



SUSTAINABLE ENERGY FOR ALL

Energy Access Practitioner Network

Tripta Singh Deputy Director, Energy Access Initiative United Nations Foundation Washington, DC 20036

Email: tsingh@unfoundation.org





Sustainable Energy for All Initiative

1.3 billion people worldwide are without access to electricity, and a billion more have only intermittent access. **2.8 billion** people lack access to clean cooking solutions.

In response, the UN declared 2012 as the **International Year of Sustainable Energy for All** and UN Secretary-General Ban Kimoon launched a new initiative in 2011 by the same name, calling on governments, businesses, and civil society to make commitments to action to accomplish **three objectives** by 2030:











Sustainable Energy for All -High Impact Opportunity Areas

Eight areas have been identified based on their ability to make an immediate impact towards reaching the initiative's three objectives. They are:

- Modern cooking appliances and fuels
- Large-scale renewable power
- Transportation
- Distributed electricity solutions
- Industrial and agricultural processes
- Buildings and appliances
- Grid infrastructure and supply efficiency
- Energy and women's health.





Commitments to Date

- 65 developing countries are now working with the initiative so far.
- At Rio+20 strong commitments mobilized from over 100 private sector, government and civil society organizations, totaling over \$50 billion dollars over the lifespan of the initiative.
- Commitments to support energy access will provide more than 1 billion people with access to modern energy during the lifespan of the initiative.
- New public-private partnerships are forming on transport, energy efficiency, clean cooking, and finance.





Country Action Process

Country Opt-In

Stock-taking & Gap Analysis

National Action Plans & Programs

Implementation & Monitoring

- Exchange of letters confirming engagement
- Identified ministry focal point
- Initial dialogues
- Cross-sectoral/ multi-stakeholder buy-in
- Stock-taking (Rapid Assessment / Gap Analysis) identifies barriers/gaps to goals by 2030
- Potential high-impact opportunities for scaling up and acceleration
- Multi-stakeholder consultations, verification, and identification of potential partners

2-3 months

- Nationally tailored goals
- Development of an investment portfolio of national and regional programs
- Enabling policy and regulatory frameworks
- Capacity building
- Matchmaking / identification of multistakeholder partners
- Financing access
- Monitoring & accountability frameworks

6-18 months

- Investment and implementation
- On-going capacity building
- Monitoring for progress with milestones and feedback
- Knowledge sharing





SUSTAINABLE









UNF Energy Access Practitioner Network

- As part of Sustainable Energy for All, UNF launched a global Energy Access Practitioner Network in 2011. Rapid growth to more than 900 members from over 600 organizations representing 150 countries .Open access for energy service delivery entities and investors.
- Primarily private sector members many SMEs, venture backed & large corporates as well as projects. Also private investors, government, institutional members and NGOs delivering energy services.













UNF Energy Access Practitioner Network

- Focus on catalyzing <u>market-based</u> sustainable energy applications, emphasizing mini- & off-grid solutions and supporting energy service delivery at country level.
- Knowledge network, innovative business & financial models, advocacy for appropriate regulatory and policy environments for off-grid. Operates as "network of networks".
- Serves *inter alia* as a source of <u>potential deal flow</u> to impact investors focusing on emerging markets renewable energy opportunities.









Working Groups

- Mini/micro grids
- Finance & Investment
- Standards
- Supply Chain & Entrepreneurship
- Social Protection & Humanitarian Issues
- Energy & Agriculture
- Energy & Health





Practitioner Network Recommendations

- Based on input from its working groups, the Practitioner Network released a set of recommendations on *Achieving Universal Energy Access by 2030*, at the Rio+20 summit.
- The report identifies **five areas** of particular importance for scaling up energy access:
 - ✓ understanding the market
 - improving policy and regulatory frameworks
 - ✓ facilitating finance
 - \checkmark advancing mini and micro-grids
 - \checkmark improving standards and testing







Recommendations for Advancing Mini/Micro-grids

- Understanding plans by governments and other stakeholders to avoid targeting areas planned for grid extension.
- Identifying low reliability or under-served energy areas.
- Creating standardized power purchase agreements to simplify administrative procedures and enhance market transparency.
- Conducting **feasibility studies** for new rural community planning as part of the zoning and permitting processes.
- Developing standardized templates that developers can use in project design and development.
- **Promoting clean energy options** in mini-grid development.





Recommendations for Facilitating Investment and Finance

Enterprise Financing

- Train financial institutions in **risk and rewards in off-grid energy enterprise lending**, structuring lending packages for end user clients and training loan officers on energy loans.
- Conduct early stage innovation funding that supports advances in technologies, business models, and financing approaches to enhance capacity of entrepreneurs to deliver off-grid energy services.
- Increase **working capital or operating liquidity** for energy access enterprises unable to raise capital from private streams due to high perceived risk.
- Create information portals and events for energy enterprises, focusing on financing.

End User Financing

- Identify key end-user finance groups and provide training and capacity building for personnel to promote off grid energy lending.
- Work with microfinance organizations to add energy lending to strategic priorities. Ensure appropriate incentive structure and strong processes so energy lending can grow to scale.
- Create regional/global funding facilities from which MFIs, local banks, credit unions etc. could on-lend. Create loan/risk guarantee funds to provide retailer/supplier credit and promote communitybased financing solutions.
- Conduct **consumer awareness campaigns** targeting the energy poor to boost consumer confidence and increase credit uptake.





Market-based Solutions to Reach the Base of the Pyramid

- **Consumer Financing**: Azuri Technologies' innovative "pay as you go" scratch-card rental system across Africa
- Supply Chain: Econet Solar links existing cell phone supply chains with the sale of cell phone chargers and lights in Southern Africa
- **Customer focus:** SELCO India's tailored packages of customized product, service and consumer financing
- **Product range:** Buksh Energy offers grid-tied PV, village-level solar solutions and small-scale solar lighting in Pakistan



The bigger picture: Solar PV – Towards Reaching Grid Parity



Residential PV price parity (size of bubbles refers to market size) (BNEF, 2012a). Note: LCOE based on 6% weighted average cost of capital, 0.7%/year module degradation, 1% capex as O&M annually, \$3.01/W capex assumed for 2012, \$2.00/W for 2015.

Source: BNEF, Reconsidering the Economics of Photovoltaic Power, May 2012.

Average PV module prices have fallen by nearly 75% in the past three years. Solar power is now competitive with daytime retail power prices in a number of countries, thus effectively achieving grid parity. In addition solar PV is a cost effective solution for reduction of diesel usage, for small businesses, health care settings and industrial applications.







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www.sustainableenergyforall.org info@sustainableenergyforall.org.



