



ENERGY UPDATE

ISSUE 3

MAY/JUNE 2006

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

In This Issue:

SPECIAL REPORT: USAID AND PARTNERS SHOWCASE ENERGY ACTIVITIES AT THE 14TH SESSION OF THE UNITED NATIONS COMMISSION ON SUSTAINABLE DEVELOPMENT

U.S. Government / USAID's Participation At CSD-14.....Pg 3
 CSD-14 Events, Outcomes, and Useful LinksPg 4
 "Moving Forward On Energy At The CSD" – An interview with U.S. State Department's Jonathan Margolis.....Pg 5

1. Partnership Fair Events.....Pg 7
 - 1.1 Transforming the Mexican Market through Energy-Efficient Purchasing
 - 1.2 Emission Reductions & Energy Savings through Standards & Labeling
 - 1.3 USAID/USEA Program Transfers Power Sector "Best Practices"
 - 1.4 Electricity Governance Toolkit: Creating a New Dialogue on Governance
2. Learning Center Events.....Pg 11
 - 2.1 Financing, Financing, Financing!
 - 2.2 Mobilizing Private Sector Financing for Energy Projects
 - 2.3 Improving Electricity Service for the Urban Poor
 - 2.4 Media Panel Stresses Importance of Energy Journalism and Need for Journalists' Network
3. Side Events.....Pg 15
 - 3.1 Scaling Up Private Sector Investment in Energy Efficiency
 - 3.2 Household Energy and Health
 - 3.3 USAID Projects & Practitioners Highlighted at UNDP Knowledge Expo
 - 3.4 The Global Village Energy Partnership (GVEP) and Brazil
4. Aid Effectiveness in the Energy Sector: A Gender Perspective..... Pg 18

FEATURE ARTICLE.....Pg 19
 Clean Power for Trade and Investment in West Africa

NOTES FROM THE FIELD.....Pg 22
 Philippine Development Innovation Marketplace: Development with Equity

NEWS & EVENTS.....Pg 22
 USAID's Jacqueline Schafer Receives International Energy Leadership Award
 USAID to Promote Integration of South and Central Asian Energy Markets
 USAID Energy Programs Highlighted in Testimony to U.S. Congress

COMMENTS & QUIBBLES.....Pg 24
 Response to "Making Room for Public Interests," Energy Update, March/April 2006

ENERGY UPDATE

Is the bimonthly newsletter of the Energy Team, Office of Infrastructure and Engineering, Bureau for Economic Growth, Agriculture and Trade.

IN THE NEXT ISSUE

Energy: Enabling Peace and Security in Conflict-Affected Countries

Please **submit articles** on this topic, as well as other topics for the Feature Article section, and your project updates for the Notes from the Field section.

Initial submissions must be 500 words or less in length and include contact information.

The **submission deadline** is **July 28, 2006**. Please e-mail your articles to the Editor, Davida Wood (dwood@usaid.gov).

Articles are accepted for publication from employees of USAID, associated organizations, contractors, and other partners in development.

LETTER FROM THE EDITOR

This issue of Energy Update focuses on the United States delegation's participation at the 14th session of the Commission on Sustainable Development (CSD-14) at the United Nations in May 2006. A bit of background might be in order:

The UN General Assembly created the Commission on Sustainable Development (CSD) in December 1992 to ensure effective follow-up of the June 1992 UN Conference on Environment and Development (UNCED) held in Rio de Janeiro. This 53-member commission typically met annually for up to six weeks to consider progress on Agenda 21: a comprehensive plan of action to be taken globally, nationally and locally by organizations of the United Nations System, Governments, and Major Groups in every area in which human impacts on the environment.

Amid a growing sense that the CSD's negotiations of consensus texts did little to advance implementation, the 2002 World Summit on Sustainable Development (WSSD) agreed on reforms to make the CSD more action-oriented. These include: limiting negotiations to every two years; prioritizing the themes/sectors addressed at each session; and, focusing on sustainable development partnerships. At its 11th Session in 2003, the CSD codified these reforms and agreed on a multi-year work program. Each two-year cycle is comprised of a review year and a policy year. The 2005-2007 "Energy Cycle" focuses on the four themes of energy for sustainable development, industrial development, air pollution / atmosphere, and climate change. CSD-14 took place May 1-12 at the UN Headquarters in New York City; as a "Review Session," CSD-14 marked the mid-point of the Energy Cycle. The CSD-15 "Policy Session" will conclude the Energy Cycle in May 2007.

As Jonathan Margolis, U.S. Department of State's Special Representative for Sustainable Development, points out (see the interview with the Stakeholder Forum reprinted in full in this issue), the U.S. understands the four themes of the Energy Cycle to be interdependent, with each having implications for the others as well as for a host of development issues such as health, water, education and economic growth.

Building on the action-oriented reforms implemented since WSSD, CSD-14 focused on practical approaches to increase access to modern energy services. In parallel to the official ministerial meetings, the USG shared its experiences in the Partnership Fair, Learning Center, and Side Events. The USG also sponsored speakers at the multi-stakeholder dialogue segment and participated in the UNDP Knowledge Expo. This Energy Update Special Report, then, focuses on the implementation aspect of this review year. We hope that this Report is informative so that you can join us as we prepare to engage in year two of the energy cycle in 2007. This Report is edited by Sharon Hsu of the Energy Team and Patricia Flanagan from the Office of Infrastructure and Engineering.

Our Feature Article, "Clean Power for Trade and Investment in West Africa" spotlights the West African Gas Pipeline, which will soon deliver natural gas from Nigeria to Benin. The report summarizes USAID's involvement and suggests future activities that donors may wish to consider.

And finally, this issue introduces a new department of Energy Update: "Comments and Quibbles", in which we share with you responses, debates, and insights generated by previous issues of the newsletter. I encourage you to continue this interactive spirit.

David Wood
Editor, Energy Update
Energy Team
Office of Infrastructure and Engineering
Bureau for Economic Growth, Agriculture, and Trade
U.S. Agency for International Development

SPECIAL REPORT:

USAID and Partners Showcase Energy Activities at the 14th Session of the United Nations Commission on Sustainable Development

Edited by: Sharon Hsu & Patricia Flanagan

U.S. GOVERNMENT / USAID'S PARTICIPATION AT CSD-14

The interagency **U.S. delegation**, led by Under Secretary of State for Democracy and Global Affairs, Paula Dobriansky, included representatives from Department of State (DOS), U.S. Agency for International Development (USAID), Department of Energy (DOE), Environmental Protection Agency (EPA), and the U.S. Department of Agriculture (USDA). The U.S. delegation also benefited from the strong engagement of its private sector, local authority and youth representatives, who were able to reach out to their constituent groups to reinforce the U.S. message.

The **U.S. message** emphasized several keys to success for increasing access to modern, clean, healthy, and efficient energy services:

Governance: stronger policy and regulatory frameworks that lead to increased public and private sector investment;

Technology mix: the full spectrum of technologies, including conventional, advanced, renewable, and energy efficiency;

Public-private partnerships: Public-private partnerships, including the energy partnerships launched at and since the 2002 World Summit on Sustainable Development;

Finance and expanded private sector engagement: active participation of the private sector and an increased ability of public sector funding to leverage commercial grade investments; and

Metrics: In addition, the U.S. underscored the need to produce and report measurable results.

CSD-14 EVENTS

Ministerial Segment

The 3-day **high level Ministerial segment** involved discussions on addressing barriers and constraints, and priority areas for CSD-15, as well as dialogue with business leaders and UN organizations. The CSD-14 chair was Mr. Aleksi Aleksishvili, Minister of Finance of Georgia.

U.S. Under Secretary Dobriansky was a featured speaker on the opening panel of the high-level session chaired by UN Secretary General Kofi Annan. Her remarks underscored U.S. domestic and international efforts to address energy supply, security and sustainability. Assistant Secretary of State for Oceans and International Environmental and Scientific Affairs, Claudia McMurray, joined U/S Dobriansky for a series of bi-lateral meetings during the high-level segment.

Technical Sessions

The large-group technical sessions included thematic and regional discussions. **Thematic discussions** covered topics such as improving access to energy services; enhancing energy efficiency; renewables and advanced energy technologies; air pollution and atmosphere; and industrial development (see CSD website for full calendar). USAID and its implementing partners participated in many of these sessions. USAID funded the participation of several developing country program partners as well as US-based experts. One USAID-sponsored participant, Rani Parker, spoke on aid effectiveness in the energy sector from a gender perspective (see article in section 4).

During each of the thematic discussions, technical experts on the U.S. delegation presented 2-3 **case studies** illustrating U.S. lessons learned and best practices. Over the two weeks, the U.S. delegation presented 41 case studies in all and distributed a compilation of these interventions widely at CSD-14 (this compilation, "Practical Solutions to Energy Challenges," is available on the web at <http://www.state.gov/g/oes/sus/csd/2006/inter/>).

Partnerships Fair and Learning Center

Many of the innovations that the UN has introduced over the past three years have been institutionalized as core elements of the CSD process. The **Partnerships Fair and Learning Center** continued at full speed this year, with strong USAID participation. Several of the most substantive and productive discussions occurred in these sessions, as well as in overflowing side events convened throughout the two weeks (see articles in sections 1 and 2).

