

EE/CprE/SE 491 WEEKLY REPORT XY

August 2019 – May 2020

Group number: 28

Project title: New Design Concept for Residential Electric Meter Adapter

Client &/Advisor: Alliant energy/Zhaoyu Wang

Team Members/Role: Zane Heifner – Communication

Brenden Koenighain- Design/Documentation

Derek Drees- Research

Austin Meyer-Testing

o Weekly Summary: We have begun the process of brainstorming and formulating our initial Ideas for this solution. The various ideas help reduce a certain cost of the process. We have one idea to reduce material costs, one idea to reduce Alliant’s labor on the project, and one idea to reduce contractor hours on the project. All of these Ideas will be run past a state inspector who’s contact information Derek has provided so he has set up that meeting. Austin has documented and begun research into how we make the physical wire connections and Brenden and Zane are working with Alliant to set up our space at the research park in the Alliant building.

o Past week accomplishments/individual accomplishments:

- Zane Heifner: Arranged meeting with Alliant for a preliminary design review next week, began getting our team access to our research park space.
- Derek Drees: Collected the contact information and scheduled a meeting with a state inspector next week to check the code compliance of our initial ideas for next week.
- Brenden Koenighain: Documented drawings for the initial ideas and worked with Zane to set up our space at the research park with Alliant.
- Austin Meyer: Began research into code compliant ways to make safe and secure contact between our plug and the meter wires such as pins, crimps, connectors, ect. In order to begin making a cost analysis of making our own or finding existing.

o Pending issues

- We need to finally get approval or at least feedback on our potential designs from the state inspector so that we can see which ideas are going to become the most viable and to also get an experienced input on the project from someone that will inevitably have to approve the idea.

o Plans for the upcoming week: We are now awaiting our meeting with the inspector so that we can move forward with ideas or go back to the drawing board with a more guided approach. We will have our research and storage space at the research park established so that we can begin to move this project into a space where we will have additional support/equipment from Alliant and can be better prepared to move forward. We will also continue to look at the viability of existing wire connectors or creating our own.