

Energy Sector Development in the Federated States of Micronesia

Environment and Social Management Framework

**Energy Division
National Department of Resources and Development
Government of the Federated States of Micronesia**

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Environment and Social Management Framework

Contents

1	Introduction	4
2	Project Description.....	5
3	World Bank Safeguard Requirements.....	8
4	Assessment of Safeguards During the Master Planning Process.....	11
5	Potential Environmental Issues	12
6	Anticipated Social Impacts.....	16
7	Social Assessment During Project Implementation: Scope and Arrangements	31
8	Institutional Arrangements and Responsibilities	33
9	Public Consultation and Information Disclosure	34
10	Grievance Redress Mechanism.....	41
11	Monitoring and Reporting	42
	Annex 1: Resettlement Planning Tools	44
	Annex 2 Terms of Reference for Safeguards in the Master Plan.....	51



Figure 1 Location map of Federated States of Micronesia. Source: <http://www.operationworld.org>

1 Introduction

This Environment and Social Monitoring Framework (ESMF) sets out the principles, policies and procedures for environmental and social protection that the National Government of the Federated States of Micronesia (GoFSM) and the World Bank (Bank) agree to employ in the conduct of the Energy Sector Development Project (World Bank P148560).

FSM is a voluntary federation of the four semi-autonomous states (Chuuk, Kosrae, Pohnpei, and Yap), each with its own executive and legislative bodies and considerable autonomy to manage its domestic affairs, including civil and criminal justice systems. Each State has their own development strategy, while the national government provides an integrated perspective and vision, described in the FSM National Development Plan.

The ESMF outlines the project, its components, the socio-cultural context, possible environmental and social impacts and their management. The document builds on the laws and regulations of the GoFSM and its four component States and integrates relevant World Bank Operational Policies to describe the procedural responses to impacts throughout the present project, and for the conduct of future projects that the present activity will identify. **This document is final for implementation** and forms part of the legal agreements between the GoFSM and the World Bank. It will be officially disclosed by both partners for consultation and comment, and may be amended as agreed between the partners.

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2 Project Description

2.1 Background

The Energy Sector Development Project aims to assist the GoFSM to improve the performance and extend the benefits of its electricity sector across the country, which comprises 607 islands in the North Pacific Ocean, of which 74 are inhabited by a total population of 102,824.

The country faces challenges associated with its isolation and distance from markets, resulting in heavy import dependence and difficulties providing and maintaining infrastructure. Energy imports account for nearly 20% of nominal GDP, a costly item in a fragile economy. Energy is an integral part of the Strategic Development Plan (2004-2023) that maps the country's social and economic development. A National Energy Policy (NEP) adopted in 2012 contains four primary components: Policy and Planning, Conventional Energy (fossil fuels), Energy Efficiency and Conservation, and Renewable Energy.

Currently only some 55% of the population has access to electricity. Each of the four States has a state-owned power utility (Utilities) - Chuuk Public Utilities Corporation (CPUC), Kosrae Utilities Authority (KUA), Pohnpei Utilities Corporation (PUC), Yap State Public Service Corporation (YSPSC). The Utilities are regulated at the state level, and are responsible for generation, transmission, and distribution, with their own tariff structure. Generation is almost completely based on fossil fuel. Each State has prepared its own Energy Action Plan to work towards meeting the goals of the NEP.

Overall the project is a Category B, as classified under the World Bank safeguard policies. This means the project has environmental and social impacts that are expected to be relatively minor, able to be avoided, minimized, mitigated in design or compensated if they prove unavoidable.

2.2 Project Development Objectives and Implementation Arrangements

The Project Development Objectives are to improve the efficiency and reliability of electricity supply, and strengthen the planning and technical capacities at the state power utilities and the national Government.

The project will be implemented by the Energy Division at the National Department of Resources and Development (DNRD), which will be the Implementing Agency (IA). The Association of Micronesian Utilities (AMU) will play a significant role in serving as the Technical Steering Committee for the project to ensure complementarities and coordination among the four states and the national Government, and to provide guidance, technical inputs, and data/information to the consultants hired under the project.

2.2 Overview of the Project Components and Safeguards Instruments

The project design comprises three components to take into account: i) limited available International Development Association /IDA resources, ii) agreements among development partners, state utilities and Government on the scope for support in the sector, iii) low level of project implementation capacity, and iv) the need to have flexibility in project design. The proposed project, with an estimated cost of US\$13.9 million, will include the following three components:

2.2.1 Component 1: Improvement in efficiency and reliability of electricity supply

This component will support fuel savings through improved fuel efficiency of power generation and increasing penetration of renewable energy sources, loss reduction, reliability increases, and performance improvement activities and maintenance plans for the four utilities, including key investments in equipment needed to increase revenues and reduce energy losses.

An Environmental Management Plan (EMP) has been prepared for activities under this component, consistent with this ESMF. The EMP provides further detail on the planned investments, potential environmental and social impacts and the specific mitigation measures and monitoring plans for the work program in each State.

