



USAID
FROM THE AMERICAN PEOPLE

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Powering Economic and Social Development through Expanded Access to Modern Energy Services

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USAID'S Experience in Institutional Reform in the Energy Sector

Feature Article contributed by Dr. Kevin Warr, Energy Sector Governance Program, EGAT/EIT/Energy Team

Creating the conditions for economic growth and poverty reduction requires increasing access of people and businesses to modern energy, and increasing the affordability of energy for consumers. This access and affordability, in turn, requires a transformation of energy markets. As national governments, multilateral development banks, and bilateral donors become increasingly unable to meet the investment requirements of growing energy sectors, the developing world has turned to the private sector as a key partner in the sector.

The World Bank has found that the key determinants for private sector investment in the energy sector worldwide are, in order of importance, the following:

- Legal framework defining the rights and obligations of private investors
- Consumer payment discipline and enforcement
- Availability of credit enhancement or guarantee from Government and/or multilateral agency
- Independence of regulatory institutions and processes from arbitrary government interference
- Administrative efficiency—reasonably short lead time to get necessary approvals and licenses
- Judicial independence—degree of perceived independence from government influence
- Tenure and stability of elected officials in political process
- Regulations that clearly define and allow exit for investors in infrastructure
- Investment grade credit rating for long-term forex debt
- Existing perceptions and level of resistance to private investment among members of civil society (trade unions, press, NGOs)
- Status of sector in transition to a competitive market structure
- Country ranking in Transparency International's Corruption Perception Index
- Cost and available avenues to borrow in domestic banking markets
- Competitive bidding processes to select project investor/purchaser

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- Ability to integrate with other sectors of the energy chain (upstream generation or downstream distribution; gas supplies; power exports, etc.)

These requirements for private sector participation in the energy sector amount to a significant transformation of many of the world's energy markets. In short, this market transformation involves changing the foundation of the sector from political management to commercial management and in improving the effectiveness of government, the private sector, and consumer institutions in terms of management practices, technical operations, resource use, and energy consumption. Much of USAID's energy assistance programs focus on three critical dimensions of institutional reform.

First, USAID works with governments to educate and assist them in recognizing the commercial nature of energy, the range of options for governmental administration of the sector, appropriate levels of intervention, and, depending on their national circumstances, economic growth leveraging private sector participation. With the commercialization of state owned utilities and the creation of space for increased private sector participation, governments have a new and different role to play in mediating the interests of energy enterprises and energy consumers, and in enforcing good governance and democratic processes. This changed role requires increased institutional capacity at national and local levels, including the capacity to respond to civil society. Areas of focus include legal and regulatory frameworks, development of appropriate social safety nets, increasing and improving access, creating and sustaining effective and independent regulatory and judicial bodies, and energy policy development and implementation. Development cooperation includes informing/educating legislators, Ministry staff, regulators, and civil society; organizational development of regulatory bodies and other governmental entities; and technical assistance on policy and finance matters.

Second, USAID works with developing country energy enterprises to educate and assist them in changing from politically based operations to operations based on market economics and democratic political institutions. We assist them in applying modern business methods to their operations in a manner that is consistent with a restructured energy sector. Areas of focus include business models that balance revenue and profits with growth and valuation, technical operating efficiency, customer service, options for providing energy to poor communities, and management models that enable the enterprise to provide reliable services at reasonable prices. Development cooperation focuses on generation, transmission, and distribution utilities; rural and urban energy entrepreneurs; and the banking and investment community. USAID also provides assistance in creating opportunities for expanded private sector participation in the energy sector.

Third, USAID works with consumers to increase their knowledge of and participation in the social, legal, financial, and commercial conditions required for provision of energy services. The public needs to understand both the reasons for reform of the energy sector and the rules that allow them to access government institutions. Specifically, consumers and civil society organizations need to understand their role in developing policy and regulations, and the institutional avenues that provide legal recourse for conflict resolution. Such increased knowledge and participation on the part of the public will improve the accountability of both the government and the private sector to the public, and enhance market performance by reducing non-technical losses such as non-payment and illegal hook-ups. Areas of focus include increased consumer knowledge and awareness of legal and commercial requirements for energy services and an improved role for civil society in formulating public policies for delivery of energy services.

USAID has had a strong track record in institutional reform of the energy sector, surrounding these three focus areas. For instance, in Southern Africa, USAID has strengthened the capacity of the Southern Africa Power Pool (SAPP). SAPP has now moved from the initial Short Term Energy Model (STEM) as an instrument for electricity trading to more advanced trading models that operate on the basis of real time competition. As a result, it is estimated that regional energy trading has saved \$3 billion in additional generation capacity. Moreover, SAPP is making progress in opening its membership to the private sector. The SADC Energy Ministers recently approved a recommendation to change SAPP agreements and governance structures to accommodate private power entities. The recommendation has been submitted to SADC Heads of State Summit for endorsement before implementation. This is a key result of the USAID support to the development

of a competitive regional electricity market. In practice, Independent Power Producers have been trading on the short-term energy market that was developed and introduced with USAID support but this participation needed to be formalized and legalized.

In Zambia, USAID's rural energy capacity building has resulted in (i) a formal announcement by the Cabinet to establish a Rural Electrification Agency to manage the ambitious plan for increasing rural energy access from the current 2% to 15% by the year 2010, (ii) leveraging of a \$100 million rural electrification loan from the World Bank for an Increased Access to Energy Services (IAES) Project that will implement a number of rural pilot energy projects throughout the country, and (iii) an enhanced focus on reviewing and restructuring the country's National Rural Electrification Fund to more directly finance rural energy access projects.