Side Events

The **USG official side event** featured representatives from DOS, DOE, EPA, USAID, USDA and the New York State Energy Agency. The presentations highlighted successful domestic and international programs. In addition, the U.S. delegation hosted three well-attended briefings for civil society representatives, relaying the U.S. impression at the beginning, mid-point, and end point of CSD-14, as well as sessions for several of the major group caucuses.

The U.S. also co-sponsored an **Energy Efficiency Investment Forum**, designed to attract investors, financiers, private firms, end users, and development agencies to showcase and expand profitable, energy efficiency business opportunities in the developing world (see <http://www.eeinvestmentforum.org/>).

USAID also contributed and participated in a **UNDP Knowledge Expo on Energy for the Millennium Development Goals (MDGs)** (see article 3.3).

Several side events showcased **entrepreneurship and creative solutions** that included:

- The World Bank brought the winners of their Development Marketplace competition to CSD to meet delegates and participate in a panel discussion.
- The International Chamber of Commerce, the International Business Leaders Forum, and UNDP held a ceremony to announce and showcase the 10 winners of the World Business Awards, which recognize businesses taking innovative approaches in pursuit of the MDGs.
- The Supporting Entrepreneurs for Environment and Development (SEED) Initiative, which seeks to catalyze locally-driven entrepreneurial

partnerships, held a “Seed Forum” to highlight winners of the first round of Seed Awards and launch the second call for submissions. At a reception, Undersecretary Dobriansky announced that the U.S. would renew its financial commitment to Seed for its second awards cycle.

- Representatives from UNDP and the Global Environment Facility (GEF) highlighted the efficacy of their Small Grants Program in catalyzing creative solutions.

CSD-14 OUTCOMES

The official **outcome of the CSD-14** Session was a non-negotiated Chair’s Summary (available on the CSD website). Complementing this Summary, the CSD Secretariat compiled a non-negotiated **“Matrix” of case studies, lessons learned, and best practices**, intended to serve as a user-friendly, web-based information tool that can make the examples collected during the CSD process available to implementers at the local level. This Matrix was developed in response to guidance from governments to the CSD Secretariat to focus on implementation. The Matrix is available via the CSD website and will be updated by the CSD Secretariat as a “living document.”

LOOKING FORWARD TO CSD-15

At the close of the session, Qatar’s Second Deputy Premier and Minister of Energy and Industry, Abdulla Bin Hamad Al-Attiya, was elected to chair CSD-15. Minister Al-Attiya will be joined on the CSD-15 Bureau by the Czech Republic, Australia, Burkina Faso, and a Latin American country to be determined later. CSD-15 will take place April 30-May 11, 2007 and will be preceded by an Intergovernmental Preparatory Meeting February 26-March 1.

USEFUL LINKS

CSD-14:
<http://www.un.org/esa/sustdev/csd/review.htm>

CSD-15:
<http://www.un.org/esa/sustdev/csd/policy.htm>

U.S. Delegation website:
<http://www.state.gov/g/oes/sus/csd/2006/index.htm>

“MOVING FORWARD ON ENERGY AT THE CSD”

An Interview with Jonathan Margolis, U.S. Department of State, Special Representative for Sustainable Development

On May 4, 2006, Jonathan Margolis was interviewed by the Stakeholder Forum on “Moving Forward on Energy at the CSD.” This interview, reprinted below, can also be found at the State Department website at <http://www.state.gov/g/oes/rls/rm/2006/65891.htm>

The 14th Session of the CSD is addressing the issues of Energy for Sustainable Development, Industrial Development, Air Pollution and Climate Change. How does the US government feel these issues can be addressed at the CSD?

This CSD session has one overarching theme: Energy. That is why it is called the ‘Energy Cycle.’ This overarching theme includes the 4 substantive issues you identified: Energy for Sustainable Development, Industrial Development, Air Pollution and Climate Change. The US Government has made an assessment of those 4 issues and concluded that each could easily have an entire cycle devoted to them alone. Furthermore, many of those areas already have extensive programs and activities dedicated to them under the auspices of the UN. As a result, the US feels that energy should be used as a prism through which we look at a broad swath of sustainable development issues (e.g., health, education, water, etc.). In relation to the four thematic issues of this cycle, we can talk about each within the context of energy. For example, if we address activities directed at making energy consumption more efficient, on both the supply and demand side, our efforts will in turn have positive affects for air pollution and climate change. We feel energy efficiency is an issue that should be front and centre in discussions at the CSD.

Since Johannesburg, energy security has become an increasingly important issue. How could the CSD's Energy Cycle give direction on how to address this increasingly critical issue?

The thing we need to recognize about energy is that citizens expect their governments to ensure that they have access to reliable, healthy, and affordable energy services. As a result, the issue of energy security is of great concern to governments. Energy is important because it underpins the ability to provide other basic services such as water, health, and education. This means every country will

approach the issue of energy from the perspective of energy security. We need to recognize though, that the circumstances of each country are distinct. For some countries, renewable energy may be a good option. Others, however, may not have renewable options, and will need to look to more conventional energy sources. National circumstances will drive countries to seek appropriate energy mixes. The goal of the US for the CSD is to find a way to identify the best ways for countries to provide clean, healthy and affordable energy service to their citizens.

The US has been very supportive of DESA's matrix approach. How could this mechanism be strengthened for future cycles?

I am glad you raised the issue of the role of the Secretariat. We have been very impressed with the Secretariat's ability to take on board the guidance of governments, who have wanted to see a CSD focused on implementation. Mechanisms such as the matrix and the partnerships database are important responses to this. With regards to the matrix, the Secretariat solicited case studies from governments and major stakeholders. When they did this, they targeted implementation. The US took this request seriously and submitted over 30 case studies to the Secretariat. We understand that many other governments have done the same. The challenge for the Secretariat now is two fold. First, the secretariat will need to find ways of effectively managing the constant stream of information and case studies that will now be flowing from governments. The second challenge for the secretariat is how to organize the information they receive in a user-friendly accessible manner, that enables governments, practitioners, and other stakeholders to make use of it, adapt and replicate it.

In their statement to the plenary on Monday, the South African representative talked about need to address issues such as technology transfer, capacity building and financing. How could the policy year unlock the capacity building question and come up with some specific activities that could be taken?

Good question. I like it because it suggests that the policy year is not so much about policy, but about practical action and implementation. We need to be clear about what we are building capacity for. For example, if we want to promote energy efficiency, capacity building would be relevant to help develop the standards for products that conserve energy. It is about identifying the technical assistance that a particular institution might need to enhance

regulatory reform or other energy governance. To me, these sound like practical steps rather than policies. I hope next year's policy session can identify practical and concrete steps; that would be a huge contribution.

Is this the holy grail of the CSD?

I hope our policy year discussions are focused on identifying the practical (implementation and outcomes), rather than the abstract (namely what types of policy interventions are needed to make an institution undertake specific actions). That is what we should be talking about in the policy year.

When we attended the ECLAC RIM in Chile, the US had arrived with money to spend on partnerships. There are of course a number of sources of finance: donor money, IFI (International Financing Institutions) and Private sector. What roles can each of these play?

Financing is indeed a key issue! You have listed three financing sources. I would like to add a fourth; domestic financing. There are huge amounts of financial resources located in local banks and institutions in developing countries. The key is to find a way to unleash this money so that it can make productive contributions to the energy sector. There are a number of ways to do this. Often local banks view energy projects through a conservative lens, considering them to be risky. Risk guarantees, such as those backed by the US for pooled debt for example, allows money that exists in local institutions to be invested in less traditional investment opportunities. Risk guarantee can provide the help to make investments in the energy sector that might not have been otherwise possible. In addition, credit authority structures have the added benefit of helping local institutions to develop capital markets, making economic growth sustainable and possible.

ODA (Other Direct Assistance) also has a clear role to play as well. However, when you compare the amount of financing needed to enable access to energy worldwide (\$16 trillion) to the amount of money available through official development assistance you realize that ODA is magnitudes smaller. In the United States, we have had to recognize that ODA needs to strategically target activities that will act as a catalyst for broader activities. For example, our ODA cannot build power plants, but we can help develop regulatory policy frameworks that will make investing in the energy

sector more attractive. ODA should help to make the right climate for investment.

Stakeholder Forum has conducted number of workshops to look at lessons and to develop recommendations on how the CSD could be strengthened. What are the key lessons learned from the first cycle and how can we take these forward?

First let me say that Stakeholder Forum did a tremendous service to the CSD process by holding those meetings. In the past 3-4 years, the CSD has set out an ambitious reform agenda. The US has found that many elements of this reform required thinking, discussion and dialogue between governments and Major Groups. Stakeholder Forum provided the ability to sort through some of those issues and to ask: What are we trying to achieve? What are our goals? What do we need to take to get to those goals forward? Let me give you an example. At the September workshop, the discussion identified the idea of champions, actors who step forward and become leaders in implementation.

Next year is 5th anniversary of the World Summit on Sustainable Development. If you could project yourself 10 years into the future, to the 10-year anniversary, what would you hope to see had been achieved?

We have to be realistic about what the CSD can achieve. It is my hope that by focusing on concrete results and establishing norms for implementation, that by 2012 we will be reporting at CSD-20 and beyond on the capacity we have built, results that have been achieved, the metrics we use to define those results, rather than abstract concepts. Such terms could become obsolete. Instead, we will be interested with whether a local institution has the capacity to manage a stakeholder process that develops a voluntary efficiency labeling program for a set of products. This would be a huge success for CSD. Looking back, I would feel quite proud that CSD 14 launched the process to make this results oriented approach to energy efficiency possible.

