

Building Alliances Series:



EZERGY



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GDA SECTOR GUIDE: ENERGY

Welcome USAID Alliance Builders!

Public-private partnerships done right are a powerful tool for development, providing enduring solutions to some of our greatest challenges. To help familiarize you with the art of alliance building, the Office of Development Partners / Private Sector Alliances (ODP / PSA) office has created a series of practical guides that highlight proven practices in partnerships, demonstrate lessons learned, and provide insight on identifying and designing strategic partnerships that will meet your sector-focused development objectives.

The purpose of this guide is to support you in building public-private partnerships in **Energy**. Whether you are new to alliances or a seasoned expert, in the following pages you will find tips, resources, and information that remove some of the mystery behind alliance building in this sector. Additionally, we hope this guide will **inspire** you, with its stimulating questions and partnership examples from around the world, to think creatively about designing alliances that will address key challenges wherever you are working. Although the series includes partnership examples from many organizations, the guides emphasize USAID's **Global Development Alliance (GDA)** model of alliances.

While this guide is meant to promote your partnership efforts in Energy, it represents only part of the Energy alliance information available. There are also additional resources and guidance readily available to you on the GDA website:

http://usaid.gov/GDA

http://inside.usaid.gov/GDA/resources/tools.pdf.

*The terms "alliance" and "partnership" are used interchangeably in this guide.

ALLIANCE MODELS IN ENERGY: WHAT WORKS?

If you are designing a new partnership, a good place to begin is a review of what has already been successful as well as approaches that hold strong potential. Take a look below at six models* for energy alliances, including specific partnership examples.

MODEL I: PROMOTING CLEAN ENERGY

Increase in global energy demand is expected to grow substantially in the coming decades, with the largest share of the increase coming from the developing world. Increased energy use from traditional sources could have serious effects on the environment, on security and on economic development. USAID has established alliances to promote new energy technologies and to implement cleaner mainstream technologies.

In Bulgaria, wind power holds exceptional promise as a renewable energy source, and in 2006 it appeared that there was significant market potential for wind farm development. In the **Development of Renewable Energy Alliance** (2006-2008), USAID partnered with the General Electric Company (GE) and the Utility Wind Integration Group (UWIG - an interest group) to develop a wind farm designed to serve as a model for replication. The local municipality donated the land for the wind farm. EnCon Services International implemented the project and also contributed financing. USAID provided financing and technical assistance with project development as well as the alliance with the local municipality. GE provided technical assistance related to turbine selection and construction oversight, and UWIG provided capacity-building and training on wind turbine operation, and public outreach.

*These guides use the term "model" to mean a sample or category of alliance type or structure. The Alliance for Mindanao Off-Grid Renewable Energy (AMORE), working in poor and remote communities in the southern Philippines, has brought new sources of energy and new community collaboration to conflict-affected areas. The alliance has established clean, indigenous, reliable and affordable stand-alone renewable energy systems. AMORE provides sustainable, renewable solar energy and micro-hydro systems in over 400 remote rural communities, serving more than 15,000 homes. Partners include Mirant Philippines Corporation (the country's largest energy producer), who provided system components like solar photovoltaic battery charging stations, households battery systems and streetlights. Other partners included the Philippines Department of Energy, and Winrock International (implementing partner). USAID has provided general coordination and funding of the partnership. For more information, see the case study at the end of this guide.

In the Market Initiative for Advancing Clean Energy and Sustainable Green Business Development Alliance, USAID joined forces with the World Resources Institute (WRI), and the Confederation of Indian Industry-Sohrabji Godrej Green Business Centre (CII-GBC) to develop a voluntary, national greenhouse gases (GHG) measurement and reporting program in India. The alliance's objective was to help Indian businesses to prepare GHG inventories, identify GHG reduction opportunities and participate in GHG market mechanisms. In the partnership, active from 2005-2009, USAID provided seed funding, WRI contributed its international expertise and model for identifying and mentoring SMEs into "bankable" enterprises, and CII-GBC managed and implemented the project.



MODEL 2: EXPANDING ACCESS TO ENERGY

Energy is central to nearly all facets of everyday life. Energy is used in agriculture, manufacturing and in small and medium-sized companies of all kinds. Energy moves water, powers schools, and lights, heats, and cools homes and clinics around the world. Despite its importance, large numbers of people lack electricity for their basic economic and social needs. One way USAID addresses this need is through partnerships. Private sector actors may join an alliance to expand into new markets or to research new technologies.

