<u>Technical Assistance Request</u> The Virtual Clean Power Network for Clean Energy Democratization.

The mobile app P2P Connect App will work as the front-end connecting energy consumers with solar energy producers. The identity of each type of user is identified using the blockchain (e.g. Ethereum) public key hash and a blockchain wallet where peer to peer financial transactions are enabled in a secure, immutable open ledger blockchain platform. The demand for the power is sent to the connected network of solar microgrid to the resilient SDN controller created by a network of communicating IoT sensors measuring flow of electricity to and from the solar microgrids to the consumers. The power network controller displays the status of each connected microgrid on the network by red, yellow and green status. The SDN controller AI algorithm then makes determination to reconfigure the power network to ensure reliable supply of power to endusers by routing electrons on the resilient network of microgrids. The integrated systems is what makes our highly innovative and scalable VCPN with direct impact on the energy economy

The blockchain secured resilient VCPN will have significant protection against the cyber-attacks while providing a trusted transactional platform for purchase and sale of the power. The blockchain secured SDN controller is the innovation that will significantly disrupt the traditional model of the energy distribution.

The design, development and testing of the VCPN for solar and wind microgrids requires development of both a software platform transaction energy and also development of hardware for the IoT enabled solar microgrids connected by a network junction box communicating over the internet with the software defined controller. Our solution we are bringing to the American made solar prize is a clean energy marketplace. For this purpose, the Power2Peer team will collaborate with Venture Development which is transforming energy through research, development, commercialization, and deployment of renewable energy and energy efficiency technologies. Power2Peer will collaborate with Venture Development for developing the MVP and demonstration.

With a powerful network and resources, the American Made Solar Prize challenge can help us take our innovation to its commercialization and thus propelling solar energy adoption into the next generation of clean power.