In Lesotho, where only 2% of the rural population has access to energy, USAID has achieved a number of milestones – (i) the development of a blue print for a stand-alone Rural Electrification Agency, (ii) the establishment of a Rural Electrification Fund, and (iii) the leveraging of a \$28.6 million World Bank loan for a Utility Reform Project. These improvements, together with major sector reform decisions, are expected to not only accelerate the process of increasing rural energy access but also contribute to increased rural income generation, improved health care services, better education, and increased trade between the rural and urban populations.

In West Africa, USAID has provided significant support for the creation and development of the West African Power Pool (WAPP). The WAPP continues to thrive in its early years, with national electricity sector officials from 14 countries of the Economic Community of West African States (ECOWAS) working together to create a regional market for electricity. The members of the WAPP have taken important steps to promote investor security and permit investors to realize economies of scale by producing for a larger regional market. For example, the recently passed ECOWAS Energy Protocol provides a legal framework for energy sector investment and trade guaranteeing the free repatriation of capital, protections against nationalization, free selection of key staff without nationality requirements, and legal recourse in the event of unreasonable interference by government officials or industry regulators. Perhaps most importantly, the Energy Protocol enshrines the principles of “open access” to national transmission grids and “free trade” across West Africa in all kinds of energy.

Also, the creation of the first of the permanent WAPP bodies, the ECOWAS Energy Information Observatory, aims to provide a focal point for system operation and to provide a source of information for interested investors. Additionally, The WAPP has actively sought to endow itself with the analytical and operational tools to run a modern power pool. Under a USAID-financed program, the electric utilities in 14 different West African countries are now actively using a sophisticated computer model designed to simulate the trading of electricity across borders and offer insight into the most economical investments. The model provides for least-cost optimization of existing plants and new investments in order to help the region's electricity companies meet forecasted electricity demand.

In Indonesia, USAID has been instrumental in helping the Government of Indonesia design and implement the country's new oil and gas law, electricity law, and geothermal energy law, thus opening the sector for private sector participation. USAID also helped the Government of Indonesia significantly reduce energy subsidies, resulting in savings to the government budget of approximately \$780 million.

In Central America, USAID sought to increase Central American competitiveness in global markets by strengthening and expanding the power sector, resulting in appropriate energy supply for sustainable development in the region. USAID helped Central American governments develop new energy sector strategies, draft laws and regulations favorable to private sector investment, and create plans to mitigate the effects of natural disasters such as hurricanes and earthquakes. The Agency also helped create and strengthen new energy sector governing institutions, such as autonomous regulatory bodies—an important risk-mitigating feature for private sector involvement in the sector.

As a result of USAID's work in the Central American energy sector, the region has attracted almost \$4 billion in private investments in the last decade. Access to electricity has increased from 52% in 1996 to over 80% in 2003; and the overall efficiency, reliability and competitiveness of the sector has notably improved.

USAID has been instrumental in helping regulatory bodies throughout the world, including in Africa, South Asia, Eastern Europe, the former Soviet Union, Latin America and the Caribbean, increase their technical skills, thus resulting in more efficient and equitable energy sectors. In Ukraine, Moldova and Armenia, USAID provided technical assistance that resulted in the creation of effective and professional regulatory bodies, as well as successful privatization of all or significant portions of the electric distribution system in the three countries. Collection rates for service charges in these countries increased as the result of USAID technical assistance on billing and collections from 30% to near 100% and system operating deficits of \$50 million or more have been transformed into profits. Additionally, USAID is currently assisting the Government of Bangladesh as it establishes its independent regulatory body. Similarly, USAID is supporting the Government of Indonesia in the establishment and building of an upstream oil and gas regulatory body, a downstream oil and gas regulatory body, and an electricity regulatory body.

In addition to assisting governments in transforming their country's energy sectors, USAID has also been very active in helping electric utilities conform to the new demands of a restructured energy sector. In 16 countries throughout the world, USAID has helped electric utilities restructure, resulting in significant efficiency increases and cost savings. For example, in Egypt USAID is assisting the Egyptian Electricity Holding Company to improve its planning and efficiency, strengthen its financial viability, and promote regulatory reform in the sector. This program is helping to enhance the company's transformation into an autonomous utility company capable of operating on a commercially sound, self-sustaining basis. The Egyptian government and the Egyptian Electricity Holding Company have recently taken important steps to illustrate their commitment to private investment for future generating facilities. This action, in partnership with a private consortium, has led to a pioneering private investment in infrastructure—a 650-megawatt power station at Sidi Krir, west of Alexandria, a total investment of \$450 million. In addition, since 1990, USAID has supported a thriving partnership program which pairs United States' utilities with counterparts throughout the developing world.

USAID has also been active in raising the capacity of civil society organizations to participate in the energy sector. In Brazil, USAID has supported the creation and strengthening of the RENOVE program—The National Network of Civil Society Organizations for Renewable Energies. This network has been growing since 2001 and now has 38 member organizations spread throughout every region of Brazil. Its mission is to promote the use of renewable energy as a means to contribute to sustainable development. The Brazilian Ministry of Mines and Energy's "Luz para Todos" Program (Light for All) is an outcome of RENOVE advocacy, assistance and intervention. The Program's goal for this year is to provide electricity for 1 million people. Additionally, USAID contributed to the development of 62 small hydro plants and 35 wind farms. Over 75% of Brazil's energy efficiency companies (ESCOs) received training and technical assistance from USAID, and in the past five years, USAID-supported ESCOs have designed and implemented over 200 energy efficiency projects across Brazil, with an estimated investment of \$15 million.

