Possible Future Improvements

Although we did get it to work, there are still a lot of things that can be done and improved upon. Here is a list of things that I think could be done to improve the overall design. The Hardware is installed already and therefore any future projects would be significantly cheaper since the test bed setup is already in existence. All you need to do is come up with a better design and plug in the CT’s and PT’s.

1) Work on Accuracy.
   a. Use a power analyzer to fine tune the numbers and confirm accuracy.
2) Use different communications such as CAN or Power line modem.
3) Add a memory chip to web server to store data.
4) Format website and scale the graphs.
   a. This could include using a WWU format website.
   b. Adding graphs to separate out the inputs and data types.
   c. Display more data. Currently only power is being displayed, but anything displayed on the Power Meter could also be displayed on the website.
5) Check into hardware zero crossing detectors.
6) Onboard Power Supply from the PT’s.
7) Come up with your own new and improved design.
8) Change things you don’t like about my design.

In the end, there is no limit on what you can do and change. But keep in mind that the more complicated you make it, the more work it is. This was hopefully only the first in a long line of web based Power Meters that will end up being a very refined and awesome end product that could benefit the school. I can only encourage you to take on this challenge because as much work as it is, it is also a very rewarding experience.