2.2.2 Component 2: National and state energy planning

This component will finance the preparation of Energy Master Plans for the four FSM states and the development of a National Energy Sector Master Plan. These plans would follow a ‘whole-of-sector’ approach for assessing the energy needs. They would also confirm the power infrastructure investments needed in the first five years, and develop grid stability and feasibility studies as well as environmental and social impact assessments of the top priority projects. Feasibility and other project specific studies to be undertaken under this component will be selected based on criteria that will include technical, financial, social and environmental impacts, as well as their contribution to NEP’s goal of increasing the share of renewable energy in the nation’s overall energy supply. The preparation of the Master Plans will use other studies that have been undertaken or are planned in the sector as inputs.

The current State Energy Action plans require detailed preparatory work in terms of following a robust analytical process based on technical, economic, financial, environmental and social considerations for prioritizing investments in the sector. The preparation of State Energy Sector Master Plans would add value to the existing priority plans, taking them to the next level and serve as “enablers” in the process of seeking financing from various sources including development partners, leveraging the private sector and others. The state plans would then feed into a National Master Plan for the country as a whole and provide clear directions on how to achieve national goals, including a reduction of reliance on imported fuels, increase in renewable energy (30 percent by 2020), energy access increase, and energy efficiency.

In addition to the numerous energy efficiency and performance enhancement plans which may have no physical impact, the high priorities in the State Energy Action Plans include technical studies and investment projects with potential environmental or social impacts:

- Grid connected solar PV on public buildings
- Hybridizing existing generation facilities with solar or wind power; studies for additional application in un-electrified areas
- Sea wave power 4 MW plant construction
- Ocean technology/wave energy studies
- Waste oil-diesel blend pilot project

- Hydro plant refurbishment and assessment of expansion potential, including possible river diversion
- Mini- and micro-hydro feasibility study reassessment
- Wind mapping
- Solid waste, sewage and biomass studies.

The screening of environmental and social issues and the assessment of potential impacts will be an integral part of the Master Planning process.

2.2.3 Component 3: Technical assistance and project management

This component will strengthen the Energy Division of the NDRD and the Association of Micronesian Utilities (AMU) to build their capacity for: i) sector data collection, statistics, and development of an information management system, ii) benchmarking of the utilities, and iii) implementing the NEP.

This component will also support the overall coordination, management and monitoring functions of the project carried out by the Energy Division of the NDRD in its role as IA. It will finance Project implementation costs, including technical assistance (individuals or firms), consultant fees (including a project implementation officer, a procurement advisor, a technical specialist and a safeguards specialist), production of reports and other documentation or reference materials, studies, workshops, training, and limited goods and equipment.

3 World Bank Safeguard Requirements

In addressing World Bank safeguard policy requirements, this ESMF builds on environmental and other applicable law and regulation in the Federated States of Micronesia, including State Constitutions and Codes, and incorporates any requirements of World Bank policies that are not addressed in local law. The primary objective of the partners is to ensure that the project does not cause unacceptable harm to society or environment. Policies applicable to this project are summarized below¹².

3.1 Environmental Assessment (OP/BP 4.01)

This policy provides the requirements and procedures for the environmental assessment of the Bank's lending operations. Inter alia, it requires (i) detailed qualitative and quantitative analysis to determine project impacts, (ii) determination of tangible measures to prevent, minimize, mitigate or compensate for these adverse impacts, (iii) public consultation and disclosure as part of the Environmental Assessment (EA)³ process and (iv) requires an EMP to address set of mitigation, monitoring and institutional measures to be implemented during design, construction, operation of maintenance phases of the project.

For projects such as this, where not all of the environmental and social impacts are known at the time of preparation, an ESMF is prepared. ESMF provide a framework and instructions to apply OP/BP4.01 (and other safeguard policies) to projects as they are defined during project implementation. This ESMF informs the EA that will be undertaken during the Master Planning process.

For the confirmed investments under Component 1, this project has an EMP prepared in accordance with this policy.

3.2 Natural Habitats (OP4.04)

This policy requires the conservation of natural habitats and specifically prohibits the support of projects that involve significant conversion or degradation of critical natural habitats, as defined by the policy. The policy requires the EA to identify impacts on biodiversity and species and to determine endemism, endangered species and whether the project impacts on these species. If the EA determines that a project impacts or degrades natural habitat, the project must include mitigation and monitoring measures acceptable to the Bank.

There are no confirmed investments involving the conversion or degradation of natural habitats, however the requirements of this policy will be followed during the Master Planning process.

¹ The entire Operational Manual with details of all policies is available online at [Ext Opmanual - Operational Manual - World Bank](#)

² These policies are those considered foreseeable at the time of project preparation. In the development of Master Plans, the IA and consultants will need to review the relevance of all Safeguard Policies.

³ Includes social assessment

3.3 Physical Cultural Resources (OP4.11).

This policy seeks to avoid the disturbance and or destruction of Physical Cultural Resources (PCR) by the projects activities. PCR includes places of worship, buried artifacts, cemeteries and archeological assets, etc. The policy requires EA to undertake an exhaustive desk review and/or site investigation to pre-identify and locate PCRs in the project influence area, propose management measures and include chance find clauses in civil works contracts during construction and maintenance stages.