USAID's assistance in institutional reform in the energy sector has yielded excellent results and has proved to be a cost-effective method of supporting economic growth through energy sector development in many countries. Yet institutional reform efforts often take many years to implement and frequently yield concrete development impacts only years after the reforms have been instituted. Nevertheless, USAID remains committed to the necessity of institutional reform in the energy sector, realizing that this is an essential component to sustainable growth, especially in today's global economy.

Please refer to the end of this newsletter for information about our new contractual mechanisms through which this and other assistance may be accessed.

Project Spotlight: Russia

Forest Resources and Technologies at Work

USAID/Russia's FOREST (Forest Resources and Technologies) biomass energy activities support Russia's national objectives to strengthen the forest products industry and the economy. FOREST assists companies in Siberia and the Russian Far East in search of assistance to develop biomass energy systems capable of burning wood wastes. As the private sector continues to grow, an increasing number of Russian companies are seeking ways to cut costs and add value to raw logs. The restructuring of the United Energy Systems (UES) of Russia and the difficulty in forecasting energy tariffs has also created an unstable energy environment. As a result, for many companies, investing in biomass energy systems fueled with wood wastes makes compelling economic sense. Companies save by utilizing biomass wastes for which they currently pay a disposal cost, and by replacing purchased fuel and electricity with self-generation. Companies also earn profits by utilizing biomass systems to produce wood products with greater value for local and international markets.

Siberian client company, Igirma-Tairiku (Irkutsk Oblast), already has implemented two Biysk biomass boilers with FOREST assistance, and is now looking to purchase additional boilers (13 MW thermal energy). Previously, Russian equipment capable of burning this waste did not exist and the company paid disposal costs to bury it. The company now plans to construct a power generating plant (4-5 MW) which will provide energy to a cogeneration heater and power CHP facility. Once completed, the CHP will generate 25 MW of thermal energy to supply energy for 10-12 dry kilns enabling the company to boost its exports by up to 150,000 m³ in high quality dry lumber going to Japan, Austria, and Germany, with an estimated profit of over one million USD/year, and supply heat to local buildings such as schools, hospitals in the outlying region. Already the first two boilers installed at Igirma-Tairiku serve as models for other companies and FOREST has been asked to provide similar assistance in implementing these biomass technologies in other regions.

In the Russian Far East, USAID Russia's FOREST and ROLL (Replication of Lessons Learned) environmental programs teamed up to provide assistance to Parusnovskiy DOK on Sakhalin Island. FOREST assisted the Russian firm in developing a construction plan for the dry kiln boiler system (0.45 MW thermal capacity), which ROLL has committed a \$35,000 energy conservation grant in September 2004 for construction of the 200 kW biomass facility. As this region is part of the 85% off of Russia's power grid, it is expected that this work will lead to improved quality of life for 1000 persons in the Parusnovskiy settlement replacing a diesel generator station and providing consistent power to the village.

USAID/Russia's FOREST Project is identifying potential and necessary usage for biomass energy in Russia with reference to product quality, waste utilization and energy conservation which could serve as models for other regions in the Commonwealth of Independent States.

Project Spotlight: India

Indian Village Uses Biofuel as Replacement for Diesel

EGAT's Global Climate Change team and the Environment, Science and Policy team, and USAID/India, are teaming up to fund and implement a project that uses energy as a tool to improve natural resource management and minimize emissions that contribute to climate change.

In the remote village of Chalpadi in the Indian State of Andhra Pradesh, oil extracted from the seeds of the local tree, *Pongamia pinnata*, is being used as biofuel to produce electricity. The local government helped the project get off the ground by providing \$8,000 for the hardware (a diesel gen-set engine, wiring, etc.) used to establish a local "micro-grid" that can generate and distribute electricity throughout the Village. The villagers are responsible for providing the fuel (derived from crushing the pongamia seed) to operate the gen-set, and are also responsible for operating and maintaining the system.

The Village has developed a system of self-governance that regulates who pays for fueling and operating the system, and who has access to the electricity it produces. A women's self-help group in the Village levies a tariff of 1 kilogram of pongamia seeds per family per day for families that use electricity from the system. The system has been running well for over two years.

In April 2003 the Village of Chalpadi became an environmental pioneer by selling 900 tons of carbon-dioxide equivalent verified emission reductions to Germany. The carbon sale, facilitated by former World Bank economist Dr. Emmanuel D'Silva, fetched the community \$4,164. This equates to about a year's worth of income for every family in the village. The state government has plans to replicate the project in some 100 villages. In addition, the federal government is actively encouraging biofuel production sourced from pongamia and other oilseed-bearing tree species.

The benefits to this system include electricity for household use and a new agricultural/forest crop of value (the seed from the pongamia tree). And the cultivation of pongamia in hedge rows, windbreaks and non productive areas can reduce soil erosion, increase soil fertility, improve wildlife habitat and provide other natural resources management benefits.

The next phase project, supported by USAID and implemented by the International Crops Research Institute for the Semi-Arid Tropics (ICRISAT) and several NGO and local government partners will use pongamia-based biofuel to power irrigation pumps. The project will assist women's groups to produce the seed, extract oil, and start woman-owned business enterprises that sell irrigation water to local farmers.

