

EE/CprE/SE 491 WEEKLY REPORT 3

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 presented our initial ideas to our client and further narrowed down our options to one style of solution moving forward. We will be running this design past a state inspector and Alliant will also go down their own channels to determine the final viability of the design and to move forward with preparing the more specific details of the design. These details will include code compliance, weatherproofing, secure/reliable connections and overall visual appeal as to not be too invasive onto the façade of a client's house.

o Past week accomplishments/individual accomplishments:

- Zane Heifner: Organized a time for the team to get access cards to our research park space and organized our meeting with the client. Scheduled 2nd meeting with our advisor.
- Derek Drees: Meeting with state inspector at the end of the week to get an initial idea of exactly how viable this is and any specific concerns they may have.
- Brenden Koenighain: Began initial brainstorming for more specific ways this will be made such as weatherproofing strategies and ways to make the design functional yet appealing.
- Austin Meyer: Continuing looking into connection options and looking through the code approved options (these choices may be updated when the NEC gets updated in 2020 which is when the project will arrive at its completion).

o Pending issues

- We still need to finally get approval or at least feedback on our potential designs from the state inspector which will happen at the end of the week but it just took some time to fit the meeting into schedules. We also know that some of these choices may have to wait for final decisions because we were reminded that the NEC will be updated in 2020.

o Plans for the upcoming week: We will meet with the state inspector to get his feedback. We will also be having our 2nd meeting with our advisor coming up to get his advice on our progress and where to go from here. We will also begin regular meetings with Alliant staff members at their new facility in the ISU research park and will begin designing down there in their facility with their equipment.