

State of Electricity Reforms in the United Republic of Tanzania: Country Base Paper

1. Background

a. Importance and need for regulation

Regulation refers to the control on human or societal behavior by rules or regulations or order issued by an executive authority or an agency of the government which are backed by force of lawⁱ. It covers all activities of private or public behavior that may be detrimental to societal or governmental interest but its scope varies across countries. In its operational context, regulation refers to taxes and subsidies of all sorts as well as explicit legislative and administrative controls over rates, entry, and other facets of economic activityⁱⁱ. The rules laid down by regulation are supported by penalties or incentives designed to ensure compliance. In the common context, regulation attempt to control or influence private behavior in the desired direction by imposing costs on or proscribing undesirable behavior. Justification for regulatory intervention is based on the desire to prevent market failure, restriction or removal of anti-competitive practices and promotion of public interestⁱⁱⁱ.

Electricity networks in many occasions are natural monopolies owing to the high cost of duplicating the infrastructure. Evidence from the practice of natural monopolies suggest that in the absence of strong regulations, they are posed to hold customers at ransom once they have made sunk investments by setting excessively high prices and low quality services to consumers owing to less incentives for internal efficiency and greater motivation for profit. The high unregulated prices pose potentially undesirable transfers from customers to businesses which is unfair to many consumers hence the compelling need to address these resulting static and dynamic economic inefficiencies by the electricity networks through regulation.

b. Electricity Reform Process – Historical Account

Among the key reforms that have been realized in Tanzania's electricity Sector include the Establishment of Energy and Water Utilities Regulatory Authority (EWURA) Act of 2003, Establishment of Rural Energy Agency and Rural Energy Fund, Act No. 8 of 2005 and the Physical REA/REF operations that started in October 2007 with Initial Recruitment April 2008. However the process that has generated this key reforms in Tanzania were first pronounced against the backdrop of socialism that had pushed for public service and developmental state as a component of national identity and equitable economic developmentiv. The force behind electricity reforms in Tanzania is anchored on the mix of macro reform priorities, national energy policy, electricity sector conditions, and international donor priorities for Tanzania^v.

Public Power Supply in the mainland Tanzania has been in existence since 1908^{vi}. By the year 1920, the country had the electricity department was formed as part of the railway system to run and maintain all the public electric systems in the country. The year 1931 saw the establishment of the first two private utilities namely the Tanganyika Electric Supply Company (TANESCO) and Dar es Salaam and District Company (DARESCO) to provide electricity services within 100 km of Pangani Falls and towns of Dar es Salaam, Tabora and Kigoma respectively.

The operations of the two companies were under the auspices of minister of electricity and minerals as the regulator with the guidance of the Electricity Ordinance Act of 1931 which was later amended in 1957. The year 1964 marked the birth of the present vertically integrated Monopoly Utility i.e. Tanzania Electric Supply Company (TANESCO) after the merger of the Tanganyika Electric Supply

State of Electricity Reforms in the United Republic of Tanzania: Country Base Paper

Company (TANESCO) and Dar es Salaam and District Company (DARESCO). The culmination of this was the purchase of shares of these utilities which all became public by 1971 allowing the utility to operate as a parastatal organization. By 1976, increased government control was heightened and the prevailing political influence saw the utility accorded a political commissar from the ruling party, a position that was relinquished in 1991 following policy changes that ensued.

The 1992 National Energy Policy outlined the intentions to involve the private sector in development of the energy sector (MEM, 1992). The government also expanded macroeconomic reforms started under structural adjustment in the mid-1980s to include sector-focused objectives (Wangwe et al. 1998). In the same year, owing to drought-induced electricity crisis and extensive load shedding, the Government lifted the state utility's monopoly on generation to attract private generation and alleviate shortages, which paved the way for the country's two IPPs, supplying the national grid and the Njombe Makambaku local grid.

In 1993^{vii}, the reform imperative was reinforced by changes in World Bank lending policy, as the World Bank made electricity sector reforms a condition for electricity sector lending in the same year (World Bank 1993). Commercialization of electricity sector in Tanzania began in 1993 owing to the World Bank Power VI project. This involved technical and administrative steps to reduce losses, improve billing and the procedures. This saw the increase in tariffs to compensate for currency devaluation, introduction of prepayment meters to support revenue collection.

During the 1995-1997, more than 40,000 prepayment meters were installed to selected middle and upper class neighbourhood in the capital city Dar es Salaam. In 1997, TANESCO was put under the President's Parastatal Sector Reform Commission (PSRC), created in 1992 to oversee the privatization of state-owned enterprises in industry and manufacturing. Formal intentions to restructure the power sector to achieve unbundling and eventual privatisation were spelled out in a 1997 letter of intent to the World Bank, including restructuring plans to unbundle TANESCO into two generation companies, one transmission company, and two distribution companies. A 1999 Cabinet decision outlined an electric industry policy and restructuring framework to move ahead on restructuring and unbundling in preparation for privatisation. However, no progress was made with unbundling.

Some key developments were realised over time. During the 70s and 80s, the national utility managed to extend the national grid to fourteen regional towns, supply to all the isolated regional townships and a number of villages. In 2001, the ministry of energy and mineral in seeking more dramatic financial turn-around in preparation for privatization, issued a request for proposals for a management contract for TANESCO, which was won by the South African company, NETGroup Solutions in 2002.

In 2002, the Tanzania Government entered a management contract with the NETGroup Solutions for financial turnaround which saw TANESCO doubled revenue collection from US\$11 to over 22 million per month between May 2002 and May 2004 (Davies 2004; and unpublished TANESCO data). These gains were achieved mainly through enforcing collections and arrears payment, with particular attention focused on the large arrears of public institutions. As of late 2005, TANESCO was taken off the list of utilities specified for privatization, under an internal decision of the GoT. This represents a shift in earlier reform goals and timetables. Presently the country has two main

State of Electricity Reforms in the United Republic of Tanzania: Country Base Paper

independent power producers supplying the national grid and the Njombe Makambaku local grid. The power import from Zambia and Sudan mainly supply isolated boarder areas. The country has three rural power cooperatives together with other small privately owned generating sets marking isolated border posts, schools, hospitals, agro-processing factories and mines

