

EU: EWURA ranked high among regulators in Africa



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Editor's Note

Mr. Titus Kaguo

DEAR esteemed readers, welcome to the fifth edition of the Energy and Water Utilities Regulatory Authority (EWURA) Newsletter.

It is a pleasure to welcome you all to read the exciting and interesting articles from different sectors regulated by EWURA. The Authority regulates petroleum, electricity, natural gas and water and sewerage sectors.

In keeping with tradition, the articles in this newsletter illustrate and discuss pertinent issues revolving around the Authority while simultaneously offering a window into some of the activities undertaken by the Authority over the past several months.

While the fourth edition came at the time when the Authority had just adopted a new technology to curb fuel adulteration and fuel dumping, this edition comes at the time when the Authority has started realizing the benefit of the technology.

With the introduction of the technology, X-Ray Fluorescence (XRF) has facilitated the Tanzania Revenue Authority (TRA) to collect more revenue from petroleum products which indicates that adulteration and dumping of transit fuel is on the decline.

This edition, apart from featuring various articles like EWURA being ranked as high in Africa, private bore holes regulations, TANESCO Tariff approval, current development in natural gas sector, it will also have many new faces of EWURA staff. It is our expectation that you will enjoy reading this newsletter.

From the Desk of the Director General



Mr. Haruna Masebu
DIRECTOR GENERAL

THIS is the fifth edition of the Energy and Water Utilities Regulatory Authority (EWURA) Newsletter that contain news on our regulated sectors for the period between October 2010 and April 2011.

It is a pleasure to get this opportunity to join our esteemed readers to discuss issues related to our mandate of protecting the interests of stakeholders in the energy and water sectors.

I therefore wish to give our readers feedback on EWURA's involvement in international affairs as they relate to the sectors that it regulates. As a result of our country being a member of two regional economic groupings, the East African Community (EAC) and the Southern African Development Community (SADC), so too, EWURA is a member of associations that are linked to the two organizations namely, the Eastern African Energy Regulators Association (EREA) and the Regional Electricity Regulators Association (RERA).

Additionally, and in line with our government's membership to the African Union and its commitment to the New Partnership for Africa's Development NEPAD program, EWURA is also a member of the African Forum for Utility Regulators (AFUR) and the Eastern and Southern African Water and Sanitation Associations (ESAWAS). We take this opportunity to confirm that EWURA's contribution towards the objectives of these institutions has been acknowledged by our peers as being useful so much so that we have been overwhelmingly elected to sit on the Executive Committees of each of these institutions.

Through our involvement at the highest levels of these distinguished institutions, we have been able to protect and project Tanzania's interests very well. Our contribution during plenary sessions of Annual General Meetings of these institutions for instance, has been very well appreciated. It reminds one of what Mwalimu Nyerere once commented on the high esteem that his regime was held at the time, that "when it is Tanzania's turn to speak, even those who had gone out to smoke, troop back into the meetings to come to listen to Tanzania's position on the matter at hand".

On account of the high accolades that our multisectoral regulatory structure has received from our peers, renowned academics, consultants, international institutions, including the World Bank and the European Union (EU), as well as our commitment to best practices in utility regulation, we have received visitations from many countries in Africa. Those that have recently visited us include officials from The Gambia, Ghana, Kenya, Uganda, Zambia, Lesotho, Malawi, Rwanda and Mozambique. Not exactly a "Mecca" for regulators, new and old, but suffices it to say that our colleagues think highly about our multisectoral structure as well as our commitment to international best practices in utility regulation (i.e. transparency, independence, accountability, stakeholder involvement, predictability, observance of the rule of law and respect to the due process). It is for these reasons that our claim of being a "world class" regulatory authority is not without basis.

As we move forward, and as the Authority nears its fifth anniversary, we remain committed to promoting investments in the regulated sectors; enhancing public awareness and knowledge of regulatory functions while balancing the interests of all stakeholders involved. Our involvement into international affairs will continue being done in a manner that fosters these ideals.

Please join me in reading the articles found in this newsletter

EWURA approves tariff designed to keep Tanesco going

By Wilfred Mwakalosi

THE Board of Directors of the Energy and Water Utilities Regulatory Authority (EWURA) in December 2010 approved a tariff increase of 18.5% against 34.6% proposed by the Tanzania Electric Supply Company (TANESCO). This will enable the State power company realize a revenue collection of TZS 691.8 billion.

However, a decision on a system-wide electricity tariff adjustment to cover three years from January 2011 to December 31, 2013 was deferred by EWURA until when a credible Cost of Service Study (COSS) is carried out by an independent expert to be engaged by the Regulator.

EWURA considered the current COSS unsatisfactory, on the grounds that TANESCO did not ascertain costs of services for generation, transmission and distribution segments to the satisfaction of the Authority.

Further, it was learnt that most of the assumptions and concepts – as well as the data used – were short of reflecting the true costs of services; and that the cost drivers used in the Cost of Service Study were theoretically assumed and not clearly defined for assessment of their prudence.

EWURA also moved to abolish the existing special electricity tariff for TANESCO staff. In effect, this means that TANESCO staff shall be charged for the electricity they consume in the same manner as other customers in the

domestic tariff category.

In the Tariff Adjustment Order which came into effect on January 1, 2011, the EWURA Board of Directors approved a provisional Fuel Adjustment Charge. It however deferred the implementation of an Inflation Adjustment Charge until a reliable base tariff is established.

TANESCO has been ordered to monitor monthly changes in fuel costs but effectuate the changes thereof quarterly only – if and when the accumulated adjustments represent over 3% of the company's revenue requirement as approved by the Board of Directors for 2011.

The Order also directed that Fuel Adjustments shall be submitted to the Authority for approval, and shall apply to all customers' tariffs at an equal rate. "The fuel adjustment shall be shown conspicuously in each customer's bill," the Order reads in part.

Further directives in the Order are that, with effect from January 1, 2011, TANESCO shall submit to EWURA quarterly reports detailing the implementation of Repair and Maintenance, and Capital Investment programs.

The Order also directs TANESCO to report on a quarterly basis to EWURA on matters pertaining to customer connections; a system losses reduction status; electricity purchased costs; own generation costs; units sold; number of metered customers, and total revenues.