Notes

DESA: The UN Department of Economic and Social Affairs (DESA) Division for Sustainable Development is the substantive secretariat to the CSD

ECLAC RIM: The UN Economic Commission for Latin America and the Caribbean (ECLAC)

Stakeholder Forum: <http://www.stakeholderforum.org>

1. CSD-14 PARTNERSHIP FAIR EVENTS

The CSD-14 Partnerships Fair provided a venue for partnerships for sustainable development to network, identify partners, create synergies between initiatives and learn from each other's experiences. The Partnerships Fair showcased 33 partnerships through a mixture of presentations, interactive discussions, and exhibition space.

1.1 Transforming the Mexican Market through Energy-Efficient Purchasing

The Promoting an Energy-Efficient Public Sector (PEPS) partnership team presented their experiences at the CSD-14 Partnership Fair, May 2–4, 2006.

Opportunities exist in every country for more efficient energy management of government owned facilities and operations—which can result in cost savings, reduced emissions, and increased energy system reliability. In addition, the government's buying power and leadership can stimulate market demand for energy-efficient products. Despite these potential benefits, many countries have only recently begun to focus on facilitating energy-efficiency policies in the public sector. Historical barriers to such efforts include a lack of technical expertise, bias toward buying lowest-first-cost products, and budget constraints for capital improvements (despite short payback periods). In addition, there are often economic disincentives for investing in efficiency, including: 1) subsidized energy costs, 2) energy-related decisions made by people who are not responsible for the energy bills, and 3) public agencies that reduce their bills, ironically often are not able to retain the resulting savings in their own budgets.

Established in 2000 to help government agencies worldwide overcome these barriers, PEPS is a partnership of Lawrence Berkeley National Laboratory (LBNL), International Council for Local Environmental Initiatives (ICLEI/Local Governments for Sustainability), the Alliance to Save Energy, and the International Institute for Energy Conservation (IIEC). With funding support from USAID, the U.S. Department of Energy, U.S. Environmental Protection Agency, and the Energy Foundation, the PEPS partnership develops outreach tools (i.e., website, guidebook, energy savings calculator) and works with developing country partners to implement government sector energy-efficiency programs.

The evolution of the PEPS government purchasing initiative in Mexico offered a clear demonstration of how focusing on adjusting purchasing guidelines and practices can help lead to a transformation in the market for more efficient products and services.

In 2000, PEPS and Mexico's National Commission for Energy Conservation (CONAE) began a program to help federal agencies institute policies that would commit them to buying energy-efficient products. After encountering a number of challenges at the federal level—resulting in part from an ambitious project scope that covered a large array of products and targeted all federal agencies—PEPS shifted to municipal government purchasing.

In 2003, PEPS began coordinating with ICLEI's Cities for Climate Protection (CCP) campaign to implement a two-pronged approach, providing:

- 1) Technical tools to help cities adopt and use new procurement policies—including sample policy text, an energy savings calculator, a PEPS manual with equipment purchasing specifications, case studies of successful experiences in other cities, and a website containing these and other useful resources for Mexican municipalities; and
- 2) Customized technical assistance (through site visits and seminars) to help cities initiate actual energy-efficient procurements.

The pilot phase of the municipal program avoided the challenges of the ambitious federal-level program by focusing on a limited set of energy-efficient products (lighting and office equipment) and by concentrating on only eight cities. Tangible benefits from the program were almost immediate.

By September of 2005, the estimated annual savings from purchases in four cities exceeded 5,000 MWh, saving taxpayers about US\$726,000 annually and reducing power plant emissions by an amount equivalent to 3,300 metric tons of CO₂.

Based on the success of the municipal-level pilot phase, PEPS is now expanding training to new cities (more than 20 have been recruited since September 2005) and is adding products to the PEPS specifications. The program expects to complete energy-efficient procurements in at least 10-15 cities during the current fiscal year. In addition, the early successes of the municipal program have rekindled the interest of the federal government (along with a number of state governments), and PEPS is working with CONAE to introduce the PEPS purchasing

specifications in several federal agencies this year. Finally, PEPS is exploring possibilities for partnering with the private sector to launch a regional procurement initiative.

The PEPS initiative in Mexico demonstrates the need for flexibility in designing and implementing procurement programs, as well as the benefits of focusing on small pilot programs to achieve early success. By shifting its focus to municipalities, capitalizing on an existing network of motivated cities, and limiting the scope of the pilot phase, PEPS achieved demonstrable success at the municipal level after just one year—which has given the program momentum at all levels of government. Early successes by leading cities also helped newly recruited cities learn from those that had recently completed procurements.

For more information contact: Laura Van Wie, Lawrence Berkeley National Laboratory, email: lvantie@lbl.gov, and Jas Singh, USAID/EGAT/I&E/Energy, e-mail: jsingh@usaid.gov

1.2 Emission Reductions and Energy Savings through Standards and Labeling

The Collaborative Labeling and Appliance Standards Program (CLASP) presented its program and experiences at the CSD-14 Partnership Fair on May 1, 2006.

BACKGROUND

Since its formation in 1999, CLASP has worked in over 30 countries through one-on-one and regional initiatives assisting with the implementation of 21 new minimum energy performance standards and energy efficiency labeling programs. Together, these standards and programs will save 90 terawatt hours (TWh) of electricity and 86 megatonnes of CO₂ (MtCO₂) annually by 2014. A recent success has been in India where on May 18th 2006, India's Bureau of Energy Efficiency (BEE) launched the National Energy Labeling Program in fulfillment of the Energy Conservation Act of 2001. CLASP was a key consultant supporting BEE in this process.

Standards and Labeling (S&L) is a leading energy savings and Greenhouse Gas (GHG) emissions reductions policy because it is extremely cost-effective and can offer substantial energy savings to an economy. One can calculate how much the market for appliances and equipment has shifted as a result of a standard and/or label, as well as the accompanying dollar and carbon savings. For example, in the U.S., an

expenditure by the U.S. Government of \$2 per household over the life of its S&L program for the development of standards has induced increased spending on energy efficient features of appliances that results in average savings to consumers that is three times the investment, and totaling \$150 billion nationally. Standards already in place will, along with these economic benefits, yield a carbon reduction of 9% in the year 2020 at an average taxpayer cost for the government program of six cents per ton.

At the CSD-14 Partnership Fair, CLASP explained the rationale for pursuing its mission to serve as the primary international voice and resource for energy efficiency S&L worldwide. CLASP also outlined its approach to working with the global community, described the rapidly expanding regional S&L collaborations, and introduced listeners to some of the activities currently underway.

CLASP's global S&L program presentation was supported by its partners from UNDP, UNDESA, DOS, USAID, U.S. DOE, U.S. EPA, the International Copper Association, and another USAID supported partnership -- PEPS (Promoting an Energy-efficient Public Sector).

The CLASP partners demonstrated, through experience and lessons learned, that CLASP could be most effective by approaching S&L development and implementation from a variety of angles. While it provides direct support to in-country technicians and officials in all aspects of the program process, it also has developed, and is continuing to develop, support tools that in-country practitioners can utilize during training and long after. Some examples are: a guidebook for S&L policymakers, a comprehensive website, data collection protocols and an impact evaluator. In addition, CLASP knows that countries often benefit greatly from regional collaboration, which helps to break down some of the potential barriers to program development and trade. In light of this, CLASP has been facilitating regional initiatives directed at adoption of common test procedures, mutual recognition of test results, and/or alignment of performance standard levels and energy labeling criteria.

CLASP receives funding support from USAID and since its conversion to a non-profit corporation in 2005, is governed by an active Board of Directors comprised of 12 individuals from 8 countries in four continents.

For more information contact: Christine Egan, CLASP, email: cegan@clasp.org, and Jas Singh, USAID/EGAT/I&E/Energy, e-mail: jsingh@usaid.gov

1.3 USAID/USEA Energy Partnership Program Transfers Power Sector “Best Practices”

USAID and the U.S. Energy Association (USEA) presented the Energy Partnership Program (EPP) during the Partnership Fair at CSD-14 on May 8, 2006.

The Energy Partnership Program partners U.S. electric utilities and regulators with counterparts in developing countries for a period of up to two years. Using an issue focused work plan, the partners share best practices in utility planning, operation/maintenance, and financing, as well as in regulatory tariff setting, customer service and governance. It has proven to be a very cost effective model for foreign assistance in the energy sector, grounded on the voluntary, pro bono participation of U.S. energy companies and organizations.

USAID/Energy Team Leader Gordon Weynand described the partnership program as “really a two way exchange of knowledge.” He said that since its inception in 1991, the program has been instrumental in sharing information and practices with overseas organizations that have been used to effect changes in policy, operations, and procedures.

USEA’s Executive Director Barry Worthington presented a history of the program and results achieved by the international organizations as a result of their participation in the program. Since 1991, with USEA’s initial partnership with U.S. and Eastern Europe electric utilities, the program has been establishing relationships with U.S. companies and their international counterparts. He included the following among the programs many results:

- Accelerated restructuring and commercialization of previously state-owned utilities; improved regulations for tariff-setting, utility performance standards, efficiency programs and consumer involvement; and
- Increased efficiency and environmental performance of power generation, transmission, distribution systems. He also indicated that the partnership have also enhanced opportunities for U.S. investment and trade in various overseas energy markets.

