

# prp61's challenge details for challenge: [Solar Prize](#)

## [Round 6](#)

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### Explanation

Our main needs include business development and product development expertise. We need help developing our strategy to enter the solar + energy storage market. Below is a list of our needs, with the most pressing needs identified with an asterisk.

Domain expertise - Solar + energy storage \*, industrial flow batteries, grid integration

Business - Commercialization, business strategy and development \*

Product - Product development, scale-up, manufacturing pipelines, product resiliency

### Key Needs

- Procurement of Raw Materials (1 / 5): All our raw materials (plastics, 3D printing filament, gaskets) are easily accessible
- Manufacturing (1 / 5): We currently have manufacturing capabilities and equipment we can use through the University of Pittsburgh for prototyping.
- Product Design (2 / 5): We are heavily involved now in rapid prototyping and so product design is less of a concern at the moment. By the Set! demo we will need some expertise.
- Fabrication & Prototyping (3 / 5): We have been prototyping with help of University Machine Shop, but need expertise for large production scale prototyping
- Business Development & Commercialization (5 / 5): We have expertise in research and laboratory experiments but need help designing our product for commercial use. We also need business expertise.
- Strategy (5 / 5): We need to connect with an expert in the grid solar field so we can have the best strategy for entering the market
- Testing and Validation (4 / 5): We need connections to national laboratory research groups and solar farms to validate our product and market respectively
- Product Development (5 / 5): We need connections to solar farms to figure out what exactly they need in terms of diagnostics
- Utility Scale (5 / 5): We are especially looking for connections in the large scale utility and solar markets for our customer discovery, and our target market is to deploy on a utility scale so we need expertise in this area
- Science, Research and Development (1 / 5): We have expertise in this area from our PhD programs and our advisors who are chemical engineering professors at the University of Pittsburgh
- Technical Analysis (1 / 5): We have expertise in this area from our PhD programs and our advisors who are chemical engineering professors/ flow battery researchers at the University of Pittsburgh
- Funding & Investment (0 / 5): We are focused on product development and prototyping but will be looking

Funding & Investments (2 / 5): We are focusing now on our rapid prototyping but will be looking for more aid in funding between the Set! and Go! phases

- Hardware Development (3 / 5): We have expertise in designing in CAD and fabricating hardware, but we need advice for moving up technology readiness levels
- System Design (3 / 5): We understand how to design a minimum viable system, but an expert can give us pointers on how to make the Flowcell more efficient
- Software Development (3 / 5): We have a software engineer on our team but more expertise in front-end software would be helpful
- Legal, Insurance, and Public Policy (1 / 5): We are using the Penn State Entrepreneurship Assistance Clinic for our legal advice, and the University of Pittsburgh is filing our patent

## Matches

1. [NextEnergy](#): 87.03%
2. [University of North Dakota Energy and Environmental Research Center \(EERC\)](#): 87.02%
3. [Positive Deviancy](#): 86.24%
4. [Zpryme](#): 86.19%
5. [Mendiak Systems](#): 85.48%
6. [New Mexico Clean Energy Resilience and Growth](#): 85.46%
7. [HomeMe Group, Inc.](#): 85.35%
8. [Clean Energy Business Incubator Program \(CEBIP\) at Stony Brook University](#): 84.58%
9. [Solar Inventions](#): 84.56%
10. [Circuit Launch](#): 84.56%