

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

September 2, 2010

Mr. Steve Lucas Finance Director National Grid PLC 1-3 Strand London WC2N 5EH England

Re: National Grid PLC

Annual Report on Form 20-F for Fiscal Year Ended March 31, 2010

Filed May 25, 2010 File No. 001-14958

Dear Mr. Lucas:

We have reviewed your filing and have the following comments. You should comply with the comments in all future filings, as applicable. Please confirm in writing that you will do so and also explain to us in sufficient detail for an understanding of the disclosure how you intend to comply by providing us with your proposed revisions. 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 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, please tell us why in your response.

After reviewing the information you provide in response to these comments, we may have additional comments.

Annual Report on Form 20-F

Item 3. Key Information, page 2

Exchange Rates, page 2

1. Please revise to provide or clarify the exchange rate *at* May 21, 2010. Refer to Item 3.A.3.a of Form 20-F.

Item 15. Controls and Procedures, page 14

2. We note the conclusion of your officers that your disclosure controls and procedures were effective to provide reasonable assurance that "information required to be disclosed in the reports that [you] file and submit under the Exchange Act is recorded, processed,

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summarised and reported as and when required and communicated to [y]our management...to allow timely decisions regarding disclosure." Please confirm that your principal executive officer and principal financial officer also concluded that your disclosure controls and procedures were effective to ensure that such information is *accumulated* to allow such timely decisions regarding disclosure. See Exchange Act Rule 13a-15(e). In addition, please revise your disclosure in future filings to reflect the entirety of the definition of controls and procedures.

3. We note your statement that "even effective disclosure controls and procedures can provide only reasonable assurance of achieving their control objectives." Please revise to state clearly, if true, that your disclosure controls and procedures are designed *to* provide reasonable assurance of achieving their objectives. In the alternative, remove the references to the level of assurance of your disclosure controls and procedures throughout your discussion of and conclusion regarding the effectiveness of the controls and procedures. Please refer to Section II.F.4 of Management's Reports on Internal Control Over Financial Reporting and Certification of Disclosure in Exchange Act Periodic Reports, SEC Release No. 33-8238, available on our website at www.sec.gov.

Item 19. Exhibits, page 18

- 4. We note your disclosure that the agreements filed as exhibits may contain representations and warranties that "are subject to more recent developments" and "may not describe National Grid's actual state of affairs at the date hereof." Please remove these statements, as they imply that the referenced agreements do not constitute public disclosure under the federal securities laws. In addition, in an effort to emphasize to investors the historical nature of the representations and warranties, please:
 - revise the statement that such representations and warranties "have been made" for the benefit of the other parties to the agreements, to state that such representations and warranties "were made" for the benefit of such parties, and
 - revise the statement that such representations and warranties "may have been qualified by disclosures that were made to such other...parties," to state that such representations and warranties "may have been qualified *in such agreements* by disclosures that were made" to such other parties [emphasis added].

Please also be advised that, notwithstanding the inclusion of this general disclaimer, you are responsible for considering whether additional specific disclosures of material information regarding material contractual provisions are required to make the statements in your Form 20-F not misleading.

Exhibit 15.1 – Annual Report and Accounts 2009/10

Climate Change, page 36

5. Please revise your disclosure to clarify the amounts you have spent and anticipate spending, by relevant time periods, in furtherance of your "45% by 2020 and 80% by

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2050 greenhouse gas emissions reduction targets," with a review to providing a more complete description of the material effects of government regulations on your business. Refer to Item 4.B.8 of Form 20-F.

Risk Factors, page 93

6. Please delete the third sentence in which you state that other factors may also have an adverse effect on your business operations. All material risks should be described in your disclosure. If risks are not deemed material, you should not reference them.

Research and Development, page 96

7. Please revise to include the amount spent during fiscal year 2007/08, if significant. Refer to Item 5.C of Form 20-F.

Note 29 – Related Party Transactions, page 153

8. Please revise your disclosure to provide additional detail regarding the nature and extent of your material related party transactions and identify the joint ventures that are parties to such transactions. In addition, please describe the nature of the loan with Blue-NG Limited and the transaction in which it was incurred. Refer to Item 7.B of Form 20-F.

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.

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Please contact Lilyanna L. Peyser, Attorney Advisor, at (202) 551-3222 or me at (202) 551-3720 with any other questions.

Sincerely,

H. Christopher Owings Assistant Director