

TanzSolar Ltd. Introduces Solar Electric Lighting Systems in Tanzania Villages

TanzSolar Ltd. is a nonprofit corporation established in Musoma, Tanzania. TanzSolar has partnered with Juasolar, a division of Jua Ltd., in the Mara region of Tanzania to bring lighting to villages throughout the Lake Zone. Activities include research, education, marketing and installation of rural solar systems in Tanzania. The first project of the partnership is the establishment of a Solar Research Village, with authorization from Tanzania Commission for Science and Technology (COSTECH).



Photo 1. Notice solar panel on roof of home and light bulb mounted on outside of home.

The Solar Research Village is in and around IRIENYI, located in Rorya District, Mara Region. This project began with LED lighting systems being placed in homes in this test village area. The first test system involved over 40 photovoltaic systems placed in villagers' homes. The systems consist of a 10 W solar panel, 2 – 4 LED light bulbs, a 12 V battery and a charge controller.

Photo 2. Juasolar employee checks battery, light and charge controller inside home in Irienyi.





Photo 3. TanzSolar / Juasolar team goes to investigate the performance of a system in the village of Nyamaguku. Notice solar panel on roof and outdoor light.

A performance report after one-year of testing is currently being prepared. Preliminary findings indicate that the participants are *very* happy to have the solar lighting systems, and have saved a significant amount of money through the reduction or elimination of kerosene purchased for lighting. Results include finding that the batteries are reaching the end of their life after one year, and need to be replaced with larger batteries for longer life. In addition it appears that the lights selected for this test are not bright enough for people to read or study by, and so the next generation of bulbs needs to be brighter. In addition people are very anxious to be able to use the solar electricity in other applications as well as lighting.

TanzSolar and Juasolar are also involved with test marketing and sales of the Nova LED light throughout the Lake Zone. Preliminary findings here are that the light is too expensive for the people who need it most: the families and schools in the villages with no power. Without additional support to reduce the price we don't see these one-light systems as a viable solution to the lighting problem in our region.



Photo 4. TanzSolar / Juasolar team walking from house to house to collect data.

TanzSolar Ltd. is committed to bringing low-cost, renewable energy technology to Tanzania, with the emphasis on rural villages, schools and dispensaries. We thank COSTECH and the Rural Energy Agency for their support.



Photos 5. And 6. Solar panels and Solar powered computer laboratory at Chief Wanzagi Secondary School, Butiama