In the Dominican Republic, the National Rural Electrification Alliance (NRECA) brought reliable and affordable electricity to rural and periurban areas. At the time the alliance was formed, approximately 50% of

the Dominican population had little or no access to electricity. USAID's partners in NRECA included Compania Luz y Fuerza, Cooperativa de Ahorros Central, Corporacion Dominicano de Empresas Electricas Estatales, National Energy Commission (CNE), and the National Rural Electric Cooperative Association. Activities from 2003-2008 included the formation of rural electrification partnerships, training of institutional energy saving committees and detailed energy audits of government buildings.

In the Sustainable Energy Use Alliance, USAID partnered with the International Copper Association (ICA) to provide support to several energy projects around the globe. USAID and ICA partnered in Brazil with AES Eletropaulo (AES), an electricity distribution company working in metropolitan Sao Paulo. AES had been trying to reduce illegal electricity connection in nearby slums, both for safety and revenue reasons. The alliance focused on 'regularizing' slum electricity customers in one area, and emphasized affordability and community involvement. USAID coordinated the alliance and provided technical assistance, and ICA provided the rewiring of homes, energy-efficient refrigerators and transformers, and anti-theft coaxial cable, sized for energy efficiency, to be used in service drops and secondary distribution. ICA also recruited two additional partners, a leading global cable manufacturer, and a Brazilian manufacturer of transformers.

MODEL 3: FINANCING ENERGY

With increase in global energy demand expected to require significant new investment, financing issues are likely be one impediment to widespread adoption of sustainable energy technologies worldwide. Facilitating access to capital can be a key role for both private sector and NGO partners in energy alliances.

Small and medium-sized clean energy project developers can get connected with project financing via the **Private Financing Advisory Network (PFAN)**,

an innovative public-private partnership supported by USAID, the U.S. Department of State, the International Energy Agency's Climate Technology Initiative, the International Center for Environmental Technology Transfer in Japan, and five private sector companies including the LaGuardia Foundation, FE Clean Energy and Pan Pet Ltd. PFAN focuses on making climate-friendly energy projects viable and attractive to triple bottom-line investors, by providing step-by-step financial consulting and advisory services, as well as introduction to financing sources. This technical advice, provided at no

direct cost, helps project developers build robust project concepts and present opportunities in a way that the financial community can understand. PFAN partners share the costs for financial and transaction advice, and contribute technical expertise.

"We thought that encouraging banks to finance solar energy was important because no amount of donor funding could ensure the sustained financing of renewable energy projects, especially solar. The commercial banks had to get involved."

RAM BERRY, USAID / INDIA (RETIRED)

In India, the Solar Finance Capacity Building Alliance focused on training bank personnel on strategy and objectives for financing solar energy projects with the objective of increased lending. The alliance first trained a cadre of 550 master trainers from 60 banks; and subsequently trained 5,000 branch managers. Partners also worked with nearly 1000 entrepreneurs, supporting them to become service providers on solar energy projects. USAID's partners included Syndicate Bank, Bharathiya Vikas Trust and Centre for Technology Development - NGO Resource Centre (CTD NGO-RC) and Winrock International.

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MODEL 4: CREATING A FAVORABLE POLICY ENVIRONMENT

Energy alliances often form around the goal of reforming a country's energy sector to function more efficiently. An additional driver is the desire to create a policy environment that facilitates low-carbon development and that helps mitigate global climate change. The partnerships that form under such conditions focus on improving the legal and regulatory frameworks to make local organizations commercially viable or to create a more hospitable environment for private sector investment.

The West Africa Gas Pipeline, running from Nigeria to Benin, Togo and Ghana, is the first regional natural gas transmission system in sub-Saharan Africa and was designed to boost non-traditional exports. However, the project's launch was complicated by the requirement that all four nations complete a series of complex cross-border agreements while simultaneously harmonizing their respective regulatory environments. USAID partnered with Chevron and other companies collaborating on the pipeline, through their consortium the West African Pipeline Company (WAPCO), to move the pipeline project forward. USAID also partnered with the West African Gas Pipeline Authority, the intergovernmental regulatory body formed by the four national governments through whose national waters the pipeline passes. USAID's primary initial contribution was the brokering of the treaty between the four governments to establish a single regulator, without which Chevron and others likely would not have invested. Chevron and WAPCO partners provided feasibility studies.