Summary of Electricity Reforms in Tanzania

Year	Reform	Assessment/Remark
1908	The introduction of electricity in Tanzania by the colonial authorities.	It was by then called Tanganyika.
1931	The establishment of two electricity companies: a. The Dar es Salaam and District Electric Supply Company (DARESCO) b. The Tanganyika Electric Supply Company (TANESCO)	The operations of the two companies were under the auspices of minister of electricity and minerals as the regulator with the guidance of the Electricity Ordinance Act of 1931 which was later amended in 1957
1961	Acquisition of some shares from both the utilities (DARESCO and TANESCO) by the Tanzania government.	It was the year of independence for Tanzania.
1964	The acquisition of all shares of the merged two utilities by government	Public were free to buy share of the two companies.
1975	Merger of the two utilities to form a state owned utility called the Tanzania Electric Supply Company Ltd (TANESCO).	The beginning of monopoly in Tanzania's power sector through a single vertically integrated national utility.
By 1976	Increased government control saw the utility accorded a political commissar from the ruling party.	Position was relinquished in 1991 following policy changes that ensured.
1980s	Government lifted the state utility's monopoly on generation to attract private generation and alleviate shortages,	This paved the way for the country's two IPPs, supplying the national grid and the Njombe Makambaku local grid.
1992	Development of the National Energy Policy outlining the intentions to involve the private sector in development of the energy sector.	Involved the expansion of the macroeconomic reforms started under structural adjustment in the mid-1980s to include sector-focused objectives by government
1993	The start of commercialization of electricity sector in Tanzania owing to the World Bank Power VI project.	This involved technical and administrative steps to reduce losses, improve billing and the procedures. This saw the increase in tariffs to compensate for currency devaluation, introduction of prepayment meters to support revenue collection.
1995-1997	Introduction of Prepaid meters	More than 40,000 prepayment meters were installed to selected middle and upper class

State of Electricity Reforms in the United Republic of Tanzania: Country Base Paper

		neighborhood in the capital city Dar es Salaam
1997	TANESCO put under the President's Parastatal Sector Reform Commission (PSRC), created in 1992	The commission was to oversee the privatization of the state-owned enterprises in industry and manufacturing.
1997	Formal letter of intentions to restructure the power sector to achieve unbundling and eventual privatization.	The letter of intent sent to the World Bank, including restructuring plans to unbundle TANESCO into two generation companies, one transmission company, and two distribution companies.
1999	A Cabinet decision outlining an electric industry policy and restructuring framework to move ahead on restructuring and unbundling in preparation for privatization.	There was however no progress made with respect to unbundling.
2001	The issue of a request for proposals for a management contract for TANESCO by the ministry of energy and mineral, which was won by the South African company, NET Group Solutions in 2002.	This was to seek more dramatic financial turnaround in preparation for privatization,
2002	The Tanzania Government entered a management contract with the NETGroup Solutions for financial turnaround which saw TANESCO doubled revenue collection from US\$11 to over 22 million per month between May 2002 and May 2004.	These gains were achieved mainly through enforcing collections and arrears payment, with particular attention focused on the large arrears of public institutions.
late 2005	TANESCO was taken off the list of utilities specified for privatization, under an internal decision of the GoT.	This represents a shift in earlier reform goals and timetables.
2006	The Energy and Water Utilities Regulatory Authority Became operational	To undertake oversight function and to accelerate private sector investment in the utilities.
2007	The operationalization of Rural Energy Agency and Rural Energy Fund through enactment of Rural Energy Act of 2005.	To promote the expansion and access to electricity services to the rural population.
2008	Enactment of new Electricity Act.	To guide all players in the industry.
2009	New power system master plan	To guide the implementation of the least – cost development plan by government and private sector for the realization of electricity demand over short, medium and long term
2010	Development of Power Sector Reform Strategy	For restructuring the country's electricity supply industry to attract private players and improve performance.

State of Electricity Reforms in the United Republic of Tanzania: Country Base Paper

2. Policy and Implementation

a. Electricity policy /Legislation

The National Energy Policy (2003)^{viii} for the republic of Tanzania has the prime objective for the development of the energy sector through establishment of an efficient energy production, procurement, transportation, distribution, and end-user systems in an environmentally sound manner and with due regard to gender issues. It supports research and development of renewable energy and also promotes the use of efficient biomass and end-use technologies. It is based on a premise to ensure availability of reliable and affordable energy supplies and their use in a rational and sustainable manner in order to support national development goals. To have a liberalized but regulated energy sector with the main thrust being increased private sector initiatives and investment for exploitation of energy resources in the country.

Power System Master Plan 2007-2031 (PSMP) has identified Short and medium term projects to replace the short-term emergency generation plants. Under the plan, a number of major projects have been proposed to develop the power sector of the country, and provide a solution to the current bulging energy deficit. These include: the processing of a number of Power Purchase Agreements relating to interconnections with neighbouring countries and IPPs, the construction of new generation facilities (including 100 MW at Ubungo, 60MW at Nyakato – Mwanza, and 222 MW at the Rumakali Hydropower Project), the expansion of the high-voltage transmission network, and further studies into wind energy projects at Singida and Makambako.

The new Small Power Producer (SPP) Framework developed through Energy and Water Utilities Regulatory Authority (EWURA) with the support of Sida has created avenue for expansion of renewable electricity in Tanzania, by providing model power-purchase agreements, standardised tariffs, and streamlined interconnection- and licensing requirements. The regulations provide a legal basis for small renewable energy power developers to export excess electrical energy to the national utility (up to 10 megawatt (MW) power capacity). They also bring electricity to communities that have never had access to grid-based electricity

Rural Energy Act No. 8 of 2005 under section 6(1) establishes a Board known as the Rural Energy Board whose objective is to promote rural socio economic development by facilitating extended access to modern energy services for the productive economic uses including health and education clean water, civil security and domestic application. the Rural Energy Board, Fund (established under Section 17 of the same Act) and Agency (established under Section 14 of this Act) is to be responsible for promotion of improved access to modern energy services in the rural areas of Mainland Tanzania and through a Fund within the Agency Board to provide for grants and subsidies to developers of rural energy projects and for related and consequential matters.

