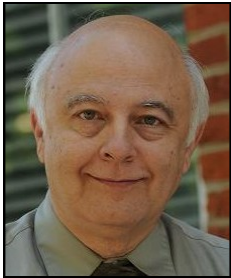


ANNUAL REPORT 2010/2011

REPORT OF THE BOARD CHAIRMAN, BEN W. EBENHACK



It has been a productive year for AHEAD Energy at Marietta College. During the first year at our new location we were met with considerable support and interest on campus and in the Marietta, Ohio community. Naturally, there were significant challenges presented by the relocation as well.

AHEAD's move coincided with the launch of a new program in *Sustainable Energy Systems* at Marietta College. Along with new Board member Andrew D. Grimm, I am working to establish the new curriculum that fits nicely with AHEAD's mission. Additionally, the College as a whole will focus its attention in the coming academic year on *Energy and the Environment*. AHEAD is leading an effort to bring together communities and organizations throughout the Mid-Ohio Valley to develop a series of educational and action programs to extend finite and sustainable energy systems locally, nationally, and globally.

Marietta Action Team (MAT)

As part of the effort to become established at Marietta College, a Marietta Action Team (MAT) was formed composed of faculty, staff, students, and community members. The MAT provides a core of local, day-to-day support for AHEAD's activities and staff.

New Board members

We are pleased to welcome two new members to the AHEAD Board of Directors. **Dr. Gama Perruci**, Dean of the McDonough Center at Marietta College and Interim Provost, was elected as an ex-officio member of the Board in October. Dr. Perruci's participation ensures a strong liaison between the College and AHEAD. Marietta College Professor **Andrew D. Grimm** was selected by the Marietta Action Team as its representative to the Board of Directors; he was elected unanimously at the April Board meeting. Andy brings passion for AHEAD's mission and expertise in renewable energy technology. At last year's Board meeting,

Dr. Elias Mandala opted to leave active board membership and move to an advisory capacity. His service is appreciated, as well as his willingness to continue to advise.

Innovative Technology Development Committee

Rochester-based members of the Board of Directors and others in the Rochester area began meeting regularly this past year to assess and develop innovative solutions to energy problems that AHEAD might implement in Africa. Members of the committee include board members **Russ McDonald** (Chair), **Bob Bechtold**, and **David Johnston**. Other members include **Dr. Bob Fried**, **Dr. James Grieve**, **Dr. Brian Thorn**, and RIT graduate student **Johanna Bentley**. They have developed a strategy for prioritizing and approaching a broad array of concepts which we look forward to bearing fruit in the coming years.

Strategic decisions: AHEAD at a crossroad

MJ Ebenhack's decision to retire as AHEAD's President & CEO in May 2012 presents a challenge to charting the organization's future course. In light of the dramatic turnaround in public and official understanding of energy and development, it is prudent to take this opportunity to re-evaluate the most constructive role for AHEAD. While the notion of energy for development was scoffed at by development officials when AHEAD was launched in the late 1980s, energy is now commonly recognized as a critical need.

This year saw the inauguration of two major developments: the **Global Alliance for Clean Cookstoves** and the **International Year of Sustainable Energy for All**. Despite this progress, there is still a lack of understanding surrounding energy and development from a systems perspective. Improved firewood cookstoves are a welcome advance, but are only a start on the path to sufficient and sustainable energy systems. How can AHEAD best bring our decades of experience in addressing this challenge? This is the question with which the Board of Directors will be grappling in the coming year.



REPORT OF THE PRESIDENT AND CHIEF EXECUTIVE OFFICER

DR. MARY JEANETTE EBENHACK



This year AHEAD Energy continued to initiate new projects with our partners in Eastern Africa, but as projects mature, attention is increasingly drawn to evaluating our efforts and maintaining the energy systems that we install. AHEAD is committed to ensuring that the energy systems we supply operate for the long-term.

