



Energy for All Parallel Event

Scaling Up Energy Access in the Asia-Pacific

Asia Clean Energy Forum

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Financing Village-Level Energy for Development, April workshop

- **The international environment**

- Genesis – the mismatch between demand and supply; the gap between available technology and financing/distribution
- The climate change challenge
- Rising energy and food prices worldwide
- Millennium Development Goals, poverty and energy
- 1.6 billion in developing countries without access to energy

- **The Asia Pacific region**

- Poverty and energy access; 1 billion people currently dependent on wood / kerosene / biomass for cooking, heating and lighting
- Severe adverse health outcomes and limitations on the productivity of micro-entrepreneurs
- Strong potential of renewable energy in the region; massive demand; technological and financing solutions are required
- Existing skills of designing, adapting, tailoring finance solutions at village level to stimulate energy access and enterprise development



Workshop objectives

- To identify requirements/ways to narrow the gap between supply and demand of energy at the village level in the Asia-Pacific and to determine the role of financing at the village-level as part of the solution to village-level energy disenfranchisement.
- To test regional industry interest in and support for creation of a coalition of endeavour to make advances against this challenge.
- To provide an opportunity for the exchange of information and experiences between expert practitioners, and to develop new partnerships
- To pre-identify failures in existing financing and distribution systems and to explore new financing mechanisms to increase access to clean, cleaner and more renewable forms of energy for the poorest in the Asia-Pacific region
- To learn from core challenges and successes in energy lending, with reference to leading case studies and new primary research



Workshop structure

- Financing Approaches and Opportunities
- Announcement of ADB's Energy for All initiative
- Development Finance and Energy Lending Applications
- New Market Opportunities: Carbon Financing and CDM
- New Market Opportunities: the case of LP Gas
- Public Private Partnerships
- Implementation: challenges, product development and marketing



Initial outputs of the workshop

- A lengthy set of brief case studies providing detail on the various example of Financing Village-Level Energy Access
- A lengthy report of proceedings in which discussions and points of agreement disagreement and ideas for the future were discussed (both to be distributed by the ADB)
- An Asia-Pacific regional project proposed, to begin to define the agenda and to respond to the challenges through a networked multi-country effort



Some Workshop Findings

- Yet more honing is needed on energy technologies suitable for the poor.
- The scale of the challenge is not yet matched by the resources applied to a solution.
- The “energy access gap for the poor” needs highest level support from governments and multilateral organisations.
- Refined market segmentation of the poor is critical, for example, a full quarter of the world’s energy poor are in India. Business models need to accommodate this segmentation.
- The overall functionality of markets would be a strong determinant of success.
- Having the right incentives for finance to focus on this market is critical – carbon credits are an example.
- Innovative supplier credit schemes would be a big part of the solution. Microfinance providers will have a role to play. Partnerships at the field/operational level will be critical.
- When energy products and financing are correctly tailored, customer demand and willingness to pay are clear.
- The risks to raising financing for village level energy will be in large part mitigated by greater and more defensible information.



Some Workshop Findings - Continued

- Major private sector companies – energy and finance – are insufficiently engaged: the business case has not been adequately made
- Rapidly growing interest in climate change, and the MDGs, represents a nexus of interest for growing access of the poor to clean/cleaner/more renewable energy
- There is increasing funding available for climate change mitigation; a portion can be directed toward increasing energy access.
- The scale required, and the resources and distribution networks needed, can only come from the private sector.
- There are numerous examples of success – a key ongoing success factor will be the ability to share information across borders, and to quantify achievements.
- The growing international market for carbon will form part of a successful response.
- Increasing the access of energy by the poor was not yet seen as an “industry”, with identifiable characteristics and parameters. The formation of some industry characteristics will help the packaging and selling of this market opportunity to external stakeholders.
- A coalition of endeavour has been initiated; can it be advanced and can it add value?



