

Electrunova

Team Name Hal-9000

Names of team members [Josell Rosario, Cassidy Miller, Jayden Mendez
Logan Weaver]

Mentor: [Olivia Lancaster]

Background Information

- ▶ Why do we need a smart grid or microgrid?
- ▶ Activity 1 Hal-9000 Cassidy, Jayden M, Logan, Josell
- ▶ We need a smart grid to efficiently distribute power in situations of emergency. Otherwise the environment will sustain unnecessary damage

Decision process

- ▶ What research was done to develop the Smart Grid The research that we did was that we mapped out every location that takes up power 2.5 miles away from the high school
- ▶ What decisions/priorities were made and why
- ▶ Activities 2-4 we decided to prioritize emergency services because some people need emergency services to live and we have decided to prioritize those people. Something to add is that we can 11-khs of power if we turn off the vending machines

Why you should choose our design

- ▶ It can be explained by one word efficiency. The efficiency of our design gives priority to services and people that are important allowing power to cost less from the higher efficiency thus serving more communities.



The Design

- ▶ Describe design our design is a colorful detailed outline 1.5 miles away from the school and 2.5 miles away from the school
- ▶ Why should we choose your design
- ▶ You should choose our design because it can be shown and understood by everyone possible instead of only engineers. with enough detail to be used by engineers
- ▶ Include an image of the map
- ▶ Activity 5



References

- ▶ <https://portfoliomanager.energystar.gov/pdf/reference/US%20National%20Median%20Table.pdf>
- ▶ <https://vending-machines.ie/how-much-electricity-does-a-vending-machine-use-a-month/#:~:text=A%20typical%20vending%20machine%20for,as%20much%20as%20014%20kWh.>

Thank you
Any questions?