Additionally the project plans to (a) extend current practices in joint forest management and watershed management by making provisions for water and energy linkage; (b) introduce new technologies in power generation, irrigation, and agricultural cropping; and (c) improve socio-economic conditions related to social equity, gender balance, and empowerment of the disadvantaged.

For more information, contact Carrie Stokes, USAID/EGAT/ESP and Scott Bode, USAID/EGAT.

Clean Energy Initiative

Message from EGAT/EIT/Energy Team on OPIN Reporting

The EGAT/EIT Energy Team has been charged by the Administrator and senior management with the responsibility of collecting, verifying, and reporting on all activities that contribute towards the President's Clean Energy Initiative. Gordon Weynand sent a memorandum and attachments describing the Clean Energy Initiative and guidance on reporting, to Missions and Bureaus on September 25, 2004. If any of your activities fall under the Clean Energy Initiative, please report back to the Energy Team as soon as possible – the initial deadline for reporting was **COB October 15, 2004**. If you have any questions, comments or concerns regarding the Clean Energy Initiative and the reporting requirements please do not hesitate to contact Gordon Weynand (goweynand@usaid.gov; 202-712) or Jeffrey Haeni (jhaeni@usaid.gov; 202-712-0546).

Many thanks to the Missions that have already reported on their Clean Energy Initiative related activities.

Recent Events

World Energy Congress: Delivering Sustainability: Challenges and Opportunities for the Energy Industry

Sydney, Australia, 5-9 September 2004

Delivering sustainability has become a clear priority of the energy sector. The principal conclusion of the 2004 World Energy Congress is that sustainable energy systems are achievable, but the challenges are many and need to be tackled urgently if sustainability is to be achieved in this century.

Recent increases in energy prices are likely to be the precursor of a longer-term trend. While they will encourage much needed energy efficiency and stimulate investment, they pose severe difficulties for expanding access to modern energy services to the one third of people who still do not have it, or whose access is inadequate for economic development. An energy system embodying such inequities is neither sustainable nor acceptable.

Equally, supply disruptions - experienced by many in developing countries on a recurring basis and by north America and Europe in the blackouts of 2003 - exact a heavy economic penalty, highlighting the importance of ensuring security of supply in an increasingly interdependent global energy system.

Delivering sustainability demands that this access and security of supply be provided, while avoiding environmental impacts, which would compromise future social and economic development.

Drawing on the wide-ranging discussions of the Congress, the World Energy Council draws the following conclusions:

- ❑ **All energy options must be kept open and no technology should be idolized or demonized.** These include the conventional options of coal, oil gas, nuclear and hydro (whether large or small), and the new renewable energy sources, combined of course with increased energy efficiency. Each is subject to uncertainties, we cannot afford to jettison any one of them. Energy source diversity is the bedrock of a robust system, even if the optimum mix will vary according to local circumstances.
- ❑ **A larger share of global infrastructure investment must be devoted to energy.** For this cost-reflective prices are essential. Energy systems which do not pay for themselves over the medium to long term are not sustainable. Regulatory frameworks must recognize this and provide stability and transparency to attract the necessary investment in a timely manner.
- ❑ **A more pragmatic approach to market reform is emerging.** It is now widely recognized that market interventions (for example, subsidies or taxes) may be needed to achieve essential goals, including energy access, security of supply, the promotion of innovation and a level playing field in which external environmental impacts are reflected in prices. The more pragmatic approach allows for such interventions, while recognizing they should distort price signals as little as possible.
- ❑ **The reliability of electricity supply is an important priority.** In industrialized countries, consumers demand 100% reliability, while those in developing countries often suffer frequent disruptions. The cost burden of these disruptions has already been noted.
- ❑ **Regional integration of energy supply systems can boost access and energy supply security.** Regional collaboration needs to be enhanced to harmonize development of energy regulation and create of the necessary infrastructure. It is also the key to optimizing the water-energy nexus.
- ❑ **Climate change is a serious global concern, calling for changes in consumer behavior, but offering potential win-win opportunities.** These include increased transfer of efficient technologies from industrialized to developing countries and incentives to investment through emerging voluntary or regulated emissions trading or other mechanisms.
- ❑ **Technological innovation and development is vital to reconciling expanded energy services for more equitable economic development with protection of the environment.** Improvements to existing energy supply and utilization technologies are as critical to increased efficiency and to reduced costs and environmental impacts as new "breakthrough" options.

- ❑ **Research and development must be more strongly and consistently supported than has been the case.** It is the pre-condition of the innovation which is needed. A starting point is the reduction of R&D redundancies through international cooperation. A further priority is the transport sector where R&D is the key to improving sustainability.
- ❑ **Public trust must be won and retained.** This in turn depends on energy sector transparency. Cost-reflective pricing will not always be popular with consumers. Great public understanding of the issues involved will be needed to obtain acceptance and avoid political pressures that risk deflecting governments from essential policies.

Public understanding and trust starts with the youth. The Congress Youth Symposium Declaration clearly demonstrates the importance youth attaches to sustainability and their understanding of the issues and challenges involved in achieving it in practice.

Gordon Weynand Highlights U.S. Energy Partnership at 2004 World Energy Congress

At the 19th World Energy Congress of the World Energy Council, Gordon Weynand, Energy Team Leader of USAID/EGAT/EIT, presented a paper on how utility and regulatory partnerships promote electric power sector reform and spoke about the Global Village Energy Partnership at a panel discussion on the U.S. Clean Energy Initiative. Over 2,000 energy policymakers and corporate leaders participated in the Congress in Sydney, Australia from September 6th to 10th. The theme of the Congress was "Delivering Sustainability: Opportunities and Challenges for the Energy Industry". The keynote speeches and panels discussed the future of all energy options, the relationship of energy and climate change, and how to assist the 2 billion people who currently lack access to modern energy services.