The Electricity Act No. 10 of 2008 provide for the facilitation and regulation of generation, transmission, transformation, distribution, supply and use of electric energy, to provide for cross-border trade in electricity and the planning and regulation of rural electrification and to provide for related matters and hence is the main act that governs TANESCO Ltd works as being the current sole licensee. Under Section 5 of the Electricity Act No. 10 of 2008, EWURA is mandated to award

State of Electricity Reforms in the United Republic of Tanzania: Country Base Paper

licences to entities undertaking or seeking to undertake a licenced activity; approve and enforce tariffs and fees by licencees; approve licencees' terms and conditions of electricity supply and approve initiation of the procurement of new electricity supply installations. Section 6 (1) of the Electricity Act No. 10 of 2008 stipulates the functions of EWURA in relation to electricity supply industry to include protection of customer's interests through the promotion of competition; promotion of access to, and affordability of, electricity services particularly in rural areas; promotion of least-cost investment and the security of supply for the benefit of customers; promotion of improvements in the operational and economic efficiency of the electricity supply industry and efficiency in the use of electricity; promotion of appropriate standards of quality, reliability and affordability of electricity supply; taking into account the effect of the activities of the electricity supply industry on the environment; protection of the public from dangers arising from the activities of the electricity supply industry; and promotion of the health and safety of persons in the working environment employed in the electricity supply industry.

b. Institutional Structure

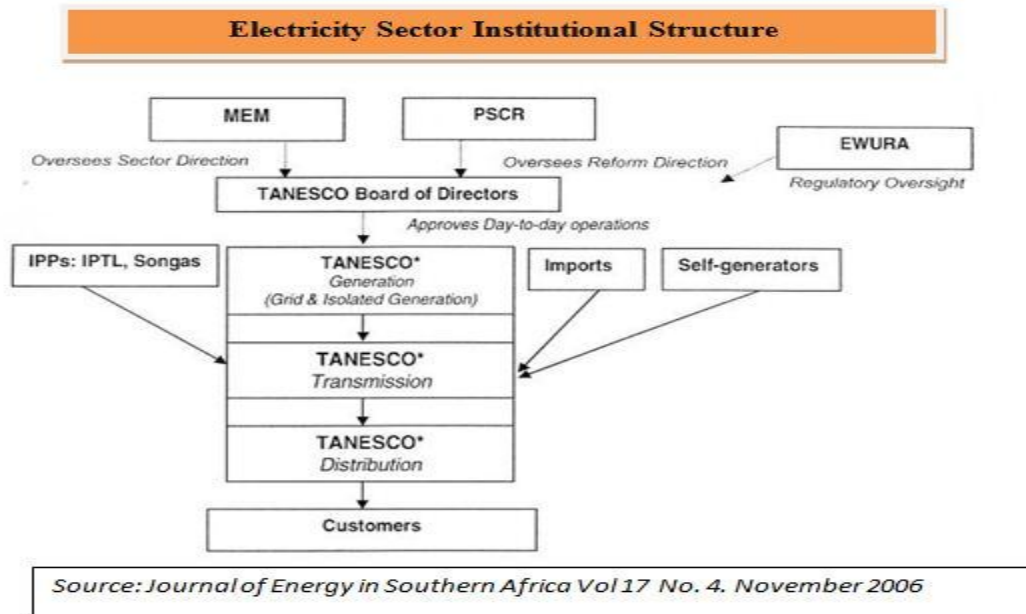
The Government of the United Republic of Tanzania through the Ministry of Energy and Minerals is the policymaker in the electricity subsector. MEM has responsibility for setting and reviewing policies and strategies as set out in the National Energy Policy and the National Energy Strategy through issuances and guidelines. The regulation of the electricity sub sector is under the responsibility of Energy and Water Utilities Regulatory Authority (EWURA) formed by the government in 2001 under the Energy and Water Utilities Regulatory Authority Act No. 11 of 2001 Cap 414. The Minister responsible for EWURA is empowered under section 41 of Cap 414 to make regulations that he considers necessary or desirable to give effect to the provisions of Cap 414. The Minister shall make regulations not inconsistent with Cap 414 or any other sector legislation. These rules together with those made pursuant to sector legislation shall govern EWURA. There also exist Energy and Water Utilities Regulatory Authority-Consumer Consultative Council established under section 30 of the Energy and Water Utilities Regulatory Authority Act, 2001 Cap 414. The objectives of the Council are to safeguard and protect the interests of consumers of EWURA regulated services which are namely; water, Electricity, Petroleum and Natural Gas.

The supply of Electrical power in the united republic of Tanzania is composed of a mix of both a national interconnected grid and isolated distribution systems. The subsector is however dominated by the state-owned utility, Tanzania Electric Supply Company Ltd. (TANESCO) which a company limited fully owned by the Government of Tanzania under the Ministry of Energy and Minerals having been duly registered under the Companies Act Cap 12 under the Registrar of Companies under the Business Registration and Licensing Authority (BRELA). It is responsible for about 70 per cent of electricity generation and owns about 98 per cent of Tanzania's distribution network.

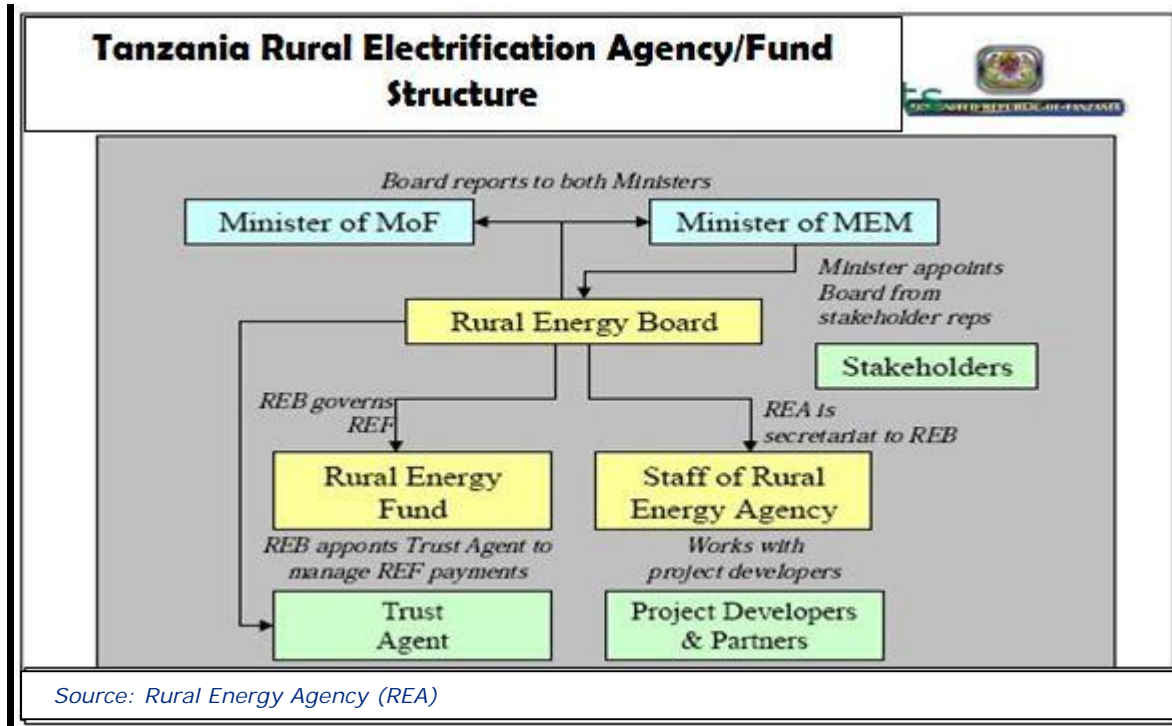
The distribution network of TANESCO serves an estimate of about 900,000 customers; electricity is available to about 18% of the population, with more than 80% supplied in the urban areas. TANESCO has a monopoly on the interconnected electricity transmission grid and therefore, all independent power producers (IPPs) have to sell their power under special power purchase agreements (PPAs) to TANESCO. Since there are no standard PPAs set out by the government, each agreement is usually concluded after prolonged negotiations. The expansion of the electricity network in Tanzania has often been hampered by poor state of financial performance of TANESCO

