

Accepted Manuscript

The analysis of the underlying reasons of the inconsistent relationship between economic growth and the consumption of electricity in China – A case study of Anhui province

Fei Ge, Bin Ye, Shengnan Xing, Bao Wang, Shuang Sun



PII: S0360-5442(17)30623-0

DOI: [10.1016/j.energy.2017.04.056](https://doi.org/10.1016/j.energy.2017.04.056)

Reference: EGY 10696

To appear in: *Energy*

Received Date: 17 March 2016

Revised Date: 3 April 2017

Accepted Date: 11 April 2017

Please cite this article as: Ge F, Ye B, Xing S, Wang B, Sun S, The analysis of the underlying reasons of the inconsistent relationship between economic growth and the consumption of electricity in China – A case study of Anhui province, *Energy* (2017), doi: 10.1016/j.energy.2017.04.056.

This is a PDF file of an unedited manuscript that has been accepted for publication. As a service to our customers we are providing this early version of the manuscript. The manuscript will undergo copyediting, typesetting, and review of the resulting proof before it is published in its final form. Please note that during the production process errors may be discovered which could affect the content, and all legal disclaimers that apply to the journal pertain.

1 **The analysis of the underlying reasons of the inconsistent relationship**
2 **between economic growth and the consumption of electricity in**
3 **China--A case study of Anhui province**

4
5 Fei Ge ^{a*}, Bin Ye ^a, Shengnan Xing ^b, Bao Wang ^a, Shuang Sun ^b
6
7

8 ^a State Grid Anhui Electric Power Company Economic Research Institute, No.1599 Huaining
9 Street, Hefei 230071, Anhui, China.

10
11 ^b Power Economic Research Room, Beijing Economy World Research Institute, Room 522 Bailian
12 Mansion, No.17 South Jianhua Road, Beijing 100022, Beijing, China.
13

14 *Author to whom correspondence should be addressed; E-Mail: ncepugf@163.com;
15

16 **Highlights:**

- 17 •Real GDP, IS, HDD, CDD and IF are all positive factors of the consumption of
18 electricity.
19 •EI is the major inhibitor to the increase of electricity consumption, followed by FD
20 factor.
21 •The deviation is almost shrink, when the electricity consumption caused by other
22 factors except real GDP is eliminated.
23 •The GDP growth rate of Anhui is authentic.
24
25

26 **Abstract:** Researches revealed that there has been existed a relatively stable and
27 positive relationship between economic growth and electricity consumption. However,
28 the inconsistency between them appeared in 2008. Therefore, it is urgent to analyze
29 whether the GDP in China is cheated and to seek the underlying reasons contributed
30 to the deviation. Anhui province is selected to act our study area. In order to explore
31 the underlying reasons of the deviation between economic growth and electricity
32 consumption, a multivariable regression models is established in this paper. Empirical
33 results are as follows: (1) real GDP, industrial structure (IS), heating degrees days
34 (HDD), cooling degree days (CDD), investment in fixed assets (IF) are all positive
35 factors for the consumption of electricity; (2) IS is the major contributor to raising the
36 consumption of electricity, followed by IF, CDD, HDD, and GDP; (3) energy
37 intensity (EI) and financial development (FD) are negative factors, when the value of
38 EI increase 1.0%, the consumption of electricity will decrease 7.4%; (4) if the
39 electricity consumption caused by other factors except GDP is eliminated, the

متن کامل مقاله

دریافت فوری ←

ISIArticles

مرجع مقالات تخصصی ایران

- ✓ امکان دانلود نسخه تمام متن مقالات انگلیسی
- ✓ امکان دانلود نسخه ترجمه شده مقالات
- ✓ پذیرش سفارش ترجمه تخصصی
- ✓ امکان جستجو در آرشیو جامعی از صدها موضوع و هزاران مقاله
- ✓ امکان دانلود رایگان ۲ صفحه اول هر مقاله
- ✓ امکان پرداخت اینترنتی با کلیه کارت های عضو شتاب
- ✓ دانلود فوری مقاله پس از پرداخت آنلاین
- ✓ پشتیبانی کامل خرید با بهره مندی از سیستم هوشمند رهگیری سفارشات