The Energy Utility Partnership Program is a global alliance developed by USAID and the United States Energy Association (USEA), a trade association, and involves more than 250 U.S. utilities and regulatory agencies, and their international counterparts. The partnership has established 50 bilateral and regional partnerships in Asia, Africa, Latin America, and the Caribbean. These partnerships are intended to help international partners gain knowledge of

market-based planning and energy sector restructuring, learn and adopt best practices for energy sector regulation, improve management and organizational performance, and increase energy efficiency.

MODEL 5: TRAINING ENERGY PROFESSIONALS

While professional training is not currently an area of much partnership activity in the energy sector, USAID works closely with the Energy Group at the Institute of International Education (IIE) in multiple projects to train energy professionals across the globe. As countries adapt and implement new energy technologies, the need for such trainings is likely to grow, and could be very attractive to private sector organizations who need workers with specific skills.

For example, under the Brazil Energy Training and Outreach Program sponsored by USAID, IIE's Energy Group designed and implemented a training program focused on providing technical assistance that built the capacity of key actors in meeting the challenges of clean and efficient energy production, renewable energy, and climate change. The IIE team trained more than 1600 officials from key Brazilian institutions such as the Ministry of Mines and Energy, the Energy Secretariat and others, and also established alumni groups for individuals who participated in the training, so that they can continue to share information and become agents of change for sustainable energy production. Although not an alliance, this program provides a good model for a partnership.

In Bangladesh, USAID is working with Grameen Shakti, an offshoot of Grameen Bank that focuses on clean energy, to train rural women to be solar technicians and to support clean energy entrepreneurs. USAID provides funding, and Grameen Shakti implements programs that train women to install and maintain photovoltaic solar home systems, improved cooking stoves and biogas plants.





MODEL 6: ENERGY AT THE BASE OF THE PYRAMID

Not yet an area of active USAID partnerships, energy solutions for very low-income households, sometimes referred to as the 'base of the pyramid', could hold potential for public-private partnerships.



Microfinance is likely to play a key role in such energy partnerships. Microfinance could improve access to clean, modern energy devices and services for poor households by providing credit to purchase a new device or to smooth out seasonal changes in energy payments. A common model for partnership is a microfinance institution (MFI) offering loans for the products or services of a particular energy company, such as fuel-efficient stoves or solar lamps. The energy company is able to extend its market, consumers can afford the product, and the MFI widens its customer base. Such an approach may be particularly beneficial in areas where the introduction of clean energy technology has been publicly funded. The private sector may be interested in such an alliance for promoting an energy product, or by providing access to finance.

"Making the link between microfinance and energy means crossing a gulf of understanding. Both sides have to come up with new business models that are outside their normal range of activities... but in the end, the collaboration is helping developing countries put themselves on a clean energy path."

BETH RHYNE, ACCION INTERNATIONAL

WHAT MOTIVATES DIFFERENT ALLIANCES?

Type of Company	Motivations	Illustrative Companies That Have Participated In Such Alliances
Energy Companies	Test new approaches to energy segment or market, gain market access, build relationships with government, corporate citizenship	GE, Shell Solar
Industry Associations	Reduce participation costs for individual members, support pilot and/or research projects, increase competitiveness of industry by securing sustainable energy supply	International Copper Association, Confederation of Indian Industry, United States Energy Association
Local Power Companies, Utilities and Cooperatives	Gain access to new technologies and management techniques, expand service, attract private sector partners	Local partners in the Energy Utility Partnership Program and other alliances
Financial Institutions	Market access, test new financial instruments, build relationships with government, pilot social enterprise business models, philanthropy	Shorebank (Central America), Syndicate Bank (India),Triodos Bank, Small Scale Sustainable Infrastructure Development Fund
Foundations	Philanthropy, increase access to energy for vulnerable populations, reducing harmful health and environmental effects of traditional energy sources.	Shell Foundation, La Guardia Foundation

