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

Week 4 Report
September 23 - October 6

Team Members

Joseph Staudacher — *Power sensing & hardware fabrication*
Alec Dorenkamp — *Blockchain/smart contract development*
Noah Eigenfeld — *Blockchain/smart contract developer*
Brendon Geils — *Blockchain/API development*
Jackson Myers — *Hardware design*
Arun Sondhi — *Hardware/software interface*

Summary of Progress this Report

Continued research of and began preliminary testing of blockchain options
Fleshed out technical tasks for the Gantt chart/timeline
Created visual for functional and non-functional tasks
Researched hardware, decided on Arduino smart meter implementation
Researched professional papers on solutions for peer to peer energy distribution

Pending Issues

Game Theory research
Figuring out most efficient/effective way to perform blockchain implementation

Plans for Upcoming Reporting Period

Submit Project Plan
Start to solidify blockchain implementation details
Figure out necessary components to integrate with Arduino

Individual Contributions

Team Member	Contribution	Weekly Hours	Total Hours
Joseph Staudacher	Continued planning smartmeter design (Arduino) and component options for the meter	7	19
Alec Dorenkamp	Researched blockchain implementation options, looked into how to improve upon/differentiate our project from existing energy blockchain ideas	7	19
Noah Eigenfeld	researched and experimented with potential blockchain implementation methods	7	19
Brendon Geils	Build justification for the problem we are	20	32

	addressing. Interviewed energy policy, solar, storage and infrastructure industry leaders in Boston. Research and potential solution analysis.		
Jackson Myers	Researched PCB wifi connectivity options, Arduino alternatives and possible Arduino solutions. Surveyed existing solutions for peer to peer energy distribution (IEEE article)	9	21
Arun Sondhi	Decided what embedded system hardware to use	7	19