State of Electricity Reforms in the United Republic of Tanzania: Country Base Paper

which is attributed to the frequent unpaid bills, accrued debts and interest from long term development loans to the institution. Poor management coupled with poor service delivery to the consumers is trend in the institution^{ix}



xRural Energy Agency/Rural Energy Fund was established under the Rural Energy Act No.8 of 2005 to promote, coordinate and facilitate private sector initiatives and entrepreneurship in rural energy supply; to ensure continued electrification of rural commercial centers and households; to promote accessibility and affordability to low income groups; to promote increased availability of power (both grid & non-grid); Quality Control: Standards, norms, guidelines; continued research, development and application of appropriate rural energy solutions



c. Experience and Achievement

- o Tariff setting

Tariff-setting, and the issuing of licenses to prospective actors in the power sector, are responsibilities of the EWURA^{xi}. Section 23(1) of the Electricity Act No. 10 of 2008 empower EWURA to regulate tariffs for the sale of electricity by licensees to other licensees, unless the electricity is sold in markets determined by the Authority to be competitive; tariffs for the sale of electricity by licensees to customers other than eligible consumers; charges for connection to, and the use of any transmission system; charges for connection to, and the use of any distribution system and prices and charges in respect of goods and services provided by licensees determined by the Authority to be subject to tariff regulation.

The MEM during 2007, in consultation with other stakeholders, adopted the Standardized Power Purchase Agreements (SPPA) and Standardized Power Purchase Tariffs (SPPT) for interconnecting and selling power to the Main grid and Mini-grids in Tanzania. Pursuant to Section 17 of Cap 414, EWURA approved the standardized documents for use. The Standardized Tariff Methodology is normally subjected to revision in five years after approval except upon a major concern. However, the tariff is adjusted annually to accommodate uncontrollable operational costs. The adjustments are done by the Working Group on Small Power Development (WGSPD) currently hosted by the Energy and Water Utilities Regulatory Authority. The current tariffs, which were hiked last January by 40.29 per cent, had been pegged at 60/- for domestic low usage; that is between 0 and 50 kWh, 273/- for over 50kWh and 221/- per kWh for general usage. The charges for the low voltage supply were 132/- per kWh and 118/- for high voltage supply; that is for demand of over 14,000kVA. Zanzibar Electric Company (ZECO) are charged 106/- per kWh for over 12,000kVA supply^{xii}.

State of Electricity Reforms in the United Republic of Tanzania: Country Base Paper

○ Consumer Protection/Welfare

The basis for consumer protection in Tanzania is anchored in a number of sections of key electricity laws in the country.

Section 26 (1) of Electricity Act No. 10 of 2008 provide the basis for consumer rights and protection. It stipulate the conditions under which a distribution licensee may suspend electricity supply services obligations to customers which include danger to life, health or safety; danger or risk of damage to property; instruction of the System Operator; insufficient supply of electricity; instruction of the Authority, in the event of an emergency; operational breakdowns in electrical facilities; or in order to carry out connections to its distribution facilities; scheduled or unscheduled maintenance; repairs, inspections or refits; tests or control measurements; network expansion; and other activities which cannot be accomplished without a suspension of service. Section 26(2) of the Act provide for the suspension of electricity supply services by a licensee to be as brief as possible; to affect the fewest number of consumers possible; and to minimize suspension of supply to priority customers in accordance with the licensee's contingency plans referred to in subsection (5). Section 26(5) Act puts liability to a licensee to compensate the customer who suffers loss of property or physical injury as a result of an act of a licensee which amounts to- unlawful disconnection of electricity; unlawful suspension of electricity services; or poor quality of supply.

Section 26(7) of the Electricity Act No. 10 of 2008 ensures the use of approved gadgets in measuring the amount of electrical energy consumed by the customer or the number of hours during which the supply is given, the quantity or time connected with the supply which have to be meters of a type approved by the Tanzania Bureau of Standards or determined in a manner agreed upon by the licensee and the customer.

The Energy and Water Utilities Regulatory Authority Act No. 11 of 2001 Cap 414 section 30 established EWURA Consumer Consultative Council whose functions and powers as provided for in section 31 include representing the interests of consumers by making submissions to, providing views and information to and consulting with the Authority, Minister and sector Ministers; receive and disseminate information and views on matters of interest to consumers of regulated goods and services; establish regional and sector consumer committees and consult with them; consult with industry, Government and other consumer groups on matters of interests to consumers of regulated goods and services; establish local and sector consumer committees and consult with them. Other duties of the authority as provided for in the EWURA Act include promoting the availability of regulated services to all consumers including low income, rural and disadvantaged consumers; enhancing public knowledge, awareness and understanding of the regulated sectors including– the rights and obligations of consumers and regulated suppliers; the ways in which complaints and disputes may be initiated and resolved; and the duties, functions and activities of the Authority. The Act also provide in its part VI section 34-38 for a clear procedure for addressing any complaint and dispute resolution against a supplier of regulated goods or services in relation to any matter connected with the supply, possible supply or purported supply of the goods or services.

