

TIRIAN MINK

PROFILE

Experience in generating information that supports the manufacturing, marketing, and distribution of renewable energy and energy efficiency technologies for households at the “bottom of the pyramid.” Extensive expertise in improved cookstoves, LED lighting systems and other household energy systems that improve energy equity, public health and mitigate global warming in our carbon limited world.

HIGHLIGHTS

- ✓ Schatz Energy Research Center Graduate Studies Fellow; 2009-11
- ✓ Co-founder of the Thailand Tsunami Volunteer Center; 2005

SKILLS

- ✓ Market demand analysis, household energy use and baseline needs assessment surveys in rural areas of developing countries
- ✓ Household energy systems: design principles, field and laboratory testing methods, cultural and regional specificity, market research methods
- ✓ Expertise in Improved Cookstoves and LED lighting systems
- ✓ Life cycle cost assessments and cost-benefit analyses for appropriate technology, renewable energy and energy efficiency projects
- ✓ Geographical Information Systems
- ✓ Statistical analysis and interpretation of qualitative and quantitative data sets
- ✓ Project management: documentation, grant writing, budgeting, procurement

CURRENT POSITION

SCHATZ ENERGY FELLOW 2009-11; SCHATZ ENERGY RESEARCH CENTER, HUMBOLDT STATE UNIVERSITY

IMPROVED COOKSTOVE LABORATORY

- ✓ Currently designing and implementing the Improved Cookstove Laboratory using standard testing procedures to measure, quantify and compare emissions from Improved Cookstove products
- ✓ Pressure and temperature sensing, automated data collection, and gas chromatography for measuring constituent emissions from cookstoves
- ✓ Water Boiling Test for thermal efficiency, heat transfer, and standardized emission factors

LED LIGHTING LABORATORY, LIGHTING AFRICA, IFC, THE WORLD BANK

- ✓ Participated in the development of standardized testing methods that are now being used to evaluate the performance of LED off-grid lighting systems for African markets
- ✓ Authored: “*LED Flashlights in the Kenyan Market: Quality Problems Confirmed by Laboratory Testing*,” May 1, 2010
- ✓ Evaluated product samples for the 2010 Global Business and Fair Trade Conference in Nairobi, Kenya. Products were evaluated both in laboratory setting and by representative end-user groups.

RENEWABLE ENERGY SECURE COMMUNITIES

- ✓ Providing ongoing research support in an effort to model the most effective pathways towards achieving complete energy independence and sustainability in Humboldt County through the year 2020.

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EDUCATION

CANDIDATE FOR MASTERS OF SCIENCE IN ENVIRONMENTAL SYSTEMS PROGRAM ENERGY TECHNOLOGY AND POLICY, ENVIRONMENTAL RESOURCES ENGINEERING, HUMBOLDT STATE UNIVERSITY; 2011; SCHATZ ENERGY FELLOW 2009-11

MASTER OF SCIENCE THESIS (COMPLETED APRIL 2011): *"Methods for Generating Market Intelligence for Improved Cookstove Dissemination: a Case Study in Quetzaltenango Guatemala"*

- ✓ Worked with client to design and implement a market demand analysis
- ✓ Created a dynamic model for evaluating feasibility of household renewable energy and appropriate technology investments
- ✓ Co-designed and conducted a comprehensive randomized household energy use survey with inferential power to a population of 600,000
- ✓ Synthesized end-user feedback to guide product development engineers in ongoing product modifications

GRADUATE COURSE WORK

Specialized in international development and appropriate technology dissemination with a focus on energy systems for households at the bottom of the pyramid. Interdisciplinary graduate course work and training in:

- ✓ Renewable energy and electrical power systems
- ✓ Thermodynamics and energy systems
- ✓ Environmental systems data collection, statistical analysis and modeling
- ✓ Project economics, financial feasibility and market demand research methods
- ✓ Development technology design principles
- ✓ The economics of energy and climate policy
- ✓ International development theory

BACHELORS OF ARTS IN BIOLOGY AND ENVIRONMENTAL STUDIES, SWARTHMORE COLLEGE; 1999

EXPERIENCE

PROJECT MANAGER, PORTLAND, OR. JOHN PAISLEY BUILDER INC, 2008- 2009

- ✓ Project schedules; quality control; wrote client and subcontractor contracts; coordinated with clients; packaged projects for Lead Carpenters; project estimates

FOREMAN, JR JOHNSON CONSTRUCTION INC, PORTLAND, OR, 2006- 2008

- ✓ Managed a crew of carpenters and laborers to execute restorations of large apartment complexes throughout western Oregon and Washington; conducted OSHA certified safety training sessions; scheduled inspections and meeting with city and county officials; materials procurement; managed subcontractors

CO-FOUNDER, THAILAND TSUNAMI VOLUNTEER CENTER, 2005-2006

- ✓ Co-built a successful humanitarian aid organization in the wake of the Boxing Day Tsunami; developed and implemented management systems for the unique multicultural and multilingual environment; coordinated over 4,000 volunteers from over 40 countries; oversaw the construction of 200 homes; recruited and trained Project Managers; chaired staff meetings; wrote and submitted grant proposals; fundraised over 400,000 USD worth of donations; provided financial reports to donors; designed and implemented donor database; interviewed by international media; presented and networked at donor conferences; fostered strategic partnerships with local and international organizations; regularly met with village leaders; conducted needs assessments;

HYDROLOGICAL TECHNICIAN, US GEOLOGICAL SURVEY, PORTLAND OR, 1999-2001

- ✓ Represented USGS at a national watershed conference presenting results on the effects watershed characteristics on stream temperatures; studied effects of storm water runoff on water quality parameters; maintained and managed stream-gauging stations; collected and prepared surface water samples for laboratory analysis; calibrated, maintained and used multi-parameter water quality testing equipment; performed laboratory analysis of samples to determine physical, biological and chemical characteristics