PARTNERS TO JOIN ENERGY

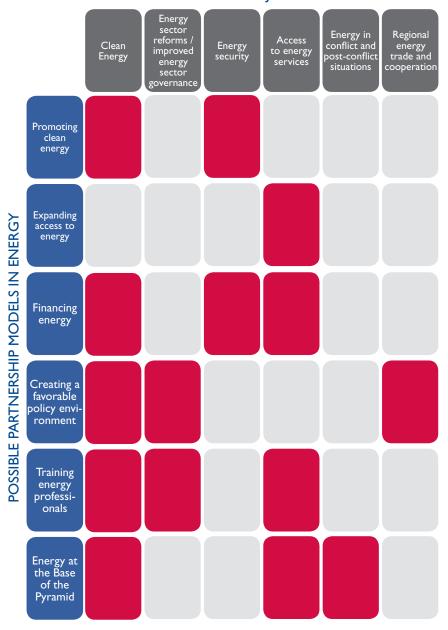
Possible Non-Cash Contributions	Common Alliance Models
New technologies, technical assistance, training materials and methodologies, staff time	Promoting clean energy, training energy professionals, creating favorable policy environment
Member expertise and resources, media outreach, exposure for alliance within member ranks	Promoting clean energy, training energy professionals, creating favorable policy environment
Access to local infrastructure, local knowledge, ability to implement partnership activities across local area	Training energy professionals, creating favorable policy environment
Financial instruments and expertise, marketing expertise, market access, network of branches, knowledge of local laws and regulations	Financing energy
Local knowledge, staff time	Expanding access to energy, financing energy

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PARTNERSHIP MODELS & AGENCY OBJECTIVES

How can alliances help to achieve Agency objectives in energy?

USAID STRATEGIC OBJECTIVES IN ENERGY



FINDING A GOOD PARTNER

Once you've considered possible models and industry sectors, there are many good ways to identify specific private sector actors. You can use the following list of questions to identify potential partners. USAID's implementing partners often know the answers to many of these questions, and you may want to work through this list with them:

- Is there an existing energy alliance in the region that has been successful, is relevant to your country and could be expanded? Are there regional and/or cross-border energy issues that could benefit from a partnership?
- Are there areas of the country that do not have reliable access to electric power? Why? What are the barriers to access? Who are the main actors in other sectors of the economy in these areas?
- How will climate change impact the energy sector of the country? What are the opportunities to use new energy technologies to mitigate these impacts?
- Are there existing NGOs in country with an active interest in energy? Be creative in assessing everyone who stands to gain from the expansion of more sustainable energy supplies and look at linkages to other sectors. For example, NGOs working on forest preservation initiatives could be very interested in contributing to a partnership promoting fuel-efficient stoves or alternative energies.



- Assess the state of university research in your host country to see if the possibility for partnership collaboration exists. Do universities already have private sector partners?
- Who are the most valuable / strategic actors, whether or not they are involved in energy activities? Do any companies have their own private foundations that are dedicated to renewable energy or expanding access to energy?
- Is the introduction of new or sustainable energy technology causing a need for skilled technical personnel? If so, is there a potential for a partnership to train these workers?
- Meet and brainstorm with small business associations or groups of entrepreneurs. Small enterprises may be more likely than large corporations to lead the development of market-based energy solutions for the poorest consumers.

Other resources that can help you identify private sector partners:

- Chambers of Commerce and Associations can tell you which local and international businesses are particularly interested in development issues. Chambers of Commerce meetings are an easy way to reach a large audience of key stakeholders.
- The **Foreign Commercial Service** at the Embassy is also a resource for excellent intelligence on companies that are active in or looking to enter the local market.
- Talk to your **Regional Alliance Builder** and get his or her perspective on alliance partners and trends across your region. To find out if your region has an assigned alliance builder, look on the GDA website.
- The local **Investment Promotion Agency** may also have information on companies that have considered investing in energy issues.

"USAID has a unique entrée to governments in the developing world. And as a governmental agency from one of the world's leading market economies, we offer a particular insight, perhaps more than any other donor, into how government can best set the stage to unleash the creative potential of the private sector. Partnerships are our tool to make that happen in the United States, and they are how we help governments in developing countries do the same. Of course, these things take time, since we're brokering relationships, not just gathering funds. There's nothing short term or certain about building energy infrastructure. The ball we set in motion this year may not reach the goal for a decade, but if we're successful, it's like winning the World Cup."