There are no confirmed investments involving the disturbance or destruction of PCR, however the requirements of this policy will be followed during the Master Planning process for downstream investments.

3.4 Indigenous Peoples (OP4.10)

Indigenous Peoples policy provides guidance to ensure that the indigenous people benefit from development projects. It requires the Government to engage in a process of free, prior and informed consultations with indigenous peoples, as described by the policy in situations where indigenous peoples are present in, or have collective attachment to, the project area.

Most of the population of the Federated State of Micronesia is indigenous, in the sense of having an ancestral attachment to their land, which is still important in the livelihoods of the 78% who are rural dwellers. This reliance on natural resources, and both customary and legal rights are recognized under Federal and State Constitutions, and will be taken into account in Master Plans and in the process of project design and identification of land requirements in the downstream projects. Social assessment for each State will identify any indigenous peoples' issues that are not addressed under policy governing involuntary resettlement (see OP4.12 below).

3.5 Involuntary Resettlement (OP4.12)

The Involuntary Resettlement policy addresses direct economic and social impacts from project activities that may cause involuntary taking of land resulting in (i) relocation or loss of shelter, (ii) loss of assets or access to assets or (iii) loss of income sources or livelihoods. Projects may also lead to involuntary restriction of access to legally designated parks and protected areas resulting in adverse impacts on the livelihoods of the displaced persons.

The Master Planning process will take into account the principles of involuntary resettlement in the scoping and screening of projects and the development of feasibility studies. If priority projects have resettlement issues, then plans will be prepared during the project to address the issues. The downstream projects that may be adopted after Master Planning in the current project could have impacts that require corrective action to avoid loss of lands or livelihoods. The processes that will be followed are described in the Resettlement Policy Framework in Section 6.3 below.

3.6 Forests (OP 4.36)

The policy applies to: (a) projects that have or may have impacts on the health and quality of forests; (b) projects that affect the rights and welfare of people and their level of dependence upon or interaction with forests; and c) projects that aim to bring about changes in the management,

protection, or utilization of natural forests or plantations, whether they are publicly, privately, or communally owned.

There are no confirmed investments involving the disturbance of forests, however the requirements of this policy will be followed during the Master Planning process for downstream investments.

3.6 Safety of Dams (OP 4.37)

This policy is relevant for projects that rely on the performance on an existing dam, or involves renovation or construction of dams. The policy requires assessment of the safety of existing structures, and the design and construction supervision by experienced and competent professionals. The borrower is required to implement certain dam safety measures for the design, bid documents, construction, operation and maintenance of dam and associated works. For small dams (<15 meters in height), generic dam safety measures designed by qualified engineers are considered adequate. For large dams, dams that are 15 meters or more in height, or are between 10-15 meters and present special design complexities, the Bank requires special reviews by an independent panel of experts.

There are no confirmed investments involving dams, however the requirements of this policy will be followed during the Master Planning process if projects involving dams are considered in the list of downstream investments.

4 Assessment of Safeguards During the Master Planning Process

Safeguards screening and impact assessment will occur in an integrated manner during the Master Planning process. The outcome will be four State Energy Master Plans and one National Energy Master Plan with a list of potential investments that are entirely consistent with the World Bank Safeguard policies and the environmental and social policies and legislation of FSM. The priority projects developed as part of the ESDP will have documentation prepared, such as ESIA, EMP and RP. These will be consistent with the safeguard policies and will ensure the projects are 'investment ready' for any potential future donor.

The Terms of Reference (TOR) clauses in Annex 2 will form part of the TOR for the Master Plan consultants. The consultants will carry out the environmental and social screening and impact assessment tasks, consistent with this ESMF and the World Bank safeguard policies.

Part of the screening process is to identify the Category of risk for each investment, based on the classification system under Safeguards Policy 4.01 Environmental assessment; Category A, B or C. Category A is the highest risk project, and Category B is higher risk than C. This project is currently Category B. If any investments are screened as Category A they must be considered by the World Bank Safeguards Secretariat before they can be confirmed in any Energy Master Plan.

5 Potential Environmental Issues

The potential environmental issues relate to the proposed project technologies and their location, and the sensitivity of the environment at those locations.

5.1 Environmental Context

FSM is comprised of four states, from east to west; Kosrae, Pohnpei, Chuuk, and Yap (Figure 1). Each island or group has its own language, customs, local government, and traditional system for managing marine resources. The FSM has both high islands and atolls, and islanders have a strong dependence on coral reefs and marine resources, both economically and culturally. The islands support three basic reef formations: fringing reefs, barrier reefs, and atolls, which correspond to the stage of reef development at each island⁴.

The nation is home to some of the most biologically diverse forests and coral reefs in the world. The proximity of Micronesia to the Indo-Malay region and the relative nearness between the islands themselves enabled the high islands and reefs to act as bridges for the migration of terrestrial and marine species. The distance between islands also separated individual populations, causing high levels of endemism⁵.

