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POWER AFRICA INITIATIVE **SUPPORTS**

US – TANZANIA UTILITY PARTNERSHIP

USEA ENERGY INDUSTRY EXPERTS ASSESS ELECTRIC POWER SECTOR IN TANZANIA

Dar es Salaam, Tanzania – July & August, 2013 – Under the *Power Africa Initiative* of the U.S. Government, USAID/USEA recently provided technical assistance to TANESCO (the state owned utility in Tanzania). Three energy industry experts — Tony Rodrigues of TR Energy Services, Pamela Morgan of Graceful Systems LLC and John Beardsworth of Hunton and Williams LLP assessed the status of TANESCO in the following areas:

- **Transmission**
- **Regulatory relations and activities**
- **Power purchase agreements & fuel supply agreements**



USAID/USEA experts meet with TANESCO Managing Director Felchesmi Mramba.

The energy sector in Tanzania currently faces a range of difficulties, including low rates of electricity access, regulatory barriers and trouble procuring new sources of power generation. During various meetings with the USAID/USEA experts, TANESCO staff outlined these issues facing its operations. In support of Power Africa, the experts reviewed the needs of the utility, making recommendations based on industry best practices.



USAID Energy Advisor Dorian Mead (top left), and USAID/USEA experts Tony Rodrigues (top right), Pamela Morgan (bottom right) and John Beardsworth (bottom left) meet with TANESCO Managing Director Felchesmi Mramba.

TRANSMISSION ISSUES IN TANZANIA POWER SECTOR

With access to electricity in Tanzania currently standing at under 20% and demand increasing, there is a growing need to extend the grid to many other areas in the country. Furthermore, in rural areas around 80% of energy is delivered from biomass, greatly contributing to deforestation. To add to these challenges, the transmission system is old and typically overloaded. During the technical assistance program, transmission expert Tony Rodrigues examined many of the obstacles confronting the grid in Tanzania. Meetings involved management from TANESCO within various areas of transmission, including strategic planning, wholesale power sales and purchase agreements, system control and research and development.



Above left: A 138kV-220kV transformer at TANESCO's Ubungu substation. Above right: USAID/USEA expert Tony Rodrigues meets with TANESCO Manager of Grid Operations Christian Msyani.

Challenges faced by TANESCO related to transmission were highlighted, including transmission system operation and maintenance practices. Rodrigues assessed TANESCO's plans for cross border transmission interconnection and identified potential barriers along with possible solutions. As transmission reliability remains a chief concern for TANESCO, Rodrigues reviewed reliability problems in the existing system, in addition to technical transmission losses and the utility's current efforts to reduce losses.

REGULATORY RELATIONS & ACTIVITIES IN TANZANIA

As the vertically integrated, state owned utility of Tanzania, TANESCO is regulated by the Energy and Water Utility Regulatory Authority (EWURA), which is responsible for technical and economic regulation of the electricity, petroleum, natural gas and water sectors in the country. TANESCO also responds to the actions of the Ministry of Energy and Mines, which formulates the national energy policy and heads the electricity sector restructuring efforts in Tanzania.

To review the existing regulatory affairs organizational structure at TANESCO, regulatory relations expert Pamela Morgan met with senior management from EWURA and TANESCO. Morgan examined the utility's regulatory compliance monitoring procedures and compliance filings, recent cost of service studies, rate case and tariff filings. Of particular interest was TANESCO's capability to respond to energy policy and regulatory initiatives, while also considering the impact of certain regulations on the utility and its customers. Upon her review of the regulatory relations of TANESCO, Morgan provided recommendations and solutions based on industry best practices.



USAID/USEA expert Pamela Morgan meets with Abdul Masunga, Manager of Commercial Services at

POWER PURCHASE AND FUEL SUPPLY AGREEMENTS

Tanzania's electricity sector suffers from continual power outages and a lack of generation capacity. In an effort to boost capacity, capitalize on newly discovered gas fields and improve TANESCO's content of power purchase and fuel purchase agreements, including renewable energy supply agreements, legal expert John Beardsworth reviewed agreements currently under negotiation by TANESCO and made recommendations on how they can be improved. Additionally, he provided possible solutions on how TANESCO can bolster its negotiating strategies and procurement system. Upon the conclusion of his assessment, Beardsworth provided a seminar to procurement executives at TANESCO on his findings and best practices.



Above left: Attorney John Beardsworth (left) lays out his assessment and recommendations related to procuring new generation and fuel supplies. Above right: The Ubungo gas turbine power plant.

PARTICIPATING ORGANIZATIONS

- TANESCO
- Ministry of Energy & Minerals
- Zanzibar Electricity Corporation
- EWURA
- U.S. Agency for International Development
- U.S. Energy Association

NEXT STEPS

Representatives from TANESCO and the Ministry of Energy and Minerals had the opportunity to outline the numerous difficulties they face in Tanzania related to transmission, regulatory relations and affairs, and power purchase and fuel supply agreements to experts in these areas. Upon assessing the status and needs of the state owned utility, the energy industry experts laid out the appropriate best practices that would allow TANESCO to improve operationally. This technical assistance program furthered the utility executives' and policy makers' knowledge of transmission system operation, regulatory and energy policy response, and procurement strategies.

USEA submitted a draft **Memorandum of Understanding** for the U.S. – Tanzania Utility Partnership, which TANESCO and USEA hope to sign in the near future.



Participants attend the “Briefing on Power Purchase Agreements & Gas Supply Agreements” at the Ministry of Energy and Mines with attorney John Beardsworth.

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