Referee report for Are Solar Panels Commodities? A Bayesian Hierarchical Approach to

Detecting Quality Differences and Asymmetric Information.

In this paper, the author uses random effects models to test whether solar panels are commodities.

The paper is very well written and presented. The introduction lays out the motivation and the context very clearly. The questions the paper asks are interesting:

* Can solar panels be considered commodities?
* Is this a problem of asymmetric information regarding the quality of the panels?
* Do high information consumers have a higher correlation between prices and quality?

The answers have implications for where we would expect pricing to go in the future, and possibly for governmental policy and regulations. The results suggest that solar panels are not commodities, and are consistent with asymmetric information. However, the authors hedge at the end, saying that maybe they will be commodities in the future. I found this last part a little weak – I would suggest the authors discuss this in a richer way, as it seems to poke the air out of their bubble at the very end of the paper.

I have only very minor suggestions.

Equation 1: please define all symbols before the equation is presented. Define the symbols precisely – that is many of the symbols have subscripts of s[i] that are never defined as far as I could see, and are certainly not defined anywhere near the equation. Also, prod is never defined.

Similarly, it would be helpful to have a table that defines all symbols, such as mu\_a and so on.

Figures 12-15: please make the fonts of the labels bigger, especially the label of the y-axis.

In the conclusion it says: “It appears that a relatively small tail of producers accounted for the worst quality panels, while the majority of panels had similar quality.” It would be helpful to the reader to quantify this in some way.