State of Electricity Reforms in the United Republic of Tanzania: Country Base Paper

3. Overview of electricity market

a. Structure

The electricity market in Tanzania has since been liberalized in the generation, transmission and distribution sector owing to the provision of Electricity Act 2008. The effect of liberalization is to remove the monopoly of state owned electricity companies to generate, transmit and distribute electricity. Tanzania Electric Supply Company Limited (TANESCO) is a parastatal organization under the Ministry of Energy and Minerals. The Company generates, transmits, distributes and sells electricity to Tanzania Mainland and sells bulk power to the Zanzibar Electricity Corporation (ZECO) which in turn sells it to the public in islands of Unguja and Pemba. TANESCO owns most of the electricity generating, transmitting and distributing facilities in Tanzania Mainland, which has an estimated population of 40.2 million people by July 2008 (World Fact Book).

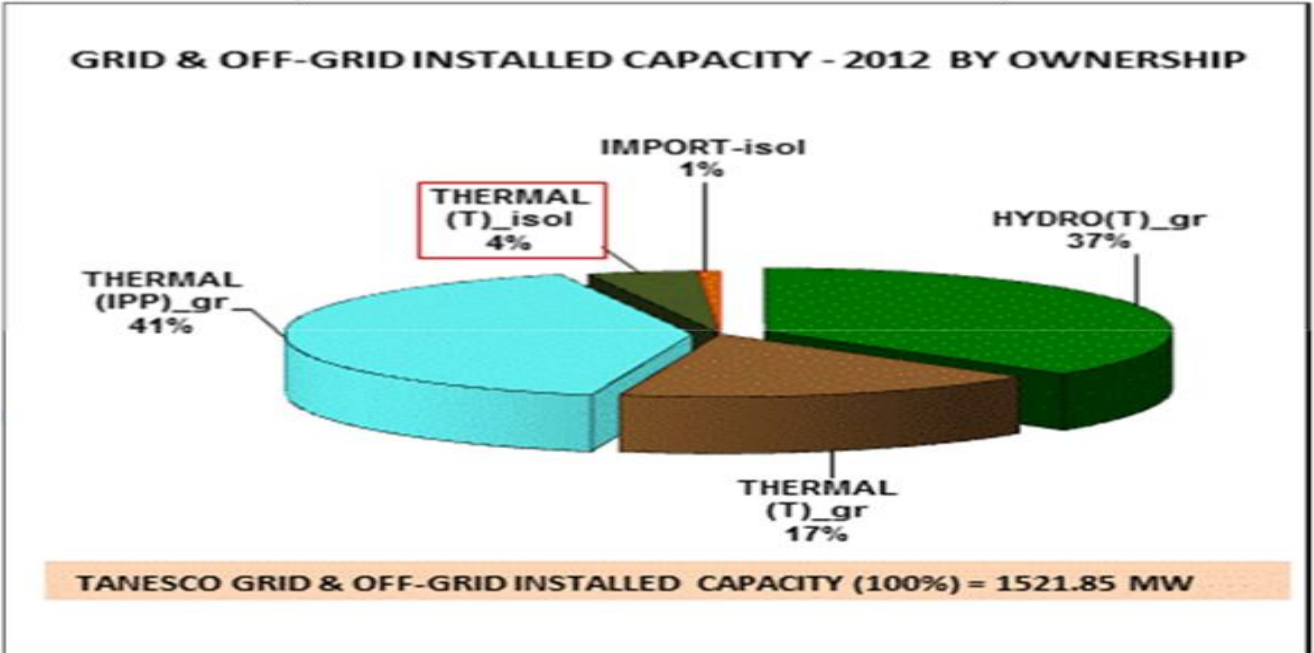
Electricity supply in the United Republic of Tanzania consists of both a national interconnected grid and isolated distribution systems. The supply is dominated by the TANESCO, which is a vertically integrated utility, wholly owned by the Government. TANESCO owns and operates the interconnected Main Grid (220kV, 132 KV and 66 kV) connecting the major load centres. The main power plants include Hydro power plants of Kidatu (204 MW), Kihansi (180 MW), Mtera (80 MW), New Pangani Falls (68 MW), Hale (21 MW) and Nyumba ya Mungu (8 MW). In addition TANESCO owns and operates Gas fired power plants using natural gas (mainly in Dar es Salaam, including Ubungo I (100 MW), Ubungo II (105 MW), Tegeta (45MW). TANESCO also owns and operates isolated grids that are supplied power from thermal diesel or IDO power plants at 33 KV and 11 kV; and has two gas fired power plants serving Mtwara/Lindi (18 MW) and Somanga Fungu (7.5 MW). There are also two large IPPs, namely IPTL (100 MW using Heavy Fuel Oil) and Songas (189 MW using natural gas) . and three Small Power Producers (SPPs up to 10 MW) TPC (up to 9 MW), TANWAT (up to 1.5 MW) and Mwenga (up to 4 MW) based on renewable energy sources; more SPPs are in the development stage^{xiii}. With about 900,000 customers, electricity is available to about 18% of the population, with more than 80% supplied in the urban areas. Efforts are being made to increase access to meet the target of 30% by year 2015. The Rural Energy Agency has been established to oversee the implementation of rural electrification projects, using Rural Energy Fund as provided in the Rural Energy Act.

Extension of the distribution network is hampered by the historically poor financial performance of TANESCO partly in terms of unpaid bills, debt and interests accrued from long-term loans. Other reasons for the poor performance are reported to include weak management and operational performance. The insufficient delivery service of TANESCO is also characterized by high system losses, which are estimated to be in the order of 28 per cent.