-JEFFREY COCHRANE, USAID / WEST AFRICA

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WHAT PARTNERS CAN OFFER

Partnerships need cash. However, partners can add value to an energy alliance in many ways beyond financing. Often, USAID and private sector partners have unique in-kind resources that the other may lack. Understanding the full range of what each partner can offer may help you communicate to potential partners about the benefits of joining an alliance.

What can the private sector offer (in addition to cash)?

- Technical knowledge and expertise
- New technologies or improvements to existing technology systems
- Research and development capabilities
- Clear, bottom-line motivation to secure sustainable sources of energy
- Market and/or feasibility studies, cost-benefit analyses
- Training manuals and methodologies
- Experience with local emission and other environmental regulations
- Knowledge of market segments, market needs and successful approaches
- Construction equipment, materials and labor
- Understanding of the scope and capabilities of existing power grids



• What can USAID offer to potential partners?

- Strong and collaborative relationships with Ministry-level and other government officials whose work impacts the energy sector, including the business environment and investment regulations.
- Technical expertise on the impacts of climate change and on mitigation, the environment, rural development, sustainability, natural resource management, gender issues, and a host of other development-related issues that surround the energy sector.
- Access to toolkits that address the impacts of global climate change and the possibilities for mitigation and adaptation.
- Perspective on and familiarity with the local environment; USAID's knowledge of the country and society may be able to identify underserved markets for the potential partner.
- Legitimacy: ability to act as neutral broker. USAID has a long-term, incountry presence.
- Practical experience: ability to draw on proven practices in energy alliances from other countries and regions. USAID has a track record of successful energy partnerships around the world.
- Convening power: USAID can bring multiple stakeholders to the table to discuss energy sector challenges.

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"When you look at the magnitude of projected funding needs for clean energy and climate change mitigation in the developing world, it's roughly equivalent to half the total current level of ODA from all countries in all sectors. There's no way that the public sector alone can meet these needs — collaboration with the private sector is not only beneficial, it's going to be necessary."

JEFF HAENI, EGAT/I&E/E

ISSUES TO WATCH / LESSONS LEARNED

If multiple donors are providing equipment to a project, **local or national government** may need to step in to coordinate donor support. Having one or a few principal equipment suppliers will avoid multiple manuals, tools, repair needs and replacement parts.

Energy costs, especially petroleum fuel prices, are highly volatile. For this reason, **cost comparisons and cost-benefit calculations** should be done each time a producer or marketer faces a decision about which technologies to use.

When small enterprises adopt "next-step" energy technologies, greater training and skills are required. These technologies generally can be managed by owner-operators if they have the right training. Available **management capacity needs to be taken into account when selecting energy technologies.**

Capital cost challenges involving renewable energy sources tend to be far greater in many developing countries than in OECD countries. Developing country governments often **tax imported energy equipment.** This is in contrast to applications in many OECD countries, where there are often tax breaks and other financial incentives for businesses and homes to install sustainable energy systems.

In large, multi-country projects, USAID can play a valuable role in **harmonizing** the various **regulatory and policy environments** that can serve as obstacles in project implementation.

To increase the likelihood of sustainability, off-grid electrification projects must be consistent with a country's rural electrification plan for the region. **Off-grid electrification must complement grid expansion.** The government's recognition of the role of off-grid options is important; its support, including its subsidy commitment, and use of light-handed and simplified regulation, is essential.

Remember that **small and medium-sized enterprises** are often constrained by lack of access to reliable, affordable energy services. How will your project affect SMEs?

Especially in rural areas, demand for improved energy services can provide **opportunities for entrepreneurs.** If the electric grid does not reach local areas, energy supplies or devices can be provided by small-scale, locally-owned businesses.

Consider the **gender aspects** of your partnership. Women are often a household's "energy manager" as well as the primary user and supplier.



NINE WAYS TO GET STARTED

CONSIDER CLIMATE CHANGE

Shifts in climate, as well the mitigation and adaptation measures that are taken in response, are shaping the energy sector in many parts of the world. Review existing assessments on how your country's energy sector may be impacted. Could partnerships assist in training, financing, assessment, research or other aspects of mitigation or adaptation activities?

