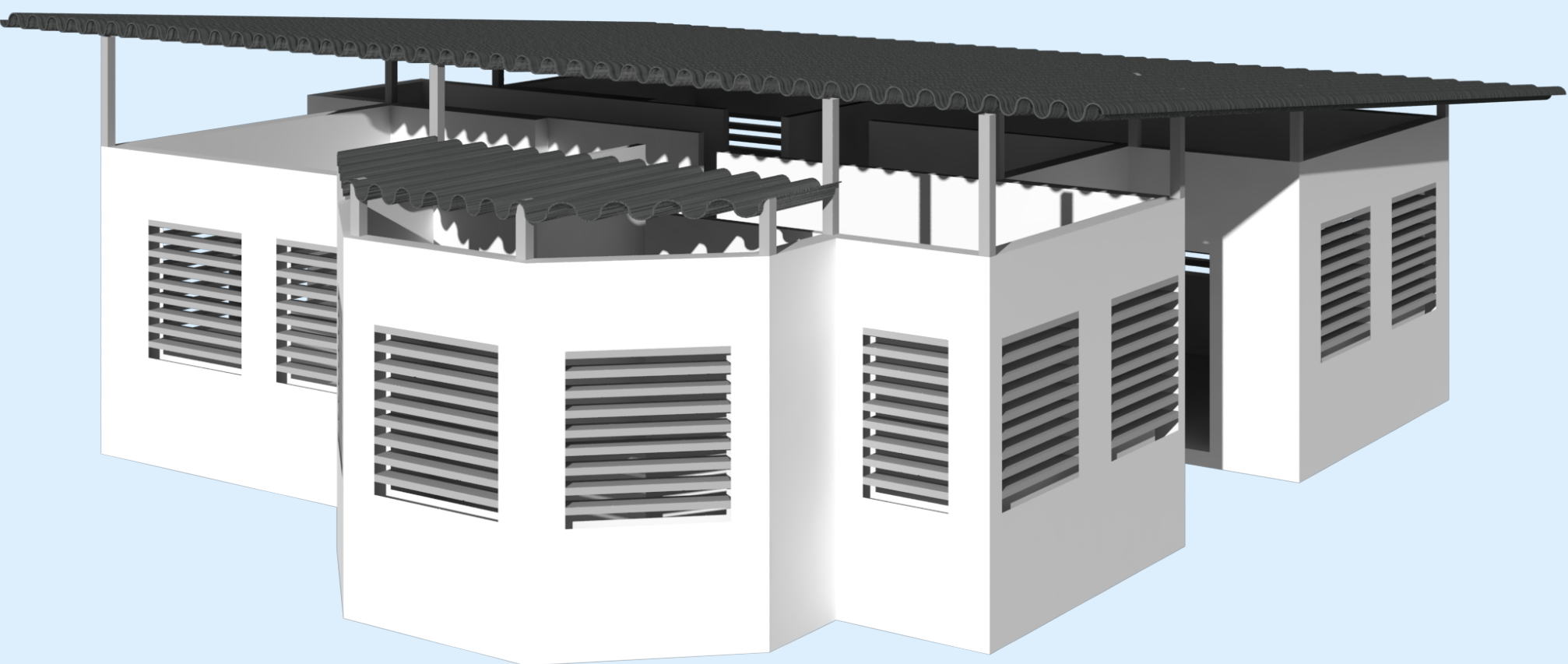


Haiti Transitional Home: Solar Panel System Design

Kasey Hetzel



Haiti is located in a region with optimal access to the sun’s rays, but not enough resources to make use of them. While the country is known for its limited access to electricity and unreliable power quality, it has the potential to become a renewable energy powerhouse. Providing a safe place for families to reunite under one roof, that runs solely on solar power is the ultimate goal of this project. Not only designing the most efficient system, but finding which products are available in country, and which products would be more cost effective to ship internationally was the intent of this project. The results came to a 48 volt system with 12 X 215 Watt Solar Panels, a 70 Amp MPPT Charging Controller, 8 X 12 Volt AGM Batteries, and a 3000 Watt Power Inverter.