Massachusetts Department of Telecommunications and Energy Commissioner James Connelly has participated in numerous USEA partnerships and provided his personal view on how he and his

regulatory commission have benefited from the partnerships: “Being part of the USAID/USEA Energy Partnership Program has been one of my great pleasures as a regulator. Sharing American, particularly Massachusetts, regulatory practices with newer utility commissions in Romania, India, the Philippines, and Egypt has sharpened my own thinking. Having to explain what you do and why you do it to foreign regulators who come to visit really sharpens your own thinking. The USAID and USEA program is the best way to spread first-hand, pragmatic knowledge of America’s best practices in economic regulation. I’m sure I’ve learned every bit as much as I have given during these exchanges with our overseas partners.”

For more information contact: Marjorie Jean-Pierre, USEA, email: mjean-pierre@usea.org and Walter Hall, USAID/EGAT/I&E/Energy, email: whall@usaid.gov

1.4 Electricity Governance Toolkit: Creating A New Dialogue On Governance

The Electricity Governance Initiative (EGI) was showcased at CSD-14 where Honorable Member of Parliament (MP) and former Minister of Power of India, Suresh Prabhu helped launch EGI as a new CSD partnership.

The Electricity Governance Initiative (EGI) is a collaborative undertaking of the World Resources Institute (USA), the National Institute of Public Finance and Policy (India), and Prayas Energy Group (India). EGI works with civil society, policymakers, regulators, and other electricity sector actors to promote the open, transparent, and accountable decision making processes that are a necessary part of a sustainable energy future.

EGI has developed a toolkit designed to stimulate constructive dialogue among stakeholders based on verified research of governance processes. Piloted in four Asian countries, the initiative is now a registered partnership with CSD and poised to expand globally.

Preliminary results include:

- In Indonesia, the Parliamentary committee responsible for revisiting the recent electricity reform legislation rescinded by the constitutional court has invited the EGI Indonesian team to testify before the committee. The committee website now includes a list of scheduled hearings and debates, work in progress, and legislation

passed, and a message board for public input, as one improved procedure for public participation and input in to the policy process.

- In Thailand, the EGI team's report and the dialogue generated by the application of the toolkit have drawn attention to the need to establish an independent regulator to balance public, private and stakeholder interests particularly in the context of moves to corporatize the sector.
- In India, regulatory boards at the state level have begun to incorporate public access procedures and resources recommended by the EGI India team (such as the creation of a public database cataloging all documents in the domain of the regulator).
- In the Philippines, the EGI assessment is facilitating a dialogue between civil society and sector officials about how to address public interests in the electricity sector through the improvement of governance and enhancement of transparency and public participation provisions.

issues of public interest, and the establishment of a process for on-going engagement of stakeholders (often opponents in political reform processes) in constructive dialogues.

For more information contact: Smita Nakhooda, World Resources Institute, email: snakhooda@wri.org, and Davida Wood, USAID/EGAT/I&E/Energy, email: dwood@usaid.gov

The EGI session at CSD-14 began with opening remarks by Suresh Prabhu who stressed the link between electrification and poverty reduction. He emphasized that power sector reforms could only be successful if tailored to the unique economic, social, environmental and political circumstances of each country, and that good governance is key to this end. He pointed out that a demand led approach that accounts for real needs for energy, is essential. Davida Wood of USAID highlighted the importance of a common language to bring different stakeholders together to improve governance. She noted the need to tap civil society resources by making institutional space and supporting innovative ways of interfacing with the public.

Smita Nakhooda of the World Resources Institute (WRI) highlighted the key aspects of the initiative, describing EGI's efforts to build an operational framework to assess governance and evaluate progress over time, and creating space for environmental and social voices in decision-making.

The greatest utility of the tool appears to be its systematic examination of decision-making processes and regulatory structures that help countries to ask the right questions about how changes were introduced to the sector, whether significant attention was paid to

2. CSD-14 LEARNING CENTER EVENTS

The Learning Center provided on-site teaching and training to nearly 600 participants, and was open to all CSD-14 participants. A total of 17 three-hour courses were offered, with several organized by USAID. Course instructors employed various teaching techniques -- small working groups, case studies, lecture formats, question and answer sessions, and interactive discussions.

2.1 Financing, Financing, Financing!

With \$16 to \$17 trillion needed to keep up with global energy needs from now to 2030 – including reaching the one-third of the world's people still excluded from modern energy services -- it comes as no surprise that finance was the central theme for a presentation by USAID partner E+Co at the CSD-14 Learning Center.

E+Co, a clean energy investment company, empowers entrepreneurs through business development services and capital. These enterprises result in financial, social and environmental benefits locally and globally. Enterprises supported by E+Co are providing modern energy services to almost 3 million people.

E+Co facilitated two Learning Centers, a European Union side event and participated in the Knowledge Expo at CSD-14.

E+Co's Executive Director Philip LaRocco and colleagues Harish Hande (SELCO-India) and Ellen Morris (Sustainable Energy Solutions) facilitated a Learning Center on Financing Energy Small and Medium Enterprises (SMEs). "The innovation is implementation, not invention," was one of the themes discussed by the 30+ audience of entrepreneurs, donors and investors.

The take-home message was this: Many technologies and tools exist to meet the needs of the unserved population; all of the tools already in the financial toolbox need to be used, absorbing the on-the-ground experiences and 'connecting the dots'. Tools for business planning and information on clean energy technologies are available. Finally, entrepreneurs need support in getting connected to and utilizing these tools, and also need to be connected to investor, supplier and customer chains. A few presentation highlights are provided below:

- (Draft) Practitioner's Handbook on How To Prepare and Present Proposals.

- Insights on the energy-microfinance linkage, showing the experience of Self Employed Women's Association (SEWA) India and the current study to more strongly link MFIs and energy.
- Practical, human and business oriented examples of SELCO matching on-the-ground products with on-the-ground purchasing power.
- Overcoming barriers to energy service delivery Box 1 highlights common barriers to private sector financing and E+Co's approach to overcoming these barriers.

Box 1

BARRIERS	E+CO RESPONSE
Bankable Business Plan/Proposals	Enterprise Development Services; Capacity Building
Lack of Investment	Central American Fund
Lack of Local Financial Institution Engagement	US Development Credit Authority Guarantee
Lack of Regulatory Policy	Policy Intervention
Outputs and Impacts Management	Monitoring & Evaluation; Triple Bottom Line
Knowledge Management: Lessons Learned Dissemination	Global Management System for cross platform learning

Over the next five years, E+Co plans to invest \$84 million in more than 200 clean energy businesses, leveraging over \$900 million of additional capital and serving 7.5 million people.

For more information contact: Christine Eib Singer, E+Co, email: ceibsinger@eco.org and Jeff Haeni, USAID/EGAT/I&E/Energy, email: jhaeni@usaid.gov

2.2 Mobilizing Private Sector Financing for Energy Projects

USAID/EGAT’s Office of Development Credit organized a Learning Center event at CSD-14 to present creative investment strategies designed to attract additional private sector capital for energy and infrastructure projects and discuss experiences to date. Six speakers – three from the U.S. Government (USAID and DOE) and three from the private sector (Infracore, GE Capital, and E+Co) provided a wide range of experiences to the 30 representatives from governments and NGOs that attended the event. The session also provided an overview of key project development challenges and impediments to finance, including legal, policy and regulatory constraints.

Various strategies and mechanisms for mobilizing private-sector resources were discussed, including the role of public-private partnerships in mitigating investment risk.

Some key experiences and lessons learned from the presentations included:

- Credit enhancement mechanisms can be an effective tool where the perceived risk from private lenders is deemed to be significantly higher than actual market risks;

- Creating the right policies and enabling environments, from enforcement of contracts to land ownership to proper pricing to sound macroeconomic conditions, is often a prerequisite to a well-functioning financing program;
- Upfront, holistic market analyses are essential to determine key barriers to financing, target borrowers, service providers, interested financial institutions and skills gaps; and
- Financing programs should seek to encourage competition (among banks and service providers) and include commercially oriented and demand-driven designs; and be flexible and able to respond to changing market conditions and political/institutional realities.

For more information contact: Edward Roche, USAID/EGAT/DC, email: eroche@usaid.gov; Jas Singh, email: jsingh@usaid.gov; Larisa Dobriansky, USDOE, email: larisa.dobriansky@hq.doe.gov

Innovative Financing Overcome Significant Market Barriers to Project Development

Loan guarantees can leverage substantial lending (i.e. a 40:1 ratio of loans to foreign assistance) and can be used to stimulate a “new business line” for financing energy efficiency projects based on the energy savings generated by project investments.

USAID worked with United Bulgarian Bank (UBB) to develop a \$10 million lending facility for municipal energy efficiency projects. USAID’s Development Credit Authority (DCA) provides partial guarantees to every loan issued by this facility, thereby decreasing the risk of lending and increasing the amount of money lent. The facility provided the first source of bank energy efficiency lending in Bulgaria, resulting in \$10 million in loans for 33 projects – 22 municipal, and 11 industrial – which produced savings of 440 GWh, 1,484 TJ and reduced CO₂ emissions by 575,000 tons. The projects financed by the facility enable municipalities to lower energy costs, improve the quality of services delivered, and reduce harmful emissions. Under Phase 2, which will provide an additional \$10 million (revolving), two loans have been approved to date and others are being developed.