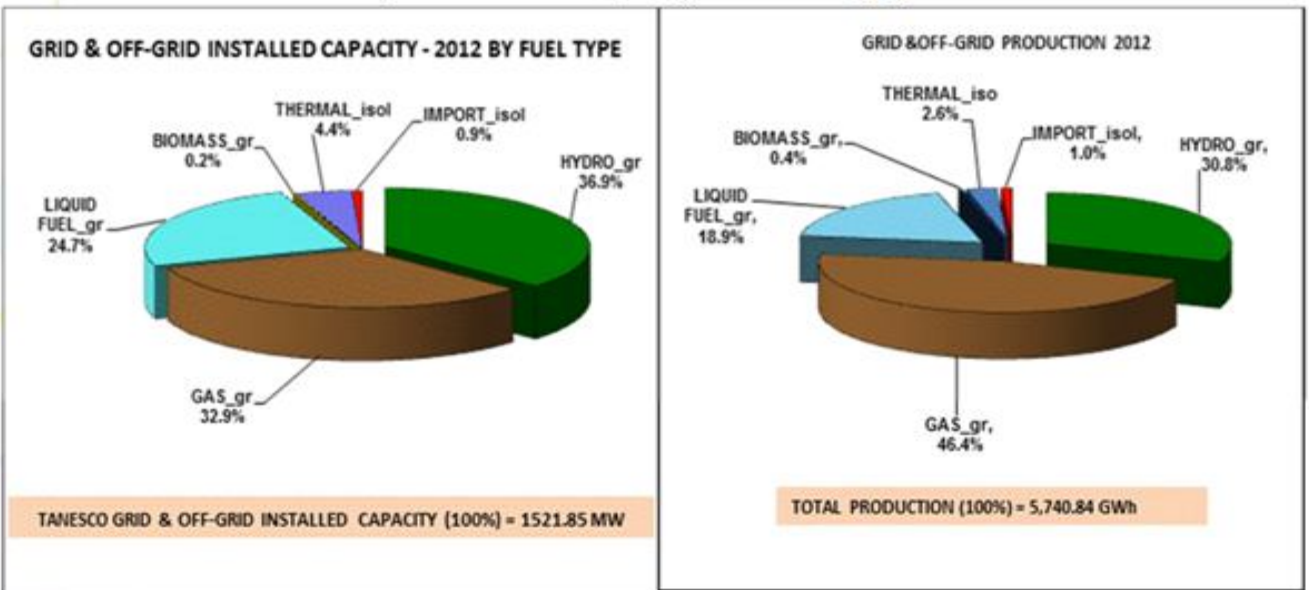
TANESCO fully owns transmission and distribution system in Tanzania. The transmission system comprise 220 kV - 18 lines (2,732 km), 132 kV – 16 lines (1,543 km), 66 kV – 5 lines (544 km), 38 Grid Primary Substations of 2,189MVA. Installed power capacity in Tanzania is 1,509.85MW with TANESCO importing power from Uganda via 132 kV, (8MW) and Zambia through 66 kV, (5MW).

State of Electricity Reforms in the United Republic of Tanzania: Country Base Paper

Generation Capacity Vis Generators Ownership



Generation Capacity Vis Fuel Type



Current Power Demand in Tanzania

The Current Unconstrained Peak Demand Stands At 950 – 1,000MW while the growth in Power Demand is 10%-15% Per Annum. Due to recent recurring droughts (2010, 2011 & 2012), recorded suppressed peak demand is 851.35MW (October 2012).

The Annual Energy Consumption for the Country is 5,740.84GWh (2012) with the highest energy demand standing at 16.9 GWh/Day. Only 14% of the Country is Electrified (12% of Urban and 2%

State of Electricity Reforms in the United Republic of Tanzania: Country Base Paper

of Rural) with access to electricity standing at about 18.4%. The current total number of customers is 1,032,000 where as the maximum number of connections per annum achieved is 90,000.

The Electricity Price levels in Tanzania:

There are four different electricity price levels in Tanzania including:

1	Domestic Low Usage Tariff (DI)	230V supply with consumption less than 50 kWh per month, is subsidized and includes services
2	General Usage Tariff (T1)	230V or 400V supply with consumption above 283kWh
3	Low Voltage Usage Tariff (T2)	400V supply with consumption above 7,500 kWh, but less than 500 KVA
4	High Voltage Usage Tariff (T3)	Consumers using 11kV and above.

The average tariff is 12.6USc/kWh^{xiv}

b. Overview of the key players in each segment

The Ministry of Energy and Minerals (MEM) has responsibility for setting and reviewing policies and strategies as set out in the National Energy Policy and the National Energy Strategy through issuances and guidelines. Previously, MEM had exerted regulatory authority over the power sector. However, those powers were transferred to EWURA upon its establishment in 2005. The Ministry of Industry and Trade is also responsible for promoting sustainable operation and growth of the country's industrial sector, and assumes a de facto regulatory role for the sector^{xv}.

The Ministry of Industry and Trade is another key player in the sector also responsible for promoting sustainable operation and growth of the country's industrial sector, and assumes a de facto regulatory role for the sector.

The Energy and Water Regulatory Authority is an autonomous multi-sectoral regulatory authority, established under Cap 414 of the laws of Tanzania. EWURA commenced its operations on 1st of October 2005^{xvi}. The chairperson of EWURA is an appointee of the president. The Minister of Energy has powers to give directions of a specific or general nature to the Authority. The five non-executive members are appointed by the Minister responsible for EWURA after consultation with the relevant sector Ministers. Appointment of members is made from a list of names proposed by the nomination committee, a committee established under section 9 of Cap 414. Funding for the Authority is provided by fees collected for the grant and renewal of licenses, and levies collected from regulated suppliers.

Tanzania Electric Supply Company Limited (TANESCO) is a Tanzanian parastatal organisation established in 1964. It is wholly owned by the government of Tanzania. The Ministry of Energy and Minerals regulates the operations of TANESCO. Its business include: electricity generation, electricity transmission, electricity distribution and sale of electricity to the Tanzanian mainland and bulk power supply to the island of Zanzibar. The company has a workforce of 4,896 persons. Its main offices are located in Dar es Salaam and it operates regional offices throughout Tanzania.

State of Electricity Reforms in the United Republic of Tanzania: Country Base Paper

The Rural Energy Act in 2005 establishes the Rural Energy Agency^{xvii} (REA), and the Rural Energy Fund (REF). The Agency is governed by the Rural Energy Board, which was established in 2006 to oversee the administration of the Rural Energy Fund. The REA is an autonomous agency under the MEM, and has been in operation since October 2007. The major functions of the REA is to promote, stimulate, facilitate and improve modern energy access for productive uses in rural areas, in order to stimulate rural economic and social development, promote rational and efficient production and use of energy, and facilitate identification and development of improved energy projects and activities in rural areas, finance eligible rural energy projects through the REF, prepare and review application procedures, guidelines, selection criteria, standards and terms and conditions for the allocation of grants, build capacity and provide technical assistance to project developers and rural communities, and facilitate the preparation of bid documents for rural energy projects^{xviii}.

c. Renewable Energy

^{xix}Tanzania is endowed with many untapped renewable energy resources that include biomass, water resources for hydropower, wind as well as plentiful of sunlight. However the country is not doing well in line with electricity generation. The electrification in the rural areas are only estimated at two percent of the rural population while stands at fifteen percent for the whole country. Among the barriers to exploitation of the renewable energy resources in the country for a long time has been lack of a suitable regulatory framework that sets out clear rules and responsibilities for grid-connected and off-grid renewable energy developers.

