

COMMONWEALTH OF KENTUCKY
BEFORE THE PUBLIC SERVICE COMMISSION

In the Matter of:

JOINT APPLICATION OF KENTUCKY)
UTILITIES COMPANY AND LOUISVILLE)
GAS AND ELECTRIC COMPANY FOR) CASE NO. 2016-00274
APPROVAL OF AN OPTIONAL SOLAR)
SHARE PROGRAM RIDER)

RESPONSE OF

KENTUCKY UTILITIES COMPANY
and
LOUISVILLE GAS AND ELECTRIC COMPANY

TO

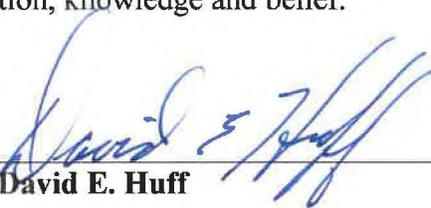
COMMISSION STAFF'S INFORMAL CONFERENCE REQUEST FOR
INFORMATION
DATED OCTOBER 19, 2016

FILED: OCTOBER 21, 2016

VERIFICATION

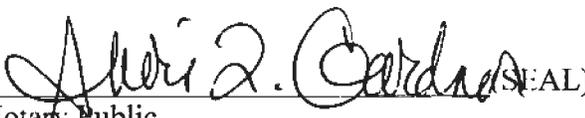
COMMONWEALTH OF KENTUCKY)
) SS:
COUNTY OF JEFFERSON)

The undersigned, **David E. Huff**, being duly sworn, deposes and says that he is Director of Customer Energy Efficiency & Smart Grid Strategy for LG&E and KU Services Company, and that he has personal knowledge of the matters set forth in the responses for which he is identified as the witness, and that the answers contained therein are true and correct to the best of his information, knowledge and belief.



David E. Huff

Subscribed and sworn to before me, a Notary Public in and before said County and State, this 21st day of October _____ 2016.



Notary Public

My Commission Expires:

SHERI L. GARDNER
~~Notary Public, State at Large, KY~~
My Commission expires Dec. 24, 2017
Notary ID # 501600

**LOUISVILLE GAS AND ELECTRIC COMPANY
AND
KENTUCKY UTILITIES COMPANY**

Response to Commission Staff's Informal Conference Request Dated October 19, 2016

Case No. 2016-00274

Question No. 1

Witness: David E. Huff

- Q-1. Copy of the September 20, 2016 Letter from the State Historic Preservation Office ("SHPO").
- A-1. Attached is the letter from the Tourism, Arts, and Heritage Cabinet, Kentucky Heritage Council, dated September 20, 2016 to the Companies' contractor, Redwing Ecological Services, Inc. who is doing the work. This letter states that we are requesting a cultural historic survey by a qualified architectural historian within the viewshed of the Solar Share Facilities.

The Companies have received a proposal to accomplish the work required by this letter. The work would take 7-10 days to perform the records review, 1-2 business days to complete the field research, and 15-25 days to produce the reports.

The work can be completed by November 30, 2016 as originally expected. This report will be submitted to SHPO for review and concurrence. SHPO has 30 days to review.



MATTHEW G. BEVIN
GOVERNOR

TOURISM, ARTS AND HERITAGE CABINET
KENTUCKY HERITAGE COUNCIL
THE STATE HISTORIC PRESERVATION OFFICE

REGINA STIVERS
DEPUTY SECRETARY

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SECRETARY

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FRANKFORT, KENTUCKY 40601
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CRAIG A. POTTS
EXECUTIVE DIRECTOR
& STATE HISTORIC
PRESERVATION OFFICER

September 20, 2016

Sarah Brower, Staff Ecologist
Redwing Ecological Services, Inc.
1139 South Fourth Street
Louisville, KY 40203

Re: Simpsonville Solar Share, Shelby County, Kentucky
Redwing Project Number 16-094

Dear Ms. Brower:

Thank you for your letter concerning the above referenced project. We understand that an identified historic resource (Robinson House; north of I-64) appears to be within the viewshed of the proposed photo-voltaic generating facility and that both the James P. Miller House (south of I-64) and the NRHP-Listed Lincoln Institute Complex are in the vicinity of this project and it is possible that a rural historic district boundary may overlap with the APE for this project. As such, we are requesting a cultural historic survey by a qualified architectural historian within the viewshed of the proposed solar installation including sufficient reconnaissance survey to make a recommendation on whether the area south of US-60 (Shelbyville Road) and north of I-64 in this location (approximately Hobbs Lane to Whitney M. Young, Jr. Job Corps Center/Lincoln Institute) would be recommended for inclusion within a proposed rural historic district. Please also provide information on any proposed screening measures and details on the dimensions of the proposed solar panels.

Additionally, a review of the information submitted indicates that the proposed project will not impact any previously recorded archaeological sites. However, the proposed project area has not been investigated by a professional archaeologist to determine if properties eligible for listing in the National Register are present. Investigations of projects in similar environmental contexts have resulted in the identification of a large number of sites, some of which have been determined eligible for listing in the National Register. Therefore, I recommend that the proposed project area be surveyed by a professional archaeologist and that the resulting report of these investigations be submitted to our office for review and comment.

Should you have any questions, feel free to contact Nick Laracuente of my staff at 502.564.7005, extension 122.

Sincerely,

A handwritten signature in blue ink, appearing to read "Craig A. Potts".

Craig A. Potts,
Executive Director and
State Historic Preservation Officer

CP:nrl KHC # 47542

**#Preservation50: Commemorating the 50th anniversary of the National Historic Preservation Act
and the Kentucky Heritage Council 1966-2016**

**LOUISVILLE GAS AND ELECTRIC COMPANY
AND
KENTUCKY UTILITIES COMPANY**

Response to Commission Staff’s Informal Conference Request Dated October 19, 2016

Case No. 2016-00274

Question No. 2

Witness: David E. Huff

- Q-2 Provide a copy of the Cumulative Environmental Assessment (“CEA”) filed with the KY Dept. for Environmental Protection (“DEP”) and the expected timing of a decision concerning the CEA from DEP.
- A-2. Attached are the CEA for the Solar Share Facilities and the Companies’ submittal letter dated August 12, 2016 to Secretary Snavely of the Kentucky Energy and Environment Cabinet.

It is important to note that the state does not “approve” a CEA, issue an official notice to proceed, or otherwise indicate that a submitting party has provided a satisfactory CEA; rather, DEP responds to a CEA only if there is a problem or DEP requires additional information. To date, more than two months after submitting the CEA, the Companies have not received any comments or questions from DEP about it.

Additionally, below is an updated status for the permits and studies shown in Application Exhibit 1.

Permit	Controlling Entity	Projected Completion Date	Status as of 10/20/2016
Wetlands Delineation Jurisdictional Determination	U.S. Army Corps of Engineers	10/27/16	Approved
Endangered Species Study	U.S. Fish and Wildlife Service	10/27/16	Approved
Cumulative Environmental Assessment (CEA) (KRS 224-10-280)	KY Department of Environmental Protection	10/27/16	No questions or comments
Historic Structures and Archaeological Study	Kentucky State Historic Preservation Office	11/30/16	Expected in about 37 days or sooner
Electrical Permit	Shelby County Building Inspector	12/9/16	Will apply prior to construction



PPL companies

Secretary Charles G. Snavelly
Kentucky Energy and Environment Cabinet
300 Sower Blvd, 3rd Floor
Frankfort, Kentucky 40601

**Louisville Gas & Electric and
Kentucky Utilities Company**
Environmental Affairs
220 West Main Street
Louisville, KY 40202
www.lge-ku.com

Gary Revlett
Director
T 502-627-4621
Gary.Revlett@lge-ku.com

August 12, 2016

**RE: Cumulative Environmental Assessment
Louisville Gas & Electric and Kentucky Utilities Company –
Simpsonville Solar Share**

Dear Secretary Snavelly:

Please find enclosed Louisville Gas & Electric and Kentucky Utilities' (LGE-KU) completed Cumulative Environmental Assessment as required under KRS 224.10-280. The Kentucky statute requires this assessment for those planning to construct a facility to be used for the generation of electricity. LGE-KU is seeking appropriate approvals and permits to construct a new, approximately 4 MW solar facility located near Simpsonville, Kentucky in Shelby County.

We appreciate the opportunity to work with the Cabinet and KDEP in fulfilling all requirements needed to construct this new electric generating unit. Please contact me (502) 627-4621 or Michael Winkler of my staff at (502) 627-2338 if additional information is required for review.