2.3 Improving Electricity Service for the Urban Poor

A course on improving electricity service for the urban poor was given by USAID and its partners at the CSD-14 Learning Center on May 2, 2006. The course covered the dimension of the problem and the opportunities and approaches being developed for solving it in numerous large and growing cities in the developing world.

Prof. Carlos Rufin of Babson College (USA) difficulties that energy suppliers encounter in serving the urban poor, such as expectation of low returns, lack of experience in dealing with marginalized poor consumers, and the physical access problems and risk posed from entering slum areas. Ms. Connie Smyser from Smyser Associates described the pros and cons of the main technical solutions available. She highlighted the dramatic results of recent use of high tech anti-theft systems. She also discussed the importance of including socio-economic solutions such as social partnerships, community-based service agents and community and individual legal assistance (e.g., for land title or equivalent).

Mr. Antonio Pinhel from COELBA, the electricity distribution company of the state of Bahia in northeast Brazil, presented an integrated business model and regulatory approach to illustrate how COELBA is incorporating innovative approaches to bring safe and reliable electricity to hundreds of thousands of its poor slum residents. The company’s experience had shown that lower income families, after regularization, found it hard to modify their pre-metered energy consumption and consistently make electricity payments. COELBA’s goal was therefore to work with the consumer to bring the size of the electric energy bill to within their purchasing power. COELBA took a number of actions to achieve this: understanding the potential and limitations of the low income consumer; acting on the demand side; increasing local community participation and building strong customer relationships; providing the needed energy efficiency information; intervening as needed to avoid any build up of problems; developing a business model that could be replicated throughout the company’s service territory; and maintaining a market-orientation (as opposed to a “hand-out” approach). That said, it was noted that the strong intervention by the energy regulatory body requiring a portion of net revenues to be used to address electricity access in slums, was also an essential component of the success of the approach.

For more information on the issue of slum electrification, please see the USAID report ‘Innovative Approaches to Slum Electrification’ at http://www.usaid.gov/our_work/economic_growth_and_trade/energy/pubs/slumelect_exec.pdf

For more information contact: Simone Lawaetz, USAID/EGAT/I&E/Energy, email: slawaetz@usaid.gov

2.4 Media Panel Stresses Importance of Energy Journalism and Need for Journalists’ Network

At the CSD-14 Learning Center panel session on the Role of Energy Journalists, reporters from Mozambique and Zambia, trained in energy issues under a USAID program, discussed the critical roles that good journalism plays in dealing with their countries’ energy problems. They stressed the need for more support for energy journalism and for increased interaction among developing country journalists.

The panel discussed how continuing energy shortages in developing countries, surging energy prices, and concerns over globalization and social impacts of large

energy projects are making the role of journalists critical in informing the public about what is happening in the energy sector. Journalists can provide a forum for public criticism and compromise and serve as an independent monitor of governmental and corporate power. An informed public is better able to deal with contentious issues and see long-term solutions, make productive contributions and feedback to government, understand the potential of energy to create a better standard of living, and see how attention to gender and equality can lead to a better quality of life. Charles Mangwiro of Radio Mozambique and Newton Sibanda of Zambia Daily Mail discussed the role they play in helping their countries' increase access to energy.

In Mozambique, modern energy is helping to alleviate poverty through rural electrification projects that provide jobs, and the exportation of natural gas that supports the country's economy. Once one of the world's poorest countries, Mozambique now enjoys a GDP growth rate of 8 percent. Reporting on energy development makes listeners of Radio Mozambique more aware of the value of modern energy and how they can use it to improve their lives. Charles Mangwiro's reporting has also raised awareness of the lack of attention being paid to social problems caused by large energy project development. HIV/AIDS is a serious problem in Mozambique that is spread by transient workers' involvement with local girls. He has also reported on school dropout by some young people to work on major development projects.

Newton Sibanda's reporting on rural electrification in Zambia and its effects on boosting agricultural productivity has awakened other communities to the need for electricity as a necessity for improved agricultural production and for economic development. His articles on solar energy projects received international attention from the German aid agency

(GTZ) and other organizations that supported training in Germany for solar projects in Zambia. In his articles, Newton Sibanda stressed the importance of quality reporting as a way of contributing to energy development, responding to socioeconomic, climate and environmental concerns, and blowing the whistle on scandals and corruption.

Both journalists underscored the serious challenges still faced by energy sector reporting: energy remains on the fringe of mainstream media and editors seem to have a phobia for the science surrounding energy issues; illiteracy is clearly a problem as it restricts the audience for print media; journalistic independence is an issue, as some media houses tend to follow the government agenda or sensationalist stories to feed the political agenda; resources for journalists are a major problem and this is worsened where state-controlled companies compete with private media houses; qualified reporters are few in number and do not have the luxury of performing extensive research and reporting only on energy; equipment and logistical support is lacking; and access to consistent, comparable, quality information and data on energy issues is poor.

The journalists suggested that donors and other agencies could help by supporting more training for journalists, providing more information such as USAID's Energy and Development Handbook for Journalists, and by supporting stronger networks of energy journalists by expanding the concept of the USAID-supported South Asia Federation of Journalists.

For more information contact: Nada Bright, Institute for International Education, email: ebright@iie.org and Ellen Dragotto, USAID/EGAT/I&E/Energy, email: edragotto@usaid.gov

3. CSD-14 SIDE EVENTS

3.1 Scaling Up Private Sector Investment in Energy Efficiency

On May 8-9, 2006, a CSD side event entitled “The Energy Efficiency Investment Forum” was held to discuss options for improving access to investment capital and financing for energy efficiency in developing countries.

More than 25 countries participated in the event to share successful business and financing models for energy efficiency programs, showcase investment opportunities in energy efficiency, and identify key gaps in the market and strategies to overcome them. The attendees (approximately 120) included developing country government officials, private ESCOs and equipment manufacturers, local and international banks, donors (e.g., REEEP, USAID), MDBs (World Bank, IFC, ADB), and international agencies (e.g., IEA, UNDP).

Energy efficiency can reduce infrastructure bottlenecks and future investment needs, increase competitiveness by lowering input costs, enhance energy security by reducing dependence on imported fuels, free up capital for other social and economic development priorities, and reduce local and global air pollution.

While approaches and experiences varied widely, a number of emerging lessons and good practices were highlighted throughout the presentations and discussions:

- **Upfront, holistic market analyses** are essential to determine target markets, service providers, financing constraints, skills gaps;
- Program models should prioritize and address critical barriers in a sustainable manner and be **customized to local conditions**;
- Programs should be **flexible** to respond to changing market conditions and implementation realities;
- Participating stakeholders must have **proper incentives** to participate in programs and share in rewards commensurate with risks;
- Programs should seek to encourage **competition** (among service providers, equipment suppliers, banks);

- Programs should be **commercially-oriented** and **demand-driven** (i.e., end users should drive projects);
- **Program implementation** should accompany **policy**, including pricing reforms and vice-versa for maximum effectiveness;
- Subsidies should be used **judiciously, transparently**, and have a clear exit strategy;
- Pilot programs should test “**scalability**” of institutional and financial arrangements, clearly documented for target audiences (e.g., private sector, banks), and then intensively marketed; and
- “**Early deals**” help build organizations confidence and program credibility.

There was resounding consensus that much more must be done to promote more efficient energy use globally, particularly given the increased attention to energy security and rising energy costs. While energy efficiency can be less tangible and more difficult to assess, it remains a critical component in the mix if future global energy demand is to be met, particularly since a kilowatt saved is cheaper, cleaner and faster than a new kilowatt generated. Governments were called upon to increase programs supporting energy efficiency research and development, investment and educational campaigns; the private sector was requested to enhance their ability to provide related services and products; utilities were urged to actively consider demand-side options within their planning efforts; financiers were called upon to consider increasing business in energy efficiency; and donors were called upon to increase partnerships and cooperation to improve impacts and scale-up results in programs worldwide.

Copies of the agenda, participant list, presentations and final communiqué can be downloaded at: www.eeinvestmentforum.org.

For more information contact: Jas Singh, USAID/EGAT/I&E/Energy, e-mail: jsingh@usaid.gov

3.2 Household Energy and Health

World Health Organization (WHO) released the report “**Fuel for Life: Household Energy and Health**” at CSD-14. “Fuel for Life” provides a

concise overview of the health impacts of indoor air pollution from solid fuel use and describes solutions, which could be more widely promoted.

USAID's Bureau for Global Health collaborates with the World Health Organization (WHO) on household energy and health issues. USAID funds helped to compile the solid fuel use data as one of the required inputs (i) for the updated burden of disease assessment, and (ii) for the cost-benefit analysis.

Key points from the "Fuel for Life" report include:

- Cooking with wood, dung, coal and other solid fuels is a major risk factor for pneumonia among children and chronic respiratory disease among adults, responsible for 1.5 million deaths, with more than two-thirds of these deaths occurring in South and East Asia and sub-Saharan Africa.
- Progress in access to modern cooking fuels since 1990 has been negligible. To halve, by 2015, the number of people without access to such fuels, 485,000 people will need to gain access to modern energy services every day for the next 10 years.
- Taking household energy solutions to scale will overcome a major barrier to achieving the Millennium Development Goals. Improved household energy practices promote education, empower women, save the lives of children and their mothers, and benefit our forests and our climate.
- Health and productivity gains can more than pay for the costs of proposed interventions. For example, investing \$13 billion per year to halve, by 2015, the number of people worldwide cooking with solid fuels by supplying them with liquefied petroleum gas has benefits estimated at \$91 billion per year, mainly from productivity gains due to decreased time required for fuel collection/cooking and health gains from deaths averted.