THINK ABOUT CARBON CREDITS AND OFFSETS

Many developed countries are strongly interested in reducing their carbon-emissions, especially in the energy sector. One very popular approach is to use carbon credits and carbon offsets obtained by fostering the development of low-carbon energy resources in less developed countries. The size of the market for these credits and offsets will depend on what legislation comes out of Congress and what agreements come out of the Copenhagen process, but no matter what happens, the potential is huge.

3 TALK WITH OTHER USAID COUNTRY TEAM MEMBERS

Some of the best partnership ideas can come from your colleagues. Mission staff involved in other sectors may already have partnerships that could involve energy issues, or they may be working with the private sector in relevant areas. Look for areas of overlap and cross-sectoral or cross-cutting issues. For example, is the Mission working with companies environmental issues? Your colleagues may not have considered the energy aspects of their existing alliances. If appropriate, ask your colleagues to arrange an introduction to their private sector partners. They can also advise you on how they designed and manage their partnerships.

4 MEET WITH THE PRIVATE SECTOR

One way to generate private sector interest in partnerships is to convene an open meeting. You can work with local chambers of commerce or similar organizations to organize an event, or you can offer to speak at an event that's already been scheduled. Highlights should include your Mission's goals and programs, USAID's experience with private sector collaboration, and how the private sector benefits from partnership with USAID. A meeting is also the perfect opportunity to hear the private sector's perspective on energy issues and identify common interests. Visit the GDA website for PowerPoint presentations and other tools.

5 CONSIDER AN OPEN COMPETITION FOR TECHNOLOGY SOLUTIONS

Consider sponsoring an open competition for a new application, platform, or method of using existing technology as a solution to the issue you're targeting. In 2008, USAID issued the Development 2.0 Challenge, an open call for development solutions that used mobile phones, the most commonly available computing tool in the developing world. Offering a small cash prize, the Agency received 115 ideas, most of which were high-impact, low-cost, and open source solutions.





6 EMBED PARTNERSHIPS INTO EXISTING PROGRAMS

Consider how a partnership could contribute to the success of your Mission's core programs. A potential alliance partner could expand the scope of your existing programs or could add unique resources that would deepen impact. Proposing participation in an ongoing program allows potential partners to easily see how their resources will make a difference. The ODP/PSA office has developed specific guidance on how to embed partnerships. See the link on the GDA website or contact the ODP/ PSA office.

7 LEVERAGE EXISTING RELATIONSHIPS

USAID has relationships with hundreds of private sector organizations. Search the GDA database or ask the ODP/PSA office to find out if and where we've worked with a potential partner before. The ODP/PSA Team has also developed global relationships with companies such as Microsoft, Intel and Rotary International. Visit the GDA website to find out more. Not only are there existing partnership models with these global framework companies, the ODP/PSA Team can also leverage its contacts at the company to engage local affiliates in-country.

"In alliances that focus on clean energy, we look for parties that have real substantial commercial expertise. But we have to make sure there is no conflict of interest, and that can be difficult."

ALLEN EISENDRATH, EGAT/I&E/E

Q CONTACT THE ODP/PSA TEAM

The staff at the ODP/PSA office is available to advise Missions on any aspect of partnership-building or management, as are Mission-based Regional and Country Alliance Builders. The Team knows how to navigate the most common challenges including procurement, due diligence, relationship management, reporting, etc. If necessary, the ODP/PSA Team can also coordinate with your Mission's Office of Procurement or your Regional Legal Advisor to address particularly challenging situations.

9 INCLUDE ALLIANCE ACTIVITIES IN SOLICITATIONS

As you design RFP's and other solicitations for your Mission's projects, include alliance activities that complement key objectives. Implementing partners are often great alliance resources, both for identifying partners as well as managing partnership implementation.

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EXISTING USAID MECHANISMS

Think about using one of these mechanisms to encourage an existing partner to get involved in energy alliances.

Mechanism Name	Short Name	Type of Award	Bureau	Purpose
Energy Regulatory Partnership Program	NARUC	CA	EGAT/ I&E	Partnerships between US regulatory agencies and developing country regulatory agencies.
Energy Utility Partnership Program APS	EUPP	CA	EGAT/ I&E	Establishes partnership and support exchanges between US and developing country utilities for executive exchanges, internships, and training sessions. Several of the active partnerships are focused on clean energy issues.
Energy Technical Assistance	Energy II	IQC	EGAT/ I&E	Provides services in energy sector policy and planning, regulatory and utility management and reform, energy efficiency, renewable energy, and energy and environmental infrastructure and technology transfer, among others.

