

Session 8: Pro Access Regulation



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Lack of agreement on the meaning of key terms regarding regulation often leads to non-productive discussions. A working definition of regulation is: “the rules and institutions which set, monitor, enforce and change maximum and minimum allowed tariffs and minimum allowed service standards for electricity providers.”

In designing and implementing a new regulatory system, the two principal components are:

- *regulatory governance* (the *how* of regulation)—examples: the processes and procedures of the regulatory entity; how it makes its decisions; degree of transparency and stakeholder involvement in the consultation and decision making process; how regulatory responsibilities are shared with other parts of the government.

- *regulatory substance* (the *what* of regulation)—examples: specific decisions on maximum and minimum tariff levels and tariff structures; criteria for issuing licenses; level and timing of automatic cost pass throughs; and periodic reporting requirements

The two major universal substantive tasks of all economic regulators are: setting maximum and minimum prices and minimum quality of service (technical and commercial) standards. The basic question for this session and any follow up AEI work is: how should these two universal regulatory tasks be performed to promote both grid and off-grid electrification? The often expressed goal is “light handed” regulation but what specifically does this mean?

Regulating Isolated Mini-grids In Peru

- Approximately 70% of Peruvian rural households do not have electricity. Investment costs for connecting new rural customers are approximately 2 to 5 times higher than the cost for connecting new urban and peri-urban customers.
- The Government of Peru has made the political decision that “All Peruvians must be treated equally.” This, in turn has been interpreted to mean that rural tariffs (even for the most isolated communities) must be no higher than comparable urban tariffs in Lima.
- Three types of subsidies are required to implement this political decision. #1—*Initial capital cost of subsidy*—about USD\$100 million/per year. #2—*Operating cost subsidy* to reduce both the distribution and generation costs of operating isolated mini-grids (about USD\$36 million per year). #3—*Consumption cost subsidy*—to reduce tariffs for

some portion of the consumption by poor rural customers (About USD\$31 million per year). Source of subsidies: #1—the national government budget; #2 and 3—mostly urban customers with monthly consumption greater than 100 kWh per month

- Like other Latin American countries, the basis for setting tariffs are the costs of a “model efficient firm” rather than an enterprise’s actual costs.
- OSINERG (the Peruvian electricity regulator) has developed different technical and commercial quality of service standards for serving grid connected rural and urban customers. Differing standards apply to both MV and LV system component of main grid systems. To date, OSINERG has not developed comparable standards for customers served by isolated mini-grids.
- Isolated mini-grids smaller than 500 KW of installed capacity receive capital cost subsidies (i.e., Subsidy #1) with a cap of USD\$1000/household connected. Typically, once constructed, the isolated mini-grid is transferred to a municipality with no direct regulation by OSINERG. Isolated mini-grids typically provide electricity for 6 to 13 hours per day under fixed monthly charges of about \$3 to \$10 per month. About 368 mini-grids are operated and regulated by municipalities. Problem: municipalities do not have an incentive to perform maintenance because the municipalities expect that the national government will pay for entire cost of future plant replacements.

Tanzania: Regulating Grid and Off-Grid Small Power Producers

- The Government of Tanzania is promoting small power producers (SPPs) to further both electrification and renewable and cogenerated energy.
- EWURA, Tanzania’s national water and energy regulator, is responsible for developing rules and procedures for implementing the government’s SPP policy.
- EWURA’s goal has been to create a “light handed” regulatory system to promote SPPs. By light handed, EWURA means three things: a. minimize the amount of information that is required; b. minimize the number of separate regulatory decisions and actions that are required; c. use standardized documents and rely (to the extent possible) on the decisions of other government agencies (e.g., the REA).
- EWURA has developed a suite of documents:
 - Guidelines for Developers of SPP projects in Tanzania. (completed)
 - Guidelines for Grid Interconnection of Small Power Producers in Tanzania (completed)
 - Standardized Power Purchase Agreements For Purchase of Capacity and Associated Energy for Grid and Off-Grid Connected Small Power Producers. (completed)
 - Standardized Tariff Setting Methodologies for the Sale of Electricity By Grid-Connected and Mini-Grid SPPs (completed)
 - Rules to implement a to d (in process)
- The rules deal with four cases: Case 1—an SPP selling at wholesale to the operator of the main grid; Case 2—an SPP selling at wholesale to an existing operator of an isolated mini-grid; Case 3—an SPP selling at wholesale to the operator of the main grid and to retail customers on the connected mini grid; and Case 4—an SPP selling at just at retail to its customers on an isolated mini grid.
- To date, no PPAs have been signed between TANESCO (the national government owned utility) and SPPs despite the fact that negotiations have gone on for several years for several proposed SPPs. This, then, raises the question of what can a regulatory commission do if the buyer is reluctant to buy. Traditionally, regulation has focused on regulating “sellers.”

Presentations:

Regulation: What Do We Mean, Bernard Tenenbaum, Consultant, World Bank

Regulating Isolated Mini-grids In Peru, Miguel Revolo, OSINERGMIN

Tanzania: Regulating Grid and Off-Grid Small Power Producers, Anastas Mbawala and Norbert Kahyoza, EWURA