# **Constance Chiang's challenge details for**

## challenge: Solar Prize Round 6

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### **Explanation**

Our team is developing an affordable hybrid PVT system suitable for residential homes. We are looking for help with the research and development of these panels, which includes efficient heat transfer mediums, converting solar energy to electricity, considerations for developing technology for the home, etc.

We are also looking for a space where we can weld together pipes and the different layers of our panels.

In addition, we are seeking help with developing a sustainable business model and seeking advice on how to scale a product. We'd love to work with an SME on solar thermal and solar PV technologies and experts in the commercial PV field.

#### **Key Needs**

- Manufacturing (2 / 5): Although we are not at the stage of manufacturing, we believe that as we develop the technology, we need to keep in mind how we will manufacture the technology in a way that reduces cost and carbon emissions.
- Fabrication & Prototyping (4 / 5): Fabrication and prototyping is currently our main focus as we turn our 3D models into a functioning prototype.
- Testing and Validation (3 / 5): Once we've developed an initial prototype, we will perform testing to see if we've missed any considerations for the design of our panel. Based on that information, we will continue to iterate our design until we come up with the best solution.
- Product Development (5 / 5): We'd love to work with experts throughout the product development phase. Their opinions will add lots of value when determining whether a solution is feasible when developing a product.
- Funding & Investments (4 / 5): Funding will be extremely important to us as we start our pilot programs. We will most likely have to manufacture 5-10 prototypes to test out in people's homes. In order to do this, we will need funding for materials.

#### **Matches**

1. Positive Deviancy: 87.58%

2. Circuit Launch: 87.53%

<sup>3.</sup> <u>GoSun</u>: 87.50%

4. Larta Institute: 87.50%

5. Mendiak Systems: 87.50%

6. Center for Future Energy Systems (CFES) at Rensselaer: 85.56%

7. <u>Swift Coat Inc</u>: 85.53%

8. RDH Building Science Inc.: 85.53%

9. Georgia Institute of Technology: 85.46%

10. <u>Solar Inventions</u>: 85.45%