

Horus Kentucky 1 LLC

Application for a Certificate to Construct a Merchant Electric Generating Facility

Application Documents
Case No. 2020-00417
July 2021

Prepared for:

Kentucky State Board on Electric Generation and Transmission Siting
Kentucky Public Service Commission
211 Sower Boulevard
P.O. Box 615
Frankfort, Kentucky 40602

Prepared by:

Terracon Consultants, Inc.
13050 Eastgate Parkway
Louisville, Kentucky 40223

c/o

Horus Kentucky 1 LLC
110 Front Street, Suite 330
Juniper, Florida 33477

terracon.com

Terracon

Environmental



Facilities



Geotechnical



Materials

TABLE OF CONTENTS

Section 1.0	Applicant Information KRS 278.706(2)(a) Contact Person: Braden Houston (617) 530-0029
Section 2.0	Proposed Site Information KRS 278.706(2)(b) Contact Person: Braden Houston (617) 530-0029
Section 3.0	Public Involvement Process Public Notice Evidence KRS 278.706(2)(c) Public Meeting Evidence KRS 278.706(2)(f) Contact Person: Braden Houston (617) 530-0029
Section 4.0	Local Ordinance & Regulations Compliance KRS 278.706(2)(d) Contact Person: Braden Houston (617) 530-0029
Section 5.0	Setback Requirements KRS 278.706(2)(d) Contact Person: Braden Houston (617) 530-0029
Section 6.0	Efforts to Locate Proposed Facility near Existing Generating Facilities KRS 278.706(2)(g) Contact Person: Braden Houston (617) 530-0029
Section 7.0	Proof of Service KRS 278.706(2)(h) Contact Person: Braden Houston (617) 530-0029
Section 8.0	Effect of Proposed Facility on Kentucky’s Electric Transmission System KRS 278.706(2)(i) Contact Person: Braden Houston (617) 530-0029
Section 9.0	Economic Impact Analysis KRS 278.706(2)(j) Contact Person: Braden Houston (617) 530-0029

Application for a Certificate to Construct a Merchant Electric Generating Facility

Horus Kentucky 1 LLC ■ Franklin, Simpson County, Kentucky

July 2021 ■ Case No. 2020-00417

Section 10.0 Environmental Violation Record

KRS 278.706(2)(k)

Contact Person: Braden Houston (617) 530-0029

Section 11.0 Site Assessment Report

KRS 278.706(2)(l)

KRS 278.708(3)(a-e)

KRS 278.708(4)

Contact Person: Braden Houston (617) 530-0029

APPENDICES

Appendix A	Map of Residential Neighborhoods Surrounding Proposed Facility
Appendix B	Public Involvement Process Documents
Appendix C	Certificate of Service
Appendix D	Interconnection System Impact Study
Appendix E	Economic Impact Analysis
Appendix F	Site Development Plan
Appendix G	Legal Boundaries
Appendix H	Site Assessment Report
Appendix I	Property Value Impact Study
Appendix J	Phase I Environmental Site Assessment
Appendix K	Additional Due Diligence Reports

Application for a Certificate to Construct a Merchant Electric Generating Facility

Horus Kentucky 1 LLC ■ Franklin, Simpson County, Kentucky

July 2021 ■ Case No. 2020-00417

SECTION 1.0 APPLICANT INFORMATION

KRS 278.706(2)(a): The name, address, and telephone number of the person proposing to construct and own the merchant electric generating facility.

