Chapter 24
Neoliberal Reforms in Sub-Saharan Africa's Electricity Sector:
Implementation, Experiences, and Impacts

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ABSTRACT

Based on literature review and documents analyses, this contribution discusses the processes, implementation, experiences and impacts of the neoliberal electricity-sector reform in Sub-Saharan Africa (SSA). The study generally finds poor implementation status and experiences as well as little improvement in the performance of the electricity sector as a result of the reforms, in the reviewed and analyzed SSA countries. The study identifies the reasons for the general poor outcomes of the reforms to be non-existence of truly independent electricity regulatory agencies, weak institutions and non-existence of unhampered competition among players in the electricity markets in most SSA context. The study suggests implementation of more tailored reform alternatives which suit existing political, social, and institutional characteristics and conditions of the SSA countries, namely: hybrid electricity markets and complementary regulatory measures.

INTRODUCTION

Over the last thirty years, almost half of the countries of the world have implemented electricity sector reforms in varying degrees (Erdogdu, 2013a). Sub-Saharan African (SSA) countries were included. Billions of dollars have already been spent worldwide in achieving this goal (Erdogdu, 2013b). The typical reform model involves the processes of: 1) corporatization and commercialization of state-owned utilities; 2) adoption of new electricity sector legislation which approves the liberalization of the utilities and provides for the establishment of independent regulatory bodies; 3) unbundling of utilities; 4)

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introduction of competition through private sector participation (PSP); and 5) provision of incentives for investment (Newbery, 2002; Pollitt, 2012; Jamasb, Nepal and Timilsina, 2015). This chapter calls this model of reform: the neo-liberalized model of electricity sector reform.

Many researchers, in this area of study, believe that a well-designed and regulated implementation of the liberalized model of electricity sector reform will: 1) improve the technical and financial performance of the sector; 2) improve access to electricity; and 3) make-up for government's inability to mobilize sufficient capital investment for electricity sector development and expansion in the implemented countries (Zhang, Parker and Kirkpatrick, 2008; Sen and Jamasb, 2012; Kessides, 2012; Erdogdu, 2013b). This argument is also in line with the traditional theoretical arguments for market liberalization, which posits that liberalization and privatization of economic sectors lead to higher investments, outputs and efficiency (Singh, 2002; Megginson and Netter, 2001; Jamasb et al., 2015). In SSA, the widespread implementation of the liberalized model of electricity sector reform is mainly driven by the desire to achieve optimal allocation of resources; technical and economic efficiency; improve social welfare; as well as to increase investment in the sector (Jamasb et al.; 2015; Eberhard and Gratwick, 2016; Bacon and Beasant-Jones, 2001). It is estimated that an investment of USD 120-160 billion per annum is required to meet the growing demand for electricity in SSA countries combined (IEA, 2014).

The liberalized model of electricity sector reforms has, however, not yet been fully implemented in many SSA countries (AICD, 2008; Eberhard et al. 2011; Eberhard and Gratwick, 2016). However, since the 1990's, there has been the implementation of PSP in the electricity sector of 33 out of 48 SSA countries (World Bank, 2016). The implementation of PSP in these countries is an essential part of the process of liberalization of the electricity sector in the countries. The PSP adopted by the individual countries were in the form of management or lease contracts; concession contracts; independent power projects; and divestitures (World Bank, 2016). As of 2015, a total of 210 electricity sector projects with PSP reached financial closure with a total investment of more than USD32.7 billion in the studied 33 SSA countries between 1990 and 2015 (World Bank, 2016).

Despite this widespread implementation of PSP in the region, there has been little or no improvement in the performance of the power sector. The privatization reform process has been complex, inefficient and slow in the SSA countries where reforms have begun (Vagliasindi, Maria, and Nellis, 2010; Nepal and Jamasb, 2012; Eberhard et al., 2011; Prasad, 2011 and 2008). State-owned utilities still retain most ownership and management of unbundled electricity utilities, thereby limiting most private sector participation to mainly the generation sector—where the private investors are Independent Power Producers (IPPs) (Gratwick and Eberhard, 2008; Eberhard et al., 2011). Many private management contracts have been awarded, yet there is no visible effect on the performance of the electricity sectors (Gboney, 2009; Eberhard et al., 2011). Only a few out of the many issued private leases and concessions have survived (Nellis, 2008; Eberhard et al., 2011). These trends question the effectiveness of the currently implemented liberalized model of electricity sector reform in improving the performance of the electricity sector in SSA. Meanwhile, several studies on institutions and development in SSA note that most SSA countries have weak institutions—a characteristic that can impede the success of planned economic reforms (Acemoglu and Robinson, 2010; Parker, 2002; Nepal and Jamasb, 2012, Nepal, 2013).

Based on general literature review and documents analyses, this contribution discusses the processes and drivers of implementation of the liberalized model of electricity sector reform as well as its applications, implementation status, experiences and impacts in Sub-Saharan Africa (SSA). SSA consists of 4 regions. They include Central Africa, East Africa, Southern Africa and West Africa (IEA 2016; KPMG, 2016). The region consists of 49 countries, with a total estimated population of 900 million people (IEA,