Sincerely,

A handwritten signature in blue ink that reads "Gary H. Revlett".

Gary H. Revlett
Director, Environmental Affairs

Cc: R. Bruce Scott, Deputy Secretary, Kentucky Energy and Environment Cabinet
Aaron Keatley, Commissioner, Kentucky Department for Environmental Protection



CUMULATIVE ENVIRONMENTAL ASSESSMENT

Louisville Gas & Electric and Kentucky Utilities LLC
Proposed Simpsonville Solar Generating Operations
Near Intersection of Conner Station Road and Interstate 64
Simpsonville, Shelby County, Kentucky 40067

Prepared for
LG&E-KU Services Company
220 West Main Street
Louisville, Kentucky 40202

Prepared by
ATC Group Services LLC
11001 Bluegrass Parkway, Suite 250
Louisville, Kentucky 40299

A blue ink signature of Mark S. Edmonson, consisting of stylized cursive letters.

Mark S. Edmonson, P.E.
Senior Principal Engineer

A black ink signature of Adam Simon, consisting of stylized cursive letters.

Adam Simon
Staff Geologist

August 8, 2016



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LIST OF ACRONYMS

AC	Alternating Current
AMSL	Above Mean Sea Level
BMP	Best Management Practice
CAA	Clean Air Act
CFR	Code of Federal Regulations
DC	Direct Current
KDOW	Kentucky Division of Water
KDAQ	Kentucky Division for Air Quality
KDEP	Kentucky Department for Environmental Protection
KDOW	Kentucky Division of Water
KDWM	Kentucky Division of Waste Management
KGS	Kentucky Geological Survey
KPDES	Kentucky Pollutant Discharge Elimination System
KPSC	Kentucky Public Service Commission
KRS	Kentucky Revised Statute
LG&E-KU	Louisville Gas & Electric and Kentucky Utilities LLC
kV	Kilovolt



LIST OF ACRONYMS (Continued)

KW	Kilowatt
MSD	Louisville and Jefferson County Metropolitan Sewer District
MVA	Mega Volt Amp
MW	Megawatt
NGVD29	National Geodetic Vertical Datum of 1929
NOI	Notice of Intent
PSD	Prevention of Significant Deterioration
PV	Photovoltaic
SPCC	Spill Prevention, Control, and Countermeasure Plan
SWPPP	Stormwater Pollution Prevention Plan
TMDL	Total Maximum Daily Load TMDL
USEPA	United States Environmental Protection Agency
USGS	United States Geological Survey
UTM	Universal Transverse Mercator
V	Volt
WGS84	World Geodetic System of 1984



1.0 INTRODUCTION

This Cumulative Environmental Assessment (CEA) is provided by Louisville Gas & Electric and Kentucky Utilities LLC (LG&E-KU) in support of development of a new solar photovoltaic electric generating unit (Solar PV Unit) to be located on currently undeveloped 35-acre parcel approximately 1.8 miles west-southwest of Simpsonville in Shelby County, Kentucky.

The intent of this report is to provide the necessary information pursuant to Commonwealth of Kentucky statutory requirements for construction of the proposed Solar PV Unit.

1.1 Statutory Requirements

Pursuant to Kentucky Revised Statute 224.10-280, any person intending to commence construction of a facility to be used for the generation of electricity is required to submit a Cumulative Environmental Assessment with the permit application. Various additional permit applications may be submitted with the Cumulative Environmental Assessment to commence construction of the proposed Solar PV Unit. Accordingly, this Cumulative Environmental Assessment is being submitted pursuant to and in accordance with the requirements of KRS 224.10-280.

1.2 Project Description

The proposed project includes phased development, construction, and operation of solar modules to ultimately generate approximately four megawatts (MW) of electric power. LG&E-KU's proposed Simpsonville Solar PV Unit is located in west-central Shelby County, Kentucky roughly 1.8 miles west-southwest of Simpsonville and 4.8 miles east-northeast of Fisherville. The site is bounded to the west by Conner Station Road and by Interstate 64 to the south. Land at the site is undeveloped pastureland and is not currently utilized for power generation. The Shelby County Property Value Administrator lists the site as the Vanvooren Property - Tract 3, Parcel I.D. 009-00-034; 35.17 acres, zoned for agricultural use. The surrounding area is comprised of farms, private residences, and undeveloped land.

The proposed Solar PV Unit site lies within the northeast quarter of the United States Geological Survey (USGS) 7.5-Minute Topographic Quadrangle Map for the Fisherville, Kentucky Quadrangle (1993). The proposed project is shown on Figure 1, Topographic Vicinity Map, consisting of portions of the USGS 7.5-Minute Topographic Quadrangle Maps for the Fisherville, Kentucky and Simpsonville, Kentucky Topographic Quadrangles. The proposed Solar PV Unit facility will be located at approximate



geographic coordinates of 38° 13' 01" North latitude and 85° 23' 16" West longitude, corresponding to Universal Transverse Mercator (UTM) coordinates of 641,135 meters Easting, 4,231,114 meters Northing, in Zone 16S, based on the horizontal datum for the World Geodetic System of 1984 (WGS84). Elevations at the site range from approximately 710 to 770 feet above Mean Sea Level (AMSL) relative to the National Geodetic Vertical Datum of 1929 (NGVD29).

Figure 2, Site Aerial Photo, depicts the approximate boundaries of the parcel selected for phased development of the solar photovoltaic generating operations. As shown, the site is nearly rectangular and encompasses roughly 35 acres in total.

As shown in Figure 3, Project Layout, LG&E-KU proposes to install solar panel arrays in phases, along the western and northern edges of the property. As depicted in Figure 3, preliminary planning indicates installation of a 500 Kilowatt (kW) Direct Current (DC) / 360 kW Alternating Current (AC) block of solar panels along the western edge of the property, just south of the current site entrance. Installation of additional blocks of panels is possible; however timing of installation and exact construction details are subject to further planning. If fully developed, a total of eight 500 kW DC / 360 kW AC blocks of solar panels would be constructed. If fully developed the property could include:

- Approximately 12,000 Solar Panels
- Approximately 42 – 60 kW AC Inverters
- Approximately 2 – 1.5 MVA Pad-Mounted Transformer
- 480V Switchgear
- Network Equipment
- Perimeter Fencing
- Electric Distribution Cabling (Buried)
- Approximately 50 ft. On-Site 12.47 kV Electric Power Distribution Line (Overhead)
- Gravel Access Road On Site
- Fixed-Tilt Racking Hardware

During construction of the Solar PV Unit, the following temporary infrastructure will be required (also depicted on Figure 2):

- Laydown Area(s)
- Construction Trailer(s)
- Temporary Construction Access Road(s)
- Construction Craft Parking Area(s)



Once commercialized, the proposed Solar PV Unit electric generating unit will be served by the following infrastructure:

- Access Road (existing access via Conner Station Road to the proposed site will be used to access the proposed site with new driveways to be constructed surrounding the proposed facility as needed)
- Electric Power Distribution Lines (connection to existing overhead electric power lines)
- Stormwater Collection / Retention System (as needed)

All of the additions and upgrades are collectively referred to as the “project” in the remainder of this report. Descriptions of each feature of the project are set forth in the appropriate sections of the report below.

1.3 Report Overview

This CEA is organized to provide descriptions required by KRS 224.10-280(3) for air pollutants, water pollutants, wastes, and water withdrawal associated with the proposed Solar PV Unit. Each of these topics is addressed separately in individual sections of the report and each section presents a summary of the following:

- 1) Baseline conditions potentially affected by the project and regulatory programs for associated issues of concern.
- 2) Description of the relevant project features and activities affecting or contributing to issues of concern.
- 3) Identification and analysis of potential cumulative environmental impacts that may arise from the project including construction activities.
- 4) Descriptions of all mitigation and monitoring measures and overall environmental management plans and practices to be instituted to track, minimize, and control cumulative impacts.



2.0 AIR QUALITY

2.1 Baseline Environmental Conditions & Regulatory Programs

The proposed Solar PV Unit site will be located in western Shelby County to the west-southwest of Simpsonville, Kentucky. Shelby County has been designated by the United States Environmental Protection Agency (USEPA) as “attainment” or “unclassifiable” for all criteria pollutants. Designated 8-hour ozone non-attainment areas in the region include the Louisville, Cincinnati and Indianapolis metropolitan areas. The nearest Federal PSD Class I area is Mammoth Cave National Park, located approximately 82 miles south-southwest of the proposed project.