Outstanding questions from the workshop:

- Were the people in the workshop the right ones to successfully address/define the challenge?
- Can regulation issues/constraints be largely side-stepped in seeking to grow energy access at the bottom of the pyramid in the Asia-Pacific?
- How is the business case best demonstrated, by whom and how?
- Leadership is emerging, can it be effectively coalesced?
- Who provides the leadership to assemble the technology and finance needed?
- What vehicles and channels are available or needed to get the villages powered?
- What is the business case to ensure that the new systems are profitable and sustainable, not reliant on grants or subsidies?

Learning from experience – case studies

- Khaula Karya & Depot Teknologi Khaula, Indonesia.
- RENDEV, Sri Lanka and Bangladesh
- ATCDI Unitech, Lae, Papua New Guinea
- Alliance for Mindanao Off-Grid Renewable Energy (AMORE), Philippines
- Project ACCESS, Solar Electric Company, Philippines.
- Yamog Renewable Energy Development Group, Inc., Philippines
- SIBAT - Sibol ng Agham at Teknolohiya, Philippines
- SEEDS (Guarantee) Ltd, Sri Lanka.
- Peace and Equity Foundation
- Fuel for Poor Communities, Nepal
- Sunlabob Renewable Energy Systems
- Green Microfinance
- Winrock International, Nepal
- TERI, India, Lighting a Billion Lives Campaign





Requirements of a region-wide contribution

- Effective mechanisms for information sharing required
- Collaboration and partnerships between private/public stakeholders is required
- Energy loans at the aggregate must be demand driven, with a convincing business case required to attract investment
- Greater investment and political will is needed to develop, in aggregate, the microfinance market to fund energy access for the rural poor
- Need for targeted microfinance products which are specific to the poor and to the region
- Assistance for communities to capitalise on new carbon market investment opportunities



Identified select components of an Asia-Pacific project response

- To create and maintain a coalition of stakeholders to promote village-level energy financing across the Asia-Pacific, and to define geographically the Asia-Pacific, and the precise parameters of financing village-level energy access in the Asia-Pacific
- To drive information and ideas through this coalition, country and regional microfinance networks, banking associations, associations of private sector operators and to create an open platform which provides a vehicle for private sector contributions and sponsorship
- To design a tool for partnership creation (between technology suppliers and village-level financiers) for financing village-level energy, including workshops, training of trainers and translation, and to develop a brokering process between energy company/supplier and MFIs.
- To provide inputs to the design of a Asia-Pacific Village-Level Energy Fund (ADB and private sector) and to design, with new microfinance online players/partners such as Kiva, a new product to concentrate on village-level energy financing.
- Technical exchanges of experts within the industry in the Asia-Pacific region.



Identified select components of an Asia-Pacific project response, continued...

- To create an initial Technical Assistance “window” to help MFIs to engage in the CDM validation process.
- To publish a major, practitioner-based book of short case studies, with a pre-designed component for annual updates and to develop a small, ongoing research component, with a strong monitoring and evaluation component, with a focus on measurement of impact on poverty as a result of greater energy access.
- To create a permanent, regional resource and display centre.
- To produce defensible and evidence-based “business case” scenarios.
- To create incentives for excellence in promoting financing of village-level energy access.
- To build into the ADB’s annual clean energy forum an annual seminar on financing village-level energy.
- To prepare a video for international consumption on the financing of village-level energy



Expanding Access to Energy Workshop, 2 June 2008 – Workshop Agenda

- Session 1 – Setting the Scene: problem and barriers
- Session 2 – Revisiting the successful models
- Session 3 – Addressing financing needs
- Session 4 – Promoting private sector participation
- Session 5 – Developing a road map and regional approach



Expanding Access to Energy Workshop, 2 June 2008 – Regional approach – Findings, ideas