Name: Horus Kentucky 1 LLC

Contact: Braden Houston, Senior Director – Solar Development

Address: 110 Front Street, Suite 330, Juniper, Florida 33477

Phone: (617) 530-0029

Email: bhouston@opdenenergy.com

Horus Kentucky 1 LLC (“Horus Kentucky” or “Applicant”) is a limited liability company organized under the laws of the Commonwealth of Kentucky. Horus Kentucky is a subsidiary of Horus Renewables Corporation (“Horus Renewables”). Horus Renewables is a division of Opdenenergy, which is a Spanish multinational company with a 15-year track record in the development, construction, and investment in renewable energy assets. Opdenenergy was founded in 2005 and is currently headquartered in Madrid, Spain. They have been one of the pioneering companies of the Spanish solar photovoltaic (PV) sector, contributing significantly to where the Spanish market is today. Opdenenergy’s growth has been underpinned by a robust and balanced financials approach, resulting in steady and continued annual growth and expansion across Europe and the Americas, with offices in six countries, with over 100 employees world-wide. Opdenenergy has successfully been awarded Power Purchase Agreements (PPAs) by national and regional auctions in Europe, the U.S., and Latin America, in addition to financing and co-investing in assets supported by private PPAs and merchant revenues. Horus Renewables will complete the development of Horus Kentucky Solar (“Project”) and oversee associated Project permits, engineering, procurements, operation, and maintenance.

Application for a Certificate to Construct a Merchant Electric Generating Facility

Horus Kentucky 1 LLC ■ Franklin, Simpson County, Kentucky

July 2021 ■ Case No. 2020-00417

SECTION 2.0 PROPOSED SITE INFORMATION

KRS 278.706(2)(b): A full description of the proposed site, including a map showing the distance of the proposed site from residential neighborhoods, the nearest residential structures, schools, and public and private parks that are located within a two (2) mile radius of the proposed facility.

The Project will involve the construction of a 69.3-megawatt (MW) alternating current (AC) solar energy project in Franklin, Simpson County, Kentucky. The Project will be located within a project area of approximately 550-acres, situated off of Tyree Chapel Road in Franklin, Simpson County, Kentucky, with a latitude and longitude of 36° 40' 6.65" North and 86° 32' 37.86" West. The Project has historically been used for agriculture and farming. Project components will include solar PV panels, associated ground-mounted racking structure, access roads, 22 inverters, security fencing, laydown areas, and a project substation transformer which will connect to the Tennessee Valley Authority's (TVA) L5402 – 161-kilovolt (kV) transmission line. Approximately 500 acres of the 550 acres would be occupied by PV panels, and the remaining approximate 50 acres would be occupied by ancillary equipment and infrastructure to support the Project or would remain undeveloped. The PV panels would be mounted on motor-operated axis tracker structures, which are commonly referred to as single-axis trackers. These single-axis trackers are designed to pivot the panels along their north-south axes to follow the path of the sun across the sky from the east to west direction. The tracker assemblies would be constructed in parallel north-south rows using steel piles installed at an average of 7.5 feet off ground to the top of the panel at 55 degree full-tilt. The perimeter of the Project Site would be enclosed with security fencing.

The Notice of Intent to file an Application was submitted for this Project on January 5, 2021 in Case No. 2020-00417. A map showing the distance of the Project from residential neighborhoods, nearest residential structures, schools, and public and private parks that are located within a two (2) mile radius of the Project is provided in **Appendix A**.

SECTION 3.0 PUBLIC INVOLVEMENT PROCESS

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:

1. Landowners whose property borders the proposed site; and
2. 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:

1. 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 the application, for the purpose of informing the public of the project being considered and receiving comment on it;
2. 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
3. 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.

Horus Renewables mailed letters to 24 landowners whose properties border the Project on March 10, 2021. An affidavit certifying that the sample letter, project flier, and notice of public meeting that were sent to the adjacent landowners are provided in **Exhibit 1 of Appendix B**. The mailing list of the names and addresses of the 24 adjacent landowners is provided in **Exhibit 2 of Appendix B**. In addition, on March 13, 2021, Horus Renewables published a Notice of Public Meeting in the *Franklin Favorite*, a newspaper of general circulation within Simpson County, Kentucky, inviting the community to participate in the public meeting for the Project scheduled for March 25, 2021, at the Meeting Room of the Simpson County Historical Center located at 207 North College Street in Franklin, Kentucky 42134. As the *Franklin Favorite* inadvertently omitted a portion of the registration information from the Notice of Public Meeting in its March 11, 2021 notice, out of an abundance of caution, Horus Renewables arranged for an additional notice which published on March 18, 2021. Horus Renewables also arranged for fliers to be posted at the location of the public meeting as of March 12, 2021, and further coordinated with the staff of the public meeting location to ensure any individuals inquiring regarding the public meeting will be instructed to contact Horus Renewables directly and have been provided with the necessary information to do so. Subsequently, Notice of the Applicant were sent to the 24 adjacent landowners by certified mail on June 8, 2021 and published in the *Franklin Favorite* on June 10,