Air quality regulation and permitting in Shelby County, Kentucky is administered by the Kentucky Division for Air Quality (KDAQ). The USEPA has given KDAQ authority to implement and enforce the federal Clean Air Act (CAA) provisions and state air regulations under its approved State Implementation Plan (SIP).

2.2 Project Description/Relevant Air Quality Activities

The project will be constructed on the undeveloped parcel to the northeast of the intersection of Conner Station Road and Interstate 64.

The Solar PV Unit panels and support structures described previously will be located in a regular pattern on the ground surface following site preparation (grading, etc.) and will occupy approximately 13 acres of the 35-acre parcel.

2.3 Potential Impacts Analysis

The only potential impact to ambient air quality identified resulting from the proposed Solar PV Unit is emissions of fugitive dust during construction.

No potential impacts to air quality from operation of the proposed Solar PV Unit have been identified and none are anticipated.



2.4 Mitigation, Monitoring and Management

2.4.1 Construction

Potential air quality impacts from construction activities can be effectively addressed by best management practices (BMPs) employed to suppress dust generation. Plans and practices to minimize and control fugitive dust resulting from construction activities may include some or all of the following:

- Minimize the area of exposed soil
- Application of Water (Sprinkling and Irrigation)
- Application of Mulch and Seeding (after 14 days of inactivity)
- Surface Roughening
- Structural Barrier(s) and Windbreak(s)
- Application of Dust Suppression Agents

Other general dust suppression methods include limiting vehicle speeds within the construction site and covering truck beds (used for hauling gravel or soil) to reduce dust and/or particulate dispersal into the air. Material stockpiles will be isolated using silt fencing or other types of sediment controls. If excavated or imported soil piles are to be left in place for an extended period of time, grass or other protective vegetation can be planted to suppress dust and mitigate soil erosion from the pile.

Vehicle exhaust emissions can be kept to a minimum through regular tune-ups and other maintenance. Malfunctioning vehicles will be removed from the project site or sent for repair.

These practices to control fugitive dust go hand-in-hand with BMPs to address stormwater impacts associated with erosion and sediment transport that will be utilized at the site to mitigate fugitive dust emissions during construction operations.

It should also be noted that the project's proposed phased development of the solar modules/blocks will minimize contemporaneous disturbance. Based on preliminary plans, subsequent phases will incur disturbance of approximately 1.6 acres each.



2.4.2 Operations

No potential impacts to air quality from operation of the proposed Solar PV Unit have been identified and none are anticipated. Therefore, mitigation and monitoring of air quality impacts will not be necessary once the project is operational.



3.0 WATER QUALITY

3.1 Baseline Environmental Conditions

The proposed Solar PV Unit lies within the Floyds Fork watershed. Floyds Fork is a 62-mile long creek in north-central Kentucky that flows through and drains portions of Henry, Oldham, Shelby, Jefferson, Spencer and Bullitt counties. As shown in Figure 4, Watershed Map, the entire watershed is 284 square miles, or more than 180,000 acres.

The proposed development drains to the southeast into an unnamed tributary of South Long Run approximately 0.2 miles southeast of the site. South Long Run joins Long Run roughly 2.7 miles west of the site. Long Run flows into Floyds Fork approximately 4.5 miles west-southwest of the proposed Solar PV Unit site. According to data developed by the USGS and Louisville and Jefferson County Metropolitan Sewer District (MSD), flow rates in Floyds Fork in the vicinity of the site range from around 3.1 cubic feet per second during periods of low-flow to approximately 80 cubic feet per second during periods of high-flow. Floyds Fork discharges into the Salt River approximately 21.4 miles southwest of the proposed Solar PV Unit site near Shepherdsville, KY. The Salt River flows into the Ohio River at River Mile 630 near West Point, Kentucky.

The Kentucky Division of Water (KDOW) reports that current stream impairments in the Floyds Fork watershed include nutrients, organic enrichment, dissolved oxygen, fecal coliform, sedimentation and aquatic plants. KDOW is currently developing a Total Maximum Daily Load (TMDL) model to address fecal coliform, nutrients, organic enrichment and dissolved oxygen impairments. Especially in the region of the watershed containing the proposed project, the noted stream impairments are almost exclusively related to agricultural sources. Based on the LG&E-KU project's limited size (approximately 13 acres), location within the upper reaches of the watershed (upstream of most impairments), and the nature of potential impacts which have readily available remedies (i.e., sedimentation and erosion during construction due to land disturbance and from increased runoff once in operation), the proposed development is not considered to represent a threat to local or regional water quality.

Operation of the proposed Solar PV Unit will not generate wastewater. Due to alteration of ground cover and surface grades within the developed area during construction, stormwater controls may be needed to address potential erosion prevention and sediment control.

As shown in Figure 5, Geologic Map, the uppermost geologic material in the area surrounding the proposed Solar PV Unit site is Bardstown Limestone (at elevations



above 760 ft-AMSL) and the Rowland Limestone. These units are members of the Lower Drakes Formation of Upper Ordovician age. Limestone deposits consist of limestone, dolomite and shale. Bedrock in the area appears to dip at a rate of roughly 0.6% to the west based on contours drawn on the base of the Rowland Member of the Drakes Formation. No faulting or other remarkable structural features are identified near the site.

According to Greb, Davidson, Carey, and Snapp, Generalized Geologic Map for Land-Use Planning: Shelby County, KY, Map and Chart 116, Series XII, Kentucky Geologic Survey, (2005), these deposits may yield sufficient supply for domestic use from wells installed in valley bottoms and along streams, except during dry weather. Approximately 80 percent of the county consists of upland areas where wells will generally produce insufficient quantities for domestic use. Water is hard, and may contain salt or hydrogen sulfide. Potable water in Shelby County is dominantly sourced from surface water bodies, such as Guist Creek Lake and Lake Shelby. Potable water service at the site and surrounding area is supplied by the West Shelby Water District with offices in Simpsonville, Kentucky.

Review of the Kentucky Groundwater Data Repository - Water Well and Spring Location Map at URL <http://kgs.uky.edu/kgsmap/KGSWater/>, and query of the Kentucky Geological Survey Water Well & Spring Records Database at URL <http://kgs.uky.edu/kgsweb/DataSearching/Water/WaterWellSearch.asp> indicates no domestic use, industrial, municipal, monitoring, agricultural, public, or mining wells were depicted on the site or within one mile of the proposed Solar PV Unit site.

Of note, karst features, typically expressed as sinkholes, are evident in areas surrounding the site, but none are identified within the boundaries of the parcel proposed for development of this project. cursory review indicates that these features appear to be at lower surface elevations than those present at the site. Further review of Figure 6, Karst Potential Map, developed from the Kentucky Geologic Map Information Service, found on the Internet at URL <http://kgs.uky.edu/kgsmap/KGSGeoServer/>, indicates that the only area identified for potential karst development are within site drainage features including a pond and adjacent ephemeral stream. These features are not within the area of the site proposed for development of the Solar PV Unit and related infrastructure.

The Federal Emergency Management Agency (FEMA) Flood Insurance Rate Map No. 21211C0150C (Effective Date September 2, 2009), found at URL: <https://msc.fema.gov/portal> was reviewed to evaluate flooding potential at the site. The site is located entirely within an area designated as Zone X, indicating areas determined to be outside 500-year floodplain indicating very low probability of flooding.



Additionally, the United States Fish and Wildlife Service National Wetlands Inventory, NWI Mapper application found at URL: www.fws.gov/wetlands/Data/Mapper.html was consulted. Based on review of information obtained from this source, a freshwater pond located in the east central portion of the site is noted. This feature is of limited extent and most notably is not within the area proposed for development under this project.

3.2 Regulatory Programs

The KDOW administers the federal Clean Water Act and state water protection program. Water quality is maintained by establishment of water quality standards and regulation of all discharges of pollutants to waters of the Commonwealth. Discharge standards are established for particular sources and activities, and wastewater and storm water discharges from industrial activities such as power generation must obtain a KPDES permit.

3.3 Project Description \ Relevant Water Quality Activities

The project will be constructed on the undeveloped parcel to the northeast of the intersection of Conner Station Road and Interstate 64. The Solar PV Unit panels and support structures described previously will be located in a regular pattern on the ground surface following site preparation (grading, etc.) and if fully developed will occupy approximately 13 acres of the 35 acre parcel.

