

POLICY BRIEF

Sustainable Energy in the Pacific—Getting Back to Basics



To achieve sustainable energy, countries need to make their utilities more efficient and financially viable. Photo credit: ADB.

Sustainable energy is about more than renewables. Challenges will remain in financing and maintaining energy systems, even after the clean-energy transition is complete.

Introduction

“Sustainable energy” is a catchphrase that energy professionals encounter on a seemingly daily basis, in one context or another. The term is typically used to refer to the transition away from fossil fuels as a primary energy source for power generation in favor of renewable sources. The rationale for prioritizing investment in this renewable energy transition is intuitively easy to understand and fundamentally sound, especially in remote island states in the Pacific. In many instances, renewable generation technologies can deliver power at least marginal cost, which should be paramount in a utility’s and a country’s energy investment decisions. In almost all cases, renewable energy will reduce utilities’ consumption of fossil fuel for power generation, and likewise reduce utilities’—and national economies’—exposure to world oil price volatility. Increasingly over the past several years, development partners, including the Asian Development Bank (ADB), have allocated considerable resources in support of this vision of

“sustainable energy.”

Not to detract from the efforts and investments being made by utilities, governments, and development partners in support of a sustainable energy future, the almost singular focus on increased renewable energy generation toward achieving “sustainable energy” has diminished discussion of a more fundamental (if mundane) aspect of sustainability—that of the electric utility as a viable, commercially oriented, and sustainable enterprise.

Regardless of its sources of power generation or other technologies used to deliver service to its customers, an electric utility cannot operate sustainably unless it is able to marshal resources to cover both its short-term and long-term costs (operation and maintenance, as well as capital), and to use those resources with reasonable efficiency. Throughout the Pacific subregion, this is typically not in evidence. To the contrary, few utilities are able to generate sufficient revenues from their customers to cover their full costs (both as a matter of tariff policy and as a consequence of inadequate billing and collection practices). Many utilities in the region do not record the full value of their assets on their balance sheets (if they are included as a utility’s asset at all), and thus fail to account for asset depreciation in calculating their revenue requirement. This ultimately leads to the utilities’ decapitalization and eventual insolvency, undermining any notion of providing “sustainable energy” (regardless of generation technology). Numerous other shortcomings in utilities’ operational practices, and in management and governance arrangements that allow for their perpetuation, combine to jeopardize countries’ sustainable energy objectives.

This policy brief was adapted from the Pacific Economic Monitor of the Asian Development Bank.

The Business of the Utility as a Business

The provision of adequate electricity service is crucial for ADB’s poverty reduction mandate: economic growth, public health, and general quality of life of people in developing member countries depend on it. Performance of electric utilities in the Pacific varies greatly from country to country: service is almost universally available in some countries with highly concentrated populations (e.g., Nauru, Palau, and Samoa), while in other countries, service is available in only a few major urban centers that account for a small percentage of the total population (e.g., Papua New Guinea, Solomon Islands, and Vanuatu).

Notwithstanding this variation in service availability, most electric utilities in Pacific developing member countries of ADB share several common features:

- (i) their financial and operational performance generally fails to provide for efficient and sustainable service delivery;
- (ii) they represent a significant and recurrent drain on the public purse, or have otherwise significant welfare-diminishing effects due to highly distortionary subsidy and tariff -formation practices; and

(iii) their legal, policy, and regulatory environments fail to provide adequate stimulus for sector performance improvements and investments, especially from prospective private sector partners.

Despite many years of effort and support from bilateral and multilateral development agencies and international financial institutions, quality and reliability of services provided by public utilities—whether providing electricity or other network services—is poor; in several countries, services remain unavailable to a significant portion of the population. Most utilities have not yet achieved service quality or access objectives, let alone attained financial self-sufficiency. The causes are many, but afflict most Pacific utilities, albeit to varying degrees. Among other things, governance arrangements and regulatory policy do not properly incentivize management to achieve appropriate performance targets; utilities are frequently abused as tools of social policy or to serve short-term political objectives; financial management and accounting practices are not designed or applied to achieve appropriate performance targets; authorities and functions are poorly defined and often fragmented; and utilities' workforces do not receive sufficient training and are not supported or incentivized to perform core functions effectively.

Focus on the Whole Utility

While most development partners, including ADB, include capacity-building assistance as a component of their investment projects in Pacific utilities, achievement of significant and lasting improvement in utilities' operations has proven elusive. Typically, capacity building is undertaken within the context of a discrete investment project's implementation, consisting of the creation of systems and processes within a project management unit that is established explicitly to support that project's implementation. The implicit assumption for this approach has been that capacity-building within the project management unit will catalyze incremental change throughout the utility—that good practices, systems, and processes created for the relevant investment project will be absorbed and adopted throughout the utility. Unfortunately, this approach has not succeeded. Most often, improved practices, systems, and processes fail to take root, and the assets financed by development partners are absorbed into the partner utilities' existing inadequate systems, where a “build–neglect–replace” paradigm in providing public infrastructure services prevails. This is the antithesis of sustainability.

The “build–neglect–replace” paradigm is “sustainable” only for as long as development partners continue to tacitly condone it by returning periodically to provide new subsidized investments in replacement assets. Systemic weaknesses within utilities and their operating environments go unaddressed, and so service remains poor or unavailable, resources are wasted that could otherwise be put to more productive uses, and economic growth and general welfare is diminished.