FSM is vulnerable to the effects of climate change. Predicted higher sea levels will affect coastal resources and infrastructure, and the atoll islands are particularly vulnerable to salt water intrusion and coastal erosion. More variable and extreme winds / storms, and higher temperatures are also predicted⁶, which will affect coral habitats and agriculture, and may also affect biodiversity.

Each state in the FSM has extensive forest cover, although on the low atoll islands, and the littoral slopes of the high islands, the forest cover is better described as an agro-forestry complex with a scattered secondary forest on long-fallow within the traditional gardening system⁷.

Scattered use of forest resources occur across all states. Timber is cut for subsistence farmsteads for construction and firewood. Mangrove timber is used for handicrafts, and both upland and mangrove timber is used for furniture making.

Agriculture is the most important primary activity in the nation because of its contribution to employment, wage income, export earnings, and subsistence production. Copra remains the ubiquitous cash crop throughout the FSM.

Coral reef biodiversity and complexity is high within the reefs of the FSM and this diversity decreases in scale from west to east away from the center of marine diversity in Southeast Asia. FSM's

⁴ Hasurmai, M., et. al. 2008. The State of Coral Reef Ecosystems of the Federated States of Micronesia. Chapter 14 of the State of Coral Reef Ecosystems of the United States and

⁵ Federal and State Government. A Blueprint for Conserving the Biodiversity of the Federated States of Micronesia.

⁶ <http://www.sprep.org/att/IRC/eCOPIES/Countries/FSM/7.pdf>

exclusive economic zone covers some 2.6 million square kilometers of ocean which contain the world's most productive tuna fishing grounds.⁷

Land and marine biological resources and ecosystems are at threat from deforestation, erosion and sedimentation, pollution from agricultural and urban sources, and overfishing / destructive fishing.

Conventional western approaches to conservation--government management and enforcement of large-scale conservation areas--have been ineffective due to land and marine ownership patterns, the difficulties inherent to regulating activities in extremely remote locations, and the limited capacity of government natural resource agencies⁵.

5.2 Environmental Legislation and Policies

Environmental policy and regulation occurs at Federal and State level. At the Federal level, the Division of Environment and Sustainable Development, within the Office of Environment and Emergency Management, develops national policy and has responsibility for national legislation such as the Federated States of Micronesia Environmental Protection Act. Each State has an Environmental Protection Agency (EPA) and has autonomous responsibility for State Environmental Impact Assessment (EIA) Regulations and other environment-related legislation. Their jurisdiction extends seaward to the 12 mile limit. The Division of Environment and Sustainable Development does not have a supervisory or enforcement powers over the State EPA. There is however close co-ordination and cooperation between the State EPAs and the Division. For example, the Division supports the State EPA to review complex EIA and the State EPA share knowledge and tools with each other.

All of the State Regulations relating to EIA are similar. New development activities go through an 'Initial Assessment' to determine whether a comprehensive EIA is required. The Initial Assessment may comprise a simple checklist, or a more detailed baseline environmental description and impact assessment, depending on the nature and scale of the proposal. This is lodged with the State EPA to determine whether a comprehensive EIA is required, and the scope of the EIA. This decision is based on whether there are potentially 'significant' impacts, as listed in the regulations.

The EIA regulations cover a wide range of environmental and social aspects and include impacts on cultural resources, impacts on human health, depletion of natural resources, and hazardous substances risks. Public hearings and consultation are part of the process.

The State EPA are also responsible for permitting of earthworks (and issue permits for any land developments requiring land disturbances), air quality, waste management and watershed management / water allocation.

Activities undertaken by the Government, or its agencies, are assessed under the National Act, otherwise, activities are assessed under the State level Acts and regulations.

⁷ <http://www.fsimgov.org/info/natres.html>

The Division of Environment and Emergency Management is currently updating the 2009 policy on Disaster Risk Reduction and Climate Change. The overlapping issues with the energy sector include promotion of renewable energy generation and energy efficiency.

5.2 Potential Significant Environmental Impacts from Energy Master Plan Investments

Using the Energy Action Plans from the NEP as a guide for the potential projects that may be taken through into the Energy Master Plans, the following table highlights some of the potential impacts that should be considered in the Master Planning process.

Table 1 Summary of Potentially Significant Environmental Impacts from Energy Master Plan Investments

Technology / Investment type	Activities	Potential Impacts
Grid connected solar PV on public buildings / land.	Installing and maintaining panels. Use of batteries.	Contamination from inappropriate disposal of used batteries and panels. Removal of neighboring assets (trees etc.) to avoid shading. Benefits from substitution of fossil fuels.
Sea wave power 4 MW plant construction	Construction and operation of structures on the sea bed / marine environment. Connections to the shore.	Disruption of migration / feeding / breeding patterns of marine animals. Creation of sediment / turbidity during construction. Destruction of benthic habitats. Creation of a maritime hazard. Benefits from substitution of fossil fuels.
Waste oil-diesel blend pilot project	Construction of energy facility. Recovery of energy from hazardous waste. Discharges to air.	Benefits from avoiding the disposal, or costs of export, of hazardous waste. Contamination from inappropriate disposal of waste residues, spillages, and leaks during handling. Discharges of emissions to air affecting ambient air quality. Land acquisition.
Hydro plant refurbishment and assessment of expansion potential, including possible river diversion	Changes to water use and river flow patterns.	Changes to river habitats, affecting migration, breeding, feeding of in river species. Changes to water quality and availability for other water users. Benefits from displacing fossil fuels, and improving the efficiency of an existing asset.
Mini and micro hydro	Dam / weir construction. Inundation of land. Changes to water use and river flow patterns. Road access.	Changes to river habitats, affecting migration, breeding, feeding of in river species. Changes to water quality and availability for downstream water

