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Promoting Energy Efficiency Investments at USAID

Jas Singh, Senior Energy Advisor
Office of Infrastructure & Engineering
Bureau for Economic Growth, Agriculture and Trade
USAID

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Lessons from Brazil, China, India and Beyond”
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EE Barriers

Barriers to EE Investments

Policy/ Regulatory

- Energy pricing and collections
- Procurement policies favor lowest cost
- Unclear or underdeveloped institutional framework for EE
- Lack of S&L regimes

Service Providers

- New contractual mechanisms
- Limited technical, business and risk management skills
- High project development costs
- Limited equity
- Limited track record in market

End User

- Awareness of EE
- Higher initial costs
- Ability and willingness to pay
- Low relative energy consumption
- Diffuse and diverse market
- Mixed incentives

Financiers

- New technologies and contractual mechanisms
- Small sizes/high transaction costs
- High perceived risks
- Other higher return, low risk projects
- Behavioral biases

Key USAID EE program models

- Policy – e.g., development of national EE strategies and action plans, EE laws and regulations, regulatory and pricing reforms
- Market transformation – e.g., standards and labeling, product procurement, buildings, bulk purchasing, utility DSM
- Financing – ESCO development, bidding, municipal investments, credit lines/guarantees
- Other – e.g., fuel switching, weatherization, energy audits, training, outreach

USAID Examples

- EE Financing in Bulgaria – municipal EE program provided TA and loan guarantees resulted in over \$11.5M in investment
- CFLs in India – TA to utility in Bangalore to promote CFLs through utility billing resulted in 430k lamps sold and transformed market
- Energy & Water Savings in South Africa – TA to water utility resulted in first water ESCO contract (~\$1.8M)
- EE Bidding in Egypt/Mexico – introduction of flexible EE service procurement has resulted in first public EE service contract in Egypt; pre-bid for Mexico expected in March 2008

Lessons learned

- Customize program models to **local conditions**, institutions and staffing to ensure greater buy-in and effectiveness
- **Program balance** between policy frameworks, institutional arrangements and implementation is critical - policy without program implementation or vice versa has had limited effectiveness
- Programs need to focus more on **delivery of real energy savings** within 1-2 years to build program credibility and less on outputs (audits, market studies, training)
- Participating institutions must have **incentives to actively participate** (e.g., government ability to retain energy savings) and share in rewards commensurate with risks borne
- Programs should be **commercially-oriented** and **demand-driven** (i.e., end users should drive projects)

Lessons learned cont.

- Programs should be **flexible to changing market conditions** and implementation realities
- Subsidies should be used **judiciously, transparently** and have a clear **exit strategy**
- Pilots should test **scalability** of financial and institutional arrangements, clearly documented for target audiences (e.g., banks) and **intensively marketed**
- **Well-designed marketing efforts** are critical – consider performance-based payments, public education campaigns involving local governments, NGOs and schools
- Ongoing **technical support** is needed to address emerging barriers, ongoing skills enhancement and counteract behavioral barriers with ongoing implementation feedback to trainers

But, many challenges remain

- Despite growing energy costs, bias towards energy production and supply remains
- Appropriate business models and financial structuring options need further testing/sharing
- Need for affordable and appropriate financing
- Need more discussion on:
 - appropriate role of government
 - special purpose funds vs. commercial lending
 - how to increase EE in public and new facilities
 - simple EE program models for low-income states (including fragile, post conflict)