Application for a Certificate to Construct a Merchant Electric Generating Facility

Horus Kentucky 1 LLC ■ Franklin, Simpson County, Kentucky

July 2021 ■ Case No. 2020-00417

2021. Copies of the sample letter to adjacent landowners, certified receipts, newspaper advertisements and affidavit, and project flier are provided in **Appendix B**.

Horus Renewables held a public meeting on March 25, 2021 from 6 p.m. to 8 p.m. (CST) in order to inform the community about the Project, receive comments, and address any questions. The meeting was held at the Meeting Room of the Simpson County Historical Center located at 207 North College Street in Franklin, Kentucky 42134. At the public meeting, representatives from Horus Renewables, attorneys from Nelson Mullins, a representative with Kirkland Appraisals, LLC and an environmental consultant with Terracon Consultants, Inc., were present to engage with attendees and address any concerns. At the public meeting, the community was able to review large-scale site plans and engage with experts regarding the Project. Due to the ongoing global pandemic, the public meeting was conducted in compliance with guidance from the U.S. Centers for Disease Control and guidelines from the Office of the Governor intended to reduce the potential spread of COVID-19. Per the executive order of the Governor, the seating in the room was set up to allow for social distancing and were required to correctly wear masks. Horus Renewables supplied hand sanitizer and masks on-site for attendees. Due to the extraordinary circumstances brought on by the pandemic, the meeting was also made available for public participation through a digital “virtual” meeting. The digital meeting was made available through a live virtual platform, which could be accessed through a web browser as well as through a call-in number. The public meeting began with an introduction of the Applicant’s subject matter experts and a brief discussion of the Project as detailed in the PowerPoint Presentation included in **Appendix B**. This was followed by a live and web question and answer session of the Project. Participants were able to interact with the subject matter experts and ask questions either live or in-person. The Applicant was able to address all questions during the time of the event. The event was promoted via newspaper, direct mail, and field outreach.

The list of attendees of the public meeting are as follows:

1. Braden Houston, Horus Renewables
2. Luis Polo, Horus Renewables
3. Edward Furfey, Horus Renewables
4. Woo Smith, Terracon Consultants, Inc.
5. Randy Saunders, Nelson Mullins
6. Jonah Samples, Nelson Mullins
7. James Snyder, Simpson County Historical Center
8. Richard Kirkland, Kirkland Appraisals, LLC
8. Joe Tyree, Community Member/Adjacent Landowner
9. Cooper Tyree, Community Member/Adjacent Landowner

Application for a Certificate to Construct a Merchant Electric Generating Facility

Horus Kentucky 1 LLC ■ Franklin, Simpson County, Kentucky

July 2021 ■ Case No. 2020-00417

SECTION 4.0 LOCAL ORDINANCE & REGULATIONS COMPLIANCE

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 establish by the planning and zoning commissions as provided under KRS 278.704(3).

The Simpson County Planning & Zoning with an address of Historic Courthouse, P.O. Box 1025, Franklin, Kentucky 42135 has jurisdiction over the site. Therefore, the following local set-back requirements are applicable to this site:

1. 50 feet from public road right-of-way.
2. 100 feet from any abutting agricultural properties.
3. 250 feet from any residential-zoned properties, churches, cemeteries, nursing homes, and schools.

Horus Renewables certifies that the Project will be in compliance with all local ordinances and regulation concerning noise control and any applicable local planning and zoning ordinances. Pursuant to KRS 278.704(4), the applicant will not request a deviation from the setback requirements found in KRS 278.704(2) because the local planning and zoning requirements have primacy.¹

¹ In the interest of full transparency, the Applicant would like to make the Siting Board aware of two pending civil actions in the Circuit Court of Simpson County, Kentucky challenging the validity of the operable conditional use permits (Simpson Co. Circuit Court Civil Action No. 21-CI-00064; Simpson Co. Circuit Court Civil Action No. 21-CI-00135). Importantly, these appeals do not impact the Applicant's current ability to utilize these conditional use permits There are currently two pending motions to dismiss these lawsuits, and the Applicant will keep the Board apprised of any and all developments related to these challenges.