TANESCO is also required to increase access to electricity by connecting at least 100,000 new customers by the end of 2011 – and decrease transmission losses of energy by 5.2%.

Earlier, during the public hearing held in Dar es Salaam on August 27, 2010, the Consumer Consultative Council (CCC) expressed concerns on – among other things – the unsatisfactory Cost of Service Study prior to setting tariffs, as well as high system losses (of about 26%), and the special tariff offered to TANESCO staff, which was TZS 4.9/kWh.

The Council was also concerned about the low ratio of customers-to-staff of about 130 in 2008; the proposed high tariff rates increase of 62% in aggregate for three years; reliability of Capital Investment Programme (CIP) estimates, and a

collection efficiency of 96%.

On the other hand, the Government Consultative Council (GCC) expressed concern about the lack of power supply reliability – especially to big customers – the low customers connection target of 100,000 per annum, and increasing trends of operating costs.

On its part, the EWURA CCC expressed concern about TANESCO's failure to improve its services after the 2007 tariff increase approval; a singular lack of responsiveness to customer needs, and operational inefficiency in general.

The EWURA CCC also doubted the state utility's ability and readiness to improve quality of its services even if the proposed tariffs were approved.



Board members, Mr. Nicholaus Mwanji and Ms. Juliana Mwalongo, listen attentively to the Director of Natural Gas, Eng. Charles Omujuni (Second right) during a familiarization tour to Songo Songo Gas Fields in Kilwa, In April 2011. Extreme right is the Director of Electricity Eng. Anastas Mbawala.

EU Study: EWURA ranked high among regulators in Africa

By Felix Ngamlagosi

THE Tanzania Energy and Water Utilities Regulatory Authority (EWURA) has been ranked among the exemplary regulators in Africa, a European Union-funded Study conducted recently has revealed.

The Study results – which were presented at a meeting held in Nairobi, Kenya from February 28 to March 4, 2011 – named EWURA as one of best utility regulators in Africa.

The meeting reviewed the findings and recommendations of the Study conducted by the Application Européenne de Technologies et de Services (AETS) Consortium of France who are the managers of a Technical Assistance and Capacity Building Programme funded by the European Commission (EC).

Since 2010, the EU has been extending assistance to the African Forum for Utility Regulators (AFUR), of which EWURA is a member. The Study involved several Phase Two pilot countries, including Tanzania, Cameroon, Namibia, Niger, Cote d'Ivoire, Uganda and Kenya.

In Phase One of the pilot project, the countries of Ghana, Uganda, Zambia, Cameroon and Senegal were studied.

AFUR is responsible for promoting effective utilities regulation in Africa. In 2010, it engaged a consultant, with assistance from EU, to carry out a study that compared tariff levels, structures and supply costs in Africa. The Study focused on assessing purposes of tariff design;

tariff setting principles, and general regulatory governance practices.

In a meeting that brought together a hundred experts in utilities regulation from thirty African countries, the Lead Advisor to AFUR Mr. Pascal Habay, applauded EWURA for becoming one of the best regulators in Africa.

EWURA was considered to be ahead of its peers in the region in the areas of transparency; independence; social tariff, as well as clarity in the tariff setting methodology, particularly on feed-in tariffs.

Presenting the findings of the Study, Mr. Habay commended EWURA's regulatory framework, saying that "its legislation states clearly that tariffs will base on cost recovery principle which is subject to cost-effective operations."

"Such clarity and transparency in tariff setting methodology deter financial abuse, as operators are aware that any imprudent spending and non-value adding costs will be disallowed from forming part of the tariff," he added.

On how African regulators comply with the requirement of being transparent, the Study revealed satisfactory practices in Tanzania.

"In each Application review, EWURA engages the public extensively through public inquiries, and publishes the rationale for its decisions, including dis-allowable costs", Mr. Habay said, adding that EWURA gives an opportunity to the general public through public inquiries, its Consumer Consultative Council, and the Government Consultative Council opportunity

to comment on the reasonableness of the requested approvals by the operator.

On pro-poor policy, the Study approved EWURA's transparency in setting social tariff.

"The lifeline tariff is subsidized by customers within the same class category as required in the Electricity law, and is set in such a way that those who consume beyond the maximum units while enjoying lifeline tariff pay a punitive rate for the extra units," he explained.

Commenting on financial independence, Mr. Habay said the Study showed that the EWURA Act provides for the source of funding of the Authority to be levies on regulated services. The Study commended the arrangement, noting that only customers receiving the services should pay for the cost of regulation – unlike funding through government budget where even those not enjoying the service contribute to the cost! Commenting on the practices, the Director-General of EWURA, Mr. Haruna Masebu, said

that, as a matter of best practice worldwide, regulators' operations are funded through levies.

"This is done to promote financial independence, and ensures that, the funding burden is borne by those who benefit from the service rather the general public who have no access to the regulated services," he explained.

Despite ranking EWURA so highly, the Study recommended that the Authority should nonetheless look into ways of improving tariff levels which are now low compared to peer countries, and putting in place a clear, universal electricity access policy.

A study on Electricity Tariff Levels, Structure and Supply Comparison is expected to lead to harmonization of a tariff setting regime in Africa through the development of Electricity Tariff Design Guidelines based on best practices drawn from pilot countries.



EWURA's Director General, Mr. Haruna Masebu (Center) makes a presentation to Military Officers of Monduli Military Academy on the roles, duties and functions of the EWURA in March 2011.

EWURA set to monitor informal boreholes and water bowzers

By Wilfred Mwakalosi

THE Energy and Water Utilities Regulatory Authority (EWURA) is in the final preparations of setting regulations to govern informal water suppliers in Tanzania in order to ensure consumers get safe and clean water.

Service providers to be included in the latest regulatory move by EWURA are operators of water bowzers and privately owned commercial boreholes who, until now, have been indulging in an unregulated trade regime.

However, implementation of the proposed regulations will start in Dar es Salaam as a pilot project, after which it will be replicated across the country.

The new bid is in line with this year's 'Maji Week' theme, which is 'Water for Cities: Responding to Urban Challenges with Activities aiming to Communicate Messages on Growing Urban Water and Sanitation Demand, Increased Pollution from Municipal and Industrial Discharges, Climate Change and its foreseen Risks and Challenges, Over-exploitation of Available Water Resources and Better Targeting of Urban Poor.'

