U.S. Engagement on Sustainable Energy for All ECOWAS Forum 29-31 October 2012 Accra, Ghana



Raffi V. Balian

Senior Renewable Energy Advisor Bureau of Energy Resources U.S. Department of State

Bureau of Energy Resources

Sustainable, Affordable, Reliable, Access to Diverse Energy Sources

Managing the Geopolitics of Energy

- ➤ Wealth/Power/Influence
- ➤ Market Dynamics
- > Energy Frontiers
- > Spare Capacity

Stimulate Markets for Energy Transformation

- ➤ Best Practices
- ➤ Enabling Environments
- Financing and Investments
- > Access and Interconnection
- ➤ Renewable/Efficient/Clean Technologies

Transparency, Governance, and Access to Energy

- Resources: Budgets/People
- > Energy Poverty
- ➤ Markets Amid Poverty
- > Entrepreneurship/Innovation



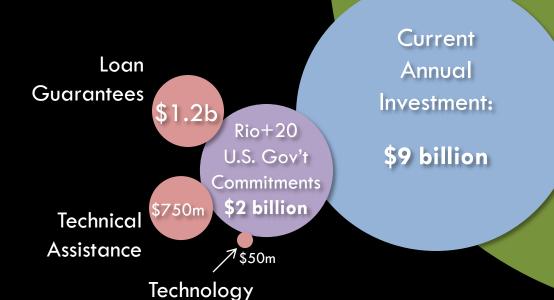




United States Department of State

Number of people without electricity access (millions) Middle East: 20 Asia: 700 Latin America: 30 Africa: 600 Sub-Saharan Africa (excluding South Africa) Pop.: 800 million Electricity Generation: ~40 Gigawatts Consumption per capita: 52 kWh

Annual Investment
Needed through
2030 for Universal
Energy Access:
\$48 Billion



Exchange

Current investments bring electricity to only 20 million new people per year.

U.S. Commitments to Sustainable Energy for All



➤ \$2 billion from FY11 funds for grants, loans, and loan guarantees, in support for the aspirational goals of the Global Action Agenda

➤ \$20 million for the Africa Clean Energy Financing Initiative, intended to leverage hundreds of millions of OPIC financing for clean energy projects in turn leveraging hundreds of millions more in private capital





Regional Centre for Renewable Energy and Energy Efficiency Centre Régional pour les Energies Renouvelables et l'Efficacité Energétique Centro Regional de Energias Renováveis e de Eficiência Energética

Capacity Building in West Africa:

- 1. Sustainable practices in modern biomass production and success stories
- 2. Negative impacts resulting from the unsustainable use of traditional biomass
- 3. GBEP indicators of sustainable production and use of modern bioenergy
- 4. Regional strategy for promoting modern bioenergy
- 5. Resource Assessments and Mapping



















The Global Alliance for Clean Cookstoves

Problem

Three billion people (500 million households) rely on solid fuels in inefficient stoves, leading to 2 million deaths annually, wasted productivity, and environmental degradation.

Mission

To save lives, improve livelihoods, empower women, and preserve the environment by creating a thriving global market for clean and efficient cookstoves and fuels.

Goal

100 million households adopt clean and efficient cookstoves and fuels by 2020.

Vision

Universal adoption of clean and efficient cookstoves and fuels.

CleanStar is a fast-growing company that produces & sells a modern Ethanol-based cooking solution in African cities as an affordable alternative to charcoal

CLEANSTAR'S VERTICALLY-INTEGRATED BUSINESS MODEL



PRODUCTS



Cookstoves & ethanol fuel



Food products

CUSTOMERS



Low-income
urban households
spending ~\$20/m
on charcoal

BENEFITS

- Increase rural income & food security
- Reduce deforestation
 & GHG emissions
- Time & health of women
- Profit for investor & tax income for government

AFRICA-WIDE OPPORTUNITY

- Charcoal market in African cities
 worth \$10 billion/year
- CleanStar is now identifying most attractive countries & partners
- "CleanStar Africa" will be launched in early 2013

GOVERNMENT ENABLERS

- Accurate data on local market
- Single point-of-contact for Clean Cooking investors
- Regulatory framework for ethanol for businesses
- VAT, customs, tax policies that recognize public benefits



Powering Agriculture

An Energy Grand Challenge for Development

Solving the Problem

Program Focus

Technology Development

> Business Innovation

Investment

Target Partners

Companies, NGOs, Universities

Companies

Impact investing and profit equity firms

Metrics

of new/improved technologies developed

Enterprises created or expanded

Private funding leveraged

CO₂ mitigated

Clean Energy Ministerial and SE4ALL

23 governments convened for the Clean Energy Ministerial in Washington in 2010, in Abu Dhabi in 2011, and in London in 2012 to collaborate on policies and programs that accelerate the global transition to clean energy technologies.

Three initiatives in the CEM are also **SE4ALL High Impact Opportunities:**

- Appliance efficiency policy (Super-efficient Equipment and Appliance Deployment Initiative)
- No-cost expert assistance for clean energy policy makers (Clean Energy Solutions Center)
- Promoting global markets for quality assured off-grid solar lighting and appliances (Global Lighting and Energy Access Partnership)









U.S.-Africa Clean Energy Finance Initiative

In June 2012, the Overseas Private Investment Corporation, in collaboration with the U.S. Department of State and the U.S. Trade and Development Agency, announced the launch of U.S.-Africa Clean Energy Finance Initiative (US-ACEF)

- \$20 million facility to provide funding for **project development** such as:
 - ✓ Environmental impact assessments, soil studies, and environmental management plans
 - ✓ Finalization of power purchase agreements
 - ✓ Transaction advisory services
 - ✓ Training programs to assist with the development of critical human capacity resources
 - ✓ Preparation of feasibility studies
- Eligible projects include energy efficiency, green-field renewable energy generation, and manufacturing facilities supporting development of Africa's clean energy market.
- Per project funding range between US\$50,000 to US\$1 million.







Thank you Merci beaucoup

Raffi Balian

U.S. Department of State

BalianRV@state.gov

+1-202-647-1047