Ethiopia - PV Program

Neway Argaw (NREL)





Unelectrified Population = 85% (50 Million)

Melkassa PV Pump Irrigation Demo Program

- This demonstration project is owned by Addis Ababa University (AAU) which was financed by the Swedish Agency for Research Co-Operation with Developing Countries (SAREC).
- AAU is administering the research part of the demonstration program which is operated by eight local farmers.
- The system is 600 W_p and was installed in 1990 by AAU.
- The site is located at Melkassa in the eastern part of Ethiopia.
- AAU is monitoring the system and eight households are beneficiaries of the system to irrigate 4.5 hectares of land.
- The project costs US\$8,185.



Debre Zeit Area PV-Water Pumping System

- This system was installed in 1988 by the Rural Technology Promotion Programme, Ministry of Agriculture.
- The system was administered by the local farmer's association.
- The system is 1.2 kW_p (M55) and serves 2000 people.
- Users pay US\$0.36/month/household.
- The system is located 70 km south of Addis Ababa, Ethiopia.
- The system is operated by the farmer's association and maintained by the Rural Technology Promotion Programme, Ministry of Agriculture.
- The system functions properly except for the inverter (a Grundfos SA1000) which broke a few times.



- Ethiopian Science and Technology Commission (ESTC)
- Ethiopian Energy Studies and Research Center (EESRC) Ministry of Mines and Energy
- Ministry of Health (MOH)
- Ministry of Education (MOE)
- Rural Technology Promotion Programme (RTPP), Ministry of Agriculture (MOA)
- · Addis Ababa University (AAU)
- NGOs: UNICEF, Christian Relief and Development Association (CRDA), Oxfam UK.



Work-Amba PV Pumping System

- This system was installed in 1994 under the UNICEF-assisted rural water supply programme.
- The system was administered by the water committee directly voted in by the community.
- \bullet The system is 1.6 kW_p and serves 3000 people.
- The system is located at the northern part of Ethiopia.
- The system is operated by the water committee and maintained by the Ministry of Water Resources.
- The system has a distribution system with four water points.
- The project costs US\$40,550.

