

## Senior Design Bi-Weekly Status Report; Spring 2021

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Team Name: sddec21-10

Team Members: Chase Stahl, Greg Bizoff, Matt Pfeiffer, Aisha Alzaabi, Julia Zhang, Hussein Abbakar

Report number: 1

Report Period: Start: 2/1/2021

End: 2/14/2021

### Summary of Progress in this Period

We established a connection with Chris Ruckman(our company advisor) to have weekly meetings discussing topics about our collaboration. He has created a project schedule with weekly details from now until completion in December.

The first meeting involved us meeting the other members of the group, along with our company advisor Chris Ruckman. We then began discussing the basic concepts of this project. This involved a low-level discussion about batteries and energy storage. We discussed the significance of battery storage and its future, along with how Burns & McDonnell (the company Chris Ruckman works for) is involved in this field.

In meeting two, we discussed how batteries have improved in the last 15 years, why their pricing has changed, along with some battery technology, chemistry, and materials basics. We discussed the different types of lithium-ion cathode materials, and the different materials used in industrial lithium-ion battery production around the world. We also talked about the different types of lithium-ion cells: cylindrical, pouch, and prismatic cells.

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### Pending Issues

The only issue we have is being unable to meet with our project advisor, for he has not responded to our email invitation.

No other issues.

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### Plans for Upcoming Reporting Period

Following the syllabus, in the next reporting period our team will:

- February 17th - Degradation/Augmentation/Overbuild/AC vs. DC Coupling
  - February 24th - BESS Site Selection & Technology Selection
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