- Broad agreement on value of initiating a regional approach
- Leadership role of a regional organisation like ADB critical, and ADB well suited to this role
- Growing access to energy is a direct response to ADB's poverty alleviation mandate
- A regional platform for expanding energy access for the poor will assist donor coordination on this topic
- Enormous – unconnected – expertise is in existence in the Asia-Pacific which can be coalesced (and branded) to bring region-wide benefits and visibility
- A regional platform targeted at expanding access to energy in Asia-Pacific will benefit greatly from a form of supporting advisory panel
- Marketing and branding of the initiative is important
- Small-scale people to people intra-regional technical exchanges between practitioner organisation can be a very effective component of a regional approach
- A feedback loop to aid internal learning at ADB – and other key sponsoring organisation – will be highly valuable



Expanding Access to Energy Workshop, 2 June 2008 – Regional approach – Findings, ideas, con't.

- Finance for village-level energy access is there – yet it isn't. Innovation, tailoring of products, more funds, a clarified business case, insurance is all necessary
- Middle-class use of energy may be a good starting point to down-scale energy access a la mobile phones
- Energy access is positively correlated with changes in the human development index – see recent UNDOP report (2007), and a regional approach can track progress against this
- Regional technical facilities could be supported by a regional platform eg., a stove testing facility
- Access to energy has strong correlation with poverty
- Biggest part of the challenge is in rural areas
- No reliable information on needs and supplies at the village level in Asia-Pacific, a great deal more information needs to be captured and shared across country boundaries
- A regional initiative could help steer myriad working group, expert-led initiatives



Expanding Access to Energy Workshop, 2 June 2008 – Regional approach – Findings, ideas, con't...

- Weak R&D and training is a hindrance
- Grid extensions are not proving effective; and extension is not the same as a connection and use
- Subsidies, by and large, have not proven effective, and have very limited applicability at the village level in any case
- PPPs of all varieties remain critical to scaling up across the region
- People at the bottom of the pyramid need to be harnessed to help drive the energy access agenda
- 3 billion people globally still using traditional fuels; this might in fact rise with increases in oil prices
- 0.5 billion of these are in urban areas
- Energy ladder – dung, wood, charcoal, kerosene, alcohol, LPG, electricity
- Impacts on poverty, income, gender, health, environment



Expanding Access to Energy Workshop, 2 June 2008 – Regional approach – Findings, ideas, con't...

- Not enough information on the impact of success on greater access to energy at the village level
- Primary needs after food, clothing and shelter should also include light/power
- Underlying economic development and effective functioning of markets is an important precursor to get cleaner and more energy to the village level
- Needs to be more focus linking energy access to income-generating activities
- Inadequate energy access strongly disproportionately affects women
- Energy connection and energy efficiency as important as energy access



Expanding Access to Energy Workshop, 2 June 2008 – Regional approach – Findings, ideas, con't...

- GTZ – success factors for a regional approach: orientation to local networks; technology needs assessments; continuous presence; scaling up what works; flexibility in delivery is critical; multi-stakeholder approach; private sector orientation; knowledge management
- Nepal has started a “Clean Energy Bank”, what can others learn regionally
- The whole energy delivery supply chain requires effective financing
- Some financing needs to be in the form of guarantees
- Lack of adequate engagement of the energy access/improved cook-stove community with potential donors to clearly link outcomes with investments.
- Not necessarily propagating moving up the energy ladder. In fact recent oil price movements have led to certain segments moving down the value chain.



Expanding Access to Energy Workshop, 2 June 2008 – Regional approach – Findings, ideas, con't...

- Need for a proper definition of access to energy – does it cover clean tech alone, rural and urban segments without access?
- MFI financing of energy access has been successful in densely populated where there was a business case for the MFI to include energy access products within their portfolio and where maintenance of these systems were cost effective.
- Value assessed in a regional stakeholder platform to expand access to energy
- Systemitised regional system for M&E of impact of grass roots initiatives
- Systemitised capacity-building services to expand access to energy for the poor
- A regional platform could provide synergy, flexibility, status for partners, and grow economies of scale
- Regional expansion can lead to lower production costs
- A regional approach will need to focus on facilitating national-level action



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