Wind turbine maintenance

Last fall we received word that there was a problem with one of the wind turbines that had been installed at Chazon Children's Center in Molo, Kenya. Fortunately, an American serving a Security Engineering Officer with the Department of State's Bureau of Diplomatic Security in Nairobi, Kenya contacted us to offer his assistance. **Doug Briller** made two trips to the Center to diagnose the problems, which consisted of faulty inverters. The wind turbines were put in good operating condition and the inverters were sent back to the supplier so that they could assess what went wrong.

Stove and biodigester re-designs

Also in the fall, a senior staff member from the Center for Research in Energy and Energy Conservation (CREEC) made a trip to Kagando Rural Development Center (KARUDEC) to assess a stove project and plans for a biodigester. It was determined that the chimney design proposed by the local stove contractor was inadequate and the plans for the biodigester needed further refinement.

AHEAD was again fortunate that environmental engineer **Patrick Hsieh** made himself available to assess the situation and find solutions. Pat and I traveled to Uganda in December 2010 where Pat worked with a local stove contractor to improve the design of the stoves at KARUDEC and also at Circle of Peace School. The trip provided an opportunity establish a relationship with local biodigester experts who can address the situation at KARUDEC and elsewhere.

New Project sites

During this trip, Pat and I made site visits in Eastern Uganda to Arlington Academy of Hope and the Hunger Project at Nabriye. Obtaining electricity is the number one priority at both sites. At each location electricity is needed in classrooms, in their clinic so that refrigerated vaccines can be kept on site, their laboratory can be outfitted with modern equipment, and record keeping can be computerized. Improved cookstoves and biodigesters would also be useful in both locations.



AHEAD Overview

Problem: Lack of energy takes a severe toll on health, education, and the livelihood of half of humankind. A quarter of the world's population — 1.6 billion — lack electricity. Two million die prematurely each year as a result of diseases caused by indoor burning of solid fuels for cooking and light; about half are children.

Our Vision: A world in which universal access to energy, as well as its wise stewardship, enables all people to attain a high quality of life on a thriving planet.

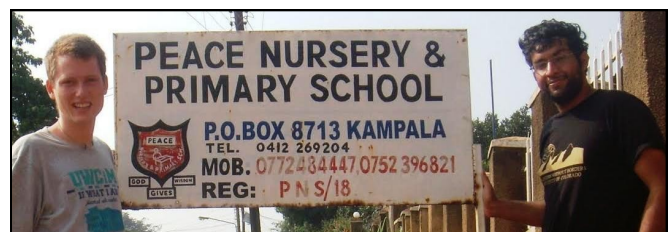
Our solution: By helping schools and medical facilities obtain the energy they need to carry out their vital services, whole communities begin to adopt energy systems that facilitate the ascent out of poverty.

Where we work: Sub-Saharan Africa; current projects are in Uganda, Kenya and Ghana.

Targeted energy sources and technologies: Contextually-optimized, cost-effective, and reliable technologies that harness local resources.

Evaluating & laying groundwork for expansion

This spring, AHEAD again received an offer of help, this time from two civil engineering students from the University of Colorado, Boulder: **Andy Hemphill** and **Ankit Sharma**. These two members of Engineers for a Sustainable World (ESW) were planning to be in East Africa working on an ESW project and offered to spend a month working for AHEAD as well. It was a perfect opportunity for further evaluation of our projects and laying groundwork for continued work. Andy and Ankit are spending the month of July 2011 in Uganda at Circle of Peace School and Kagando Rural Development Center. They are overseeing stove building and maintenance projects and assisting in setting up a brick making business to support stove construction, and a crop waste briquette making business.



Andy Hemphill and Ankit Sharma, June, 2011

Working with local energy leaders

AHEAD has always been cognizant of the need to encourage human resource capacity building in the African countries where we operate. Working with resident energy businesses and NGOs puts money into the local economy and eliminates the need for AHEAD to have expatriate staff on the ground.

