

## **Comments on the validation of Zhejiang Guodian Beilun Ultra-supercritical Power Project**

Barbara Haya  
University of California, Berkeley  
bhaya@berkeley.edu

There are several reasons to doubt the additionality of the Zhejiang Guodian Beilun Ultra-supercritical Power Project:

- The decision to go forward with the project was made before 22 March 2006 when the purchasing agreement was signed for the main parts of the plant. It is very difficult to believe that this RMB 7,750,000,000 project was built based on the assumption that it would generate credits from the CDM, and would not have been built without that possibility, given the large uncertainties associated with CDM registration at the time that the project development decision was made before March 2006:
  - a. No coal-fired power plant was successfully registered under the CDM in March 2006. It was far from certain that coal would be considered an appropriate technology for the CDM.
  - b. An appropriate methodology for the project did not exist in March 2006. One was only registered a year and a half later.
  - c. The developer waited one more year after the methodology was approved before signing a validation agreement with SGS.

This timing gives a strong indication that the project is most likely non-additional. A conservative, or reasonable, assessment of the likelihood that the project is additional should result in a negative validation.

- Ultra-supercritical is becoming business-as-usual (BAU) in China because of China's policies. Due to energy security and air quality concerns the Chinese government is promoting efficient coal and prohibiting inefficient coal. The LCOE analysis does not take into account these factors that influence the decision-making about the building of these plants. It also does not take into account the policy and five-year plans of the Chinese government. In 2009, five 1000MW ultra-supercritical plants were commissioned in the first three quarters. By 2010 supercritical and ultra-supercritical units are expected to account for over 40% of the total newly built thermal power generating units. From 2010 to 2020, new power plants with unit capacities of 600MW and more will all be required to be supercritical and about half of the newly built power generating units are expected to be ultra-supercritical. In this policy environment, and given the energy security and other non-monetized benefits of ultra-supercritical coal compared to less efficient coal, an LCOE test is not a good test of the likelihood that this project would be built.
- Concerning the baseline, for the reasons just given, subcritical is not an appropriate baseline. Supercritical or ultra-supercritical are more appropriate.
- Concerning the common practice test, the fact that the two other ultra-supercritical plants on the East China Grid are applying for CDM the PDD proves very little other than the fact that developers are seeking additional revenues streams whenever possible. Just from the data in table B.5-2 it looks very unlikely that Zhejiang is additional, since it was operational before an appropriate

CDM methodology was approved. Therefore the common practice analysis is inadequate. Further, future plans in China as documented in the five-year plans and through policy need to be taken into account in determining common practice.

- Even with careful guidance, the financial inputs that go into a financial assessment for most projects are not precise, and can be chosen strategically. For instance, the future price of coal, which has been highly volatile in China in recent years, enabling developers to assume a low price that helps prove additionality of the project. Could SGS check if the investment analysis is robust for a range of reasonable future prices of coal (a wider range than included in the PDD)?
- Another assumption that should be tested by SGS is the assumption of the capacity factor for the ultra-supercritical plant.

The role of validators is to ensure the environmental integrity of the CDM, based on the guidance of the CDM Executive Board. Additionality testing is highly inaccurate<sup>1</sup> such that the validators must make subjective judgments about the likelihood that a project is additional. Therefore, project types such as ultra-supercritical coal in China with a high likelihood of being non-additional for the reasons described above, and which have high emissions themselves, should be treated more conservatively than other project types. If there are reasons to doubt the additionality of these projects, they should not be deemed as meeting the additionality requirements of the CDM. This project should not be considered to pass the additionality test.

The irony of this particular project is that Germany's largest coal-fired power producer is trying to offset their emissions rather than reducing them by supporting the building of a new coal-fired power plant in China. If this project were non-additional, incorrectly validating or registering it would support emissions from coal in both Germany and China. The CDM would increase the cost effectiveness of a BAU coal plant, instead of promoting long term solutions like renewable energy. The validator and the CDM EB need to make a conservative decision about this and any coal plant.

I would like to hear SGS's response to this. Do you think it is your role as a validator to filter out projects that have a high likelihood of being non-additional such as this one, using your informed judgment, given that the investment and barriers analyses are not accurate?

---

<sup>1</sup> This is a widely held understanding, as documented in Haya B. 2009. *Measuring emissions against an alternative future: fundamental flaws in the structure of the Kyoto Protocol's Clean Development Mechanism*. Rep. ERG09-002, University of California, Berkeley. ([http://erg.berkeley.edu/working\\_paper/2009/ERG09\\_001.pdf](http://erg.berkeley.edu/working_paper/2009/ERG09_001.pdf))