

UNITED STATES SECURITIES AND EXCHANGE COMMISSION WASHINGTON, D.C. 20549

Mail Stop 3561

August 15, 2017

Brian X. Tierney Executive Vice President and Chief Financial Officer American Electric Power Company, Inc. 1 Riverside Plaza Columbus, Ohio 43215

Re: American Electric Power Company, Inc.

Form 10-K for Fiscal Year Ended December 31, 2016

Filed February 28, 2017 Form 8-K Filed July 27, 2017

File No. 1-03525

Dear Mr. Tierney:

We have limited our review of your filing to the financial statements and related disclosures and have the following comments. In some of our comments, we may ask you to provide us with information so we may better understand your disclosure.

Please respond to these comments within ten business days by providing the requested information or advise us as soon as possible when you will respond. If you do not believe our comments apply to your facts and circumstances, please tell us why in your response.

After reviewing your response to these comments, we may have additional comments.

Form 10-K for Fiscal Year Ended December 31, 2016

Exhibit 13

Results of Operations, page 17

1. We note your presentation of gross-margin, a non-GAAP measure. Please disclose in future filings why management believes the presentation of the non-GAAP measure provides useful information to investors. Refer to Item 10(e)(1)(i)(c) of Regulation S-K.

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Exhibit 99.1

2. Please clearly label operating earnings and operating earnings per share as non-GAAP measures in your future earnings releases.

We remind you that the company and its management are responsible for the accuracy and adequacy of their disclosures, notwithstanding any review, comments, action or absence of action by the staff.

You may contact Yolanda Guobadia, Staff Accountant at (202) 551-3562 or me at (202) 551-3344 if you have questions regarding our comments or any other questions.

Sincerely,

/s/ William H. Thompson

William H. Thompson Accounting Branch Chief Office of Consumer Products