

**EAP Gender & Energy Facility**  
**Tuvalu Energy Sector Development Project**  
**Draft Terms of Reference**  
**Gender & Energy Specialist (Short-Term Consultant)**

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**I. Background**

Tuvalu is a group of nine inhabited islands (four reef islands and five coral atolls) with a land area of 26 km<sup>2</sup> and a maximum elevation of 4.5 meters - the world's second lowest-lying country. Most of the country's population (about 9,880 people) lives on the main atoll, Funafuti. Tuvalu is particularly vulnerable to the impacts of climate change, and has enormous challenges to reap economies of scale in the provision of public goods and services, including access to energy sources. Most goods and skilled services are imported, and fuel and food constitute nearly half of total imports of goods.

Tuvalu's gross domestic product (GDP) was estimated at USD 39.7 million in 2013 - the smallest of any independent state. GDP growth has been volatile in the past and this is expected to continue given Tuvalu's dependence on fishing and internet domain licensing fees, remittances, and trust fund returns, all of which depend on exogenous factors beyond the government's control. However, absolute poverty is rare and access to primary education is universal.

**Main electricity sector challenges**

Over 94 percent of Tuvaluans have access to electricity. Because 98 percent of Tuvalu's generation is diesel based, power costs are very sensitive to fluctuations in fuel prices. Tuvalu's energy costs are above average for the region and in the top three of Pacific power utilities. Other major challenges include insufficient revenues from tariffs to meet operating and maintenance costs and the need for subsidies from the Government; the high maintenance cost of generation and distribution systems in a marine environment; and the need for capital to finance the country's power infrastructure. Tuvalu is addressing these issues through policy and plans that include the ambitious target of 100 percent renewable energy (RE) for power generation by 2020 - 95% using solar photovoltaic (PV) with the remaining 5% from other sources (e.g. biodiesel).

The energy sector is managed by the Department of Energy within the Ministry of Public Utilities. The Government established the Tuvalu Electricity Corporation (TEC) in 1991, which in 2010 became a fully State-Owned Enterprise (SOE) with the responsibility for managing and operating grid-connected systems on the eight islands.

**The Energy Sector Development Project**

The Energy Sector Development Project (ESDP) has been designed to support Tuvalu's efforts to improve the efficiency of electricity use in the short term, and to provide cleaner

and less expensive electricity in the medium term. It is expected to benefit the poor by increasing the system's efficiency and sustainability and reducing dependence on imported fuels. The increase in the share of RE and a more efficient use of electricity is expected to result in immediate fuel savings and reduced greenhouse gas and other harmful gas emissions while enhancing the reliability of electricity supply, especially for the poor who are least able to protect themselves against outages.

The project objective is to enhance Tuvalu's energy security by reducing its dependence on imported fuel for power generation and by improving the efficiency and sustainability of its electricity system. The project will achieve this aim through three components.

**Component 1:** Renewable energy investments to supply and install power-generation and grid-management equipment to increase the contribution of RE in Tuvalu's hybrid generation system and to reduce diesel dependency.

**Component 2:** Energy efficiency investments to (a) supply and install prepayment meters for TEC consumers and smart meters for the largest electricity consumers; (b) supply and install selected EE investments, such as enhanced insulation and replacement of inefficient lighting and appliances in buildings to be selected by TEC in accordance with criteria agreed with the Bank; (c) development of policy, standards and labeling for EE; and (d) capacity development, training, and consumer awareness on EE.

**Component 3:** Technical assistance and project management support for TEC and other GoT staff for project implementation, coordination, administration, technical operation, procurement, financial management, environmental and social management, monitoring, evaluation, and reporting, including technical assistance for gender mainstreaming.

The design of the project includes lessons learned from interventions in the region that indicate that inclusion of prepayment and smart meters, along with other EE investments, curb payment defaults, ease bill collection by eliminating manual meter reading, detect outages, and enable utilities to resolve power-quality problems more quickly. Also, in time, consumers learn to manage their usage of lights and appliances reducing their monthly electricity bills.