The EWURA's Director of Water and Sewerage Services, Eng. Mutaekulwa Mutegeki, said recently that Draft Guidelines for boreholes and water bowzers in Dar es Salaam have been prepared by EWURA in consultations with the Dar es Salaam Water and Sewerage Corporation (DAWASCO), Dar es Salaam Water and Sewerage Authority (DAWASA), and the Ministry of Water.

"The Draft Guidelines will soon be discussed by stakeholders, after which Rules will be prepared. We will start with Dar es Salaam Region as a pilot area, and replicate it in other urban areas," he said.

According to the Director, the Draft Guidelines will govern the supply of clean and safe water

by water bowser and private commercial bore hole operators in areas where there is a limited or no supply of clean and safe water by licensed water suppliers like DAWASCO.

"The Guidelines describe the obligations of water bowser operators, commercial boreholes operators, DAWASCO and the Authority," emphasized Eng. Mutegeki.

The Guidelines also lay down procedures for registration and de-registration of water bowser and private commercial bore hole operators, as well as the obligations of the operators, DAWASCO and EWURA.

According to the Guidelines, the operators will be required to register themselves with DAWASCO, and can be de-registered accordingly if they violate the rules. They will also be required to observe cap prices which will be set by EWURA, as well as technical requirements regarding boreholes and water bowzers as a commercial undertaking.

Bowser operators would, for example, be required to disinfect water bowzers every six months as a matter of course, or at any time that contamination of a bowser occurs – and "shall forthwith after such disinfection, obtain a disinfection certificate from DAWASCO," the Guidelines read in part.

Operators would also be required to keep in a conspicuous place a certified copy of a valid disinfection certificate issued by DAWASCO.

Likewise, on an annual basis, bore hole operators shall carry out – and report to DAWASCO on – water quality tests regarding PH, turbidity, faecal coliforms, fluoride, iron, manganese and salinity.

Bowzers operators shall also keep records of the quality and quantity of water pumped out from a particular bore hole on a monthly basis.

OPINION

Natural Gas Development in Tanzania: Assessment of usage options

By Eng. Tobias Rwelamila



EWURA Board members inspect Mnazi Bay Gas Fields in April 2011.

Introduction

THIS article seeks to provoke ideas on the decisions needed for a country to make in order to maximize benefits resulting from the exploration, production and monetization of natural gas in Tanzania. The expected benefits include domestic, industrial, commercial, power generation usage and export of surplus gas to neighboring countries. The article further examines the current status of natural gas industry development in Tanzania; industry governance; strategic plans and the associated obstacles for natural gas resource optimal use.

Natural Gas Industry Overview

The natural gas industry comprises exploration of hydrocarbons; development of gas fields; production; processing; transportation; distribution and supply of natural gas – also referred to as upstream activities. So far, Tanzania has made five discoveries of natural gas fields of commercial value. These are in the vicinities of Songo Songo Island; Mnazi Bay; Mkuranga; Nyuni Island; Kiliwani, and Mafia Island.

When considered together, the proven natural gas reserves in Tanzania are close to 2.0 trillion cubic feet, with promising potential to be increased when reserves in the rest of the discoveries are fully established. The proven amount is too small for optimal-sized natural gas monetisation projects – such as petrochemical industries or liquefied natural gas (LNG) export which is a readily tradable commodity worldwide. Despite such successes, at the moment only two fields, namely Songo Songo and Mnazi Bay, are producing gas.

On natural gas industry governance; as of now and pursuant to Section 35 of Cap 328 of the Laws of Tanzania, the Minister for Energy and Minerals is vested with powers of issuing all Petroleum Exploration Licenses. The rights and obligations of Petroleum Exploration Companies are normally enshrined in the Production Sharing Agreements (PSA).

Natural Gas Usage Options

The importance of natural gas for economic growth of any country cannot be overemphasized. This is because it is used as an alternative source of energy to fuel the economy. Following

the discovery and exploitation of natural gas in Tanzania, there is an urgent need as a nation to explore usage options that will maximize the benefits to the Tanzanian economy. While there may be varied usage of natural gas, this paper shall focus on exploring only three options discussed hereunder.

Natural Gas' Export

Currently, the existing natural gas reserve in Tanzania is relatively enough to meet domestic consumption. However, production and consumption ratio still low which if usage of the current production is not maximized will deter further investment in the sector. This being the case and if the country was to further attract investments in the sector, natural gas exploration in particular, there is an urgent need for Government to take active role in the sector development by mobilizing financial resources for investment in the transmission and distribution infrastructure.

The development of these infrastructures is of paramount importance to ensuring that the stranded natural gas is tapped and delivered to the market. These developments will also paves way for Tanzania to export surplus production of natural gas to neighboring countries. This advent will usher Tanzanian balance of payments resulting from enhanced hard currencies collection. While there are compelling arguments in support of natural gas exports to boost our foreign reserves position. However, uncertainty on the actual size of the resource makes any dedication of natural gas to exports a premature option. As of now consideration to export natural gas without a proper assessment of the actual size of the resource and domestic demand is not without risk. If Tanzania opt sealing natural gas exports now there is a risk that in future such exports will hasten domestic shortage.

With the uncertainty surrounding the natural gas sector in Tanzania, it is prudent for now for Tanzania to focus on domestic use until such time that, benefits accruing from natural gas is domestically maximized.

Households and Industry Usage

Another plausible usage option entails focusing on domestic household and industries. In pursuing this option, the Government will attract



EWURA's Technical Manager of Natural Gas, Eng. Poline Msuya (Left) and the Director of Natural Gas, Eng. Charles Omujuni (Right) listen to Wentworth Resources Limited staff on how Natural Gas is fired to generate electricity in Mtwara region in April 2011.

private sectors to focus investment efforts on expansion of natural gas transmission and distribution systems and promote end-use technologies.

This option will lead into implementation of several programmes such as the use of CNG to run vehicles and gas for cooking and use of natural gas by-product to produce fertilizers. Domestic focused options will also promote healthy environment by replacing unfriendly environmental energy source with natural gas, reduced deforestation and urban pollution caused by gasoline and diesel propelled vehicles.