SECTION 5.0 SETBACK REQUIREMENTS

KRS 278.706(2)(e):

1. If the facility is not proposed to be located on 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.
2. If the facility is proposed to be located on 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 278704(5).
3. 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 compatible with those established setback requirements.

The Project is not proposed be located on site of a former coal processing plan, nor will it use any waste coal as a fuel source. In addition, the Project site does not have any existing electricity generating facilities on-site. Lastly, the Project will not include any exhaust stacks or wind turbines as part of the facility. As referenced in Section 4.0 Local Ordinance & Regulations Compliance, the Project will comply with Simpson County Planning & Zoning set-back requirements.

SECTION 6.0 EFFORTS TO LOCATE PROPOSED FACILITY NEAR EXISTING GENERATING FACILITIES

KRS 278.706(2)(g): A summary of the efforts made by the applicant to locate the proposed facility on a site where existing electric generating facilities are located.

The Project is connecting to TVA's L5402 – 161-kV transmission line. A transmission capacity study was performed to determine suitability of the Project location. Once it was determined that the location had available transmission capacity and generally favorable site characteristics, land parcels near the TVA's substation were screened for their suitability for hosting solar infrastructure. Ultimately, various potential sites were eliminated as they did not provide the needed attributes such as location within TVA's service area, location near existing electric infrastructure for interconnection, contiguous land to accommodate solar arrays, generally flat landscape with minimal slope, land with suitability geology for construction suitability, and minimal features like floodplains, wetlands, surface water features, or large forested areas. Lastly, through initial due diligence assessments, Horus Renewables focused on land which would avoid or minimize impacts to known sensitive biological, visual, and cultural resources. In addition, voluntary land agreements were negotiated with willing landowners in the Project area. While various tracts of land were considered as part of the initial due diligence, due to potential confidentiality issues, specific location and ownership details of previously considered tracts of land will not be provided in detail within this application.

Application for a Certificate to Construct a Merchant Electric Generating Facility

Horus Kentucky 1 LLC ■ Franklin, Simpson County, Kentucky

July 2021 ■ Case No. 2020-00417

SECTION 7.0 PROOF OF SERVICE

KRS 278.706(2)(h): Proof of service of a copy of the application upon the chief executive officer of each county and municipal corporation in which the proposed facility is to be located, and upon the chief officer of each public agency charged with the duty of planning land use in the jurisdiction in which the facility is proposed to be located.

As indicated in the Certificate of Service in **Appendix C**, copies of the Application for the Project were electronically transmitted to the following parties on the day this Application was filed:

Simpson County Judge Executive Mason Barnes
P.O. Box 242
Franklin, Kentucky 42135
mbarnes@simpsoncounty.us

Carter Munday
P.O. Box 1025
Franklin, Kentucky 42135
carter.munday@franklinky.org

SECTION 8.0 EFFECT OF PROPOSED FACILITY ON KENTUCKY'S ELECTRIC TRANSMISSION SYSTEM

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

TVA's Interconnection Planning and Special Studies team performed an Interconnection System Impact Study (#388-Horus Kentucky 1) on February 26, 2020. The Interconnection System Impact Study was performed with the objective of identifying all adverse system impacts on TVA's transmission system in order to maintain system reliability as a result of the Interconnection Request. In addition, the study details the proposed facility addition, modifications, and upgrades that are needed to maintain a reliable interconnection for the Project. The TVA Interconnection System Impact Study is included in **Appendix D**.