Construction operations, in particular site clearing and grading in preparation for installation of structures associated with the proposed Solar PV Unit, represent potential for increased erosion and sediment discharge from the site during development. Construction disturbances that exceed one acre are required to obtain a stormwater permit. When required, LG&E-KU will need to provide appropriate notice of intent (NOI) and request coverage under the KDOW's current General Permit for Stormwater Discharges Associated with Construction Activities - KPDES No.: KYR100000 (AI No.: 35050). Pursuant to permit requirements, LG&E-KU will develop a Stormwater Pollution Prevention Plan (SWPPP), will minimize size and duration of ground surface disturbance, comply with soil stabilization and erosion prevention requirements, and comply with buffer zone requirements.

Once constructed and commercialized, there will be no wastewater discharges associated with operation of the proposed Solar PV Unit. However, installation of solar panels, supporting structures and associated access drives / pathways may decrease the overall surface permeability of the area within the drainage basin containing the development. This could result in a slight increase in peak discharge rates during storm



events. cursory evaluation indicates an increase in uncontrolled peak runoff discharge rate within the roughly 125-acre watershed containing the site by approximately 15% when comparing the undeveloped site to the conditions following installation of the fully developed Solar PV Unit. Preliminary review suggests that existing drainage paths are adequate to accommodate these flows even for significant storm events without adverse hydraulic consequences. LG&E-KU's planning includes evaluation of conditions which may increase peak storm discharge rates and provisions for controls to address any detrimental increases in stormwater flow. These controls could include rock-check dams, small storm retention structures, etc. Appropriate erosion prevention and sediment control measures will be implemented during construction and operation of the proposed Solar PV Unit.

As noted, the project is likely to include two 1.5 MVA transformers. At the current planning stage the exact units for the project have not been selected. Options between dry and oil-filled units will be weighed by LG&E-KU. In the event that oil-filled units are selected, LG&E-KU will comply with requirements of 40 CFR Part 112 for development of a Spill Prevention, Control, and Countermeasure (SPCC) Plan as needed.

3.4 Potential Impact Analysis

3.4.1 Construction

The greatest potential for impacts to surface water quality from construction activities is sediment loading from erosion. Construction materials delivered to the site, including chemicals, fuels, and lubricants, also pose a threat if not properly managed. Potential impacts to surface water quality could arise from discharge and/or release of pollutants during construction of the project. Accidental release or spills of hazardous substances or waste will be quickly addressed through removal or mitigation so that they do not affect site groundwater or nearby surface waters. These efforts will minimize potential impacts for the project. A specific construction BMP will be required for the project. The construction BMP will include a section on the proper handling and management of these materials.

3.4.2 Operations

Operations of the Solar PV Unit will not result in wastewater discharges. As discussed above, increases in surface water peak flows resulting from the construction of solar panel supports, drives and access paths is expected.

In the event oil-filled equipment units (transformers, etc.) are selected for installation at the site, potential for leakage from failure of equipment oil reservoirs exists, and



appropriate planning will be provided (up to and including development of a site specific SPCC Plan).

Development and implementation of BMPs that are standard to other LG&E-KU construction and operations for spill control and response measures, release containment designs, employee training, periodic inspections and monitoring activities to the new project activities and improvements will assure that all potential impacts to water quality will be minimized.

3.5 Mitigation, Monitoring & Management

Construction contractors will be required to develop and implement practices and procedures to control, prevent and respond to any spills or releases of materials that could potentially impact water quality. Specifically, construction contractors will be required to:

- 1) Develop and implement a soil and erosion control plan
- 2) Assure all storage of chemicals and fuel onsite will be provided with secondary containment, and all unloading areas will have their own containment
- 3) In the event of a fuel or oil spill during construction, the contaminated soils will be characterized and remediated or removed and hauled away by a licensed contractor for disposal at a licensed facility

Except for the electrical interconnection, all construction activity will take place within the proposed Solar PV Unit site. BMPs, such as silt fences will be inspected regularly and maintained throughout all land disturbance activities. An adequate number of portable sanitary facilities will be provided at the construction site. Contractors will be strictly prohibited from dumping solid wastes into waterways.

All new project facilities will be designed to provide appropriate containment, where it is required to assure potential spills or releases of hazardous substances from plant equipment do not pose any threats to surface or subsurface water quality.

Potential increases in peak stormwater discharge rates resulting from installation of the proposed Solar PV Unit will be evaluated, and are anticipated to be minimal. Engineering controls (e.g., routing of storm water, storm retention structures, velocity checks, etc.) will be applied as necessary to mitigate identified adverse hydraulic effects, if any.



4.0 WASTE MANAGEMENT

4.1 Baseline Environmental Conditions

The proposed Solar PV Unit site consists of rolling, grass-covered pasture land. . No solid waste disposal or landfilling is present on the site at this time.

4.2 Regulatory Programs

The Kentucky Division of Waste Management (KDWM) regulates the treatment, storage, and disposal of solid, special and hazardous wastes. Kentucky Revised Statute, Chapter 224, identifies requirements for permitting, licensing, and operating facilities generating and managing hazardous wastes. Hazardous waste generators must also register with the USEPA.

4.3 Relevant Project Activities

4.3.1 Construction

Proposed construction activities associated with the Solar PV Unit will involve earthwork such as excavation and grading. Available information suggests that soil removed during grading will be utilized to fill in low areas on the property. All indications are that soils to be disturbed at the site are essentially undisturbed and have virtually no potential for containing contaminants at levels of concern. However, care will be exercised during any soil disturbing activities associated with construction of the project and any evidence indicating the potential presence of contamination will be evaluated and appropriate measures / precautions will be implemented. Any materials determined to be unsuitable for the project will be appropriately characterized and managed.

In addition, construction activities can generate significant amounts of solid wastes, in the form of discarded materials, equipment and supplies packaging, and cleared vegetation. Provisions will be made for waste accumulation, handling, and proper characterization/disposal.

4.3.2 Operations

No significant generation of solid waste is anticipated during operation of the proposed Solar PV Unit.



4.4 Potential Impacts and Analysis

Construction activities can generate significant amounts of solid wastes, in the form of discarded materials, equipment and supplies, packaging, and cleared vegetation.

Accidental releases of hazardous substances or wastes could result in potential impacts to soil, groundwater, and surface water during project construction. Any such release will be quickly addressed through removal or mitigation so that they do not affect site soil, groundwater, or nearby surface water. These efforts will minimize potential impacts for the project.

Potential impacts to soils and surface water are not expected once the construction phase is completed. Solid wastes generated at the proposed Solar PV Unit will be minimal, generated mostly from routine maintenance operations.

4.5 Mitigation, Monitoring & Management

Sufficient containers (barrels, trailers, bins, etc.) will be placed around the site for accumulation and storage of solid wastes. Containers and storage areas will be labeled with appropriate labeling and/or signs. Solid wastes will be collected on a regular basis, with separation of incompatible wastes for separate storage, transport, and disposal. Construction and office wastes will be sent to a local licensed landfill that has the capacity to manage the nominal quantity of solid waste that is anticipated.

Available information suggests that the proposed Solar PV Unit site will not generate hazardous wastes. As such, plans and procedures for hazardous waste disposal are not warranted. All solid wastes generated in conjunction with routine maintenance of the Solar PV Unit site will be properly collected, containerized, stored, marked / labeled, transported, disposed, and tracked.



5.0 WATER WITHDRAWAL

No water withdrawal or significant water use is required for construction or operation of the proposed Solar PV Unit. Water may be used for dust suppression operations during construction operations. In this event, water for dust suppression will be hauled in to the site on tanker trucks.

There will be no impacts on water withdrawal associated with construction or operation of the proposed Solar PV Unit project. Therefore, no mitigation or monitoring is identified for this element of the project.



6.0 REFERENCES

Federal Emergency Management Agency (FEMA) Flood Insurance Rate Map (FIRM) No. 21211C0150C, Panel 150 of 325 (September 2, 2009) URL: <https://msc.fema.gov/portal>

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Greb, S., Davidson, B., Carey, D., and Snapp, C., Groundwater Resources of Shelby County, Kentucky County Report 106, Series XII ISSN 0075-5567, Kentucky Geological Survey (2004) - <http://www.uky.edu/KGS/water/library/gwatlas/Shelby/Shelby.htm>

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Kentucky Groundwater Data Repository - Water Well and Spring Location Map at URL <http://kgs.uky.edu/kgsmap/KGSWater/>

Kentucky Revised Statutes. 100.324 Public utility facilities excepted -- Review of proposed acquisition, disposition, or change by commission. (Amended 2002 Ky. Acts Chapter 89, Sec. 3, effective July 15, 2002; Chapter. 343, Sec. 1, effective April 23, 2002; and Chapter 346, Sec. 151, effective July 15, 2002).