The new Small Power Producer (SPP) Framework developed with the support of Sida has created avenue for expansion of renewable electricity in Tanzania, by providing model power-purchase agreements, standardised tariffs, and streamlined interconnection- and licensing requirements. The regulations provide a legal basis for small renewable energy power developers to export excess electrical energy to the national utility (up to 10 megawatt (MW) power capacity). They also bring electricity to communities that have never had access to grid-based electricity.

Among the achievements under the new small power producer framework include the renewable energy power plant at the TPC sugar factory in Moshi. After sugar is extracted from the sugar cane, the dry residues are burnt in a large boiler, creating steam that drives a turbine of 17 MW. The turbine generator powers both the sugar plant and the irrigation system, as well as exports about 4 MW of electricity to the TANESCO grid in the Moshi area. The LUMAMA hydropower project in the Mawengi district in the Iringa region is another example of a smaller SPP with a rural electrification focus. The project is managed by a locally elected cooperative and provides electricity for about 600 households and small business, in an area that is a day's drive from the nearest TANESCO power-line.

A number of other renewable energy projects (60 projects) in various stages are in the pipeline in Tanzania. Their cumulative capacity would be over 130 MW and is expected to electrify a dozen or more villages in the project vicinity. That would add a significant capacity to the national grid, which is presently at about 1000 MW. One of the planned projects is the Mwenge 4 MW hydropower and rural electrification project that will, in addition to selling electricity to the grid, electrify 16 villages in the Tanzanian south-western highlands. It is expected that these small power projects will contribute in the reduction of Tanzania's electricity shortages in a cost effective way

State of Electricity Reforms in the United Republic of Tanzania: Country Base Paper

while promoting electrification in many parts of the rural communities, business and public institutions.

d. Rural Electrification

With the support from Sweden the United Republic of Tanzania was able to develop the National Energy Policy in 2003, which was followed by the establishment of the Rural Energy Agency (REA) and the Rural Energy Fund (REF). The objective of these institutions is to ensure increased access to modern energy in rural Tanzania. Over time with the support of Sweden, a number of results have been achieved including the signing of agreement with TANESCO (21MW) by five project developers (SPP) and their partners signing seven more agreements totaling to 36.83MW. Two small-scale power producers (Tanwat and TPC sugar factory) are currently operating under the new SPP agreement with TANESCO, and another off-grid energy project (Mafia island) is under construction. (The Lumuma project has not signed an SPP with TANESCO since they are not connected to the main grid. But it has a license of direct sale of electricity to consumers, something that was not possible before.), and an additional 60 projects in different phases are underway in Tanzania. Together they could have a capacity of over 130 MW and provide electricity for more than a dozen villages situated in the project vicinity. That would make a significant contribution to today's national electricity grid, which is in total about 1000 MW.

4. Consumer participation in electricity sector

a. Enabling legislation/ Programme/ Rule

There exists an avenue for consumer participation in the review of regulations of electricity either directly through public hearings organized by EWURA or through EWURA Consumer Consultative Council (EWURA CCC) established under Article 30 of the EWURA Act of 2001. The objectives of EWURA CCC are to represent the interest of consumers by making submissions to, providing views and information to and consulting with the EWURA, Ministries and sector Ministers; receive and disseminate information and views on matters of interest to consumers of regulated goods and services; establish regional and sector consumer committees and consult with them; consult with industry, the Government and other consumer groups on matters of interest to consumers of regulated goods and services; and establish local and sector consumer committees and consult with them.

The procedure of tariff review includes public hearing during which the general public is invited to give opinion on the reasonableness of the proposed tariff increase. Consumers of the EWURA regulated services have opportunity to participate in such reviews through EWURA CCC and also to participate directly in the public hearing. The Consumers may also write directly to EWURA during the review period. However, the advantage of raising their concerns through the EWURA CCC is that the Council has requisite expertise of the regulated sectors and therefore can organize consumers' concerns and opinions in a more focused and coherent manner. Besides EWURA CCC draws its powers from the Act to speak on behalf of all consumers^{xx}.

State of Electricity Reforms in the United Republic of Tanzania: Country Base Paper

b. Actual Status of Consumer Participation

EWURA CCC has so far participated on behalf of the Consumers, in the review process of tariffs for TANESCO as provided for in the EWURA Act. However owing to its being new, it has not done much but has already developed plans to convene regular stakeholders meetings with the following objectives (i) to introduce the Council to the consumers of regulated services (ii) to inform the consumers on the role of the Council (iii) to inform the consumers on their role in ensuring their concerns are heard (iv) to collect their views on appropriate procedure and strategy to collect the Consumers' concerns (v) to collect their views on the preparation for eventual take over the functions and operations of the Council at the end of three years after establishment of the Council as provided by the Act.

c. Grievances Redress Mechanism

EWURA is empowered under the Act to facilitate resolution of complaints against a supplier of regulated goods or services in relation to any matter connected with the supply, possible supply or purported supply of the goods or services. A complainant is required to lodge his application in the form and manner described by EWURA. Upon receipt of a complaint from a consumer of regulated goods or services referred to above, and upon EWURA satisfying itself that the consumer has an interest in the complaint and that the complaint is not frivolous or vexatious, EWURA shall investigate the complaint. Where it appears to EWURA at any time during or after its investigation that the supplier of regulated goods or services has not considered or has not considered it adequately, it shall refer the complaint back to the regulated supplier for reconsideration. Once the complaint is referred back to the regulated supplier and it is not resolved to complainant's satisfaction within sixty days (60) from the date EWURA first became obliged to investigate the matter, the complainant has the right to refer the matter back to EWURA for a decision. When the complaint is referred back to EWURA for a decision, the complainant and the supplier become parties to that complaint.