Application for a Certificate to Construct a Merchant Electric Generating Facility

Horus Kentucky 1 LLC ■ Franklin, Simpson County, Kentucky

July 2021 ■ Case No. 2020-00417

SECTION 9.0 ECONOMIC IMPACT ANALYSIS

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

Horus Renewables anticipates capital construction costs of \$80 million. The Project is estimated to provide approximately 100 full-time jobs during construction for over a 12 to 18-month period. In addition, Horus Renewables anticipates hiring several local technicians and maintenance employees for the Project’s regular operation and maintenance for the life of the Project, which is expected to extend for 30 to 40 years once construction is complete. The Project will impact the local economy through the construction of the facility and also provide ongoing beneficial impacts from local and state taxes over the life of the Project. Horus Renewables used the current web-based version of IMPLAN (<https://implan.com/>) to model impacts to Simpson County’s local economy using Simpson County and Kentucky datasets. The current economic dataset uses 2019 data, with calculated dollars for 2021. It should be noted that there are no 2019 economic statistics for Kentucky for the construction of a solar facility. Therefore, the IMPLAN outputs were predicted from the construction of power and communication facilities in Kentucky and locally in Simpson County using site specific information where available. The Economic Impact Analysis for the Project is provided in **Appendix E**.

Application for a Certificate to Construct a Merchant Electric Generating Facility

Horus Kentucky 1 LLC ■ Franklin, Simpson County, Kentucky

July 2021 ■ Case No. 2020-00417

SECTION 10.0 ENVIRONMENTAL VIOLATION RECORD

KRS 278.706(2)(k): A detailed listing of all violations by it, or any person with an ownership interest, of federal, or state environmental laws, rules, or administrative regulations, whether judicial or administrative, where violations have resulted in criminal convictions or civil or administrative fines exceeding five thousand dollars (\$5,000) and the status of any pending action, whether judicial or administrative, shall also be submitted.

Horus Renewables has not been subject to any violations that have resulted in criminal convictions or civil or administrative fines. Horus Renewables also certifies that it is not subject to any pending judicial or administrative actions.

SECTION 11.0 SITE ASSESSMENT REPORT

KRS 278.706(2)(I): A site assessment report as specified in KRS 278.708 or a request that the Board accept documentation of compliance with the National Environmental Policy Act (NEPA) in lieu of a site assessment report, in which case documentation of NEPA compliance is included in the application.

While a Site Assessment Report has been provided for the Project in **Appendix F**, a NEPA Draft Environmental Assessment has also been filed by TVA for public comment and can be found in the following link: <https://www.tva.com/environment/environmental-stewardship/environmental-reviews/nepa-detail/horus-kentucky-solar-project>.

KRS 278.708(3)(a): A site assessment report shall include a description of the proposed facility, including a proposed site development plan that describes:

1. Surrounding land uses for residential, commercial, agricultural, and recreational purposes;
2. The legal boundaries of the proposed site;
3. Proposed access control to the site;
4. The location of facility buildings, transmission lines, and other structures;
5. Location and use of access ways, internal roads, and railways;
6. Existing or proposed utilities to service the facility;
7. Compliance with applicable setback requirements as provided in KRS 278.704(2), (3), or (5);
8. Evaluation of noise levels expected to be produced by the facility;

KRS 278.708(3)(b): A site assessment report shall also include the following: (1) an evaluation of the compatibility of the facility with scenic surroundings;

KRS 278.708(3)(c): (2) The potential changes in property values resulting from the siting, construction, and operation of the proposed facility for property owners adjacent to the facility;

KRS 278.708(3)(d): (3) Evaluation of anticipated peak and average noise levels associated with the facility's construction and operation at the property boundary;

KRS 278.708(3)(e): (4) The impact of the facility's operation on road and rail traffic to and within the facility, including anticipated levels of fugitive dust created by the traffic and any anticipated degradation of roads and lands in the vicinity of the facility.

Application for a Certificate to Construct a Merchant Electric Generating Facility

Horus Kentucky 1 LLC ■ Franklin, Simpson County, Kentucky

July 2021 ■ Case No. 2020-00417

KRS 278.708(4): The site assessment report shall also suggest any mitigating measures to be implemented by the applicant including planting trees, changing outside lighting, erecting noise barriers, and suppressing fugitive dust.

A Site Assessment Report is provided in **Appendix F**.