Kentucky Revised Statutes. 224.10-280 Cumulative environmental assessment and fee required before construction of facility for generating electricity -- Conditions imposed by cabinet -- Administrative regulations. (Created 2002 Ky. Acts Chapter 365, Sec. 10, Effective April 24, 2002).

Kentucky Revised Statutes. 278.706, Application for Certificate to Construct Merchant Electric Generating Facility -- Fees -- Replacement or Repair Does Not Constitute Construction. (Created 2002 Ky. Acts Chapter 365, Sec. 4, Effective April 24, 2002).



Kepperle, R. C., Geologic Map of the Fisherville Quadrangle, Kentucky, U.S. Geological Survey, GQ-1321_2 (1976)

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<http://websoilsurvey.nrcs.usda.gov/app/HomePage.htm>

U.S. Fish and Wildlife Service, Division of Habitat and Resource Conservation. Branch of Resource and Mapping Support - National Wetlands Inventory (NWI) Wetlands Mapper. URL: www.fws.gov/wetlands/Data/Mapper.html

United States Geological Survey, Current Conditions for Kentucky. URL:

<http://waterdata.usgs.gov/ky/nwis/uv?>

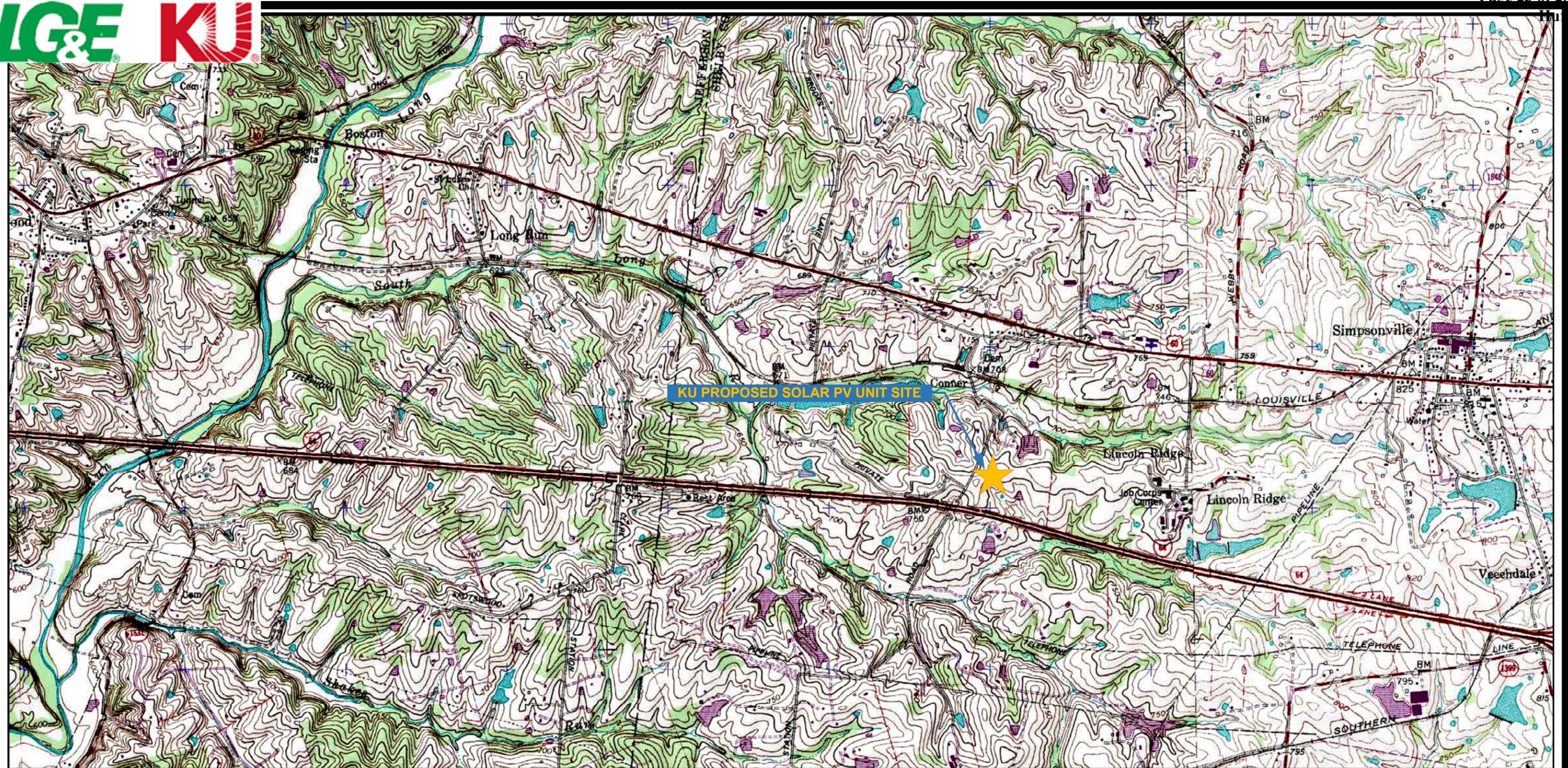
United States Geological Survey, Surface Water data for Kentucky: USGS Surface-Water Daily Statistics URL: <http://waterdata.usgs.gov/ky/nwis/dvstat?>

United States Geological Survey, Topographic Map, Fisherville, KY 7.5-Minute Series (1993)

United States Geological Survey, Topographic Map, Simpsonville, KY 7.5-Minute Series (1993)



FIGURES



Source: United States Geological Survey (USGS) Portions of 7.5 Minute Topographic Quadrangle Maps for the Fisherville, KY (1993) and Simpsonville, KY (1993)



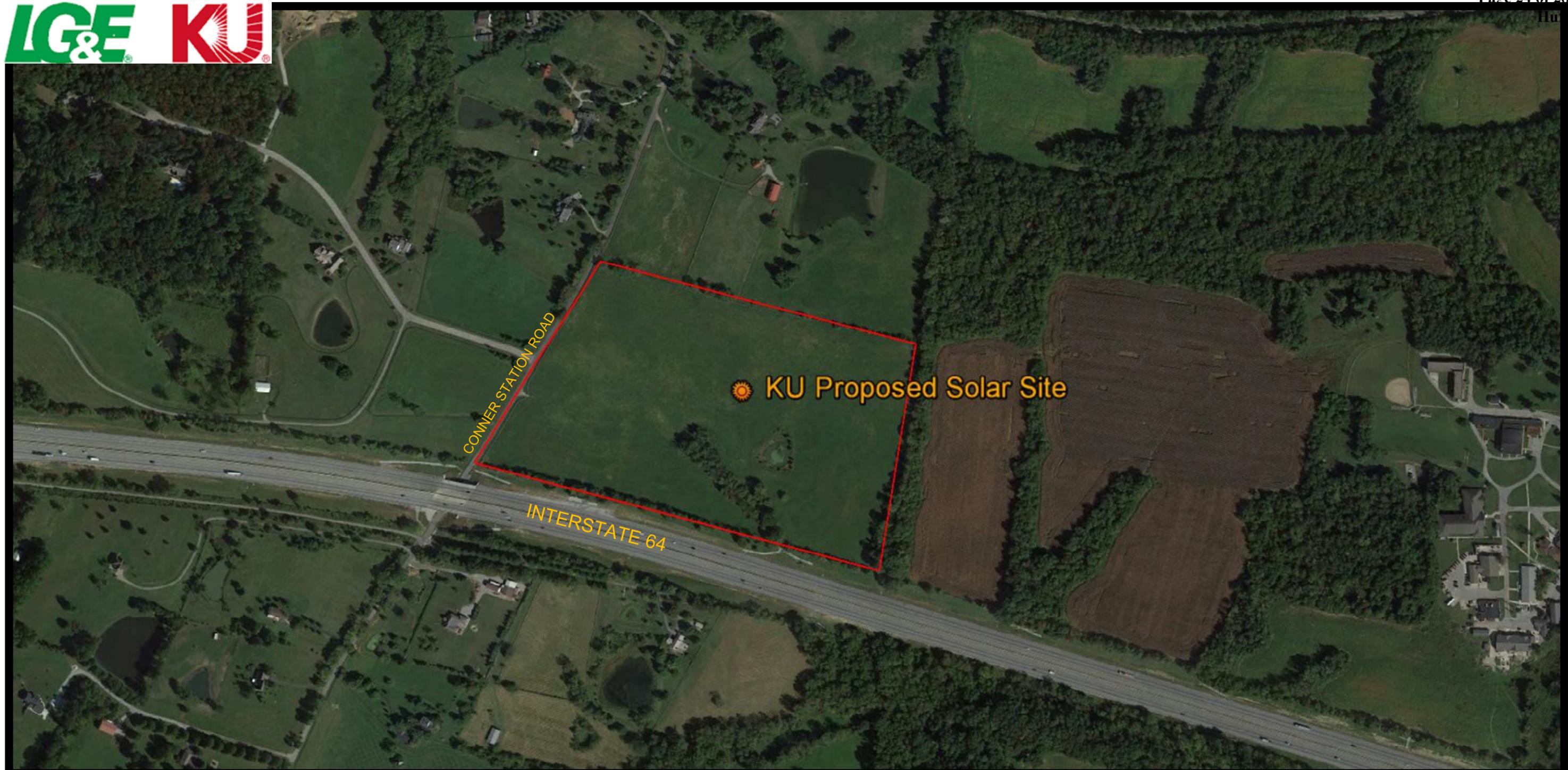
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CHECKED BY: AS
PROJECT No. Z027000257
APPROXIMATE SCALE: 1 in. = 2,000 ft.