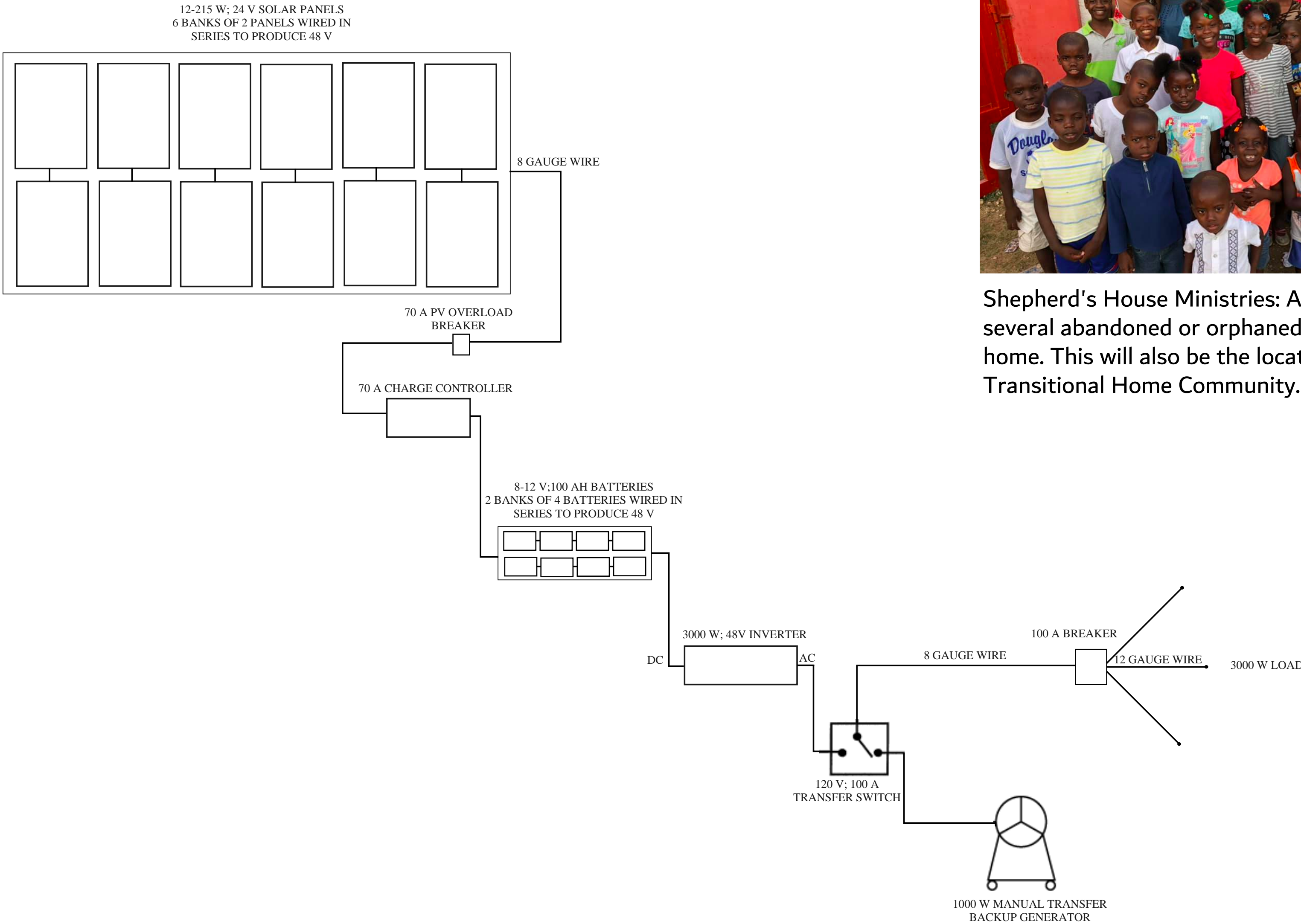
Keywords: renewable energy, solar power, resources

Product Supply Analysis

Product	Purchase In Haiti	Import
Solar panels	X	
Charging Controller (MPPT)	X	
Batteries (AGM)	X	
Power Inverter		X
Manual Generator	X	

- Transitional Home (1,200 SF):
- 2 Bedrooms
 - 1 Bathroom
 - Office Space
 - Kitchen
 - Living Room

Single-Line Diagram



Shepherd's House Ministries: A place where several abandoned or orphaned children call home. This will also be the location of the Transitional Home Community.

In Haiti, it is common for struggling parents to give their children up to orphanages with the idea that those institutions would provide better lives for their children. As a result, an overwhelming 80% of ‘orphans’ actually have loving, living parents. To help with this ongoing issue, a partnership was made with the non-profit organization, Friends and Family Community Connection (FFCC) to design the first of multiple “Transitional Homes.” These homes will be a space for parents to not only be reunited with their children, but also receive support in finding jobs to get them back on their feet.



Future Transitional Home Community located in Gressier, Haiti