There is a dedicated unit under EWURA responsible for following up on the complaint. This unit investigates the complaint and attempts to resolve the complaint amicably, and in the event that it fails to do so within thirty (30) to sixty days (60), the division to which the complaint was referred to, will present its findings and recommendation to the Board of Directors for action. The Board is then required to make a ruling on the complaint which will be carried out by the division. The Order of the Board with respect to the complaint is enforceable as those by the High Court of Tanzania.

In the event where a party is not satisfied with an award by the Board, that party has the right to appeal to the Fair Competition Tribunal. The Tribunal may either dismiss the appeal in whole or part or set aside the award in whole or part and refer outstanding matters to EWURA for re-determination with or without directions as to the matters to be taken into account in the re-determination. The Fair Competition Tribunal may make such orders as to the payment of any party's costs of the appeal as it deems appropriate and any party aggrieved by the decision of the Tribunal has the right to appeal to the Court of Appeal. EWURA may also facilitate the resolution of disputes that may arise between two regulated suppliers. It is currently finalizing its rules on how to resolve such disputes as they may arise.

State of Electricity Reforms in the United Republic of Tanzania: Country Base Paper

d. Role of consumers in the Regulatory Decision Making

The general recognition of consumer sovereignty by market economies imply the need for consumers to be proactive in asserting their rights, participating in the making of informed regulatory decisions, question actions and make positive criticism in a given ecological niche. Consumers are not only entitled to satisfaction from goods and services paid for but also the prerogative to intimate the service providers about the kind of services they want to avail. This applies even to electricity consumers. In the above regard, it is therefore right to understand the specific roles to be played by the consumers.

Consumers need to understand that it is their right to judge the kind of service they are provided with and make necessary complaint to the relevant authorities in case they are not satisfied with its quality for redress. They need to question the concerned authorities through valid queries on issues such as establishment of new electric connections, delay or irregularity of electricity supply et al by invoking their Right to be informed as provided for in Section 93 of the Fair Competition Act (2003) or through process laid out in detail by the regulations brought out by EWURA. Consumers can also enforce their rights regarding electricity services through the provisions of the Electricity Act No. 10 of 2008 and the EWURA Act.

The main problem in this regard is ignorance on consumers in regard to existing procedure and authorities that need to be approached. Such existence of information gaps can be filled up by CSOs. While consumers require to be educated about the existing consumer protection legislations in electricity, there is need for CSOs to take an active role in disseminating information to consumers in simple language about the services they deserve to receive and dispute settlement procedures as away to optimize consumer's ability to participate in the regulatory decision making process.

Despite the outline actions, consumer welfare gains cannot be derived from consumer actions alone but also entail concerted efforts by CSOs to make government authorities aware of their responsibilities and liabilities towards the people. If the distribution licensee does not perform his duties of displaying the necessary details about the complaint redress procedure, then CSOs should take up the mantle to obtain such required information and intimate the same to the public.

5. Rights and Responsibility of Consumers

a. Rights of Consumers in Tanzania

As far as consumer protection is concerned in the republic of Tanzania, the Fair Competition Act, 2003 has incorporated universal consumer rights in its consumer protection sections. Some of these universal consumer rights in the Fair Competition Act, 2003 include (i) Right to choice, Section 9 (2) (b) and (c); (ii) Right to be heard, Section 93 (10) (a) and (b); (iii) Right to redress, Parts V to VII; (iv) Right to be informed, Section 93; and (v) Right to safety, Parts VIII and IX.

b. National consumer protection legislations

The Fair Competition Act, 2003 is the main consumer protection law in Tanzania amongst other pieces of legislations. There exist the Fair Competition Commission of Tanzania - an independent government body established under the Fair Competition Act, 2003(No. 8 of 2003) responsible for

State of Electricity Reforms in the United Republic of Tanzania: Country Base Paper

the administration of the competition and consumer protection law and policy . Its role is to promote and protect effective competition in trade and commerce and to protect consumers from unfair and misleading market conduct. The Fair Competition Act, which came into force through Government Notice No 150 of May, 2004 contains both competition and consumer protection provisions. Among the key consumer protection provisions in the Act include sections 15-21 on misleading and deceptive conduct; 22-24 on unfair business practices; 25 on unconscionable conduct; 26-36 on implied conditions in consumer contract; 37-47 on manufacturer' obligations; 48-52 on product safety and product information; 53-56 on product recall; 57-60 on offences, penalties and remedies while section 61 on appeals to the fair competition tribunal and section 92-95 on national consumer advocacy council.

6. Key issues for consumers in electricity.

- ^{xxi}Many parts of the rural areas are still not connected to the mail grid owing to non existence of service line materials including electricity poles, transformers, cables, fuses. Increasing electricity supply and distribution particularly to rural communities. Recent figures show that Tanzania mainland has 12.1% of the population having electricity from the grid while the rural is about 2.5% electrified (Household budget survey 2007).
- A number of illegal connections and vandalism of cables including siphoning of transformer oil in the distribution line have often led to a series of black outs in many parts of the country and has killed the spirit of many consumers from applying to be connected.
- The unreliability of electricity and power surge has been a great challenge to both domestic and commercial consumers. It is especially at prime time when blackouts are frequently experienced.
- Operational problems of TANESCO which cause a big loss owing to among other factors: long lags in electricity billing, customer non-payment for services, delays in tariff reviews, power shortages and extended blackouts.
- Consumers grapple with the challenge of growing cost of electricity and complicated tariff structure which makes electricity generally expensive for both domestic and commercial consumers. The initial connection cost and electricity prices are quite expensive and prevent a number of consumers from accessing or using it for production purposes.
- The requirements for minimum standards set by TANESCO for consumers to qualify for connection is quite prohibitive especially in the rural areas where majority comprises of low income segment.
- The issue of poor quality customer service which at times is exploitative with extensive delays in obtaining services they need particularly in regional offices provided by the electricity utility is a big challenge as consumers are often given estimate of their electricity bills.
- In many occasions customers routinely wait six months or more for requested new meters or connections and can experience long delays after reporting equipment failure or downed lines in their neighborhood.
- Some utility employees exploit and exacerbate service problem for private gain, profiteering because of shortages, delays and bureaucratic procedures. Some demand payment to facilitate quick service provision. Third Party Agents 'Vishoka'^{xxii} work outside and within utility offices taking payments from customers and liaising with utility employees to expedite service. Many of these 'vishokas' are themselves part time or former technicians not currently employed.

State of Electricity Reforms in the United Republic of Tanzania: Country Base Paper

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