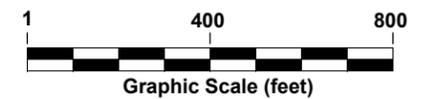
FIGURE 1
TOPOGRAPHIC VICINITY MAP
LG&E-KU PROPOSED SOLAR PV UNIT
CONNER STATION ROAD
SIMPSONVILLE, SHELBY COUNTY, KENTUCKY 40067



ATC Group Services LLC
11001 Bluegrass Parkway
Suite 250
Louisville, KY 40299
502.722.1401



Source: Google Earth, Conner Station Road, Simpsonville, KY. 38° 13' 01"; 85° 23' 20",
Imagery Date: 09/22/2014. Access Date: 06/29/2016.



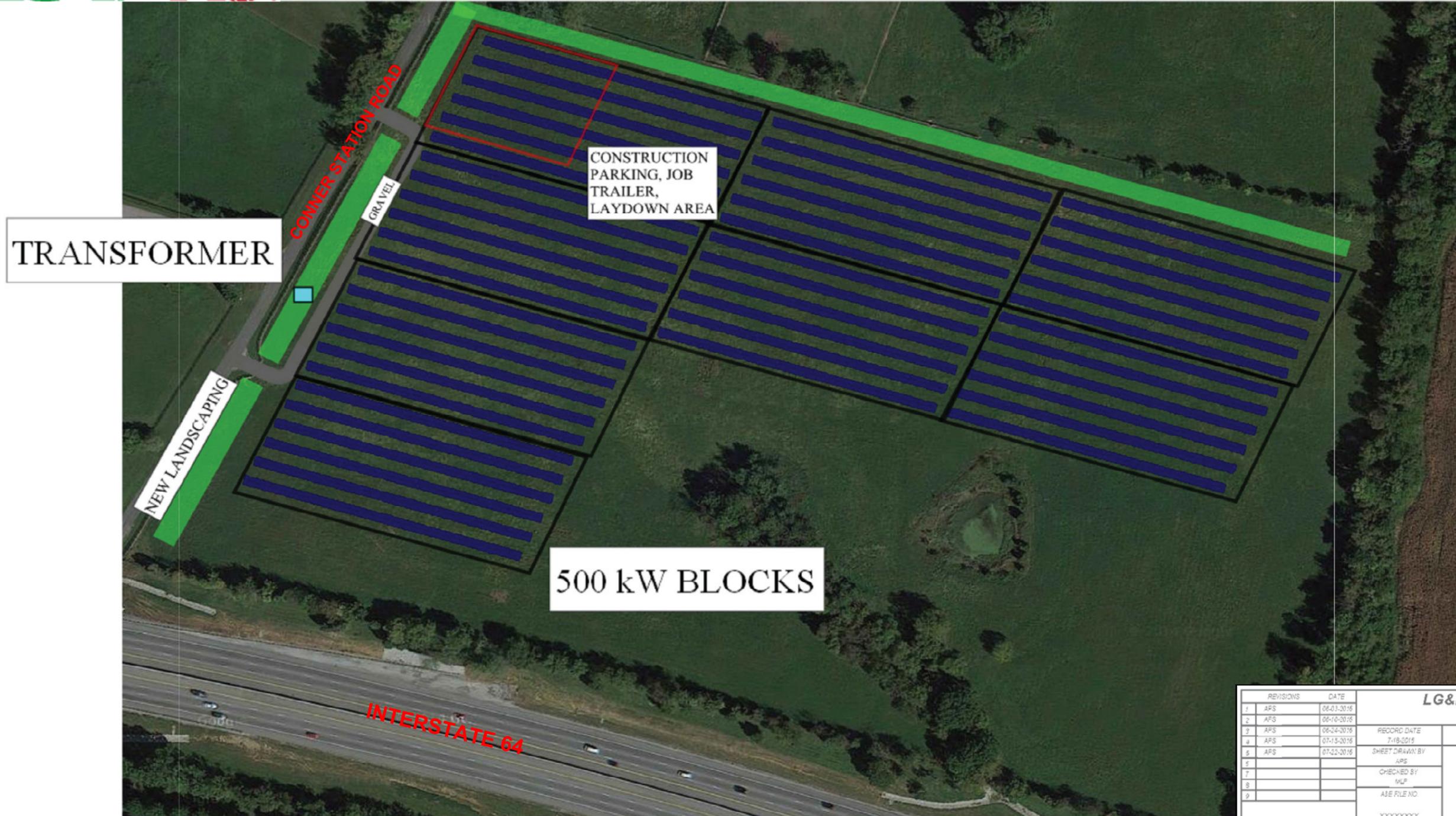
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DRAWN BY: MSE
CHECKED BY: AS
PROJECT No. Z027000257
APPROXIMATE SCALE: 1 in. = 400 ft.



FIGURE 2
SITE AERIAL PHOTO
LG&E-KU PROPOSED SOLAR PV UNIT
CONNER STATION ROAD
SIMPSONVILLE, SHELBY COUNTY, KENTUCKY 40067



ATC Group Services LLC
11001 Bluegrass Parkway
Suite 250
Louisville, KY 40299
502.722.1401



SOURCE:
SOLAR ENERGY SOLUTIONS
PROJECT 6030-LG&E + KU
LAYOUT FOR 4MW SOLAR ARRAY
JUNE 18, 2016

TRANSFORMER

500 kW BLOCKS

NOTE: MAINTAIN MINIMUM 50' DISTANCE FROM ARRAY TO TREELINE. PREFERRED, 100'. UTILIZE TREES WITH LOW TO MODERATE GROWTH HEIGHT

REVISIONS	DATE	LG&E KU COMMUNITY SOLAR SIMPSONVILLE, KENTUCKY		
1	APS	06-03-2016	RECORD DATE	7-18-2016
2	APS	06-10-2016	SHEET DRAWN BY	APS
3	APS	06-24-2016	CHECKED BY	MLF
4	APS	07-15-2016	A&E FILE NO.	XXXXXXXXXX
5	APS	07-22-2016	DATE	7-18-2016
6			AGENCY AUTHORIZED ASMT	APPROVED FOR PROGRAM CONCEPT ONLY
7			DIVISION OF ENGINEERING	APPROVED FOR PROGRAM CONCEPT ONLY
8				
9				

SITE LAYOUT

LG&E KU SIMPSONVILLE PROJECT



SOLAR ENERGY SOLUTIONS

DRAWING NO.

S1.1

REVIEWED
DIV. OF ENGR.

DATE ONLY
ENGR. FILE NO.
XXX-XXXX-XXXX-XX

DATE: 07/09/2016
DRAWN BY: MSE
CHECKED BY: AS
PROJECT No. Z027000257
APPROXIMATE SCALE: 1 in. = 400 ft.