To provide for a truly sustainable energy future, utilities in the Pacific must begin to operate more efficiently and as financially self-sufficient, commercially oriented enterprises. In partnership with the Green Climate Fund, ADB is preparing an order-of-magnitude  increase in resources devoted to the reform of utility sector policies and governance arrangements, and the modernization of business systems and processes within client utilities. Wholesale reform and modernization of utilities must be part and parcel of utilities' investment programs, regardless of source of financing. This is doubly true with respect to development partners' resources.

A Programmatic Approach to Sustainability

Under the Green Climate Fund-supported sector reform and capacity-building technical assistance program, reform and capacity-building interventions will be tailored to the needs of each beneficiary utility. As a first step, baseline performance evaluation and an in-depth, comprehensive diagnostic assessment of each utility's circumstances and practices will be completed. This will provide the basis for the design of a comprehensive reform and capacity-building program that yields a wholesale and enduring transformation of the utility and the policy, institutional, and governance arrangements that form the environment in which the utility operates. Superficial or cursory analysis of utilities' reform requirements will not suffice. The first-phase diagnostic assessment will see teams of consultants working closely with a utility's management for an extended period (approximately six months) to precisely identify and quantify the utility's troubles and prepare a business case for reform.

The evaluation and diagnostic assessment should underpin future utility investment project design so that reform implementation is integral to, and part-and-parcel of, development partner-supported investments. Crucially, consulting services for reform package implementation will need to be incorporated into the project design in a qualitatively different way from the practice of the recent past: rather than being ring-fenced to focus on a specific investment project's implementation, the scope should be broader, to encompass all of the utility's internal systems and practices, as well as the environment in which the utility operates (legal, regulatory, governance, and policy environment).

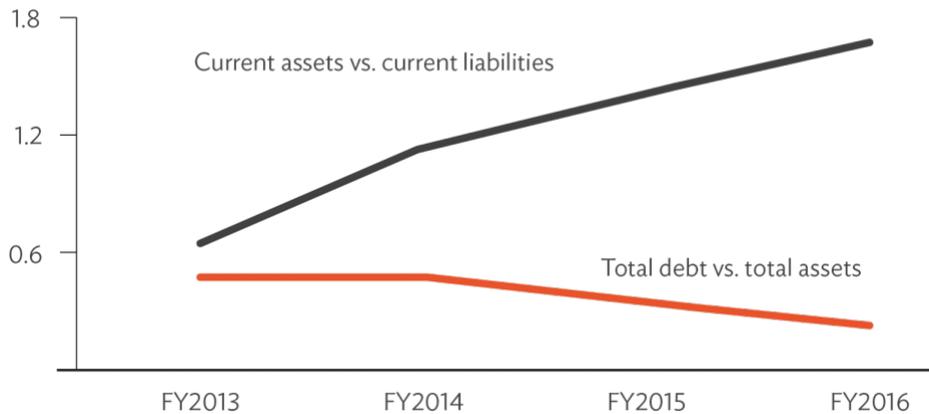
The packages of reform and capacity-building measures developed through the performance evaluation and diagnostic assessment of utilities' performance should not be viewed as a smorgasbord of separate discretionary actions, but rather as essential ingredients in a complex recipe. Just as crucial is the need to recognize that the wholesale transformation of Pacific utilities that are essential for attaining truly "sustainable energy" cannot be achieved in small increments. Successful reform implementation will require steadfast commitment and perseverance by all stakeholders, and a commensurate investment in consultant support, to include long-term residential assignments and embedment of consultants within the management structures of the subject utilities to achieve transformational change.

This approach has proven successful in other venues, including within the Pacific: the United States Office of Insular Affairs-supported appointment of an expatriate chief executive officer to the Chuuk Public Utility Corporation in the Federated States of Micronesia achieved a remarkable turnaround in the utility's fortunes. Although it took over five years to fully bear fruit, the utility's ability to meet its financial obligations has improved following the change in management. This bodes well for an entity engaged in a capital-intensive (and financing-intensive) industry such as energy.

Audited financial statements for fiscal years 2013 to 2016 show that the utility now holds far more current assets than current liabilities (i.e., those payable within one year), indicating that it is more than able to service short-term obligations (Figure 1). Current assets have been boosted by increases in cash reserves and accounts receivable, which in turn result from improved cost recovery and collection efficiency. The Chuuk Public Utility Corporation has also become more financially solvent, meaning that its capacity to meet long-term obligations has improved as well. The equivalent share of total debt to total assets declined steadily over the period, especially in FY2015–FY2016 when the utility expanded

its plant assets (mainly in water and sewerage).

Figure 1: Liquidity and Solvency of the Chuuk Public Utility Corporation



FY = fiscal year, vs. = versus.

Sources: Chuuk Public Utility Corporation audited financial statements, various years.

Conclusion

Truly sustainable energy entails more than shifting power generation away from conventional fossil fuel sources. It also means ensuring that the operations of electric utilities are efficient and financially viable. Addressing this, particularly in Pacific utilities, will require reform across all areas of operation: from tariff-setting, financial management, and corporate governance to creating a legal, policy, and regulatory environment conducive to improvements in the energy sector.

To this end, ADB is working with the Green Climate Fund to provide greater support to help Pacific utilities modernize their business systems and processes toward becoming efficient and financially self-sustaining, and effect change in utility sector policies and governance arrangements. However, such efforts should be complemented by steadfast commitment from all stakeholders, as well as closer, more long-term partnerships with client utilities beyond project implementation, in order to effect genuine transformational change.

Resources

Asian Development Bank. 2018. Pacific Economic Monitor. July. Manila.



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