Since the required initial investment in natural gas infrastructure is huge, it is prudent for the Government to ensure that, such investment matches with the proven natural gas reserve. Otherwise the country may find itself investing

in infrastructure that after few years will be of no use “white elephants” following depletion of the reserve.

Domestic Power Generation

As a nation, Tanzania may opt to focus its strategies towards using natural gas for electricity production. Such decision may be of paramount importance due to fact that it will increase generation capacity and promote access to electricity in Tanzania which now stands at about 14%. The Tanzanian economy is growing at about 5-6%. Such growth required to be augmented by reliable power supply if such growth is to be sustainable. This being the case, it is imperative that Tanzania focuses on expanding both generation capacity and electricity delivery systems. Persistent electrical supply shortage is detrimental to the economy as is likely to deter investors from investing.

The availability of reliable power supply is likely to propel industrialization in Tanzania and promote the social welfare of Tanzanians. The public will be assured social amenities such as Schools, communication systems and health centre to functions well. If investment is properly managed worldwide, power generated using natural gas is among the least cost option. It merits noting that, despite plentiful natural gas, implementation of this option will not be not be easy due challenges of power system in Tanzania including dilapidated transmission and distribution systems.

Conclusion

Worldwide, natural gas is an important ingredient in fueling up economic growth. Good strategies on efficient usage of natural gas are crucial if potential benefits are to be maximized while promoting sustainable natural gas usage and economic growth. To fully tape potentials

emanating from natural gas discovery and exploitation in Tanzania, there is an urgent need as a nation to have in place a Natural Gas Development Master Plan. The plan will among other things articulate principles and details of natural gas governance ranging from exploitation, infrastructures to main usage.

Export option although plausible, implementing it at the moment is likely to deny Tanzanians from benefiting fully with the resource endowment. Moreover, proceeds from natural gas exports may not have tangible benefits to the development of the sector as the same may be relocated to other sectors. Since natural gas sector is at its infant stage and Tanzania is yet to full tape the benefits resulting the existence of such resource, the option to export may be detrimental to the country's economy in the long run as the costs from exports is likely to outweigh the benefits resulting export revenue.



EWURA's Board member Mr. Nicholaus Mbwanji (second right) discuss a point with NAMPAC official (right), as another board member, Ms. Juliana Mwalongo (in blue T-shirt), makes a point to EWURA's Director of Natural Gas Eng. Charles Omujuni (second left), when they toured the industry to see how natural gas is used in energy purposes, June 2011.

Save money by putting your equipment on a power diet

By Mariam Mmbaga

Being aware of the most efficient ways to use electricity will keep your power bills down and save money for other uses. In our December 2010 newsletter, you read about how to beat the high cost of fuel, with driving and car maintenance tips to save fuel and money on the road. You can also make your life more comfortable and easier while you save money by observing the simple tips in saving electricity in your home as follows...

LIGHTING

Use energy-efficient fixtures and bulbs.

- Find the bulb with the light output you need, and choose the one with the lowest wattage.
- Use a good local light near the task you may be performing. This is more effective and more efficient than a large central light.
- Install Compact Fluorescent Lamps (CFLs) in areas where lights are on for long periods, such as the kitchen, family room and outdoors, for maximum savings.

Use CFLs in hard-to-reach fixtures. CFLs last five times longer than standard bulbs, so they don't need to be changed as often.

Use natural daylight from windows and skylights whenever possible.

Turn lights off when they are not in use. This applies to fluorescent as well as incandescent bulbs. If you are out of a room for more than 20 minutes, switching off a fluorescent light will save energy and lamp life. (Switching fluorescent lights on and off repeatedly will reduce lamp life.)

Keep your lamps and fixtures clean. Dirt reduces light levels, so you may tend to switch on extra lights or use higher wattage lamps. Drip-dry plastic parts to reduce static buildup, which can attract dust. Be safe - remember to unplug the fixture or turn the power off when you are cleaning the fixture.

Avoid having too many lights controlled by a single switch - this can result in having lights on where and when you don't need them.

Place floor lamps or table lamps in a corner instead of in the middle of a wall. This will allow them to reflect light from two walls, giving you more usable light for your money.

- Light-coloured walls and ceilings reflect about 80 per cent of light that strikes them, and dark-coloured surfaces reflect only about ten per cent of the light. So, when you are redecorating, remember that you will need brighter lights in a room with a dark decor than in a room with white surfaces.

Long term saving tips:

- Replace ordinary wall switches with high/low switches with three settings; full brightness, one-third brightness and off. Make sure these switches don't use resistors, or you won't save energy.
- Install solid-state dimmers so that you can vary the light levels in a room to match your needs. This saves energy, and extends bulb life. Look for dimmers that allow a full range of dimming, and don't buy bulbs that are brighter at full power than you need. Do not use compact fluorescents with standard household dimmers unless they are rated to function with dimmers.
- Install timers that automatically turn lights on and off after a set period of time, or install motion sensors that turn lights off when a room is unoccupied.

COOKING

- Thaw frozen foods before cooking - this saves about 15 minutes cooking per 450 grammes (one pound).
- Use pressure cookers when suitable; it can save up to 25% of power.
- A microwave is very economical for suitable functions - it is excellent for reconstituting food.

Use utensils with flat bottoms and well fitting lids. Make sure they cover hotplates.

Use an electric kettle to boil water instead of a hotplate

Make sure your oven door seals properly. Keep the door closed. Every time you open it, the temperature drops!

- Cook several dishes at one time. If you are cooking small items, use the frying pan.

When cooking small quantities, use one saucepan with dividers.

Keep food warm at 70-80 degrees Celsius. Higher temperatures waste electricity - and overcook food.

Use oven heat for plate warming.

- To cook vegetables, the water doesn't need to be boiling furiously; a gentle simmer is enough.

HEATING AND COOLING.

- Unless you have full home conditioning, close the doors of the room/s being heated or cooled. Doors and windows should fit well, and curtains closed.
- Set the A/C in the economy mode so that it switches itself off when the room cools to the required temperature.
- See that air-conditioner filters and condenser coils are kept clean.