FIGURE 3
PROJECT LAYOUT
LG&E-KU PROPOSED SOLAR PV UNIT
CONNER STATION ROAD
SIMPSONVILLE, SHELBY COUNTY, KENTUCKY 40067

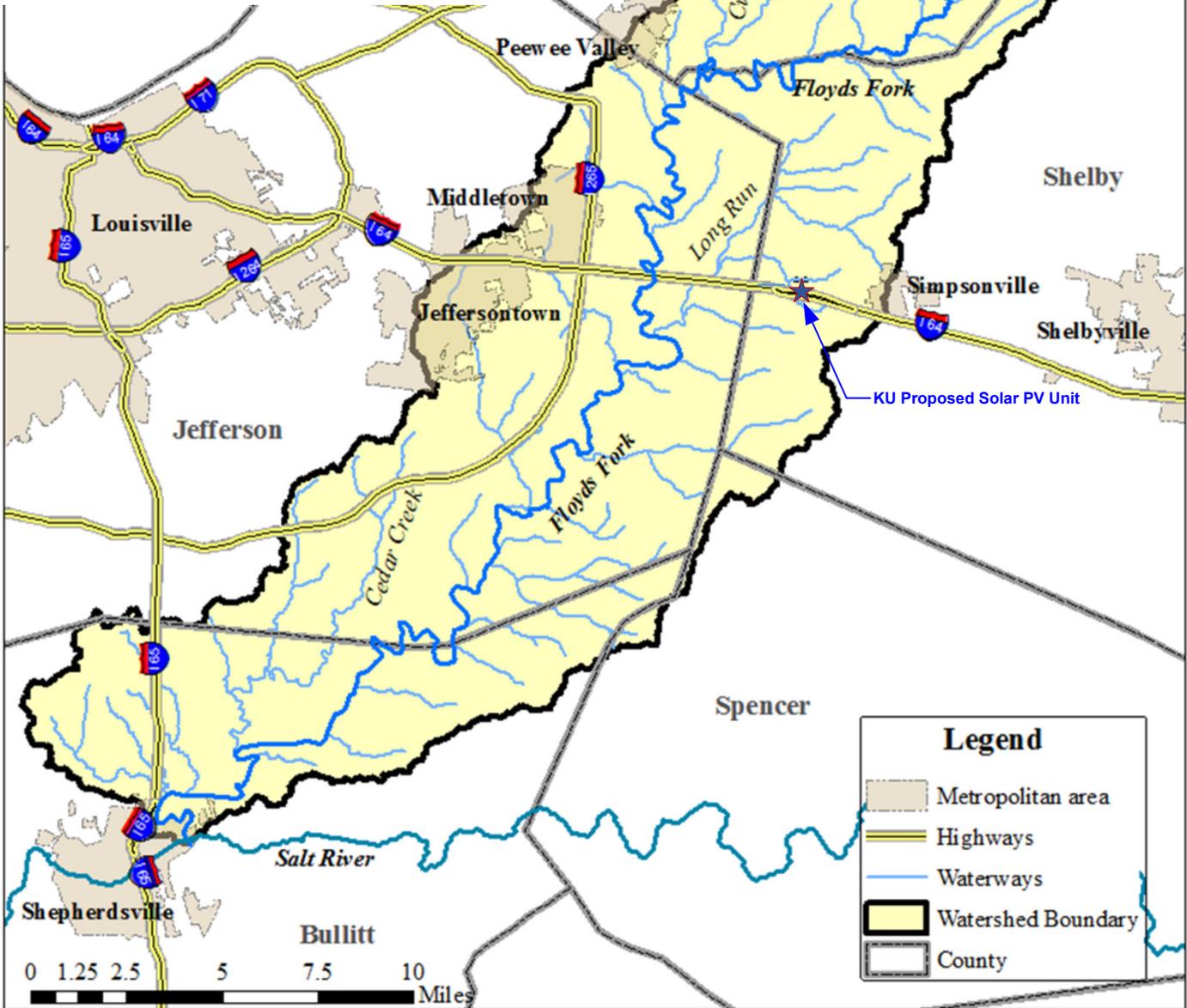


ATC Group Services LLC
11001 Bluegrass Parkway
Suite 250
Louisville, KY 40299
502.722.1401



SOURCE:
 Presentation for Stakeholders Meeting
 Floyds Fork Watershed TMDL Development
 Louisville, KY
 August 30, 2011
 Presented by
 USEPA Region 4 & Kentucky Division of Water

Drawing Source: TETRA TECH



DATE: 07/09/2016
 DRAWN BY: MSE
 CHECKED BY: AS
 PROJECT No. Z027000257
 SCALE: AS SHOWN



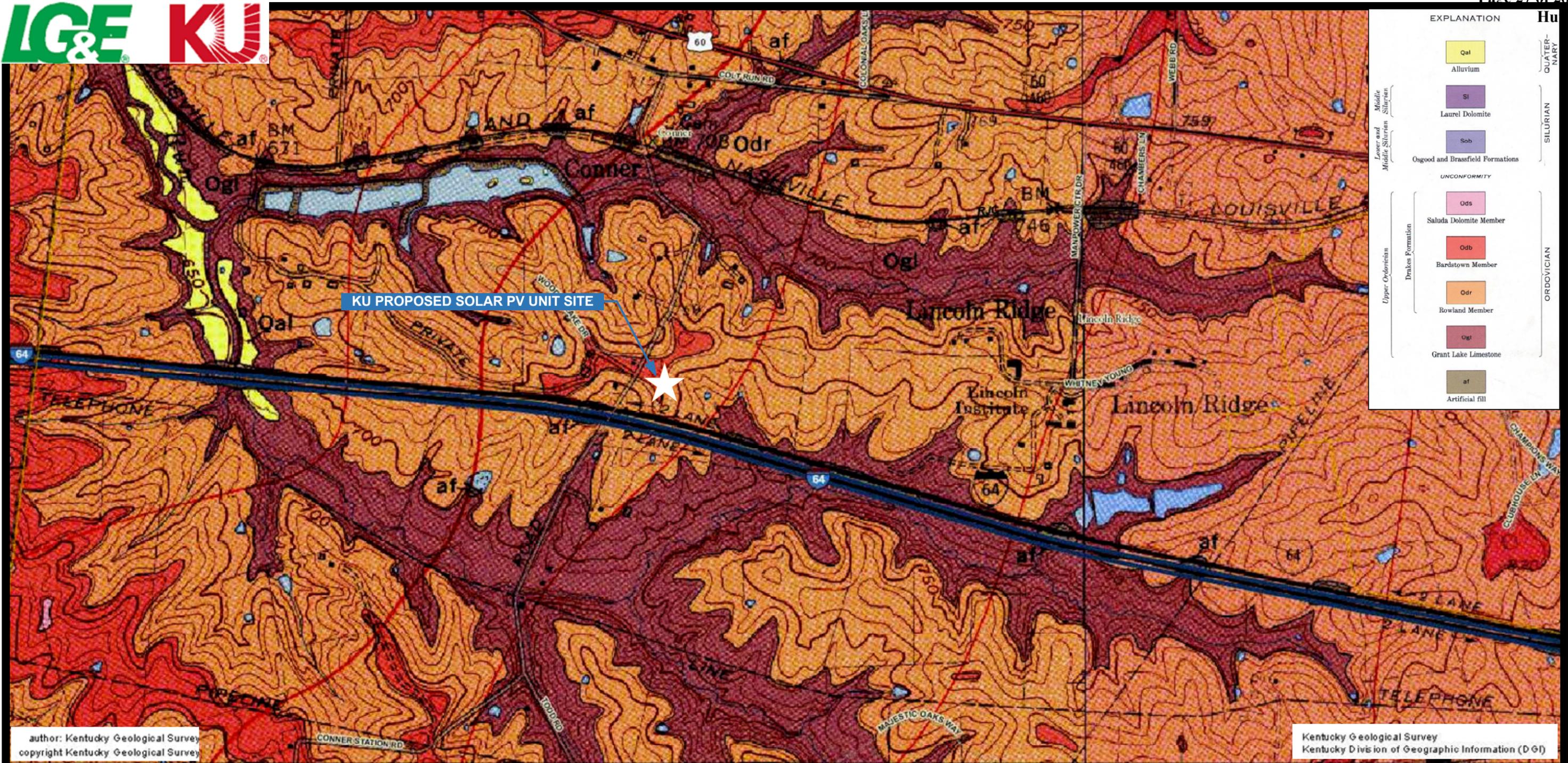
FIGURE 4

WATERSHED MAP
LG&E-KU PROPOSED SOLAR PV UNIT
CONNER STATION ROAD
SIMPSONVILLE, SHELBY COUNTY, KY 40067



ENVIRONMENTAL - GEOTECHNICAL
 BUILDING SCIENCES - MATERIALS TESTING

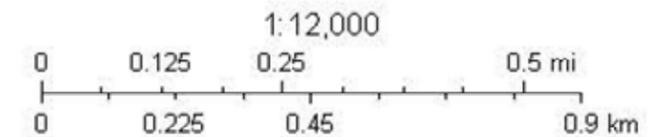
11001 Bluegrass Parkway
 Suite 250
 Louisville, KY 40299



author: Kentucky Geological Survey
copyright Kentucky Geological Survey

Kentucky Geological Survey
Kentucky Division of Geographic Information (DGI)