Technology / Investment type	Activities	Potential Impacts
		users. Land acquisition. Land clearance. Benefits from displacing fossil fuels.
Wind farms	Turbine construction and operation. Road access.	Land acquisition. Land clearance. Bird strike. Benefits from displacing fossil fuels.
Solid waste, sewage and biomass.	Construction of energy facilities. Recovery of energy from waste. Discharges to air. Small scale biomass plants based on agricultural waste.	Benefits from avoiding the treatment and / or disposal of waste. Contamination from inappropriate disposal of waste residues, spillages, and leaks during handling. Discharges of emissions to air affecting ambient air quality. Benefits from displacing fossil fuels. Land acquisition.

6 Anticipated Social Impacts

The project will contribute to social and economic development, which is currently energy-constrained. All electricity consumers - institutional, industrial, commercial and domestic - will eventually benefit from more affordable and sustainable tariffs than would be possible without the project. Master Planning and prioritization of downstream projects will extend electrification to currently unserved populations. Women and children are particularly benefited by improved electricity services, critical for modern education, health and communications services, for relieving the drudgery of household tasks, and for facilitating small income-generating activities that help families. Negative impacts of involuntary resettlement are discussed in the Resettlement Policy Framework, Section 6.3.

6.1 Socio-cultural Context

The social assessment that follows is an overview derived from secondary sources⁸ to profile the beneficiary population, inform a framework for stakeholder consultation, for incorporating socio-economic information in Master Planning, and for planning, implementing and monitoring downstream sub-projects. The project will conduct consultations and develop State-specific social assessments to reflect local socio-economic and cultural issues that will inform State Master Plans and feed into the national Energy Master Plan.

6.1.1 Population

Prior to European contact, modern transport and communications, the present-day Federated States of Micronesia were part of a group of islands whose pan-Micronesian subsistence and seafaring populations were in sporadic contact through circular migration to trade with each other, participate in ceremonies, intermarry, give and receive mutual support in times of natural and other disasters. The indigenous people of the Federated States of Micronesia, who constitute the vast majority of the population, are ethnically Micronesian, and speak distinct dialects of Austronesian languages that are part of the Malayo-Polynesian family. Though there is broad cultural similarity amongst the States, in the relative historical isolation of the islands, different customs, local practices and strategic interests have developed according to island, village, class, kinship and religious affiliation. These, rather than ethnicity or indigenous status per se, are generally the basis of differences within and between States. Most of the population is now Christian, with only 4.6% either professing another or no religion.

6.1.2 Social Organization

Urban population in 2010 accounted for only 22% of the total in the Federated States of Micronesia. The family and village are still central to social organization and identity. Especially on the high

⁸ The most recent complete published body of census-based statistics derives from the 2000 census, reported in 2006; see <http://www.spc.int/prism/country/fm/stats/>. This data is used where analysis of 2010 census data is not yet to hand. Preliminary results of the 2010 Census of Population and Housing are available at the Office of Statistics, Budget & Economic Management, Overseas Development Assistance and Compact Management, <http://www.sboc.fm>. Some data used is from the Sample-based 2005 Household Income and Expenditure Survey (HIES).

islands, society is stratified by descent group affiliation, title, age and land relationships, which are the traditional basis of wealth and the conspicuous generosity that is the mark of a leader. However, disease and depopulation in the colonial period eroded the powerbase of traditional leaders, which depended on a large labor-force to work lands. The coral atolls are generally more egalitarian, and place more emphasis on specialized knowledge and achievement, though age and gender are still important social markers. Churches are now focal points of community interaction, though especially in Yap, men's houses that were formerly the centers of village power are maintained as meeting places, and uphold traditional arts and culture.

6.1.3 Land

In pre-colonial times, land was generally plentiful, though with higher population densities in Chuuk than in the other States. Since the dramatic decline in population due to post-contact epidemics, and the continuing overall trend to decline due to later marriage, lower birthrates and migration, population pressure has not been a large issue in the country, though ownership, use, control and inheritance of particular plots may still be locally sensitive.

Ownership of land and aquatic areas varies between States. In Kosrae and Pohnpei, land is both privately and State owned, while aquatic areas are managed by the State as public trusts. In Chuuk, most land and aquatic areas are privately owned and acquired through inheritance, gift or, recently, by purchase. In Yap, almost all land and aquatic areas are owned or managed by individual estates and usage is subject to traditional controls. In all states, land cannot be sold to non-citizens of the FSM, thus these land and aquatic ownership patterns greatly influence the strategies and actions required to sustainably manage the natural resources of the nation.

