



Energy for Development Conference: Promoting a Gender Inclusive and Pro-Poor Sector

September 10, 2015

Join us on Twitter!



#Energy4Development

Session 4 Presentations

Title: Enhancing Productive Uses of Electricity and Employment Opportunities in the Sector

- **Session Chair: Elizabeth Cecelski**, Gender & Energy Advisor (ENERGIA)
- **Neha Misra**, Co-Founder & Chief Collaboration Officer (Solar Sister)
- **Bikash Pandey**, Director of Clean Energy & Environment (Winrock International)
- **Lucy Stevens**, Senior Policy Adviser in Energy Access (Practical Action) **No slides**



Solar Sister Light.Hope.Opportunity

2015



Powering Africa Through A Gender Inclusive “Last Mile” Distribution Network



The Art of being a Woman:
An interest You and your Avon Representative share

Beauty is important to your neighborly Avon Representative. How to put on makeup, what's new in color, fashion, complexion care—these are her interests, too. Every day your Avon Representative perfects the art of being a woman,

at home. Then, when she calls on you—she shares her time and knowledge with you. She always brings beauty ideas, cosmetics and fragrances to please you. So take a little time for yourself. Have an Avon beauty chat.

AVONcosmetics

Social enterprise empowering women with an Avon-style distribution network for clean energy technology solutions



Building Upstream Supply Chain Linkages : Off-Grid Solar Solutions



Building Upstream Supply Chain Linkages : Clean Cooking Solutions



Gender Inclusive Workforce Development : Advancing Women's Leadership





Bridging the skills gap to build a thriving green economy – Technology, Business, Community Development



Agency Based Empowerment Training : Sisterhood. Grit. Courage





Community Partnerships: Collaboration is key



Women's Enterprise Development: RECRUITING Solar Sister Entrepreneurs



Women's Enterprise Development -TRAINING Solar Sister Entrepreneurs



Women's Enterprise Development: SUPPORTING Solar Sister Entrepreneurs

TRANSFORMING LIVES



Zuura is a Solar Sister Entrepreneur from Uganda who supported herself through nursing school with her Solar Sister income. Zuura sees solar technology as a way to improve healthcare services. Nurses like her will be able to care for their patients even at night.

“We hope that we can save people’s lives.”



Florence Ayella is a teacher, single mother of 2, and a part time Solar Sister Entrepreneur.

“I was able to pay part of my daughter’s school fees. And that one has gone down in the record of my life.”



Hilaria Paschal believes that when women contribute to their household income, they are investing in their future. She is a Solar Sister Entrepreneur by day, and uses her own lamp to weave baskets and rugs by night, which she later sells at the market.

“With solar light I can weave my baskets even at night.”



Solar Sister Justina Balankena – Small business Owner, Bomani Tanzania



Sango Bay Association in Uganda – A fishing community benefiting from solar power as users and sellers





Solar Sister Valentina– Community health worker and SACCO leader, Hydom, Tanzania

Solar Sister Monica Ogunde, Lake Zone, Tanzania – HIV survivor, single mother , community leader





Thank You!
www.solarsister.org

Productive Uses of Hydropower Mini-grids - Efficiency and Equity



Khumbu Bijuli Company, Namche Bazaar

“Women users/ and opportunities – economic and productive uses”

Conference on Energy, Poverty, and Gender

Productive End-Uses

- Two approaches to enhancing productive end-uses of energy (in Nepal):
 - Build energy projects where there is an existing economic sector (e.g. trekking tourism in Nepal). Low hanging fruit.
 - Provide business development and grant support to enable enterprises in areas served by mini-grids. (PEUC under NRREP/ Nepal).