Don't leave heating or cooling appliances on when rooms are unoccupied.

Use personal fans and ceiling fans for relief from hot weather. Fans cost much less to run than air conditioners.

- Many air-conditioning systems operate at 22 degrees Celsius. You will still be comfortable if you set the control for 24-25 degrees 'C' when the weather is hot, and 18-19 degrees 'C' when the weather is cold and you will use less electricity!

REFRIGERATION

- Buy the size you need; extra capacity uses extra power.
- If you already have a chest or upright freezer, buy an "all-through" refrigerator instead of a fridge freezer combination.

Defrost before the ice buildup is 1cm thick.

Open the door only when necessary.

- Make sure the door seals well. If a piece of paper will slide easily between the cabinet and the door, the seal is not good enough!
- Don't set the thermostat of your refrigerator too high. Lowering the temperature even one degree makes a big difference.

Cleaning the condenser coil regularly makes it run more efficiently

- Put the fridge in a well-ventilated position.
- Place your fridge away from direct sunlight or any source of heat. If it is placed in a sunny spot, move it or cover the windows.
- Don't put hot food into a fridge or freezer.

CLOTHES AND WASHING

- Don't buy a large machine if you don't need it. For the occasional big wash, an extra cycle or two is cheaper than underusing a large washer!
- Adjust the water level to economically wash a partial load. Otherwise, it is better to wait until you have a full load. But, don't overload your machine!

Your washer may have features that can save you money. Soak cycles remove stubborn stains in wash cycle.

- Don't set your washing machine for a hot water wash. 90% of the energy used in operating a washing machine goes toward heating the water that washes and rinses the clothes.
- Warm or cold water will wash clothes effectively. Use the correct type of detergent.

CLOTHES DRYING

- Use solar energy to dry your clothes; it costs nothing.
- Operate your dryer using the fan alone. Only switch the heater on if it is really necessary. Vent the dryer outside the house – and don't let lint block the vent.

Never overload or under-load the dryer. You get most economical operation with the correct load.

- Switch off when the clothes are dry enough. Over-drying makes them feel harsh – and waste electricity.
- Tumble dryers are more effective than cabinet dryers.

WATER HEATING

- Don't allow dripping taps. Sixty drips a minutes means about 1,200 litres a month down the drain – and you have paid for it to be heated!
- Water restrictors and low-flow shower nozzles will help to save water insulate hot water pipes from storage heaters for at least a metre from the heater, as heat can be conducted along these pipes and lost to the atmosphere.
- Fill your bucket from the cold tap. Running off a lot of cold water from the hot pipes is wasteful and expensive.
- Have your hot water set to 70 degrees Celsius. This is usually hot enough. Otherwise, it costs more to heat the water – and it loses more heat while being stored!

Long-term saving tip:

Invest in solar water heating systems. It is also good for the environment. Solar water heaters avoid the greenhouse gas emissions associated with electricity production. During a 20-year period, one solar water heater can avoid more than 50 tonnes of carbon dioxide emissions. When shopping for a solar water heater, look for the 'ENERGY STAR' label – and for systems certified by the Solar Rating and Certification Corporation.

TELEVISION AND COMPUTER

Don't even leave your computer or TV on standby. Use a liquid crystal flat screen monitor for your computer or TV, it uses ¼ of the power of a tube monitor – and is better for the eyes!

Long-Term Savings Tip

What's the Real Cost?

Every appliance has two price tags: the purchase price, and the operating cost. Consider both when buying a new appliance.

When you're shopping for appliances, think of two price tags. The first one covers the purchase price; think of it as a down payment. The second price tag is the cost of operating the appliance during its lifetime. You'll be paying on that second price tag every month with your utility bill for the next 10-to-20 years, depending on the appliance!

OPINION:

Hedging: a strong mechanism against price volatility, shilling depreciation

By Eng. Godwin Samwel

WORLD petroleum prices, coupled with the relentless depreciation of the Tanzanian shilling, have contributed significantly to fluctuation of domestic prices of the petroleum products. In the last five years, for instance, prices of petroleum products in the world market have risen from US\$341.80 to \$1,132.03 per metric ton, while diesel prices have risen from \$347.53 to \$1,1215.70 per metric ton. Likewise, Jet A1 and Kerosene have risen from \$396.90 to \$1,291.68 per metric ton.

For its part, the Tanzania shilling has been unstable in recent years. In 2008, for instance, one US dollar was worth 1,200 Tanzania shillings. But, it has weakened to 1,495 shillings as of recent weeks.

According to statistics, 2008 was the year that was most affected, characterized with high price volatility.

The recent unrest in the Arab World – especially in Libya and Egypt, which controls the Suez Canal – may lead to further escalation of prices, analysts warn.

Due to their importance to world economics in general, and for sustainable national development in particular, instability of prices of petroleum products is always a matter for public concern. Because of this, some governments have devised measures that cushion the economy against negative outcomes which are the result of volatility of the prices of petroleum products at the world market.

Such measures – which can also readily be applied by Tanzanian players in the sector – include that of a hedging strategy. This is used by many developed country governments, as well as major petroleum consumers such as airlines, transportation companies, the military, and power generating companies. The overriding objective is to avoid the uncertainty of volatile pricing caused by world market supply fluctuations.

The hedge strategy enables petroleum buyers to predetermine the market price they want to pay for petroleum consignments by buying financial instruments in the “futures” or “options” markets at money exchange institutions. Hedging may be considered a form of insurance to cover the cost of the clients’ losses in case the prices shoot up.

To enable a client select the best option to suit his requirement, the client needs the guidance of experienced market traders to tailor-make an appropriate option that suits his financial standing. Basically, a client must attempt to predict what the cost of fuel will be at the marketplace during a predetermined delivery period. He then takes a risk by buying up front futures/options at the selected price – and, when the delivery time arrives,

he sells them at a gain, loss or break-even value! Some developed countries have even introduced a price shock cushioning mechanism that is in the form of a stabilization fund. The Petroleum Price Stabilization Fund is used to reimburse the oil companies for cost increases on imported petroleum products resulting from exchange rate adjustments, and/or increase in world market prices. This helps to stabilize the prices.

In countries where there are no established money exchange companies, a system of petroleum products stabilization fund is an option that can be given consideration.