Some States have made a concerted effort to have land titles registered, and to declare unregistered land as Government land. Custom mechanisms for ascertaining land rights have played an important part in this process. In some States, Government land may be designated as Homestead land for eligible clans and individuals and could be legally allocated as replacement land if eminent domain powers were exercised in downstream projects.

6.1.4 Households and Housing Characteristics

Most households comprise nuclear or extended families, with around one quarter providing a home for a parent or another relative. In 2000, average household size was 6.7, with a tendency to smaller households on Yap and larger in Chuuk. Female headed households accounted overall for 18% of the total, though 27% in Yap.

Most homes in 2000 were single detached dwelling units. A further 9% of dwellings had an attached unit; only 2% were located in apartment blocks. Half had piped water and electricity, but only a quarter had any form of sanitary waste disposal, except in Kosrae, where over 70% enjoyed this facility. By 2010, four out of five had an improved drinking water supply, and three out of five an improved toilet facility, and household size had dropped to 6.1, an indication of the trend to depopulation.

6.1.5 Gender and Social Status

In 2010 the sex ratio was 103 males to 100 females. Micronesian societies are matrilineal, and inheritance of land and other assets is traditionally through women. However, the senior male of the lineage, often a woman's older brother, is generally the manager of landed estate, and males

exercise most political and economic power. The senior male decides on inheritance, which may be exercised in favor of matrilineal or patrilineal kin, within or outside the village. This ambilateral allocation of inheritance by family heads is a potential source of disagreement about land. Partly for this reason, the traditions of village exogamy and cross-cousin marriage, which tend to consolidate alliances and interests in clan land, are still a cultural preference in many areas. Women traditionally defer to men, and the sexes do not generally mix freely in social situations.

In the subsistence sector, traditional division of labor assigns domestic chores, and the care of infants and the elderly to women and children. Women plant, weed and harvest subsistence produce, weave mats and tend livestock while men perform the heavy agricultural labor tasks such as construction, ground-breaking, ditching and fencing. Generally, women fish and gather in the lagoons, while men fish outside reefs. In the non-subsistence economy, both sexes have new opportunities to which education and language skills are important enablers of access.

The Constitutions of the nation and of each individual State specifically exclude discrimination or exclusion on grounds of sex, language, national origin, ancestry, race, in most cases social status, religion and in one case dialect. The FSM has acceded to the Convention for the Elimination of all forms of Discrimination Against Women (CEDAW).

6.1.6 Education

Literacy levels are generally high. Over 95% of those 15-24 or older are literate, with women's rates at 96% slightly higher than men's at 94.2% in 2000. Overall, girls have higher participation rates than boys at both elementary and high school levels, though Yap, the most traditional State, features lower high school enrolment rates for girls than boys. In 2000, 11.7% of persons over 25 were college graduates. This rose to 11.8% in 2010.

Due to the multiplicity of indigenous languages and dialects, which though related, are not always easily mutually intelligible, English has been adopted as the sole official language, and is the medium of instruction in high schools and tertiary institutions. Good English language ability is an advantage in the employment market. In 2010, 75.9% over the age of five were literate in English, with higher levels amongst the young and those of economically active age.

6.1.7 Employment and Incomes

Overall, 78% of the population is rural, and subsistence farming and fishing are still the main means of livelihood. Almost half the women and two thirds of the men of economically active age participate in the labor force. One third of working men, and more than half working women (56%) are in unpaid occupations. The 2010 unemployment rate for men is 15.5%, and 17% for women. While most households engage in agricultural production and fishing (94.6% and 70.7% respectively in 2010), only around 1% produces exclusively for sale. Around 10% sells some of their production.

Of those aged 15 or more with cash income in 2000, 43% received wages or salaries, 21% had income from their own business, 41% received remittance income and 7% received social security or other income from Government. Public administration, education, health, social work and utilities supply accounted for just over half of paid jobs. The only other significant sector was wholesale and retail repair and supply of vehicles and household goods, which employed 13% of the work force.

Average household income in 2005 was \$13,421. Female headed households earned over \$2,000 less than the average, while foreigners (non FSM residents) earned almost \$7,000 more than the average. These figures include cash and non-cash income, so are not necessarily a good indication of purchasing power for cash goods. Per capita GDP on a Purchasing Power Parity basis was estimated at US\$3,165 in 2012.

6.1.8 Willingness and Ability to Pay for Power

Willingness and ability to pay (WATP) for power is related to the adequacy of cash incomes. While food poverty is estimated at below 10% of households in all States, and at only 2% in Yap, the HIES 2005 data shows an incidence of basic needs poverty afflicting 29.9% of the population overall, and 24.4% of households. Kosrae has the highest rate, at 34.5% of the population, and Chuuk the lowest, at 28.7%. Gender of the head of household shows no strong correlation with the incidence of poverty.

Biomass in the form of wood and coconut husk products, generally a free good, is used for local cooking; in most outer island communities, biomass is the primary energy source. Expenditure on fuel, light and water in 2005 accounted overall for 5.1% of household expenditure, with a range amongst the States from 5% (Chuuk, Kosrae and Yap) to 6% (Pohnpei)⁹. While these rates are within the range of energy costs per cent of expenditure normally found bearable for household consumers in developing countries, the poorer may have limited capacity to increase their usage or expenditure to benefit from improved power availability. State-level Social Assessment will further investigate local energy use and WATP issues.

