

SESSION TOPIC: IMPROVING ACCESS TO ENERGY SERVICES

- Electrification, including rural electrification: overcoming infrastructure, financing, policy and institutional barriers

1) Creative Solutions for Increasing Access to Electricity in Slums

Obstacle/constraint	Overcoming the social and economic conditions in slum communities to deliver electricity services in a financially viable and sustainable manner.
Lesson learned	Access to energy services can be dramatically increased in slum communities through innovative utility programs that involve a range of stakeholders – end-users, community leaders, NGOs, and the private sector – in distribution, bill collection, and financing.
Case Study	<u>Ahmedabad, India – Slum Electrification Pilot Program*</u> USAID supported an alliance between the private sector utility, the municipality, and two local NGOs to improve electricity service to households living in informal, urban settlements in Ahmedabad, India. The NGOs served as intermediaries between the stakeholders and assisted the slum dwellers with financing and acquiring the appropriate documentation regarding land ownership so that they would be eligible for legal electricity service. Under this scheme, 820 households were upgraded from illegal and unreliable service; the utility is in the process of rolling out the program to an additional 115,000 poor urban households. See CSD Matrix for more information <i>May 1-12 Point of contact on U.S. delegation: Simone Lawaetz (slawaetz@usaid.gov)</i>
Next steps	Lessons from the pilot are being incorporated in USAID programs to electrify slums in cities in India, Angola, and Brazil.

2) Sustainable Rural Electrification Models

Obstacle/constraint	Unsustainable rural electrification efforts resulting from lack of long-term political commitment, community participation and poorly conceived financial and maintenance plans.
Lesson learned	Long-term government commitment, community participation and ownership are critical to sustainable rural electrification.
Case Study	<u>Bangladesh Rural Electrification Program</u> USAID pioneered the Bangladesh Rural Electrification Program in 1976 and to date has contributed \$210 million to this effort focused on establishing rural electric cooperatives. This program helped establish the Rural Electrification Board as a semi-autonomous agency under the Government of Bangladesh. Rural electrification programs have created 67 rural cooperatives that provide electricity to over 38,000 villages, covering over 28 million people in rural areas. 96% of rural electric cooperative customers pay their bills with payments totaling \$277 million annually. <i>Point of contact on U.S. delegation: Gordon Weynand (goweynand@usaid.gov)</i>
Next steps	Replicating Bangladesh model in other countries.

* - Case study listed in CSD Matrix

+ - Case study to be submitted to Secretariat during CSD-14

3) Cooperative ownership models mobilize finance for rural energy

Obstacle/constraint | Lack of finance for rural energy.

Lesson learned | **Rural cooperatives are an important ownership and financing model for rural energy generation and distribution.**

Case Study | United States - Rural Cooperatives for Wind Energy
Cooperatives have long provided access to energy in rural America and are increasingly seen as opportunities for using wind energy for power and economic benefit. For example, in Minnesota, seven utility-scale wind turbines are owned by a group of farmers and rural businesses. Under this model, owners receive one vote in the governance of the cooperative per share purchased. Investors are local, and the energy is sold and used locally. Through this model, electricity is provided to approximately 6,000 households. This approach works at a range of scales and for a variety of renewable energy sources. *Point of contact on U.S. delegation: Ken Hinga (kenneth.hinga@fas.usda.gov) or Adela Backiel (adela.backiel@usda.gov)*

Next steps | Cooperatives and similar ownership models should continue to be replicated for the delivery of energy services.

Additional examples

- Solar PV for Public Buildings and Health Clinics in Uganda and Tanzania*
- Renewable Energy Resource Assessment for Stimulating Investment in Sri Lanka and the Maldives*
- Clean Energy Financing in Central America – the CAREC Facility*
- Microcredit for Farmers to Install Biogas Plants in Nepal*
- Local Capacity Development for Better Energy Governance --- the Caucasus Environmental NGO Network*
- Solar Water Heating for Municipal Infrastructure Delivery in South Africa*
- Methane to Markets: An international public-private partnership to advance the recovery and use of methane as a clean energy source*
- Electricity Governance Toolkit*
- Guatemalan Power Sector Reform
- Capacity Building Assistance for Rural Electrification (Zambia)*
- Combined Heat & Power Partnership*
- USAID report “Innovative Approaches to Slum Electrification” at www.usaid.gov/our_work/economic_growth_and_trade/energy/pubs/slumelect_exec.pdf
- Guatemala Lighting, Cell Phones, Refrigeration and Tele-Education for Rural Sustainable Development⁺
- West Africa Power Pool⁺
- Solar electricity for rural Native American lands⁺

* - Case study listed in CSD Matrix

⁺ - Case study to be submitted to Secretariat during CSD-14