

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

September 27, 2012

Andrew Bonfield Finance Director National Grid PLC 1-3 Strand London WC2N 5EH England

Re: National Grid PLC

Form 20-F for the Fiscal Year Ended March 31, 2012

Filed June 12, 2012 File No. 1-14958

Dear Mr. Bonfield:

We have reviewed your filing 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 this letter within ten business days by amending your filing, by providing the requested information, or by advising us when you will provide the requested response. If you do not believe our comments apply to your facts and circumstances or do not believe an amendment is appropriate, please tell us why in your response.

After reviewing any amendment to your filing and the information you provide in response to these comments, we may have additional comments.

Contents of financial statements, page 108

Notes to the consolidated financial statements – analysis of items in the primary statements, page 125

Note 1. Segmental analysis, page 125

1. You disclose, "[A]s a consequence of the introduction of a new operating model, which took effect on 4 April 2011, there has been a change to the reported segments: the US Transmission, US Gas Distribution and US Electricity Distribution & Generation segments which were presented as separate segments in prior periods, have been combined and are reported as a single 'US Regulated' segment." Please provide us with your analysis under IFRS 8 that supported disclosing all US operations as one reportable segment. Please include the following information in your response:

- the operating segments you have identified in accordance with paragraphs 5-10 of IFRS 8,
- the factors used to identify reportable segments,
- the basis for aggregating identified US operating segments into one reportable US segment given the aggregation criteria in paragraph 12 of IFRS 8 and quantitative thresholds in paragraphs 13-19 of IFRS 8.
- how the aggregation of all of your US operations into one reportable segment complies with the aggregation criteria, and
- the process through which your chief operating decision maker reviews information to make decisions about resources to be allocated to your segments and assess their performance.

Note 24. Provisions, page 147

2. Refer to your "regulatory process" disclosure on page 26 where you state, "[F]ERC allows rates to be put in place before a final decision is reached, however, a refund may be required if the outcome is unfavorable." Explain to us how you assess whether a provision for estimated refunds is required under IAS 37.

We urge all persons who are responsible for the accuracy and adequacy of the disclosure in the filing to be certain that the filing includes the information the Securities Exchange Act of 1934 and all applicable Exchange Act rules require. Since the company and its management are in possession of all facts relating to a company's disclosure, they are responsible for the accuracy and adequacy of the disclosures they have made.

In responding to our comments, please provide a written statement from the company acknowledging that:

- the company is responsible for the adequacy and accuracy of the disclosure in the filing;
- staff comments or changes to disclosure in response to staff comments do not foreclose the Commission from taking any action with respect to the filing; and
- the company may not assert staff comments as a defense in any proceeding initiated by the Commission or any person under the federal securities laws of the United States.

Andrew Bonfield National Grid PLC September 27, 2012 Page 3

You may contact Anthony Watson, Accountant, at (202) 551-3318 or Robert Babula, Accountant, at (202) 551-3339 if you have questions regarding comments on the financial statements and related matters. You may contact me at (202) 551-3344 with any other questions.

Sincerely,

/s/ William H. Thompson

William H. Thompson Accounting Branch Chief