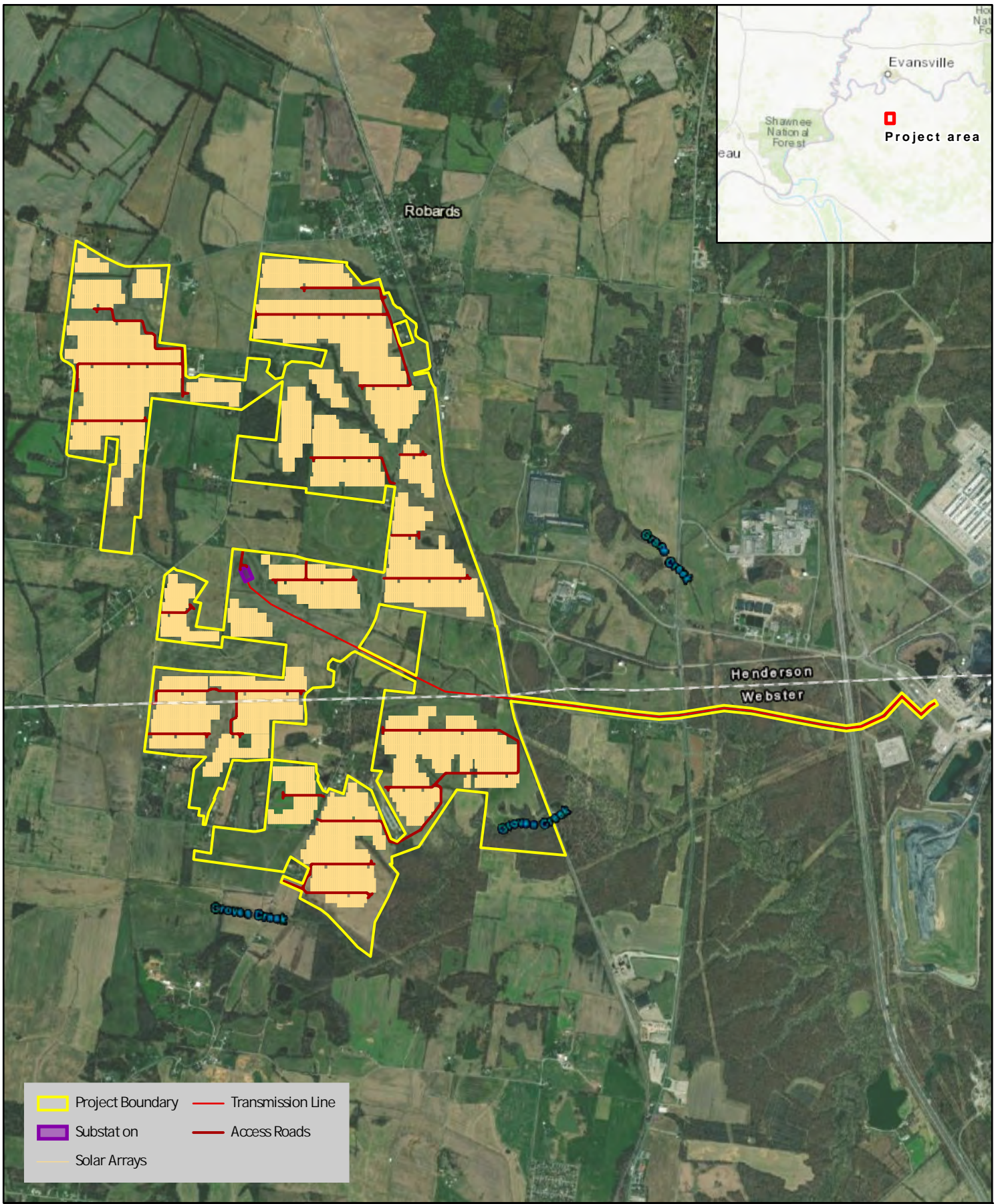
Anticipated use of water for construction is expected to be relatively minor and will not negatively impact groundwater resources. Once the facilities are complete, standard operations are expected to have low water requirements. The surrounding area receives enough rainfall throughout the year to contribute to aquifers and reduce the need for regularly washing the solar panels. Rainfall will be adequate in keeping the PV panels largely free from dust and debris. Additionally, rain will contribute to ongoing vegetation management. Some water will be needed to maintain ground cover planted between the PV panels, ground-stabilization vegetation, and planted visual buffers. An irrigation system may need to be installed to sustain vegetation through periods of low rain.

Unbridled does not anticipate construction and operation of solar electricity generating facilities to be water-use intensive. Water withdrawal for the Project is not expected to create negative effects on regional water resources.

## 5 References

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- Project Boundary
- Transmission Line
- Substation
- Access Roads
- Solar Arrays

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**Figure 1 Site Location Map**  
**Unbridled Solar Project**  
**Webster and Henderson Counties, Kentucky**

0      0.5      1      1.5 Miles  
 0      0.5      1      1.5      2 Kilometers



## About Cardno

Cardno is an ASX-200 professional infrastructure and environmental services company, with expertise in the development and improvement of physical and social infrastructure for communities around the world. Cardno's team includes leading professionals who plan, design, manage, and deliver sustainable projects and community programs. Cardno is an international company listed on the Australian Securities Exchange [ASX:CDD].

## Cardno Zero Harm

*Cardno*  
**ZERO  
HARM**  
EVERY JOB. EVERY DAY.

At Cardno, our primary concern is to develop and maintain safe and healthy conditions for anyone involved at our project worksites. We require full compliance with our Health and Safety Policy Manual and established work procedures and expect the same protocol from our subcontractors. We are committed to achieving our Zero Harm goal by continually improving our safety systems, education, and vigilance at the workplace and in the field.

Safety is a Cardno core value and through strong leadership and active employee participation, we seek to implement and reinforce these leading actions on every job, every day.