Tanzania, too, had a Petroleum Price Stabilization Fund which ceased to exist after liberalization of the sector. This was the case because the system works best when petroleum products are imported through a centralized system, whereby the prices and quantities for each particular import can easily be ascertained.

Now that Tanzania is resorting to a system of bulk procurement, reintroduction of the Petroleum Prices Stabilization Fund should be considered. This would also enable the drawing up of medium and long term plans for the country, institutions and service providers because the cost of petroleum products can then be correctly predicted.

The system will smoothen public expenditure by decoupling it from short and medium term petroleum price fluctuations – hence ensuring macroeconomic stability. It would also enable major consumers of petroleum products to put in place reliable budgets – and, in turn, provide tax collection authorities a more reliable forecast for tax collections. All this could lead to political stability because costs of services to consumers are stabilized over reasonable periods of time.

• This is the Author’s opinion and should not be associated with EWURA



Commercial Manager for Petroleum Eng. Godwin Samwel, train petroleum stakeholders in Mbeya region in December 2010.

Lesotho Electricity Authority takes a leaf out of EWURA's book

By Wilfred Mwakalosi



Delegates from Lesotho Electricity Board Authority listen to a presentation by EWURA officials (not in picture) in February 2011.

ON February 21, 2011, the Energy and Water Utilities Regulatory Authority (EWURA) hosted a delegation from Lesotho Electricity Authority, which had come to Tanzania on a learning mission on how to go about establishing and regulating the water sector in that southern African country.

The Lesotho delegation, led by the Authority's Chairman, Mr. Zola Tsotsi, said it has high regards for EWURA, seeing it as one of the best places to learn about water-regulating.

In the one-day learning process, members of the EWURA Management made presentations to enlighten the delegates on various issues pertaining to the Authority's countrywide operations.

The EWURA Director-General, Mr. Haruna Masebu, made a special presentation on the Authority's establishment, its mandate and structure. He also shed light on the Authority's independence in its decision-making role; sources of funding and accountability, as well as the existence of both EWURA Consumer Consultative Council and the Government Consultative Council.

The Director of Water and Sewerage Services, Eng. Mutaekulwa Mutegeki, discussed in detail the scope of the Performance Agreement with all water utilities in Tanzania; Policy Issues and the National Water Strategy of the year 2006. He took the opportunity to outline the

institutional frameworks in the Water Sector; the roles of various players; legislations on regulated entities, licensing and performance monitoring.

The Lesotho delegates also had the opportunity to learn about the whole process of tariff approval. This was presented by the Manager for Financial Analysis and Modeling, Mr. James Andilile.

A paper on Complaints Handling as was presented by the Director of Legal Services, Ms. Miriam Mahanyu.

For his part, a Board Member of Lesotho Electricity, Dr. Mampho Kotelo-Molaoa, said: "EWURA has a well-articulated procedure of handling complaints, in that customers know where to start when in problems – far from what we have in Lesotho! We need to start here..."

Of late, many countries in sub-Saharan Africa have shown interest in adding water services to their regulated utilities – a route that was prudently taken by EWURA on its inception. If only for that reason alone, various countries have been sending delegations to Tanzania to study first hand from EWURA on how the various services in the Energy and Water sectors are regulated.

The countries include Malawi, Zambia and Uganda which, by metaphorically taking a leaf out of the EWURA book, they have paid a worthy compliment to the Authority's prowess.

Growing LPG business throws regulatory challenges in Tanzania

By Wilfred Mwakalosi

THE Liquidified Petroleum Gas (LPG) business has grown steadily since the product was first massively introduced to the market in Tanzania in 2004.

Imported volumes of the commodity have risen from 4,550 metric tons a year in 2004 to 13,740 metric tons in 2009, according to available statistics.

The reasons for this robust growth include the tax relief granted by the Government in June 2006, as well as concerted efforts to create greater public awareness through consistent campaigns on the benefits of using LPG as a source of energy for households.

There have also been strategic moves by various players in developing distribution networks in new areas, as well as the provision of loans to end-users for LPG starter kits, which are repaid in easily affordable installments.

However, players – especially gas distributors – complain that the LPG sub-sector is characterized by heavy investment requirements, compounded by supply infrastructure challenges. Both are largely due to the business size, limitations of the Dar es Salaam Port and weak purchasing power among the population.

Also, players in the trade are of concern that Tanzanians are reluctant to change to gas, mainly on account of the cost of the product and related accessories. This, of course, makes the business inordinately expensive to develop – thus bringing in less profit compared to traders in other countries.

Currently, Tanzania – which has an estimated population of 44 million people – consumes only 14,000 tonnes of LPG a year, while Kenya – with about 35 million people – consumes 80,000 tonnes per year.

The small size of the Tanzanian market often makes it difficult to expand the business, thus rendering it unattractive for substantial investment.

Although the Energy and Water Utilities Regulatory Authority (EWURA) is yet to start issuing indicative prices and price caps, the regime so far has been moderate in pegging its prices.

For instance, retail prices for February 2010 – as indicated by Oryx, who is the leading gas dealer in Tanzania – averaged US\$1.66 per gas cylinder of between 3 and 6 kilogrammes. In the event, LPG in Tanzania was the cheapest compared to the prices in the Ivory Coast, Kenya, South Africa and Zambia, where the commodity was sold at US\$1.67, 1.75, 2.22, and 2.19 respectively!

Gas importers like Oryx argue that “LPG price-setting brings uncertainty to investment; it remains a constant threat to investment returns, and is one of the key decision factors.”

However, EWURA is empowered by law to intervene by issuing indicative prices and price caps, if it is demonstrated beyond reasonable doubt that there is a market failure – as it happened to petroleum in 2008.

As a step towards long-term solutions, EWURA has contracted consultancy services for a baseline study on the current technical and operational integrity of the LPG infrastructure in Tanzania.

This should be with respect to the existing International Standards and market opportunities. The objective would be to propose and/or recommend changes in the International Standards so as to readily adapt them to Tanzania’s needs – and, finally, propose and/or recommend motivational strategies for LPG use in Tanzania as a matter of course.

The LPG challenges were exposed mid-January this year, following a supply shortage of gas in the country that caused an unprecedented commodity price hike by unscrupulous dealers.