Source:
Keplerle, R. C., Geologic Map of the Fisherville Quadrangle, Kentucky, U.S. Geological Survey, GQ-1321_2 (1976) via the Kentucky Geologic Map Information Service, found on the Internet at URL <http://kgs.uky.edu/kgsmap/KGSGeoServer/>



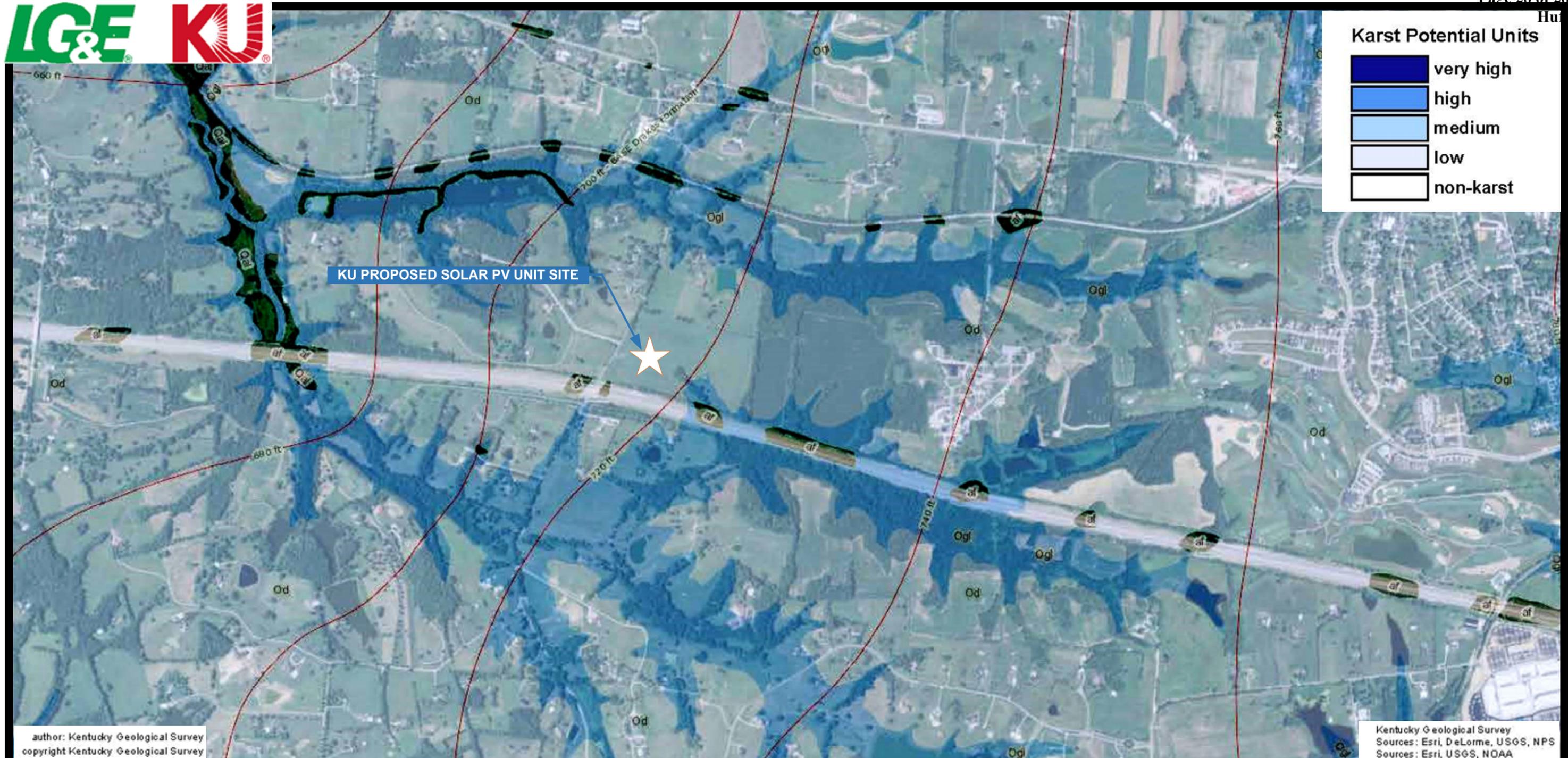
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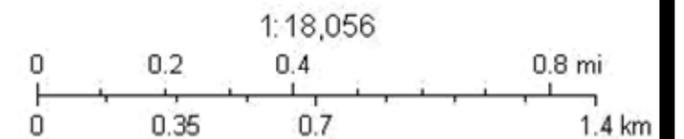
FIGURE 5
GEOLOGIC MAP
LG&E-KU PROPOSED SOLAR PV UNIT
CONNER STATION ROAD
SIMPSONVILLE, SHELBY COUNTY, KENTUCKY 40067



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Source:
Kentucky Geologic Map Information Service, found on the Internet at URL <http://kgs.uky.edu/kgsmap/KGSGeoServer/>



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FIGURE 6
KARST POTENTIAL MAP
LG&E-KU PROPOSED SOLAR PV UNIT
CONNER STATION ROAD
SIMPSONVILLE, SHELBY COUNTY, KENTUCKY 40067



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**LOUISVILLE GAS AND ELECTRIC COMPANY
AND
KENTUCKY UTILITIES COMPANY**

Response to Commission Staff’s Informal Conference Request Dated October 19, 2016

Case No. 2016-00274

Question No. 3

Witness: David E. Huff

Q-3. Provide a list of other sites the Companies considered for the Solar Share Facilities and explain why they were not selected.

A-3. Please see the table below for a list of sites considered.

	Site	Reason for Elimination				
		Too Expensive	Limited Visibility	Too Far From Distribution	Not Enough Space	Not Suitable for Solar
1	Simpsonville - Conner Station Rd.					
2	Middletown - 13985 Poplar Ln		✓	✓		
3	Jeffersontown - S Pope Lick Rd	✓				
4	La Grange - Commerce Parkway	✓			✓	
5	Richmond - Barnes Mill Rd & I-75	✓				
6	Shelbyville - Hwy 55 & Brunerstown Rd.	✓				
7	Shelbyville - Hooper Station Rd	✓	✓		✓	
8	Fairdale - Cheri Way	✓				✓
9	Prospect - Wolf Pen Branch	✓				
10	Louisville - FoodPort		✓			
11	Louisville - Waste Management Landfill		✓			✓
12	Louisville - Ash Bottom Substation		✓		✓	✓
13	Louisville - Auburndale Operations		✓			
14	Louisville - East Operations Center				✓	
15	Louisville - Canal Substation		✓			✓
16	Louisville - Billtown Substation		✓			✓
17	Louisville - Middletown Substation		✓	✓	✓	
18	Louisville - 7th & Ormsby				✓	

**LOUISVILLE GAS AND ELECTRIC COMPANY
AND
KENTUCKY UTILITIES COMPANY**

Response to Commission Staff's Informal Conference Request Dated October 19, 2016

Case No. 2016-00274

Question No. 4

Witness: David E. Huff

Q-4. What is the last date to provide information to publishers in their 2017 editions about utility-sponsored solar offerings?

A-4. For the seventh year, LG&E and KU was named among the top ten utilities for economic development by Site Selection Magazine. Site Selection Magazine has a global circulation and appeals to companies investigating prospective development sites. It is published six times a year and November 11 is the approaching deadline for ad placement. Inclusion in this publication will clearly communicate that Kentucky has renewable offers for business requiring those options in their site selection.

The Lane Report, which is published monthly and has a wide state readership, upcoming placement deadline for December is November 23.