Links to "Fuel for Life" and to USAID-sponsored activities on household energy and health can be found on the Environmental Health at USAID web site at: <http://www.ehproject.org/ehkm/iap-feature.html>

For more information contact: John Borazzo, USAID/GH/HIDN/ID, email: jbrazzo@usaid.gov and Elisa Derby, Winrock International, email: ederby@winrock.org

3.3 USAID Projects and Practitioners Highlighted at the UNDP Knowledge Expo

The UNDP Knowledge Expo on "Energizing the Millennium Development Goals" took place from May 3-5, 2006, during CSD-14. For this event, UNDP partnered with 22 organizations, including USAID and many USAID partners from the field, to share information on energy initiatives and specifically the linkages between modern energy services and the Millennium Development Goals (MDGs).

There were twelve exhibits at the Knowledge Expo highlighting innovative projects and practitioners that are making the link between access to energy services and improvements in health, education, gender equity, small and medium enterprises growth, microfinance, and reducing poverty (see Box 1 for the full set of topics at the Knowledge Expo).

The Knowledge Expo was a unique format that promoted informal dialogue and learning on these important set of topics. The Expo was successful in drawing a large audience to its venue—a large outdoor tent on UN grounds—to view the exhibits and attend the discussion sessions. The event brought together a number of participating organizations and individuals from around the world, including donor government representatives, field practitioners, and academics. Over 100 visitors attended the Expo each day, with the keynote address by Dr. Jeffrey Sachs on the first day drawing the largest crowd. Due to its popularity the exhibition tent remained in place for the span of CSD-14.

USAID was a featured partner in the Knowledge Expo for its ongoing support of clean energy projects throughout the world, and numerous USAID projects and partners were highlighted in the exhibits. The Expo provided excellent visibility to existing initiatives that are already happening on the ground, including those of USAID. See Box 2 for a summary of USAID partners that presented at the Knowledge Expo.

Box 1: Knowledge Expo Exhibits at CSD-14

- Integrating energy considerations into poverty reduction strategies
- Energizing enterprise development
- Micro-financing energy for productive uses and poverty reduction
- Costing of national energy interventions
- Energy for Women, Energy for the MDGs
- Reducing health risks by promoting access to improved cooking fuels
- Standards and labels for energy efficiency
- Generating community benefits while protecting the environment
- Mobilizing financing options for sustainable energy in developing countries: the MDG Carbon Facility
- Management of oil revenues for development impact
- Monitoring impacts of energy services on development

Box 2: USAID Partners Featured in Knowledge Expo Exhibits at CSD-14

- Govt. of Brazil, Ministry of Mines and Energy
- Community Power Corporation
- E+Co
- Energy and Security Group
- Fundacion Solar
- SELCO-India
- Self-Employed Women's Association
- Small Enterprise Education Promotion Network
- Sustainable Energy Solutions
- Winrock International

For further information, please refer to the Knowledge Expo website, <http://www.undp.org/energy/csd06-post.htm>, which contains all the presentations, pictures and posters.

For more information contact: Silvia Fracchia, consultant for United Nations Development Programme, email: silviafracchia@yahoo.com, Ellen Morris, Sustainable Energy Solutions, email: ellen@sustainable-solutions.com, and Jeff Haeni, USAID/EGAT/I&E/Energy, email: jhaeni@usaid.gov

3.4 The Global Village Energy Partnership (GVEP) and Brazil

The Brazilian Delegation attending CSD-14 presented current Government of Brazil (GOB)

efforts to increase the use of clean biofuels in the country, and its commitment to provide access to reliable energy services to all Brazilians by the end of year 2008. This commitment is being concretized through the Luz para Todos (LpT) program. The Brazilian Delegation delivered a presentation on LpT at the Energy Expo sponsored by UNDP, and made a statement at the *Improving Access to Energy* thematic discussion highlighting the important role played by the international cooperation in the design and implementation of LpT. Key points from the LpT Program include:

- Launched in 2004, the objective of LpT is to provide access to energy services to the estimated 12 million underserved people living mostly in rural and poor areas in Brazil's north and northeast regions.
- In 2005, USAID provided assistance to the GOB under the GVEP initiative to establish the GVEP/Brazil Action Plan. This plan is now incorporated within the LpT Program as the Integrated Actions Plan, focusing in the productive use of energy as means to promote economic development and social inclusion.
- USAID has been working with LpT under the GVEP initiative and has developed and implemented sustainable demonstration projects of productive uses of energy in seven communities, including isolated communities in the Amazon, rural villages, and a peri-urban settlement. These projects are now directly benefiting 8,000 people with increasing monthly income and better quality of life, and will be widely replicated through the LpT.
- Overall, Luz para Todos (LpT) has already provided energy access to 3.3 million people, and plans to reach its ultimate target by the end of 2008.
- The main challenge being faced by LpT is how to provide access to energy to the estimated 2 million people living in isolated communities, far from the electricity grid. USAID is working closing with the civil society and the GOB in the development of models and a regulatory framework able to solve this challenge.

For more information contact: Alexandre Mancuso, USAID/Brazil, email: emancuso@usaid.gov and visit www.brazil.usaid.gov.

4. AID EFFECTIVENESS IN THE ENERGY SECTOR: A GENDER PERSPECTIVE

Excerpts from a speech by A. Rani Parker, Ph.D.
 President, Business-Community Synergies
 CSD-14, New York, May 5, 2006

"Today I would like to speak about aid effectiveness in the energy sector from a gender perspective. I am compelled to speak about gender and gender analysis because women and girls still constitute the vast majority of the world's poor. In spite of widespread recognition that development assistance has disproportionately and negatively affected women and girls, this inequality continues to persist. The disadvantage of women and girls is particularly visible in their limited access to and lack of control over energy services.

Gender analysis provides a systematic way to incorporate gender needs into our development programs. Addressing gender inequality in access to energy requires that we understand that women and girls in many countries are required to take personal and final responsibility for accessing all the resources required, including energy, to meet household needs. More than two billion people, 90% of rural households, rely on traditional energy sources such as charcoal, wood and dung for their household fuel needs. You have already heard the horrible statistics about the impacts of indoor smoke, such as the deaths of some two million children under five annually. The implications of these figures, combined with women's gender-based labor responsibilities are staggering.

Men and women need and use energy differently for different purposes. The majority of poor women, as noted earlier are principally concerned with household needs and small-scale agriculture, or small informal sector income generation activities, thus requiring small amounts of energy that respond to household needs. In urban areas, even where there is access to energy, the poor pay more because their requirements are small. Men, on the other hand, tend to be concerned with energy associated with income generation outside the home, and their needs may be larger and less diverse. But since poverty is disproportionately female, it cannot be affected without addressing women's energy needs. Yet the focus of much energy planning tends to be responsive to men's income generating activities.

We know that the product of labor associated with women's daily work is consumed, usually the same day, and can therefore be invisible without proper gender analysis. Following a gender analysis exercise in a West African village, an elder said it was strange that he was able to see new things about his own community, that something from outside the community would show him a new aspect of his own life. On many occasions poor women have said to me that they do not do any work at all. Participatory gender analysis can be powerful in increasing awareness about how differently things actually work in real life for women and for men.

Finally, gender analysis can reveal not only the differential impacts of projects on men and women, but also the inter-dependencies between them. These inter-dependencies are as important as the inequalities because the separate yet inter-dependent functions together constitute livelihoods for individuals, families, and communities. For instance, in fishing communities fishermen may be interested in power associated with motorized boats, while fisherwomen may be primarily concerned with energy to help preserve and process fish. Although their energy needs are different, they are mutually dependent. Both need to be able to carry out their work efficiently for family needs to be met. Household energy needs as well as broader economic development energy needs have to be addressed, and gender analysis can help define those. Yet, strangely it is quite difficult to find gender analyses of energy projects. Nothing short of bringing the end users to the planning process, bringing women and children into decision making about energy options and giving them control over services, will make inroads into poverty eradication and serve as a hedge against corruption."

For more information contact: A. Rani Parker, Business-Community Strategies, email: rparker@bcsynergies.com and Davida Wood, USAID/EGAT/I&E/Energy, email: dwood@usaid.gov

FEATURE ARTICLE

Clean Power for Trade and Investment in West Africa

The West African Gas Pipeline will soon deliver natural gas from Nigeria to Benin, Togo, and Ghana. The first pipes have been laid, and completion is expected in early 2007. This report summarizes USAID's involvement in this program, and suggests future activities that donors may wish to consider.

SCOPE AND EXPECTED RESULTS

The pipeline will have a tremendous impact not only on the economies of the four countries, but also on the global environment. Natural gas in Nigeria is currently "flared" (that is, burned into the atmosphere) as an inexpensive method of disposal, producing high quantities of greenhouse gases. The pipeline will instead deliver that gas to consumers where it will replace crude oil products for electric generation and other productive purposes in plants designed to minimize emissions. This will result in a net reduction of 52% in greenhouse gas emissions. The pipeline is thus expected to reduce greenhouse gas emissions in the region by at least 86 million tons over some 20 years.

