Now that you have analyzed a problem, proposed and refined a solution, and developed a pitch for your idea, you will create a Technical Brief describing your product and the process you used to find a solution.

PART 1.

Briefly describe your solution and how it solves the problem or challenge you identified.

PART 2.

Describe the mathematics, science, and engineering you researched to design your product. Include links to websites or other resources you used.

PART 3.

Describe the decisions you made to choose your design and the challenges you had to overcome.

PART 4.

How did developing your Key Business Proposition and related Business Models affect your process?

PART 5.

Your final solution probably looked different from your original idea. Describe the process for how you developed your idea from start to finish.

PART 6.

How well do you think your solution will work under real-world conditions?

Just a little	Somewhat	Fairly Well	Almost Completely

Explain your reasoning.

DESIGN&PITCH CHALLENGE

POWER ME UP: TECHNICAL BRIEF

PART 7.

Fully describe your Power Me Up solution based on the questions below.

- A. How much does it cost to charge an electric vehicle at your charging station?
 - a. Use calculations to show that the cost to charge an electric vehicle at your charging station is close to the cost to refuel a gas-only vehicle at a gas station.
 - b. Show how the costs (gas vs. electric) differ per mile for a typical gas station.
- B. How does your company charge electric vehicles?
 - a. Explain where the electricity comes from.
 - b. Explain how the electricity will be stored at the station.
 - c. Explain how the electricity will be delivered to the station.
- C. Where will your charging stations be located?
 - a. Describe where you plan to build your charging stations and why you chose those locations.
 - b. Describe the region where you plan to start your company and why you chose that area.
- D. How will your company make driving and charging an electric vehicle more convenient for customers?
 - a. Describe why your company is more convenient than current charging and refueling options. Be sure to justify any statements you make.
 - b. Describe how your company meets the needs of customers who drive electric vehicles. If you asked customers, describe the questions you asked and how customers responded.
- E. How will your company make money?
 - a. Explain how your company will make money using the business model you selected. Use calculations to support your claims.
 - b. Show that your company will make enough money to cover all expenses. Use calculations to support your claims.