Gordon's paper, titled "Enhancing Electric Power Sector Reform Through Voluntary International Utility and Regulatory Partnerships", drew on the experience of the USAID funded Energy Partnership Program, run by the United States Energy Association (USEA). The USEA/USAID Energy Partnership Program is a capacity building and knowledge transfer program involving voluntary partnerships between U.S. electric utilities and regulatory agencies and their counterparts in developing countries. Since 1990, the United States Energy Association -- the U.S. member committee of the World Energy Council (WEC) -- has established over 80 international energy partnerships around the world.

These partnerships promote the more efficient, sustainable, and environmentally sound supply and use energy through the transfer of market-based approaches and "best practices" for energy system operation and regulation. These two- year partnerships yield substantial development impacts by enabling senior utility and regulatory executives from developing countries to observe and learn firsthand how U.S. utilities and regulatory commissions are structured, financed, managed and regulated. The program's success is largely based on the voluntary participation of the senior U.S. and international energy executives.

Some of the key partnership impacts mentioned in the paper were the following:

- ❑ Over 70% of respondents reported that the partnerships contributed directly to accelerating power sector reform.
- ❑ 89% of reported adopting international utility and regulatory best practices learned through the partnerships.
- ❑ Almost 80% reported that documents obtained from their U.S. partners improved their own practices and procedures.

His paper also addresses the partnership impacts on:

- ❑ Electricity distribution and transmission
- ❑ Customer service
- ❑ Regulation

- ❑ Restructuring
- ❑ Energy efficiency and renewable energy

If you would like a copy of Gordon Weynand's paper, please contact him at Goweynand@usaid.gov.

Seminar on Vehicle Inspection and Maintenance Programs – International Experience and Best Practice

On September 23, the EIT/Energy Team hosted a seminar to present the above-mentioned report to interested staff from USAID, the World Bank, EPA and the private sector. The report focuses on the most common policy tool for affecting emissions from in-use vehicles: inspection and maintenance (I/M) programs. The rationale and concept for I/M programs is simple: modern vehicles are dependent on properly functioning components to keep pollution levels low. Though simple in concept, the detailed design and implementation of I/M programs is complex, as this report illustrates. Karl Hausker of PA Consulting, the report's primary author, developed and presented a set of best practices from global experience with I/M systems, focusing on institutional design, test procedures and emission standards, enforcement and compliance promotion, and managing resources. A key conclusion of the report, endorsed by the report reviewers and seminar participants, is that I/M programs are very difficult to develop and operate effectively. Developing countries should think twice before establishing such programs to meet their air pollution reduction objectives, given the generally dismal performance of most existing programs to date. The report also suggests a series of essential conditions that countries should meet before considering such measures. For more information and a copy of the presentation/draft report, please contact Simone Lawaetz at slawaetz@usaid.gov.

Second Annual Global Regulatory Network Conference

On July 26-30, 2004, in Bamako, Mali, more than 100 autonomous energy regulators from countries across Africa joined regulators from the United States, East Europe, Asia, and the Caribbean at the Second Annual Global Regulatory Network Conference and Power Purchase Agreements (PPAs)/Contracts Workshop and Regional Coordination for West Africa. The meetings were organized by the National Association of Regulatory Utility Commissioners (NARUC), co-hosted by the Commission de Régulation de l'Electricité et de l'Eau (CREE) of Mali, the Regional Electricity Regulators Association (RERA) of Southern Africa and the African Forum for Utility Regulators (AFUR) and funded by the U.S. Agency for International Development (USAID).

The Second Annual Global Regulatory Network Conference was an exclusive opportunity for utility officials, consumer groups and other power sector stakeholders to exchange views with the Chairmen, Commissioners, and staff of the regulatory bodies. The opening ceremony was presided over by His Excellency Ahmed Diane Semega, Minister of Mines, Energy and Water, followed by welcome remarks from Mr. Moctar Toure, Chairman of the CREE; Mrs. Pamela White, Mission Director of USAID/Bamako; Dr. Kevin Warr, Energy and Environment Policy Program Analyst of USAID/EGAT/EIT/Energy; and Mrs. Diane Munns, Second Vice-President of NARUC, who emphasized the significance of independent energy regulators to the creation of stable energy markets and economic improvement in developing countries.

The conference allowed for interactive and dynamic discussions on issues crucial to regulators in Africa and from around the world, including: public and private participation in the regulatory process; the role of the regulator as referee; consumer satisfaction and dispute resolution; policies for encouraging investment; and regional market development. The conference ended with the signing—and later endorsement by the Prime Minister of Mali—of a resolution supporting the continuation of the Global Regulatory Network Annual Conference.

Several NARUC representatives shared their experiences with West African members at the subsequent Power Purchase Agreements (PPAs)/Contracts Workshop and Regional Coordination for West Africa on July 28-30. US participants included Diane Munns (Iowa Utilities Board), Commissioner Frederick Butler (New Jersey Board of Public Utilities), Commissioner David W. Hadley (Indiana Utility Regulatory Commission),

Commissioner Wendell Holland (Pennsylvania Public Utility Commission), Dr. Rajnish Barua (Director of the Integrated Resource Planning Division, Maryland Public Service Commission), and Ms. Kim Wissman (Deputy Director of Utilities Department, Public Utilities Commission of Ohio).