The electricity generating plant in Takoradi, Ghana, currently burns light crude oil, which itself is not a very clean source of thermal energy. Ghana pays some \$60 per barrel for that oil. When the gas pipeline becomes operational, fuel prices will drop by roughly two thirds at current prices, and those savings are expected to be passed along to electricity consumers in the country. The switch from light crude to gas to run the generator will also substantially reduce greenhouse gas emissions in Takoradi.

Similarly, the Electric Company of Benin (CEB), which supplies electricity to both Benin and Togo, presently burns expensive kerosene in adapted jet engine turbines to supplement its inadequate supply from a hydroelectric facility and imports from Ghana. An investment in gas-burning turbines will now be feasible for CEB, since gas is substantially cheaper than kerosene. Gas also burns cleaner than kerosene, and so would further reduce greenhouse emissions in the region if employed to generate electricity for Benin and Togo.

In addition to the environmental benefits, Nigeria in particular will benefit economically. Profits from the

sale of gas will accrue to the consortium that runs the oil operations in Nigeria, including Shell and Chevron as well as the Government of Nigeria. Revenues from the transport of gas through the pipeline will also be taxed by the Governments of Nigeria, Benin, Togo and Ghana, further contributing to national treasuries. The net direct gain to Nigeria and the three other countries is expected to be some \$700 million just from corporate income taxes, not counting Nigerian royalties on gas, according to a World Bank study. A study by Chevron anticipates the creation of 10,000 to 20,000 primary-sector jobs, 30,000 to 60,000 secondary jobs, \$1 billion in direct investment in the pipeline and related facilities, and \$800 million in other new industrial investment.

Cheaper, cleaner power is a fundamental part of USAID's trade and investment strategy for West Africa. Investors need reliable, inexpensive sources of power. For example, Alcoa has just announced that, because of the increased availability of natural gas in Ghana due to the pipeline, it will be making some \$1 billion in new investments in Ghana in order to increase its production of aluminum. Additional high-quality jobs will be created as a result. Aluminum products will be consumed by countries within the region, and will also be exported from the region to the rest of the world, including to the United States.

HISTORY

In 1998, a drought left the giant electricity generating turbines of Ghana's Akosombo Dam largely idle, plunging the country into an energy crisis. Ghana's Minister of Energy at the time, Fred Ohene-Kena, received a courtesy call from the newly appointed USAID/Ghana mission director, Dr. Frank Young. Among the topics discussed was the need for a gas pipeline to connect Ghana to Nigeria. Director Young agreed to help. The USAID Africa Trade and Investment Policy (ATRIP) program was the initial source of funding for that assistance.

The major oil companies in Nigeria, especially Chevron and Shell, were prepared to build the pipeline through a joint venture, provided that substantial regulatory hurdles could be overcome. How would governments tax the revenues from the pipeline? What environmental protections would be

required, and how would compliance with environmental regulations be enforced? While regulators in Nigeria had long experience in addressing such questions, the regulators in Benin, Togo, and Ghana, by their own admission, were at a loss.

The major oil companies were quite reluctant to proceed in the absence of a unified regulatory structure. The thought of having to negotiate separate licensing and project agreements with the four governments was daunting. A single legal and regulatory framework representing the interests of all four of the West African governments involved with the pipeline was the answer, but would require the drafting and negotiation of a complicated treaty and concession agreement.

In a partnership with the Economic Community of West African States (ECOWAS), USAID agreed to provide technical assistance to draft the treaty and concession agreement, and to facilitate the development of an entirely new regulatory structure for the pipeline, to be called the West Africa Gas Pipeline Authority (WAGPA). ECOWAS provided a suite of offices at their headquarters in Abuja, Nigeria, first as an office for the USAID-funded senior energy advisor, and later as a temporary home for WAGPA senior energy advisor, who was later named Director General for WAGPA. USAID further funded engineering, environmental, and regulatory expertise on retainer. The Government of Nigeria offered to donate a building in Lagos as the eventual permanent home for WAGPA. The ministers of energy in all four countries agreed to provide staff time, originally into the Project Implementation Committee (PIC), the informal structure that later became WAGPA.

The treaty establishing WAGPA was signed in January 2003. An International Project Agreement (IPA) was signed by the governments of the four countries with the West African Gas Pipeline Company (WAPCo) in May 2003. Enabling Legislation was passed by the parliaments of the four countries in late 2004. The WAGPA Regulations were signed in December 2004 and the Rules of Procedure to complete the set of regulatory documents governing the operations of the pipeline after it is completed were signed by the four ministers of energy from Nigeria, Benin, Togo and Ghana at their meeting in Cotonou in October 2005. Pipeline construction began in August 2005, and will be completed in early 2007.

ANALYSIS

Under the IPA, WAPCO has already begun making preliminary payments for the support of WAGPA, currently set at \$175,000 per quarter. It is estimated that \$425,000 per quarter is required for the anticipated full staff contingent of 10 personnel, excluding the cost of technical assistance. WAGPA is delaying the employment of staff while it awaits further funding.

Funds from gas taxes are not expected until 2007, so some sort of interim funding from governments or donors is needed. Once gas begins to flow, WAGPA will levy a tax of roughly US\$0.01 per MMBtu (million British thermal unit, which is the unit of measure for natural gas). Initial flow through the pipeline is expected to be approximately 134,000 MMBtu's per day, yielding revenues to WAGPA of roughly \$120,000 per quarter. Growth in pipeline flow will have to be rapid, or taxes would need to increase, if WAGPA is to cover its anticipated operating costs.

USAID has to date invested \$8M in this effort. The four governments of the region and ECOWAS have invested an estimated \$3M in staff and facilities for WAGPA, with additional investments anticipated. The oil consortium, WAPCo is investing \$615M. The leverage of USAID's investment in this public-private partnership is therefore approximately 80 to 1, representing one of the most significant alliance successes in the Agency.

FUTURE DEVELOPMENT

The IPA and the project commercial agreements contain provisions that identify and lock in the initial consumers of the gas from Nigeria in Ghana, Togo, and Benin, generally all having to do with the generation of electricity. Secondary pipeline distribution networks are envisioned in each of the purchasing countries, however. If constructed, these secondary pipelines will serve a number of important manufacturing facilities, and potentially generate hundreds if not thousands of high-paying jobs.

In Ghana, a gold mining operation to the southwest of Kumasi, Volta Aluminum Corporation (VALCO), and a bauxite processing facility to the west of Akosombo are key targets for secondary-gas distribution. In Togo, a phosphate plant to the east of Lomé, and a plant for the production of clinker (used to make cement) some 80 kilometers to the north, are the key targets. In Benin, a clinker factory 120 km from the coast is the main prospective client,

and gas could also be the key for the development of the industrial “free” zone planned in Cotonou.

For these secondary pipelines to be constructed, however, a regulatory regime and investors will be required. The investors will not materialize until the regulatory regime is established. Consider that there are currently no laws in place in Benin, Togo, or Ghana for the establishment of rights of way for secondary pipelines, or technical specifications for the safety of gas operations. Presumably the laws of Nigeria can be used as a model, though substantial differences in the civil-law property-rights regimes in Benin and Togo may mean major adaptations will be required. The regulatory documents of the pipeline project can also serve as a basis for establishing national regulations.

In addition, since the secondary pipeline operator will likely exist as a regulated monopoly, sophisticated accounting models must be developed in order for an eventual regulator to analyze requests from the operator to establish particular price levels and service-quality standards. Regulations for the interconnections between the secondary pipeline operators in each country on the one hand and WAPCo on the other must also be established.

The potential impact on the region’s economies is huge. Energy is the single most important cost in almost any manufacturing enterprise, and prominently figures in the balance sheets of just about any other type of business. For example, cellular telephone networks in West Africa charge high prices to consumers in part because their costs of operation are higher in West Africa than elsewhere, in large measure because, in addition to investments in microwave towers, they must also invest in primary or backup power systems to operate those towers.

Energy powers business. Business creates jobs. Jobs reduce poverty. Cheap, reliable energy makes companies competitive in the world marketplace, driving the trade that generates even more jobs. This is why energy figures so prominently in USAID’s regional trade and investment strategy.

NEXT STEPS

USAID’s current program to facilitate the establishment of the West Africa gas pipeline is drawing to a close. A contract with Nexant Corporation is due to end in March of 2006. By that date, USAID will have achieved its objective of

facilitating the negotiation of an institutional, regulatory and commercial framework for the project and the establishment by the region’s governments of a regulatory authority for the pipeline.

Discussions were held in October 2005 with the Director General of WAGPA, the Chief of Party of the USAID-funded pipeline support contract from Nexant Corporation, the Director of WAPCo and staff of USAID. The consensus is that additional donor support will be critical in two areas:

1. While WAGPA will have been established by March 2006, it will not become fully operational until the gas and associated higher levels of revenue begin to flow. While staff in principle will have been trained in all aspects of regulatory administration, they will only then be putting their training into practice for the first time. Donors may consider furnishing additional technical assistance during the first two years of WAGPA operations. A suggested level of effort for the first six months is 75 days (spread over a number of different kinds of short-term consultants), then 50 days for the following six months, and a further 50 days for the following year. Consultants would be summoned on the request of WAGPA in the areas of legal, environmental, engineering, and regulatory analysis.
2. Establishment of secondary pipeline regulatory regimes will be inherently national processes. Donors may consider furnishing technical assistance to the four governments associated with the pipeline, with WAGPA as a base for that support. Plans do exist to extend the primary pipeline to Côte d’Ivoire, in which case support there would also be in order.