However, some social acceptance problems have also been encountered in past projects, particularly at the initial stages, including complaints about traveling too far to purchase the top-up codes, too-quick disconnection by the utility when payment is delayed, and even some concerns about privacy (electricity usage can reveal the type of appliances used and correlate with the user's economic status). To address potential acceptance issues, the project has defined a comprehensive community consultation process, and intensive consumer awareness and education campaigns before and after installation of the meters, and training of TEC personnel on meter installation, data collection, and overall program management.

## **Gender Dimensions**

A draft Gender and Energy Scoping Study for Tuvalu, undertaken in March 2014, provided the background and a qualitative analysis of the social, cultural, economic and human rights characteristics of Tuvalu's energy-related environment. Women and men in Tuvalu have similar access to costly nonrenewable energy fuels that provide effective but not always reliable energy services. The Falekaupule (Traditional Assembly of Elders) system dominates governance and all decision-making in Tuvalu, especially at the community level. This cultural system favors men in decision-making. Although women have been accorded the right to sit within a Falekaupule assembly since 2013, they have largely continued to be silent observers in decision-making forums.

A Gender Action Plan (GAP) and monitoring and evaluation (M&E) framework have been prepared for the project, with the key objective of mainstreaming gender equity and equality throughout the implementation of the project. In particular, because women manage most household expenditures, they will largely be responsible for using the meters to manage power consumption. The consultation plan and any other communications with consumers (e.g. information sent out with tariff reviews) will target women. Actively involving women more in the management of meter reading and energy savings have the potential to impact the project development objectives as well as higher level development objectives related to women's voice and empowerment in decision making at the household level.

## **II. Objectives of Assignment and Scope of Work**

The objective of the Consultancy is to support the operationalization of the project's GAP and M&E framework through specific activities undertaken in close collaboration with TEC, including:

### **Training and Awareness**

- (a) Development of a training program for female electricity customers on (i) household energy saving methods, and (ii) training on how to read prepaid meters; the training modules will include awareness raising on the introduction of the prepaid meters
- (b) Delivery of training to TEC trainers (training of trainers)

### **Monitoring**

- (c) Operationalize, in close consultation with TEC and the World Bank, the gender elements of the Consultation Plan, specifically implementation of consumer feedback through TEC questionnaires and contractors' reports. This will serve to understand the specific perceptions of men and women consumers, and monitor the differentiated impacts of the introduction of the prepaid meters.

### **Assessment**

(d) Conduct a rapid assessment of opportunities to engage women in the retail of prepaid top-up codes and provide relevant recommendations to the TEC.

### **III. Expected Outputs and Timeline**

1. Training materials for two training modules on (i) household energy saving methods, and (ii) how to read prepaid meters completed and approved by the World Bank by November 5, 2016.
2. Delivery of the Training of Trainers on the two modules to TEC and brief report on TOT and trainee feedback by November 30, 2016.
3. Gender-sensitive consumer feedback forms and contractor reports agreed upon by TEC and World Bank by January 20, 2016
4. Brief on options for the potential participation of women in retail of prepaid meter top-up codes by January 30, 2016.

### **IV. Contract Duration**

The contract is for a period of around 33 days, from October 20, 2016 to February 15, 2017.

### **V. Administration and Reporting**

The consultant will prepare the various outputs in close collaboration with TEC. The consultant will report directly to Leopold Sedogo, Senior Energy Specialist and Task Team Leader of the ESDP and to Helle Buchhave, Senior Social Development Specialist and TTL of the EAP Gender and Energy Facility. The consultant will work closely with the project management unit and country gender focal point, Anuja Utz.

### **VI. Qualifications**

- An advanced degree in social science, or relevant discipline;
- At least 8 years of experience in the field of social development, including experience with and demonstrated understanding of the social and gender dimensions of energy;
- Proven understanding of household energy saving methods, and previous experience with the introduction of prepaid meters;
- Experience in developing training materials, including conducting training of trainers for the public sector, and local field based staff;
- Fluency in English (writing, reporting and speaking);
- Familiarity with the Pacific and projects financed by the World Bank are advantages.