In that particular period, for instance, the price of a 16kg-cylinder rocketed up to Tsh70,000, up from Tsh44,000: a whopping 57% hike in a relatively short period of time!

However, beginning on January 17, 2011, a supply ship started offloading 1,250 metric tons of the commodity, almost instantly bringing some relief in the local market...

According to an Oryx briefing to mass media organs in Dar es Salaam on January 19, 2011, the LPG shortage resulted from failure to get security escort which would deter Somali pirate attacks in the Gulf of Aden area.

The company also attributed the price rise to platts change and escort fee. In any case, it promised that the consumer price would fall back to the recommended prices in a short while.

Oryx also promised that, from time to time, it would publicly advertise prevailing prices in local newspapers. The firm also promptly punished their super-dealers who violated agreed prices by removing their dealership status. These are Big Bon and Kobil Nanenane, who also operate at the Msimbazi Gapco petrol station in Dar es Salaam.

Following the LPG crisis on January 11, 2011, the Ministry of Energy and Minerals convened a meeting of major local LPG stakeholders. The meeting discussed issues related to LPG supplies; how gas can save the country's environment, and the negative consequences of the use of firewood and charcoal which are the main sources of energy among the rural poor and a major part of the urban population in Tanzania.

The Ministry of Natural Resources and Tourism was represented at the meeting, which resolved to form a task force to look critically into the issues and report back to the stakeholders.

The Tanzania Petroleum Development Corporation (TPDC) used the opportunity

to strongly market its PNG project as an alternative to charcoal.

LPG is imported by sea through the Kurasini Oil Jetty (KOJ) at the port of Dar es Salaam. It is also imported using road tankers from the Indeni Refinery in Ndola, Zambia, and from the Mombasa Refinery in Kenya.

It is then held at storage facilities before being filled in cylinders, transported to other LPG depots in the country or supplied in bulk to customers by specialised trucks.

The shortage of LPG will probably be a problem that will not be solved without deliberated concerted efforts of all stakeholders. Analysts say the crux of the problem is the lack of investment in the sub-sector, largely due to unattractive environment for investors.

Presumably, there are also risks such as long pay-back period for investors.

In addition to this, the LPG business infrastructure is still poor. Currently, Tanzania has an operational storage capacity of 1,602MT for LPG, with 1,352MT of that based in Dar es Salaam.

The total capacity consists of a modern 1,000MT sphere and 50MT bullet tanks at the Oryx LPG plant in Kurasini; a 302MT bullet tank at the BP plant in Kurasini; a 50MT bullet tank at the Oryx LPG plant in Moshi; a 150MT bullet tank at Manji's LPG plant in Arusha, and a 50MT bullet tank at the Oryx LPG plant in Mwanza.

The 1,000MT storage facility at the Tanzania-Italy Petroleum Refinery (TIPER) in Dar es Salaam is not operational.

The solution lies partly in investing in infrastructure – especially storage facilities.

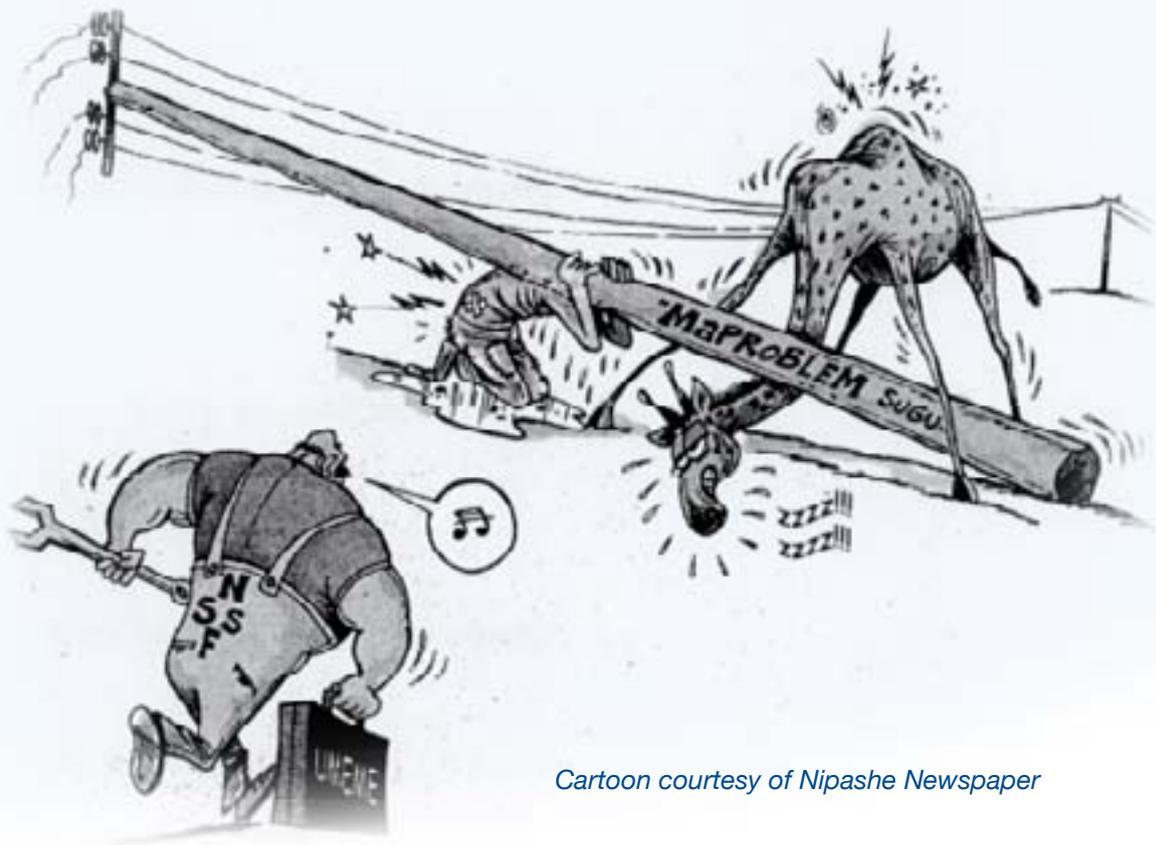
Already, Oryx Gas is undertaking projects, including expansion of Kurasini storage facility of 550MT; the Mbeya filling plant equipment; the Dodoma filling plant, and the Kibaha cylinder revalidation plant; as well as storage space for new cylinders and customer tanks, truck parking and for the provision of filling plants to support the ones in Dar es Salaam, Iringa and Isaka filling plant projects.