For more information contact: Kevin Warr, USAID/EGAT/I&E/Energy, email: kwarr@usaid.gov and Jeff Cochrane, email: jcochrane@usaid.gov

NOTES FROM THE FIELD

Philippine Development Innovation Marketplace: Development with Equity

The Philippine Development Innovation Marketplace or Panibagong Paraan (New Ways) 2006 launched its second nationwide competition in May 2006 with a theme of Development with Equity. This competition, which was last held in 2004, was made possible with 19 development partners led by the World Bank. The US State Department provided \$100,000 to fund small grants for clean energy projects in poor areas of the Philippines.

The four objectives of Panibagong Paraan are to provide the following: (1) Social policy forum to spur public and private sectors to discuss issues/barriers to equity and contribute to informed debate; (2) Competition of innovative project ideas to help communities to identify innovative approaches that promote development with greater equity and inclusion; (3) Venue for networking and partnerships to enhance engagement with various stakeholders and strengthen partnerships; and (4) Platform for showcasing best practices to demonstrate and highlight good/ sustainable implementation practices for possible replication and scalability.

There were 59 projects awarded grants with a total of \$1.1 million or Php 57.1 million pesos. The criteria for evaluation are: (a) innovation – 35%, (b) scalability and replicability - 35%, and (c) potential impact – 30%. In the clean energy category, four projects were awarded grants. They were:

1. Small Wind Project - This project aims to produce and install 12ft -1kw wind turbine to be produced in the Philippines and installed in poor areas of the country for educational and agro-productive uses. PARTNER: SIBAT
2. Solar powered duck-egg incubators – The objective of this project is to strengthen the rice-duck system (a system by which rice and ducks are grown together in their natural habitat), and increase awareness of environmentally friendly nature of solar incubator. PARTNER: University of the Philippines College of Agriculture
3. Poor Man's Gas Stove – This activity provides a cheap, clean-burning home cooking mechanism by using agricultural waste fuel such as rice hulls, coconut shells and corncobs. This technology eliminates the need for firewood and therefore reduces deforestation, while lessening the burden of firewood gathering on women. In the first year, they expect to fabricate 500 units at 50% discount to the neediest beneficiaries. PARTNER: Sustainable Rural Enterprise
4. River, Fiber, Power: Bringing Light and Life to Poor Coconut Farmers – The project use batteries to store energy generated by a river-run mill and attached to a generator/alternator charger. The power will be distributed to scattered household, who will be able to barterof coconut fiber products to pay for regular battery recharging. PARTNER: University of the Philippines, Farming Systems and Soil Resource Institute

For more information contact Rosario "Chato" S. Calderon, USAID/Philippines, email: rcalderon@usaid.gov

NEWS & EVENTS

USAID/EGAT Assistant Administrator Jacqueline E. Schafer Receives International Energy Leadership Award

USAID/EGAT Assistant Administrator Jacqueline E. Schafer received the 2006 International Energy Leadership Award at the 17th Annual Energy Efficiency Forum on June 14. The award is given to a public official who has encouraged energy efficiency internationally. In accepting the award as a recognition of the dedicated efforts of her USAID colleagues in promoting energy efficiency, Ms. Schafer took the opportunity to describe a number of those efforts, including energy structural reform efforts, dissemination of knowledge of efficiency inducing technologies and practical steps to encourage implementation such as funding pilot projects, DCA guarantees and similar matters. Also described were specific programs such as Methane to Markets, Asia Pacific Partnership on Clean Development and Clean Energy Initiative.

USAID to Promote Integration of South and Central Asian Energy Markets

U.S. State Department's Assistant Secretary Richard Boucher highlighted the importance of energy links between Central and South Asia in a recent speech at the Central Asia Power Sector Forum in Istanbul on June 13. Boucher said he intends to create a new position in the Bureau of South and Central Asian Affairs to help implement the regional integration initiative. He also said USAID is providing \$3.5 million "in new targeted technical assistance to help establish a transparent and competitive Central Asian energy market."

USAID Energy Programs Highlighted in Testimony to U.S. Congress

U.S. State Department Assistant Secretary for Energy, Sanctions, and Commodities, Paul E. Simons highlighted USAID energy programs that enhance energy security, in a statement made May 16, before the U.S. House of Representatives in Washington, DC.

USAID supported programs mentioned included the Baku-Tbilisi-Ceyhan (BTC) pipeline and West Africa gas pipeline, Methane to Markets, Extractive Industries Transparency Initiative (EITI), and energy efficiency.

- The Baku-Tbilisi-Ceyhan oil pipeline, which increases global oil supplies by taking oil from the Caspian Sea to world markets while bypassing the environmentally sensitive Bosphorus straits.
- The Methane to Markets Partnership, which takes wasted methane gas from oil and gas systems, coal mines, landfills, and agricultural wastes and uses it productively.
- Regional cooperation in Africa is best illustrated through the West Africa Gas Pipeline, a private sector project supported by the World Bank and USAID, which will bring wasted gas in Nigeria to the neighboring countries of Benin, Togo, and Ghana, and replace fuel oil used in power generation.
- The Extractive Industries Transparency Initiative focuses on extractive industries payments and budget revenues in developing countries. In FY 2006, the U.S. will contribute \$1.0 billion in Economic Support Fund (ESF) assistance to be administered by USAID to support EITI implementation and to strengthen the role and capacity of civil society organizations in the EITI process.
- Energy Efficiency - USAID will be launching a \$1 million energy efficiency program aimed at leveraging \$100 million of multilateral development funds for industrial energy efficiency in Ukraine.

COMMENTS & QUIBBLES

Response to “Making Room for Public Interests,” Energy Update, March/April 2006

The following is excerpted from an online exchange between David Dod (EGAT’s Office of Economic Growth) and Electricity Governance Initiative (EGI) members: Smita Nakhooda and Shantanu Dixit.

David Dod: I think some important perspective may have been lost in the long special report for this issue -- with its concentration on the perspectives of one group of stakeholders (civil society), without reference to the functional elements of effective regulation, administration, or performance of electricity sector operations. For all its relevant details, something is wrong with the Electricity Governance Toolkit, I think. For India, the national system seems to score well compared to the other countries, and the subsequent stories on Andhra Pradesh and Karnataka make no reference to the nationwide problem of the crushing burden of state electricity subsidies.

There are ways to evaluate subsidies when the right details are collected. Are the subsidies for producers (bad) or are they for end-users (less bad)? Who are the end-use beneficiaries and where do they lie in the income distribution? How much does the subsidy distort resource allocation in the economy? Does the state have adequate revenue to finance subsidies as well as things like critical public infrastructure?

EGI (Smita Nakhooda): While agricultural subsidies were widely understood to be THE issue in the context of financial viability of SEB's [State Electricity Boards] in India, over the last few years -- as transparency has increased-- it has become clear that agricultural consumption (and subsidies) were highly overestimated. Much of the attributed "agricultural consumption" was in fact caused by excessive transmission and distribution losses (both technical as well commercial). Increasing transparency has presented a more realistic picture about the levels of agricultural consumption, and clearly revealed that the excessive T & D losses are a critical problem for the Indian power sector.

We certainly agree that after identifying particular substantive problems in particular countries, there is a lot of important work that needs to be done to evaluate them and develop targeted solutions. But in order to find solutions to problems, we also need to have access to information about the problem (the

"right details" as you put it). The toolkit seeks to assess whether it is possible for experts and concerned citizens to get the "right details" and information about decisions made, and the extent to which there is formal space to challenge incorrect decisions, or propose a better approach.

David Dod: I am skeptical about the explanation of unexpectedly high 'technical losses' for transmission and distribution in India. Do you have a reference on that?

EGI (Shantanu Dixit): Most of the agricultural pumps in India are unmetered, and SEB's used to just estimate agricultural consumption on the basis of sample meters or ad-hoc studies etc. But, over a period of time SEB's found it easy to inflate this agricultural consumption to hide growing losses (technical as well commercial - i.e. theft, metering and billing inefficiencies). Attached file is one submission we made before the regulatory commission in [the Indian state of] Maharashtra during the first tariff revision process around 99-2000. Following this, as per regulatory directives, MSEB (Maharashtra State Electricity Board) was forced to revise its estimated T & D losses upward from around 18% to over 35%! and correspondingly agricultural consumption came down. A similar story happened in nearly all states. Hence, in the current scenario, high T & D losses are the bigger problem.

David Dod: An interesting analysis. As I read it, the source of the increased estimated losses had been theft and corruption in metering and billing, not technical losses, right? Has Maharashtra SEB increased metering and/or reduced theft/T&D losses since 2000 or has it just reclassified the amount attributed to agriculture?

Editor's note: *In this exchange, as in the real life example it discusses, the focus on process (transparency) triggered an important shift in understanding of the substantive problem. The questions posed at the end of the exchange are substantively different from those posed in the beginning. The reference provided by Shantanu Dixit may be obtained from dwood@usaid.gov, as well as a background paper by EGI member Navroz Dubash.*