6.1.9 Conclusions from Preliminary Social Assessment

- State level Social Assessment should be undertaken to identify project-specific safeguards issues and inform State level Energy Master Planning
- Reasons for non-connection of potential consumers requires research to ensure that any contributory socio-cultural factors are identified and taken into account in State by State Master Planning
- Women are more engaged in the domestic sector, and are more affected by access to electricity than men. Consultations need to be planned to ensure their participation
- Levels of education suggest that there will be ready understanding of the project and its aims
- Employment options and rates of unemployment suggest that facilitation of productive uses of power through the Master Plans can make an important contribution to diversification of economic activity, and to socio-economic development
- Relatively low cash incomes suggest that close attention needs to be paid to willingness and ability to pay
- While land is generally not scarce, there may be local land sensitivities to be respected in downstream project planning
- Women's beneficiary interests in land need to be respected in resettlement planning

⁹ 2005 HIES Figure 6; Household Expenditure by State

- Care to identify all persons with a beneficiary interest in commonly held land will be important
- Consultations feeding in to the Master Plans should include the demand-side sectors as well as institutional stakeholders to ensure equitable prioritization and benefit sharing in downstream projects
- Detailed State-level social assessment should include identification of indicators and establishment of a participatory monitoring and evaluation process
- The project should include a budget for State level social assessment.

These points are addressed under Public Consultation and Disclosure (Section 9) and Social Assessment Scope and Arrangements (Section 7).

6.2 Physical Impacts of the Project

The physical impacts of some priority proposals in the State Energy Plans may entrain impacts on private land and assets. The technologies under active consideration for implementation have generally modest to moderate land demands and land based assets. These could include:

- Land for solar arrays, footings for wind monitoring or turbine towers, waste oil processing and solid waste processing facilities, power houses, transformers and distribution lines
- Strengthening of roofs to support solar arrays
- Removal or trimming of vegetation for access to infrastructure and to avoid shading
- Small-scale water diversion for micro-hydro generation.

Impacts that could arise in relation to recommendations from priority studies under consideration by the States are potentially more severe, and could include:

- Possible physical relocation of households and cultivations for hydro expansion or river diversion
- Structures on the seabed and foreshore to accommodate ocean or wave power infrastructure.

Planning and project design will seek to utilize existing Government buildings and land to meet these needs to the maximum possible extent. Care would be exercised in planning any hydro or other works that any issues associated with customary land use and impacts on traditional livelihoods receive due consideration, and that there is comprehensive consultation with owners and users of any affected natural resources. As the location, scope and scale of impacts of downstream projects is as yet unknown, a Resettlement Policy Framework follows to guide planning.

6.3 Resettlement Policy Framework

Energy Master Planning by the FSM Government and the four State Governments in the present project will identify and prioritize energy projects for downstream implementation. The exact location and nature of any adverse impacts on land or livelihoods is not yet known. This project does not involve any involuntary resettlement, however this project will fund the preparation of necessary resettlement documents for downstream projects, as part of the development of priority projects under the Master Plan to be 'ready for financing'. The RPF will also be mainstreamed into the Master Plan, so that the principles and guidelines will continue to be implemented in

downstream projects. This section documents how resettlement issues will be identified and documents prepared through the implementation of Component 2 of this project. The principles outlined in this Framework are common to a number of development partners, and may be mainstreamed into the Master Planning process to facilitate project planning with other partners.

The GoFSM has agreed to apply the principles, procedures and standards incorporated in World Bank Operational Policy 4.12, Involuntary Resettlement, along with applicable local law if land acquisition is required for downstream projects. The aim of resettlement planning is to ensure that no individual or community is harmed through project-induced loss of land, assets or livelihoods. This Resettlement Policy Framework (RPF) establishes principles and guidelines to be used in the preparation and implementation of Abbreviated Resettlement Action Plans (ARAP) or Resettlement Action Plans (RAP) to manage impacts of future projects. The resettlement instrument will be submitted for Bank approval before initiation of any works under future projects with the Bank that would involve land acquisition.

The Project Implementation Unit will include a consultant charged with ensuring that screening for adverse impacts on land or livelihoods and response according to the principles of this RPF will be mainstreamed into Master planning processes.

6.3.1 Objectives and Key Principles

The principle objective of the RPF is to ensure, if land acquisition cannot be avoided altogether, that all persons subjected to adverse impacts are provided opportunities to improve, or at least restore, their incomes and living standards following displacement. The GoFSM will take all necessary measures to mitigate project induced adverse social impacts, including those associated with land acquisition or restrictions on access to land or other natural resources. Every reasonable effort will be made in project design to avoid or minimize the need for land acquisition.

