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Global Lead
Sustainable Bioenergy High-Impact Opportunity
Sustainable Energy For All
Overview

- Energy poverty is widespread and prevents economic development
- Middle income countries recognize the utility for advanced biofuels
- The international development community is beginning to act

- Join us and leverage our partnership platform to meet your business development goals
Energy Poverty: Statistics

• 1.2 Billion people lack access to modern energy services
  – 0.5 Billion in sub-Saharan Africa

• 2.7 Billion people lack sufficient energy to cook with anything but charcoal or biomass
International Efforts to end Energy Poverty

Energy is the golden thread that connects economic growth, increased social equity and an environment that allows the world to thrive.

--- UN Secretary-General Ban Ki-moon

Ending poverty and ensuring sustainability are the defining challenges of our time. Energy is central to both.

--- Jim Yong Kim - World Bank Group President
Achieving the three objectives of Sustainable Energy for All...

- Ensuring universal Energy Access
  - Improved health
  - Improved agricultural productivity
  - Empowerment of women
  - Business and employment creation
  - Economic development
  - Achievement of the Millennium Development Goals

- Doubling the share of Renewable Energy
  - Affordable energy even where grid does not reach
  - New opportunities for small entrepreneurs
  - Decreased variability in energy costs
  - Energy security and reduced import bills
  - Reduced environmental impacts

- Doubling the rate of improvement in Energy Efficiency
  - Lighting / appliances that require less power
  - Fossil fuel resources used more effectively
  - Reduced energy costs for consumers
  - Redistribution of electricity that now is wasted or lost
  - More reliable electricity systems

... makes many development goals possible
GBEP Countries should engage with SE4ALL

SE4ALL ACTION AGENDA: COUNTRY ACTIONS

Near Term

Developing countries:
Development/updating of national energy action plans initiated

Developed countries:
Political support mobilised for domestic and international action toward the Sustainable Energy for All objectives

2 – 5 years

Developing countries:
• National and regional energy action plans in place to achieve tailored objectives
• National capacities and policies strengthened for investment readiness
• Active energy programmes in place with sufficient investment

Developed countries:
• Policies and programmes in place to make progress toward tailored objectives

5 – 10 years

Appropriate policies, legal, fiscal and regulatory frameworks, and standards implemented at all levels and across all sectors to achieve nationally tailored objectives

Significant number of people newly gained access to modern energy services
GBEP Countries should engage with SE4ALL

SE4ALL ACTION AGENDA: ENABLING ACTIONS

**Near Term**

- **Resources** committed to enable country actions and flagship activities (including technical assistance resources)
- **Knowledge management networks** / infrastructure designed

**2 – 5 years**

- Predictable financing instruments established to support initiatives requiring public / donor finance
- **Knowledge management networks** in place, including global best practice databases and tools enhanced for easy access
- **Ready access to experts** to provide technical support for policy creation

**5 – 10 years**

- **Private financing** leveraged by public resources, commensurate to the level required for meeting Sustainable Energy for All objectives at all levels
GBEP Countries *should* engage with SE4ALL

**SE4ALL ACTION AGENDA: SECTORAL ACTIONS**

<table>
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<th>Near Term</th>
<th>2 – 5 years</th>
<th>5 – 10 years</th>
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<tr>
<td><strong>Flagship initiatives</strong> initiated in each Action Area, led by multiple stakeholders (businesses, CSOs, governments)</td>
<td><strong>Measurable progress</strong> on flagship initiative <strong>Substantial growth</strong> in the number of actions under way <strong>Key cross-sectoral opportunities</strong> identified (e.g., water and energy) <strong>Increasing uptake</strong> by SMEs / grassroots CSOs / local governments / municipalities</td>
<td><strong>Initiatives</strong> incorporated in continual improvement process <strong>Growing investment</strong> (all areas) <strong>Institutional and financial capacity</strong> to sustain efforts continually strengthened</td>
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PROJECT FINANCE FROM THE REGIONAL DEVELOPMENT BANKS – ADB, AfDB & IDB
High Impact Opportunities provide the mechanism thru which the Private Sector can engage SE4ALL.
SE4ALL High Impact Opportunities

Sustainable Bioenergy HIO

- Clean Cooking Solutions
- Increased Agricultural Productivity
- Energy from Municipal Solid Waste
- Sustainable Aviation Biofuels
- Cellulosic Ethanol
- Off-grid electrification
SE4ALL High Impact Opportunities

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High Impact Opportunities and Initiatives provide the mechanism thru which the Private Sector can engage SE4ALL
HIO Leadership
Structure

Co-Chairs

HIO Secretariat

Steering Committee

High Impact Initiatives

PROJECTS
Reducing transaction costs

Barriers to deployment in developing countries
- National, local policy
- Culture
- Finance
- Technology capacity

The Sustainable Bioenergy HIO will facilitate deployment by reducing transaction costs
We seek to reduce the transaction costs to Sustainable Bioenergy development & deployment

- UN FAO
- IUCN
- UN Foundation
- Accenture Development Partnerships
- Bloomberg New Energy Finance
- Carbon War Room
- Roundtable Sustainable Biomaterials
- IDB
- Addax Bioenergy
- Boeing
- KLM/SKYNRG
- Novozymes
- PANGEA
- Shell
Actively bringing smallholder farmers into the global bioeconomy supply chain...
HOW CAN YOU ENGAGE?

• Identify a target country/region or technology.
  ➢ Mexico, Colombia, Indonesia, Malaysia, India, etc.
  ➢ 2G Ethanol, MSW, Aviation biofuels, etc

• Identify barriers to deployment
  ➢ Policy
  ➢ Feedstock logistics & infrastructure
  ➢ Technology
  ➢ Finance

• Use the HIO to identify relevant partners.

• Leverage the relevant Regional Development Bank to develop a financing package (ala BEE Energy etc)

This is a 2-5 year effort . . .
WHICH COMPANIES ARE BEST SUITED?

• A mature technology
• Existing revenue stream(s)
• Strong long-term interest in emerging markets
• Relevance to energy access and doubling the use of renewables – electricity co-generation
SE4ALL Sustainable Bioenergy HIO

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