

COMMONWEALTH OF KENTUCKY
BEFORE THE PUBLIC SERVICE COMMISSION

In the Matters of:

ELECTRONIC APPLICATION OF KENTUCKY)
UTILITIES COMPANY FOR AN ADJUSTMENT)
OF ITS ELECTRIC RATES, A CERTIFICATE)
OF PUBLIC CONVENIENCE AND NECESSITY) CASE NO.
TO DEPLOY ADVANCED METERING) 2020-00349
INFRASTRUCTURE, APPROVAL OF CERTAIN)
REGULATORY AND ACCOUNTING)
TREATMENTS, AND ESTABLISHMENT OF A)
ONE-YEAR SURCREDIT)

ELECTRONIC APPLICATION OF LOUISVILLE)
GAS AND ELECTRIC COMPANY FOR AN)
ADJUSTMENT OF ITS ELECTRIC AND GAS)
RATES, A CERTIFICATE OF PUBLIC) CASE NO.
CONVENIENCE AND NECESSITY TO DEPLOY) 2020-00350
ADVANCED METERING INFRASTRUCTURE,)
APPROVAL OF CERTAIN REGULATORY AND)
ACCOUNTING TREATMENTS, AND)
ESTABLISHMENT OF A ONE-YEAR SURCREDIT)

**KENTUCKY SOLAR INDUSTRIES ASSOCIATION, INC.
RESPONSE TO KENTUCKY PUBLIC SERVICE COMMISSION
STAFF'S FOURTH REQUEST FOR INFORMATION**

Comes now the Kentucky Solar Industries Association, Inc. (KYSEIA), by and through counsel, and submits its combined responses to Commission Staff's Fourth Request for Information.

Respectfully submitted,

/s/David E. Spenard
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NOTICE AND CERTIFICATION FOR FILING

Undersigned counsel provides notice that the electronic version of the paper has been submitted to the Commission by uploading it using the Commission’s E-Filing System on this 12th day of August 2021, and further certifies that the electronic version of the paper is a true and accurate copy of each paper filed in paper medium. Pursuant to the Commission’s March 16, 2020, March 24, 2020, and July 22, 2021 Orders in Case No. 2020-00085, *Electronic Emergency Docket Related to the Novel Coronavirus Covid-19*, the paper, in paper medium, is not required to be filed.

/s/ David E. Spenard
David E. Spenard

NOTICE REGARDING SERVICE

The Commission has not yet excused any party from electronic filing procedures for this case.

/s/ David. E. Spenard
David E. Spenard

Kentucky Solar Industries Association, Inc.
KY PSC Case No. 2020-00349 and
Case No. 2020-00350
Response to Commission Staff's Fourth Request for Information

Witnesses Responsible:

Justin R. Barnes

1. Refer to the Supplemental Testimony of Justin R. Barnes, page 8, lines 17- 18. Provide the representative solar production profile that was used in this analysis, the source for that profile, and the justification for using that particular profile.

Response:

Please see the tab labeled "Solar Profile 1 kW-AC" in Mr. Barnes' workpapers supplied in response to PSC Staff 3rd request for information (filed Aug. 2, 2021). The profile uses a 1.2 kW-DC/1 kW-AC system using default PVWatts inputs for a rooftop solar system located in Louisville, Kentucky. The profile can be reproduced in PVWatts with these parameters. Under standard PVWatts settings, the DC to AC size ratio is 1.2, requiring the input of 1.2 kW in the system size field to produce a 1 kW-AC system. A fresh download of the profile is also attached to this response. Mr. Barnes notes that there are extremely small differences in the hourly production values between the profile he used and the fresh download (fractions of a watt-hour). He is not able to explain why the profile he downloaded months ago differs from the fresh PVWatts download but observes that the differences are non-material.

The PVWatts profile was shifted forward by one hour on March 6 to reflect the change to DST and shifted back by one hour to standard time on November 3.

Mr. Barnes used a single profile with a Louisville location in all calculations. The Louisville location was selected on the basis that it is a fairly central location (from both an east/west and north-south standpoint) within the LG&E/KU collective service territories according to the utility territory map published by the PSC, as well as being a population center. A different location could have been selected for KU (e.g., Lexington) but as shown in the map linked below, KU has a relatively dispersed service territory. To the extent that location influences the implied effective solar capacity, the longitude is likely to be more impactful than latitude given the sensitivity of the calculation to the timing of system production.

https://psc.ky.gov/agencies/psc/images/Electric_Service_Areas_Wall_Map.pdf

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**AFFIDAVIT OF JUSTIN BARNES
VERIFICATION**

JURISDICTION)
)
County of Wise, Virginia)

The undersigned, Justin Barnes, being first duly sworn, states the following: The prepared Response to Commission Staff's 4th Request for Information attached thereto constitute the testimony of Affiant in the above-styled cases. Affiant states that he would give the answers set forth in the Response if asked the questions propounded therein. Affiant further states that, to the best of his knowledge, his statements are true and correct. Further, Affiant saith not.


Name of Witness

SUBSCRIBED AND SWORN to before me on this 11th day of August, 2021 by Justin Parnes

M. Hagy
NOTARY PUBLIC

My Commission Expires: 06/30/2023