Khumbu Bijuli Company (630 kW)

Customer breakdown by Level of Use

Level	Level wise customer	Average Subscript ion (kW)	power demand (kW)	Type of Customer	Remarks
Level-1	153	0.1	15.3	Social customer (poor household)	
Level-2	431	1.25	538.75	social customer (farmer, trekking & mountaineering business household)	
Level-3	148	3.74	553.52	Commercial customer (lodge, cyber, tailor, mineral water, bar and shop)	Mostly women owned/managed enterprises
Level-4	58	7.48	433.84	Commercial customer (lodge and bakery)	Mostly women owned/ managed enterprises
Level-5	5	9.98	49.9	Commercial customer hotel	
Industrial level	3	25	75	Mineral water blowing and cement block factory	
Total	798				
Off peak level-1	32	3	96	Off peak user mainly water heating	
Off peak level-2	59	5	295	Off peak user mainly water heating	



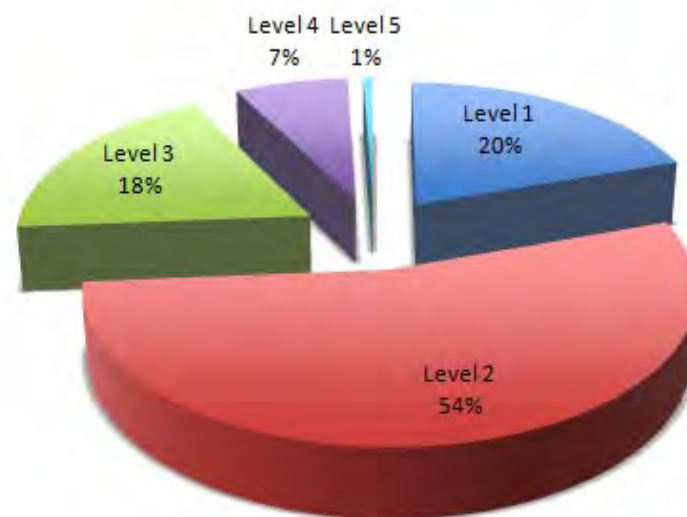
WINROCK
INTERNATIONAL

Putting Ideas to Work

KBC Tariff

Tariff System	Level	Power	Flat Rate NRs.	Rate NRs.	Energy meter
Social (74%)	1	100 W	60.00		No
	2	1,260 W	600.00		No
Commercial (26%)	3	4,000 W	300.00	7.50/kWh	Yes
	4	12,000 W	800.00	7.50/kWh	Yes
	5	30,000 W	3,000.00	7.50/kWh	Yes

Customer Distribution By Connection Level 2069/70



PEUC

Sustainability
of RETs

Economic
Growth

Sustainable
Development

- 20% income of MSMEs increased in RE catchment area
- 1,300 existing MSMEs upgraded
- 2,800 new MSMEs established (1,219 by July '15)
- 15,300 HHs supported through IGA (4,000 by 7/15)
- Employment increased by 19,000 (5,000 by 7/15)
- Investment into MSMEs of \$5M by 7/15 of which 22% grant and 78% equity and loan.
- Gender Equity and Social Inclusion

Productive end-uses Barpak (130 kW)

S.N.	Type of Business	No	Capacity (kW)	Operating Hours	Operating Days	Operating Months	Total Energy Consumption (kWh)	Tariff (Rs) per kWh	Total Income (Rs.)	Remarks
1	Agro Processing Grinder	6	5	11	30	11	108,900	8.00	871,200	
2	Agro Processing Huller	6	5	11	30	11	108,900	8.00	871,200	
3	Cable TV Network	1	2	24	30	12	17,280	8.00	138,240	
4	Rural Carpentry	2	20	8	30	10	96,000	8.00	768,000	
5	Computer centre	2	2	24	30	11	31,680	8.00	253,440	
6	Bakery	2	4	6	30	10	14,400	3.00	43,200	
7	Oil Expeller	2	12	5	20	10	24,000	8.00	192,000	
8	Mobile Tower	4	35	24	30	12	1,209,600	11.00	13,305,600	
9	Stone Cutting	6	30	7	25	10	315,000	10.00	3,150,000	
10	Noodle Makers	2	8	7	25	9	25,200	8.00	201,600	
Total									19,794,480	

Community ownership vs Private ownership of Hydropower Mini-grids in Nepal

- Community
 - Substantial investment in community mobilization,
 - Gender and inclusion benefits beyond energy (REDP),
 - Default is risk averse and low levels of productive end-uses.
- Private
 - Built in incentive to increase productive end-uses,
 - Default is high tariff and exclusion of the poor.