ADDITIONAL IDEAS AND RESOURCES

REPORTS AND RESEARCH RELATED TO ENERGY AND ENERGY PARTNERSHIPS

Background document: <u>Energy Partnerships for Sustainable Development</u> (UN, 2005)

Report: <u>Investing in a Low-Carbon Energy Future in the Developing World</u> (World Business Council for Sustainable Development, 2007)

Report: Access to Energy for the Base of the Pyramid (Ashoka, Hystra Consulting, 2009)

Report: <u>A Roadmap for U.S.-China Collaboration on Carbon Capture and Sequestration</u> (Asia Society, 2009)

Report: <u>The Clean Development Mechanism: A User's Guide.</u> Written for UNDP country offices. (UNDP, 2003)

Report: <u>Energy Services for the Millennium Development Goals</u> (UNDP, 2006)

Report: <u>Microfinance and Climate Change Adaptation</u> (Institute for International Sustainable Development, 2008)

Report: <u>Using Microfinance to Expand Access to Energy Services:</u> <u>Summary of Findings (SEEP Network [funded by USAID and Citi Foundation] 2007)</u>

Report: <u>UNDP and Energy for Sustainable Development.</u> Discusses UNDP energy partnerships. (UNDP, 2004)

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USAID RESOURCES

Empowering Development

Powering Health Website

Powering Tourism

EnergyAccess: SME Toolkit

OTHER DONORS AND ORGANIZATIONS

The **World Economic Forum**'s Energy Poverty Action is a private sector initiative that delivers business expertise and best practices to reduce energy poverty by developing innovative, scaleable and replicable energy projects.

The **World Bank** and **IFC** have joined together to establish **Lighting Africa**, a project that seeks to develop modern off-grid lighting alternatives that offer African consumers more value for their money.

The Renewable Energy and Energy Efficiency Partnership (REEEP) is a global partnership that works to reduce the barriers limiting the uptake of renewable energy and energy efficiency technologies. Primarily funded by national governments and trade associations.

The **Light Up the World Foundation** promotes solar-powered LED lighting and is partnered with Philips Corporation.

Lights for Life, a Canadian NGO, offers

individuals the ability to purchase an LED light so that a child can study after dark. The purchase includes carbon offsets.

The **Global Village Energy Partnership** is an international non-profit organization seeking to reduce poverty through accelerated access to modern energy services.

GreenMicrofinance works to bring clean, affordable, renewable, locally-generated energy to base of the pyramid consumers.

An offshoot of Grameen Bank, **Grameen Shakti** works primarily in Bangladesh to relieve rural 'energy poverty.'

The **3Tier** company, a private business, has mapped the earth – their technology utilizes newly-available scientific research to map the viability of wind, solar and hydro energy in any given 5 km space anywhere in the world.

The **Private Finance Advisory Network (PFAN)** is supported by USAID and others. See page 5 of this guide.



ISSUES TO WATCH / LESSONS LEARNED

The alliance made a difference in integrating former rebels back into society, as increased rural electrification helped residents extend their working day, create income-generating opportunities and become connected with the country and the rest of the world (especially for those with relatives working overseas). The BRECDAS were a key mechanism to manage and maintain the new systems. As far as technology, the initial capital costs for renewable energy systems are high, and require amortization over the life of the project as well as strong support from partners. In addition, because of the rural context, beneficiaries would charge their batteries at a distance from their homes, causing wear and tear on the batteries and sometimes incurring repair, maintenance and replacement costs. Establishing facilities for recycling of the batteries was an important part of initial project planning.

