Session 10: Enhancing Impacts

Thursday, June 11, 2009

Productive use is defined (for the purpose of this session) as any use of electricity that results in income generation, or improves economic productivity from a public service. Implementation of productive use (PU) programs can benefit electricity providers as well as consumers. PU programs normally include a promotional component, technical assistance (TA) including business development services to end users (which can be microenterprises or SME), and a financing (and/or grant) component. If successful, PU programs can revolutionize rural economies but success does not come easy. Assessing PU potential should be part of the feasibility process for any electrification project.

TaTEDO's Jatropha oil/diesel powered Energy Services Platforms (ESPs) is a pilot project strongly supported by central and local authorities in Tanzania. The impact of the project has been reflected in better business performance, increased village security, and improved livelihood. The project is being scaled up, replicated and mainstreamed.

Success stories exist, but are not always well documented. Where documentation exists, it is often based on qualitative, anecdotal evidence as opposed to hard evidence from rigorous impact evaluation. Therefore, further investigation is needed to demonstrate the value of PU programs (as well as electrification at large – see Session 9). The Income Generation through Energy and Complementary Services (INGENS) study (funded by ESMAP and BMZ) presented a new tool for quantitative, in-depth analysis of the impact of access to and use of electricity (as well as complementary services such as microcredits and BDS) on the performance of micro, small and medium enterprises. The survey tool allows rigorous impact evaluation of PU components at reasonable costs (well under US$100k). The study's preliminary findings from applying this new tool to three case studies (Benin, Ghana and Uganda) found only a slightly positive impact of electricity access/use on the economic performance of local businesses. However, it must be noted that these early results were based on a limited number of cases, that they did explicitly not include ex post measurements (which will be possible only after a

few years time) – and that the absence of evidence (for productivity impacts of electrification in a few pilots) is not an evidence for absence (of such effects in general).

During the follow-up discussions, there were two distinct perspectives. Some participants raised the fundamental question whether productive use programs can result in enhanced benefits for the target communities at all. They cited evidence that when individual community members invest in productive use equipment and experience increased sales and income, other community members involved in similar entrepreneurial activities will likely suffer declines in revenue. Their basic concern was that there would be an income transfer rather than a net income increase for the community. This led to a discussion of how one should measure success of productive use programs – whether it should be measured solely on the basis of the number of participants who received electricity, or whether it was necessary to take account of the net benefits to the entire community served by the rural electrification project. A corollary to this view noted that rural electrification projects cannot in themselves create markets, nor can they enhance access to markets. Some participants pointed to past surveys which found no substantial evidence of new productive enterprise resulting from rural electrification projects.

An alternate viewpoint was that the process of evaluating rural electrification projects should be based upon evaluating energy loads – identifying where project benefits can be achieved to generate sufficient revenues to cover the cost of project implementation. In other words, it is not the goal or the purpose of rural electrification projects to create new commercial activity, but rather to provide opportunities for commercial and micro-industrial activities to gain access to less expensive and reliable electric service. Those who took this position tended to emphasize the cost reducing potential of electrification as well as its quality of life benefits as opposed to income generation benefits. These participants generally took the position that the end goal of electrification is not to create intra-community competition, but to enhance quality of life (electric access for schools and health clinics), improve security (through public lighting), reduce energy costs and improve the quality of goods produced for sale within and beyond the community.

* This summary is based on presentations made in Session 10 and related discussions that took place in the discussion session.

Presentations:

Overview of past practices in promoting productive uses of grid electricity. Dan Waddle, VP, NRECA

Productive uses in Multifunctional Platforms. E.N. Sawe, TaTEDO

Income Generation through Energy and Complementary Services (INGENS) - Preliminary Results. Lucius Mayer-Tasch, Coordinator Rural Electrification Component, Promotion of Renewable Energy and Energy Efficiency Programme (PREEEP), GTZ Uganda