

Session 11 Financing and Subsidies for Utilities



Thursday, June 11,
2009

Worldwide all rural electrification programs have involved both subsidies and sometimes innovative financing schemes. There have been a wide variety of mechanisms to finance rural electrification, but there are some common principles that have been involved. The first is that most subsidies have been for part of the capital costs necessary for the construction of new systems. Generally, operating cost are not subsidies in rural electrification programs. The range of subsidies for capital cost has been fairly wide, ranging from as low as 25% in some countries to as high as 80% or even 100% in other countries. In some cases national entities actually do the construction, and then turn over lines to be service to distribution utilities financed by debt. This session presented an overview of financing issues for utilities with country specific examples, including Ghana, Botswana and Peru.

In Ghana, the electrification programs consist of the national electrification scheme and a self-help electrification programme supported by the government to encourage developmental initiatives of communities. Under the self-help scheme, communities can move to the “front of the queue” for grid connection if they can supply a portion of the cost of distribution equipment and are able to provide labor for the installation of distribution poles. The poverty level of the rural people, the lack of funding and the inadequacy of the Rural Electrification levy have been the main challenges of Ghana’s rural electrification programs. There are continuing financial problems because lines are built under the rural electrification program funds and transferred to the distribution utility, but the tariffs for electricity are inadequate for covering even operating costs in many instances. A rural electrification fund has been set up to offset the capital costs of construction, but there are continuing issues involving the tariff charges to consumers.

In Botswana, most of the financing for rural electrification has come from bilateral or multilateral donors. The result is that the rural electrification program is quite dependent on outside sources of funds and as a result the level of rural electrification in the country is quite low. The low level of rural electrification is attributable to village

selection procedures, high capital costs, low investment benefits, low customer connections, high maintenance costs and vandalism and the inappropriate use of technology.

The Peru system of rural electrification is complicated by the geography of the country. Most of the population lives along the coast and this area is served by regional and in most cases private grid companies. However, the Andes Mountains also run through the central part of the country and in this is served by the connected grid system. Finally, in the northern part of the country you have the Amazon region which is comprised of communities with isolated small grid systems. In Peru, three types of subsidies have been adopted in order to ensure all low-income Peruvians equal access to electricity and The three subsidies are the investment subsidy, internal tariff subsidy and consumption subsidy. The first subsidy is for capital costs of new distribution and is funded by the national government. The second type of subsidy recognizes that isolated system generations costs can be very high, and there is a scheme to transfer subsidies to the isolated small grid systems from the interconnected grid system. The final type of subsidies is a cross subsidy from urban high electricity use consumers to rural customers who generally use low levels of electricity. A political decision was made that tariffs paid by new rural consumers would be no higher than the maximum regulated urban tariff. The Peruvian scheme was created through a series of political responses codified in law to address equity issues involving access to and use of electricity. This shows that it is possible to implement different types of subsidies depending on the necessity of its use in order to cover social, economical and political issues. It important that the model of subsidy applied in Peru is based on recognizing the economic cost of service. Cross subsidies are the main vehicle used to make electricity affordable in more remote areas, and are based on charging high prices to urban consumers connected by the national grid system.

The main topic of discussion involved social tariffs, increasing block rate tariffs, and the differences between urban and rural areas. Most participants reported that high political sensitivity to urban-rural differences in electricity tariffs. Politicians were under considerable pressure for everyone to be treated equally (i.e, charged the same tariffs) even if the costs of supply differed markedly.

TANESCO, Tanzania's state owned utility, operates the interconnected national grid and 11 isolated rural grids. All its customers are on the same tariff schedule. A social tariff is provided for consumption below 50 kWh/month. The 11 isolated grids are supplied by diesel fired generation. The cost of generation on these isolated grids is considerably higher than the prices charged to the grids' customers. TANESCO is able to subsidize these isolated grids by charging higher prices to industrial customers. New local suppliers, whether a private or cooperative operator, would not have access to such cross subsidies. Tanzania's national electricity law permits non-uniform electricity tariffs and future off-grid operators in rural areas may seek local tariffs higher than the national tariffs.

Nevertheless, some countries have differentiated urban-rural tariffs. With an investment subsidy of 60-80%, Mali has been able to implement rural tariffs keyed to the capacity-to-

pay of 40-50% of the rural population. Mali's "urban national tariff" has a social tariff for consumption below 50 kWh/month. In Sierra Leone, the tariffs in provincial grids are lower than those adopted for "national grid". The national utility in Guinea has a social tariff for the first 60 kWh/month. Uganda has differentiated tariffs but the implementation raises some issues. The new RE consumers through Government financed grid-extensions from the inter-connected national distribution grid given in concession to a private operator receive the same tariffs as all other consumers.

One participant observed that: "All our tariffs are social tariffs." This was an indirect way of saying that many of the allowed national tariffs are not cost reflective. For example, in Angola the average national tariff is below cost. The current government policy is to increase this tariff in order to cover the operating and maintenance costs. An even lower social tariff exists for consumption below 100 kWh/month. Swaziland has no isolated grids. The social tariff is for consumption below 150 kWh/month. DRC has three large interconnected networks and a number of small grids. The average national tariff is below cost, and the LV-tariff is lower than the MT tariff. Côte d'Ivoire's CIE distribution monopoly has a social tariff for consumptions below 40 kWh/month. The tariff policy for Namibia's national utility operates on full cost coverage, giving the utility a credit rating. The country is divided into five regional networks and tariffs are the same.

Nigeria's average national tariff is considerably below cost. The national tariff is the same everywhere. NERC, the national electricity regulator, has proposed moving towards cost recovering tariffs using a multi-year tariff setting system with the national government covering the shortfall during the transition years. However, the proposal has yet to be implemented even though it was approved by the President. Throughout Africa, there is widespread resistance to tariff increases by the general public. Customers are opposed to tariff increases because they argue that service is poor and therefore the utilities should not be rewarded with higher tariffs. In contrast, utility officials argue that service is poor because they have insufficient funds to replace needed parts and to perform basic maintenance.

In Peru, the Government subsidy and transfer policy provide the same social tariff for consumption up to 30 kWh; consumers from higher category of consumption pay full cost. The Republic of South Africa has municipal tariffs and social tariff for consumption below 150 kWh/month. The first 50 kWh are provided for free.

A separate, specific financing issue that came up is the regulatory framework on how to handle non-paying customers. In some countries, utilities are not allowed to disconnect a household customer who refuses to repay a loan provided to cover the connection cost.

Presentations:

Ghana case, Andrew Barfour, GEDAP coordinator.

Botswana - partnering for access expansion, Masego Kealotswe, Rural Electrification Coordinator, Botswana Power Corporation.

Mechanism of subsidies applied in Peru, Mr. Miguel Revolo, Manager of Distribution Regulation, OSINERGMIN, Peru.