The Power Purchase Agreements (PPAs)/Contracts Workshop and Regional Coordination for West Africa allowed for more than 60 senior technical staff from energy regulatory bodies, governmental agencies, and utilities from countries in the West African Power Pool (WAPP) to met and examine the most pressing issues in the region. The workshop sought to build understanding and capacity among leaders and professionals in the energy sector to manage and facilitate the introduction of IPP investments to meet the growing electricity demand and capacity shortages in the region, as well as negotiate fair and sustainable PPAs that balance the interests of consumers and investors. Participants engaged in face-to-face discussions that addressed issues relating to power sector reform; regional regulatory coordination; pricing and financing; negotiation and legal implications; sustainability; and the potential for IPPs in the region.

Foundations Course in Utility Regulation in Africa - August 22-27, 2004, Cape Town, South Africa

On August 22-27, 2004 the National Association of Regulatory Utility Commissioners (NARUC) and the World Bank/Public-Private Infrastructure Advisory Facility (PPIAF) organized the **Foundations Course in Utility Regulation in Africa** in Cape Town, South Africa. The course was co-hosted by the Graduate School of Business at the University of Cape Town (GSB/UCT), the Public Utilities Research Center (PURC) at the University of Florida, the Regional Association of Electricity Regulators (RERA) of Southern Africa and the African Forum for Utility Regulators (AFUR) and supported by the United States Agency for International Development (USAID) and the World Bank/PPIAF.

About 40 technical staff from energy, telecommunications, and water regulatory bodies, governmental agencies and utilities from countries in Africa participated in this course, which was aimed at enhancing the economic, financial, and governance skills of infrastructure regulators.

Delegates learned about key issues relating to market reforms in Africa and around the world; gained political and economic knowledge regarding performance-based regulatory incentives; and analyzed case studies in market design, rate of return reviews, and working with hybrid tariff systems.

The course opened with welcoming remarks by Chairman Thomas Welch on the principles that guide regulatory agencies regardless of the particular forms of regulation that develop in various countries. During the week, participants heard presentations that addressed the following topics:

- The Economic Rationale for Regulation: Market Failure and Natural Monopoly
- Understanding and Using Utilities' Financial Statements - Cost of Capital
- Fundamental and Practical Applications of Rate-of-Return Regulation
- Designing Price & Revenue Caps with Performance Based Regulation
- Conducting a Rate of Return Review
- Technical and Quality of Supply Issues in Regulation
- Inefficiencies in Investment and Operations
- Transparency, Public Participation, Communication Strategies and Working with the Media
- Uncertainty in the Regulatory/Political Climate

The foundation principles presented in this program will enable regulatory professionals to better implement policies that promote credibility for investors, legitimacy for consumers, and efficiency in the economy.

For more information about this program please contact Kevin Warr, EGAT/EIT/Energy, at kwarr@usaid.gov

South Asia Regional Initiative/Energy - Wind Mapping in Sri Lanka

USAID's SARI/E program supports a number of renewable energy related activities in Sri Lanka. USAID recently hosted a study tour focusing on support for grid-scale wind technology markets in Sri Lanka. Three private sector representatives from Sri Lanka participated in a two weeklong study tour in the United States in August 2004. Focused on technical and financial issues related to wind energy and grid-connected project development, the tour sought to build upon Sri Lanka's recently developed wind resource maps and to support private sector involvement in this area. This event was jointly organized by the Institute of International Education (IIE) and the National Renewable Energy Laboratory (NREL) with USAID support as one component of SARI-E activities in Sri Lanka.

The Sri Lankan participants, representing some of the largest, local private sector entities involved in energy project development in that country spent two weeks in the Denver, Colorado area meeting with technical experts in wind energy, wind project developers, equipment suppliers, and policy analysts. In addition to participating in the Wind Energy Applications Training Seminar, the participants visited a local wind farm, met individually with experts in the field, and attended the World Renewable Energy Congress meeting.

Sri Lanka currently relies primarily upon hydropower and thermal based generation to meet its growing energy needs. As good hydro sites become scarcer, Sri Lanka is looking at cost effective opportunities to further develop indigenous energy resources such as biomass, small-scale hydropower, solar, and wind. Sri Lanka has one 3 MW wind facility already in place as a pilot project, and has become increasingly interested in advancing the development of additional grid-connected wind projects to capitalize on its excellent wind resource in the northwest, southeast, and central highlands regions of the country. Through constructively engaging the private sector and utility representatives to address real and perceived technical barriers to wind energy, SARI-E is helping to demonstrate effective pathways for growth in grid-wind both in Sri Lanka and the region as a whole.

For more information about this program please contact Cindy Lowry, USAID/ANE at CLowry@usaid.gov and Upali Daranamaga, USAID/Sri Lanka at udaranagama@usaid.gov.

Mark Schlagenhauf, Global Oil and Gas Advisor, participated in the World Bank and USAID jointly funded regional infrastructure regulatory training program held in Cape Town, South Africa from August 23-27. Forty-two African regulators from the energy, water, and telecommunications sectors attended. Most regulators were familiar with rate of return regulation but other models that had distinct advantages, such as price caps, were less familiar to the attendees. The issue brought up by the majority of African regulators as their top priority was increasing access to services. Some participants suggested public private partnerships as a model that could be considered, especially where total privatization was not possible.