OPINION:

The defunct of public corporations and the advent of regulatory authorities:

A roadmap to acceptable, affordable and sustainable services

By Richards Mhaha



Cartoon courtesy of Nipashe Newspaper

THE recent establishment of the Social Security Regulatory Authority (SSRA) in Tanzania sounds a good thought to the beneficiaries of the pension fund schemes including: Government Employees Pension Fund (GEPF); Local Authorities Pension Fund (LAPF); National Hospital Insurance Fund (NHIF); National Social Security Fund (NSSF); Parastatal Pension Fund (PPF) and the Public Service Pension Fund (PSPF). It expected that the SSRA will not only streamline the differences but indeed dig deeper into the pension funds in order to enable the beneficiaries to reap from what they saw rather than the current state of the funds themselves reaping from what they did not saw.

As one of the beneficiary of the pension funds, much as I welcome the SSRA, I am inclined to recall the old good days of the Arusha Declaration in the 1960s that architected the government from owning and running several small and giant parastatals and public corporations from all sectors all over the country. The defunct and thereof privatisation of these public corporations in

the late 1980s to 1990s and now the advent of regulatory authorities is what makes me have a lot of questions to ask and wish for the mercy of God that our authorities doesn't fall victims just like the defunct public corporations.

The government, over the years, did invest billions of shillings in public enterprises in the hope that they would in turn effectively mobilise and utilise resources for the benefit of all Tanzanians and pay dividends to the government. These hopes were frustrated since the parastatals accounted for less than 10% of GDP by the year 1990. "They were indebted to the tune almost of Tsh. one trillion and making huge losses"¹.

People need to have access to many things and indeed to enjoy the wonderful creation of God through a good quality of life and to live with dignity whether one is employed or not. Governments all over the world are mandated from the people to make sure they have access to the resources and services they need. Some services like water are just too precious for the people to stay alive. Other services like education and or health care help people to live longer and better life.

For over a decade now, the government decided to direct resources towards the maintenance of

law and order in order to demonstrate the positive worth that regulation provides assurance to consumers, businesses and the utilities, and the government itself that the money they are spending will yield safe, quality, products and services both nationally and internationally. The creation of EWURA, SUMATRA, TCRA, TIRA, TCAA, and now the SSRA, are meant to assist the government to realise its noble goal. But the normal citizen is bound to ask himself as to what regulation really is?

Regulation and service delivery are commonly unbundled commodities. Service delivery involves main role players including the central government, local governments, service providers, regulatory authorities and users including businesses and individuals or household users who are the focus and reason for service delivery. These are the eyes and ears on the ground and must therefore hold each of the levels of government and or providers to account. Given the whole process of service delivery it is obvious that the many groups of people involved may have different goals and interest.

Regulation is therefore a way to try and balance these different interests so that one group doesn't take over and deny others their rights. It



An official of Tanzania Breweries Limited (TBL), (Right) explains to EWURA's Board Members on how the plant utilises Natural Gas in some of it's operations, June 2011.

involves monitoring the service delivery process to ensure that the rules set by the government in the form of national policies and the laws are followed to protect:

- public interests (such as looking after our rights and the environment)
- the person using the service, who must get good standard of service
- poor people, who must also get good quality basic services wherever they are even when they can't pay.

Regulation also includes setting and monitoring the prices charged for services delivered. Service delivery, like a soccer match, regulation is a referee who ensures everybody plays fairly and sticks to the rules of the game. While regulation ensures that the prices are as low as possible for users to afford, a regulator also make sure that the provider of the service has enough money to invest in infrastructure, maintenance and costs like support desk so that we continue to receive a good quality service in the future.

Regulation also is bound to set out and monitor goals for the way the service provider must

deliver, to ensure that the citizens gets good standard of service. The variety of services that are vital to uplifting our quality of life cannot be over-emphasised. These include but not limited to: water, energy, telecommunications, transport, healthcare, and education. But also pension scheme is of paramount importance. The existence of the above regulatory authorities, and in particular the Social Security Regulatory Authority (SSRA) and the regulation process in general is very important as it will ensure that these services are in place and delivered, and do indeed help us to have dignified, healthy, safe and successful lives now and after employment.

How best are our regulatory authorities performing? How independent are they? Are they strong enough and politically sophisticated? Will they, unlike the parastatals and corporations, be sustainable and deliver their expected goals? These and many other questions one may feel like asking shouldn't go unanswered in their existence and need to not only achieve their objectives but also play an impeccable roadmap to acceptable, affordable and sustainable services in improving social security to all Tanzanians.



EWURA's Natural Gas Director Eng. Charles Omujuni (second Left) makes a point to Board Members Ms. Juliana Mwalongo (Left) and Nicholaus Mbwani (second right) when they toured the Tanzania Portland Cement Company (TPCC) in Dar es Salaam, June 2011. Right is the TPCC Official. The plant uses Natural Gas for energy purposes.

★ EWURA's NEW EMPLOYEES



Mtumwa Simba
Information and Communication Technology
Manager



Baptister Mgaya
Principal Accountant



Edward Ndimila
Principal Engineer – Natural Gas Processing and
Transmission



James Mologosho
Principal Engineer –Natural Gas Distribution and
Supply



Simon Evarist
Chief Electricity Inspector



Kapwete Mboya
Manager, Licensing and Enforcement



George Mhina
Principal Legal Officer



Wilfred Mwakalosi
Senior Communications and Public Relations
Officer

★ EWURA'S NEW EMPLOYEES



Radhia Ahmed
Principal Statistician



Edwin Kidiffu
Manager, Legal Services



Lorivii Long'idu
Principal Commercial Officer - Petroleum



Emmanuel Panja
Petroleum Inspector - Commercial



Henry Mhina
Records Management Officer - PMU



Irene Nzagi
Legal Officer



Raymond Lyimo
Assistant Records Management Officer