CASE STUDY: ALLIANCE FOR MINDANAO OFF-GRID RENEWABLE ENERGY

REMOTE COMMUNITIES MAINTAIN AND MANAGE OFF-GRID ENERGY SYSTEMS

Project:	Alliance for Mindanao Off-Grid Renewable Energy (Philippines)
Objective:	Providing conflict-affected areas of Mindanao with access to reliable, clean, indigenous and affordable renewable energy systems that are operated and maintained by rural communities
Partners:	USAID, Philippines Department of Energy, Mirant Philippines (the country's largest energy company), the Autonomous Region in Muslim Mindanao, Winrock International (implementer)
How the alliance works:	Since 2002, the Alliance has provided more than 13,000 households in rural villages far from the power grid in Mindanao with affordable, reliable solar energy systems that are maintained and operated by local community members.
	Alliance partners work to organize communities into Barangay Renewable Energy and Community Development Associations (BRECDAS) even before they install energy systems to ensure that the project will be sustainable and self-propelled. Partners train association members to operate and maintain their renewable energy systems, manage maintenance funds, and expand service to other families within the community.
	To ensure that the communities "own" their renewable energy system, families are required to pay a small fee – typically 5 pesos, less than the cost of a candle – for upkeep costs. The government shoulders the majority of the costs for the systems, however. The Alliance also supports these community associations in their endeavors to bring electricity to schools, community centers, and more.
Partner Contributions:	Philippine Department of Energy: Financing Mirant Philippines: Financing, solar photovoltaic battery charging stations, household battery systems and streetlights. Winrock International: Project management, expertise in community
	mobilization. <u>USAID:</u> Financial and technical assistance.
Lessons Learned:	The key to IMARE's success is that the partners were fully engaged in the program from design through implementation. The project has identified several farmers that were quickly able to adapt their production and meet the retailer's standards. Farmers increased incomes through higher productivity, resulting in better quality produce and higher volumes. However, some farmers continued to sell a significant portion of their produce on the informal market, where they are sometimes paid a higher price. Price is key to providing the right incentive for reforms.

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CASE STUDY: S³IDF FINANCING MODERN ENERGY FOR SMALL-SCALE PRODUCERS

Project: Small Scale Sustainable Infrastructure Development Fund S3IDE (India)

Project:	Small-Scale Sustainable Infrastructure Development Fund - S³IDF (India)
Objective:	The Alliance stimulates economic growth and encourages environmental sustainability by developing local capacity to provide modern energy, water, sanitation, transport and telecommunications systems.
Partners:	S³IDF, Administrative Staff College of India (ASCI), SELCO India (Solar Electric Light Company), USAID, Indian banks.
How the alliance works:	With its partners, S³IDF brings the technical, financial and business organizational innovations common in large infrastructure projects to small-scale infrastructure investments and their micro/small enterprise owners/operators. Alliance investments must benefit the poor in one or more ways (customers, employees, asset owners), be environmentally responsible and operate in a financially sustainable fashion.
	S³IDF and its partners identify infrastructure needs of poor households, communities and SMEs and create/strengthen small entrepreneurs to own and operate the investments. An emphasis on energy and linked productive-use investments results in income-generation for end-users such as shop keepers, hawkers, grain millers. The approach bundles:
	 Business development and technical advisory services, sharing experience and know-how to help the businesses get off the ground. Assistance accessing government and international programs. Financial support through guarantees or other forms of credit conditioning. The Alliance also provides other types of financing and operates its own revolving fund to provide long term loans and short term bridge finance at below market rates, through cash equity, and to cover guarantees. Information and advice on receiving technical and financial assistance from local and international donor organizations.
Partner Contributions:	$\underline{S^3 DF}$: Identification of projects/entrepreneurs, investment analysis, fund operation, project development, M&E, technical and programmatic oversight.
	<u>USAID:</u> Financing.
	Indian Banks: Co-financing.
	<u>Local Experts and Technology Suppliers:</u> Equipment, construction services, operational expertise.
Lessons Learned:	S³IDF's approach proved that it can positively impact lives, primarily of people living on less than \$2 per day. Although the amounts involved were relatively small, the pro-poor investments of the alliance were able to change "business as usual" processes at local financial institutions, and also showed that the poor can adapt to environmentally-friendly technologies. Smooth implementation of the partnership activities depended a good deal on the local legal and regulatory framework. Sometimes legal and regulatory issues were a significant challenge; especially when rules changed during implementation.



U.S. Agency for International Development I 300 Pennsylvania Avenue, NW Washington, DC 20523

Tel: (202) 712-0000 Fax: (202) 216-3524

www.usaid.gov