Mark Schlagenhauf, together with consultant Rani Parker, met with the USAID/Angola Mission, Private Voluntary Organizations (PVOs), and private sector firms to help the Mission evaluate its Global Development Alliance activities in Angola. A draft report with recommendations for the future has been submitted to the Mission for review

Energy Team News

EGAT/EIT/Energy Team Announces New Awards

Energy Sector Governance Program

ASSISTANCE & ADVISORY SERVICES FOR ENERGY SECTOR TRANSFORMATION (AASET) Task Order. Energy II Technical Assistance IQC

Energy sector governance has three dimensions. First, it refers to the manner in which energy companies run their businesses (e.g., management structure; the establishment of separate cost centers, putting in place international accounting standards, and standard billing and metering). Second, energy sector governance refers to the public policy environment under which private energy companies operate (or don't). Examples include the existence of an energy law, a regulatory body, and a fair judicial system. Third, governance refers to the management of the inherently political dimensions of the energy sector and includes issues of citizen access to decision-making processes, information and communication, education, and participation as well as political patronage.

The goal of this Task Order is to comprehensively address issues of energy sector governance with the objective of sustainably strengthening the sector to foster economic growth. Work under this Task Order will generally fall into the following topical categories:

1. Energy Policy Reform
2. Regulatory Strengthening
3. Energy Enterprise Restructuring and Commercialization

Ceiling \$7.3 million

Implementing Contractor: CORE International

CTO: Kevin Warr

kwarr@usaid.gov

PEOPLE, ENERGY, & GOVERNANCE (PEG) Task Order People, Energy and Development IQC

The purpose of the People, Energy, & Governance (PEG) Task Order is to educate stakeholders, build analytic and organizational capacity in energy institutions, and facilitate meaningful stakeholder interaction to enhance good governance of the energy sector. Like AASET, this Task Order will address the programmatic areas of Energy Policy Reform, Regulatory Strengthening, and Energy Enterprise Restructuring, with an emphasis on training and capacity building for democratic governance and public participation. The energy team will work with civil society, government, the private sector, and other stakeholders, to increase accountability and transparency in the sector by engaging stakeholders around a broad spectrum of energy sector issues, structures, and processes.

Ceiling: \$3 million

Implementing Contractor: Institute for International Education

CTO: Davida Wood

dwood@usaid.gov

URBAN ENERGY SERVICES PROGRAM

SUSTAINABLE MUNICIPAL ENERGY SERVICES (SMES) Task Order Energy II Technical Assistance IQC

EGAT/EIT/E's Urban Energy Program has developed the Sustainable Municipal Energy Services (SMES) task order with Nexant to support a wide range of urban energy issues. The scope of work has been written broadly, but will focus on three key areas: (i) energy efficiency, including areas of public sector efficiency, energy efficiency financing, equipment standards, buildings, utility efficiency, policy; (ii) air quality, including monitoring and management programs, sustainable transportation and clean fuels initiatives, and indoor air quality; and (iii) peri-urban (slum) electrification programs, including development of viable program models, strategies for scale-up, incentive schemes to legalize connections, financing, etc. The task order will be active for a period of four years.

Ceiling \$6 million

Implementing Contractor: Nexant Inc.

CTO: Jas Singh

jsingh@usaid.gov

RURAL ENERGY SERVICES PROGRAM

IMPROVING RURAL ENERGY SERVICES (IRES) Task Order People, Energy and Development IQC

The goal of USAID/Office of Energy and Information Technology/Energy Team's IRES Task Order is to improve access to, and the consumption of, energy goods and services for rural consumers. The IRES goal will be achieved by addressing four principal barriers that inhibit the rapid adoption of improved energy options:

- ❑ Poor planning and policies that inhibit increasing access to, and consumption of, modern energy goods and services by rural households;
- ❑ The lack of energy service providers which limits the availability of modern forms of energy;
- ❑ The inability to secure financing which constrains the both the type of modern energy services that are available and the rate at which they enter the market; and
- ❑ The lack of knowledge about various modern energy solutions and applications that restricts the ability of rural planners and consumers to pursue optimal modern energy solutions to rural development problems.

Therefore the IRES goal will be achieved by addressing these principal themes: Supporting Rural Energy Provision Policy and Planning; Supporting Energy Service Providers; Increasing Rural Energy Financing Options; and Technical Assistance for Innovative Applications.

Ceiling: \$3 million

Implementing Contractor: Institute for International Education

CTO: Patricia Flanagan

pflanagan@usaid.gov

SUPPORT TASK ORDERS

SUPPORT TASK ORDER

Energy II Technical Assistance IQC

The purpose of the Energy II IQC Support Task Orders is to provide EGAT/EIT/E and Missions a mechanism to obtain quick-response technical assistance services covering all technical areas of the Energy II IQC. These include: 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.

Each of the five Energy II IQC prime contractors has a five-year Support Task Order. These prime contractors are: Advanced Engineering Associates International (AEAI), CORE International, International Resources Group (IRG), Nexant, and PA Government Services.

Ceiling: Approx. \$25 million (for 5 contractors)

CTO: Todd Harding

tharding@usaid.gov

ENERGY EDUCATIONAL ALLIANCE SUPPORT (EEAS) Task Order

People, Energy and Development IQC

The objective of this Task Order is to provide the Office of Energy and Information Technologies' Energy Team (EGAT/EIT/E) with overarching administration of the IQC, knowledge management, short-term support to USAID Missions and Pillar and Regional Bureaus. Work under this task order will address a wide range of training and capacity strengthening assistance in the following programmatic areas: Energy Management and Operations; Oil and Gas; Policy, Legal and Regulatory Reform; Rural Energy Services and Community Development; Public Understanding and Participation; Energy Enterprise Restructuring and Commercialization; Technology Transfer; Transnational Issues; Transportation Infrastructure; and Crosscutting Sectors.