This year we have been fortunate to strengthen our relationship with **the Center for Research in Energy and Energy Conservation (CREEC)** at Makerere University in Uganda. CREEC staff have assisted in evaluating our stove and biodigester work and we have assisted them in preparing a feasibility study for rehabilitating the hydroelectric system at Kagando Rural Development Center. In addition, they have been helpful in directing us to qualified energy companies such as **Green Heat Uganda** and the **International Lifeline Fund (ILF)**.

AHEAD Energy arranged for ILF staff to lead a week-long workshop on the proper construction, use and maintenance of rocket stoves at Kagando Rural Development Center. ILF has developed a simple mud and brick rocket stove that reduces harmful emissions by 25% and reduces firewood consumption by up to 50%. The workshop opened up new entrepreneurial opportunities in the area.

Human Resources

AHEAD has attracted several new volunteer staff members. **Joy Lutes** serves as Marketing and Communications Director; **Deb Hutchison** works as Bookkeeper and Financial Data Analyst; and **Penny D. Arsenault** assists with fundraising activities. **Maria McQueen** and **Kate Grimm** also provided valuable service to AHEAD this past year.

AHEAD taps into student resources at Marietta College. Students redesigned the AHEAD website, launched fundraising efforts, and serve on the Marietta Action Team. AHEAD is working with the Education Department at Marietta College to engage students in developing an energy curriculum for grade school children in Africa. Students in Prof. Kim Depue's Science Methods class next fall will develop teaching modules. Students traveling to Ghana in 2012 with Dr. Ena Vulor will introduce the modules to teachers and students.

In June, three Marietta College students joined me at the Aid and International Development Forum in Washington, DC. **Laura Fink, Samantha Thomas, and MaLisa Strong**. I moderated a session on Energy and Information/Communication Technologies, and co-presented a session on the *Role of Decentralized Energy in Achieving Universal Access to Energy*.



Circling from top right: Fuel-efficient Rocket stoves are installed at a kitchen at Kagando Hospital, wind turbines at Chazon Children's Center, stove training workshop at Kagando Rural Development Center, and MJ Ebenhack presenting a solar light for use in the surgery at the Hunger Project, Nabriye, Uganda.

FINANCIAL REPORT, JUNE 1, 2010—MAY 31, 2011

In the past year, AHEAD Energy has been making a difference in the lives of children, women and men in Africa, including elementary school children in Kenya who have lights in their classroom for the first time, family members who can cook meals on improved cookstoves, and boarding school students who can take a hot bath for the first time. These transformations would not be possible if not for the financial support of caring people who share AHEAD's vision for a world where there is universal access to energy, as well as its wise stewardship, thus enabling all people to have a high quality of life on a thriving planet.

Besides supporting AHEAD through financial gifts, AHEAD offers several ways for donors to contribute in unique and easy manners to our efforts. A growing number of supporters have been using GoodSearch, which allows them to support AHEAD Energy simply by searching the Internet, and GoodShop which funnels a percentage of online purchases to AHEAD from participating merchants.

Together we are moving ahead toward a secure energy future.

I really thank you for the great work you do to give a meaningful life to the children and people of Uganda and the world. May God abundantly reward you.

Osbert Tindimwebwa
President, Uganda Solar Power Supplies

[Your] initiative is an important part of any recovery strategy and we are extremely grateful for the vision, effort, and detail you are putting in on Kagando's behalf. It is a pleasure and privilege to be in your confidence. Thank you very much.

Ralph Settaree
Board member, Friends of Kagando

Let me take this opportunity to thank you for everything you have done at Peace School. Sometimes I feel like I am dreaming; so many lives will never be the same since your visit to Uganda..... Thanks and God bless.

Janet Naluswata
Circle of Peace School family member

AHEAD ENERGY

info@aheadenergy.org
www.AheadEnergy.org
+1 740-376-4943

