

DUANGLE

This design researched and explored the new way of solar light using and deploying, on efficiency and usability level. Recent research has shown that the solar energy has a potential impact on people¹, which account it for one of the most of the available renewable energy on earth. In this research, I decided to look deeply into the appliance of solar light system, to make the solar energy accessible for many of the people in Eastern Uganda rural area. Observations and arguments have shown that solar light systems should not only “pay” its energy and carbon debt from manufacturing, but also provides health benefit for human being by relacing carbon monoxide-emission light source². Solar lights, has potential possibilities to create better user experience and reliable off-grid system. The documentation illustrates the way of lower the cost and getting the product closer to the end users, and how to design them within certain period of time and academic design methodologies. What remains being clarified, is the way of distribute the product and the future business model of the whole operating product system. There are still lacking of awareness of the solar energy³, and remaining problem of the PAYGO system⁴, which need to be solved in the future implementation of the design.

Keywords: Voltaic system, physical well-being, lighting, solar energy, renewable resources, energy using, product design, energy saving, recycling

¹ (http://en.wikipedia.org/wiki/Solar_energy)

² (Alstone, P. et al. (2014) 'High Life Cycle Efficacy Explains Fast Energy Payback for Improved Off-Grid Lighting Systems', Journal of Industrial Ecology, 18(5), pp. 722–733. doi: 10.1111/jiec.12117.)

³ (Final Report MARKET ASSESSMENT OF MODERN OFF GRID LIGHTING SYSTEMS IN UGANDA, Enclude BV, The Netherlands, Lisanne Heemskerk, Geert Eenhoorn, Bobby Namiti, 2014)

⁴ (https://energypedia.info/wiki/The_Common_Problem_of_Pay-As-You-Go_Solar_Home_System)