The four prime contractors implementing this Task Order are:

Academy for Educational Development (AED), Advanced Engineering Associates International (AEAI), CORE International, and Institute for International Education (IIE).

Ceiling: \$3 million

CTO: Ellen Dragotto

edragotto@usaid.gov

ENERGY SECTOR GRANTS PROGRAM (ESGP) Task Order

People, Energy and Development IQC

The Energy Sector Grants Program (ESGP) Task Order is to provide a mechanism to issue grants to host-country organizations in order to further energy sector reform and development efforts. USAID recognizes that oftentimes the best implementers of energy sector programs are those organizations that are closest to energy sector stakeholders, e.g., local organizations. The purpose of this task order is to show on-the-ground results that can only arise from the provision of grants to enable recipients to adopt new techniques, technologies, and approaches that will bring about real and sustainable changes in the way the energy sector is governed and/or the way energy services are provided. Grants would form an integral component of our Energy Team portfolio by testing and demonstrating program models for eventual replication and scale-up, which could not be adequately accomplished through the provision of technical assistance alone. Grants could substantially leverage other funding, enhance program designs and models by actually testing and refining them, and offer concrete opportunities to scale-up investments through DCAs, GDAs and other innovative USAID mechanisms. Further information about eligibility, selection criteria, and application procedure will be forthcoming.

Ceiling: \$3 million
Implementing Contractor: Advanced Engineering Associates International
CTO: Ellen Dragotto
edragotto@usaid.gov

**ENERGY TRAVEL Task Order
People, Energy and Development IQC**

The Energy Travel Task Order directly contributes to USAID's objective of facilitating human capacity building through the adaptation of best practices in the development, management, and operation of energy sector initiatives. The Travel Task Order provides the USAID Energy Team and the USAID Missions and Bureaus with the capacity to engage a wide variety of key energy and environmental decision-makers in public, private, NGO and university environments by enabling their attendance at various conferences, workshops, and other international fora.

Ceiling: \$1.6 million
Implementing Contractor: CORE International
CTO: Ellen Dragotto
edragotto@usaid.gov

The Energy Team

The Energy Team within the EGAT Bureau's Office of Energy and Information Technology provides technical leadership and field support to USAID Missions and Regional Bureaus for the design and implementation of activities to improve the quality of life, increase economic growth, and promote sustainable communities by increasing access to environmentally sound energy services. The Energy Team focuses on:

- Improving policy, legal, and regulatory frameworks to establish necessary market conditions for the private sector delivery of energy services and environmental management services;
- Increasing institutional (public, private, and NGO) ability to provide or deliver energy and environmental management services in the new and enhanced markets; and
- Increasing public understanding of, and participation in, decisions regarding delivery of energy and environmental management services.

Contact The Energy Team

Energy Team Leader -- Gordon Weynand at goweynand@usaid.gov

Energy Technical Assistance Indefinite Quantity Contract (IQC) II --Todd Harding at tharding@usaid.gov

People, Energy and Development Indefinite Quantity Contract -- Ellen Dragotto at edragotto@usaid.gov

Energy Team Programs

Energy Sector Governance Program

- Work with governments to educate and assist them in understanding the commercial nature of energy, the range of options for governmental administration of the sector, and to help them develop appropriate levels of intervention, given their national circumstances, to promote private sector-led economic growth.
- Work with developing country enterprises to educate and assist them in changing from politically based operations to commercial operations based on market economics and democratic political institutions.
- Work with consumers, media, and the general public to increase their knowledge of and participation in the social, legal, financial, and commercial conditions required for provision of energy services.

For more information contact: Mark Murray at mmurray@usaid.gov; Kevin Warr at kwarr@usaid.gov; Davida Wood at dwood@usaid.gov; Walter Hall at whall@usaid.gov; Mark Schlagenhauf at mschlagenhauf@usaid.gov.

Rural Energy Services Program

- Address development challenges faced by populations living in rural areas through the improved provision of energy services.
- Focus on the energy dimension of rural services, such as health, water supply and purification, food production and processing, microenterprise, gender equity, education and information.
- Design energy interventions to expand economic and social opportunities within the socio-cultural context of the intended beneficiaries' environment and their community institutions, thereby ensuring their sustainability.

For more information contact: Patricia Flanagan at pflanagan@usaid.gov; Erik Streed at estreed@usaid.gov; Jeff Haeni at jhaeni@usaid.gov

Urban Energy Services Program

- Address a broad range of complex development challenges in urban and peri-urban areas through the improved provision of energy services.
- Focus on sustainable energy solutions for municipal services including electricity, cooking/heating, water, housing, transportation and waste management, including promoting and piloting new approaches and activities that encourage cost-effective efficiency improvements in the use of energy, water and natural resources.
- Encourage the adoption of integrated policy, technology and social approaches to reduce air pollution, both for indoor and outdoor urban air quality.

For more information contact: Jas Singh at jsingh@usaid.gov; Pamela Baldinger pbaldinger@usaid.gov; Simone Lawaetz at slawaetz@usaid.gov.

Energy Team

Office of Energy and Information Technology
Bureau for Economic Growth, Agriculture, and Trade

To learn more about USAID's energy program, visit

http://www.usaid.gov/our_work/economic_growth_and_trade/energy/

