

sdmay18-41: Energy blockchain implementation for free market P2P energy trading

Week 1 Report

August 28 - September 8

Team MembersJoseph Staudacher — *Power sensing*Alec Dorenkamp — *Block chain/smart contract development*Noah Eigenfeld — *Block chain / smart contract development*Brendon Geils — *Block chain/API development*Jackson Myers — *Hardware design*Arun Sondhi — *Hardware/software interface***Summary of Progress this Report**

- Established a weekly meeting time to communicate the progress of the project to other team members
- Received overview from client about the general goal of the project and the progress that has already been made
- Had first meeting with advisor, received his expectations for the semester in terms of deliverables and timeline
- Completed reflection assignment
- Determined plan for first round of lightning talks/elevator pitches
- Determined roles for individual and team contributions (to be narrowed down and adjusted as project progresses)
- Did preliminary research into what software and hardware tools/equipment will be required for the project

Pending Issues

- Deciding the best way to design the smart meter (Arduino/vs PCB from scratch-how long will this take to fabricate)
- Determining cost of components
- Narrowing down scope of software development and determining what tools will be used

Plans for Upcoming Reporting Period

- Initiate development of timelines (Gantt chart?)
- Start to solidify roles within team
- Come up with a preliminary parts list and determine high-level view of purchases that need to be made and pricing
- Begin to research relevant topics (game theory-auctioning, Bluemix, weather analytics, non-intrusive power sensors...)
- Start adding to team website (?)

Individual Contributions

Team Member	Contribution	Weekly Hours	Total Hours
Joseph Staudacher	Researched pricing on hardware components	4	4

Alec Dorenkamp	Researched block chain, prepared for lightning talk	4	4
Noah Eigenfeld	Researched block chain	4	4
Brendon Geils	Contacted resources to develop plan for project	4	4
Jackson Myers	Researched options for detecting power and relaying to network	4	4
Arun Sondhi	Looked into ways to send data to network	4	4