If priority projects have land or livelihood impacts, then resettlement planning will be required. The preparation of resettlement documents will form part of the set of documents to ensure that the priority projects are 'ready for financing'. For minor impacts such as land requirements for a small wind turbine footing, this may be an Abbreviated Resettlement Action Plan (ARAP). For major projects, such as large scale hydro development necessitating relocation of people, a more detailed Resettlement Action Plan (RAP) would be needed. A scoping process (see Resettlement Planning Tools, Annex 1) will assist to determine which instrument is required. In this document, the acronym RP will be used to refer to both.

The RP will incorporate the requirements of local law and the World Bank's Operational Policy 4.12, Involuntary Resettlement, to ensure that all adversely affected persons are compensated at replacement cost for land, unharvested crops, and any attached assets or improvements on any land to be acquired, and for any loss of income due to the project. Other forms of assistance for livelihoods restoration or physical relocation will be provided as necessary.

6.3.2 Key Principles of Resettlement Planning

Broad community acceptance is essential to energy project success. To ensure this, key principles to be followed in resettlement planning and implementation are:

- a. Land acquisition should be avoided or minimized as far as possible. If unavoidable, project designs and RPs should be conceived as development opportunities, so that displaced¹⁰ persons may benefit from the services and facilities created for, or by, project activities.
- b. All displaced persons are entitled to compensation for project related loss of income, land and attached assets, or to alternative but equivalent forms of assistance in lieu of compensation. Lack of legal rights to the assets lost will not bar displaced persons from entitlement to such compensation or alternative forms of assistance.
- c. Compensation rates as established in an RP refer to amounts to be paid in full to the eligible owner or user of the lost asset, without depreciation or deduction for any purpose.
- d. When cultivated land is acquired, the project proponent/Bank borrower should seek to arrange land-for-land replacement if that is the preference of the displaced person.
- e. Compensation for land, unharvested crops and attached assets should be paid prior to the time of impact.
- f. Land donation is acceptable only when it is documented and fully consistent with the guidance on Voluntary Donation (see 6.4.3 below)
- g. Displaced persons should be consulted during the process of RP preparation, so that their preferences regarding land acquisition and compensation arrangements are solicited and considered.
- h. Information about the project, and the draft and final RPs are publicly disclosed in a manner accessible to displaced persons. They will be available on the Government's and the Bank's websites, and also available in hard copy from the relevant Government agency and the Utility. Information may also be disseminated via radio and press, so that communities that are not yet electrified have access to information.
- i. The previous level of community services and access to resources will be maintained or improved after land acquisition. If individuals or a community has to be relocated, the same level of services as they formerly enjoyed should be restored or improved for both themselves and any new hosts.
- j. The project proponent/Bank borrower is responsible for meeting costs associated with land acquisition and compensation. The RP includes an estimated budget for all costs associated with land acquisition, including contingency arrangements.
- k. Methods by which displaced persons can register complaints and pursue grievances will be established as necessary, and information regarding these grievance procedures will be provided to displaced persons and members of the public who may experience some inconvenience.

The process for embedding these key principles in resettlement planning is described in more detail in the following sections. Explanation of what defines a displaced or affected person, and of the basis for establishing replacement cost as the basis for valuation of affected land or assets is in Annex 1, Resettlement Planning Tools.

¹⁰ World Bank Operational Policy 4.12 uses the terminology 'displaced' to mean social and/or economic as well as physical displacement of an affected person. In this document, to avoid confusion, the word 'affected' will be used to mean a person suffering any adverse impact.

6.3.3 Legal and Regulatory Framework

Resettlement plans will build on FSM law and regulation governing generation, transmission and distribution of electricity, environmental protection and land acquisition. The principles set out above accord with the spirit and intent of citizens' rights declared in the national and State Constitutions, and with legislation in the State Civil Codes. For this project, the Government of the FSM agrees that if there is any gap or ambiguity in the Civil Codes, it will waive any legal or regulatory provisions in contradiction to the requirements established in this RPF, and ensure that actions necessary to ensure full and effective implementation of RPs prepared in accordance with this RPF, in the spirit of FSM Constitutions.

Some provisos of FSM law relevant to the key principles are noted below.

- The Government of the FSM possesses the usual right of eminent domain to compulsorily acquire property for public purposes 'upon paying the owner a just compensation to be ascertained according to the law.' (Constitution of the FSM, Title 56, Chapter 1 S103). The Court appoints three assessors to determine 'fair market value'. There is negotiation and right of appeal.
- If eminent domain is exercised, in the FSM Constitution Title 56, Chapter 2:
 - Undertakes within reason to give 90 days' notice of the date required to move - S205.
 - Provides for payment for improvements by tenant - S207
 - Provides for reimbursement of incidental expenses - S208
- FSM Constitution Title 56 Chapter 3 describes relocation provisions, including:
 - Options for moving and dislocation allowances - S304
 - Options for payments based on business earnings – S305
 - Replacement housing for owners and tenants – SS306-307
 - Relocation assistance advisory programs – S308
 - Assurance that compensation/relocation payments will not be taxed – S313
 - Appeal procedures – S314.

The National Constitution thus harmonizes in important ways with policy principles of World Bank OP 4.12.

State laws reinforce the National law that land may only be held by citizens. State Constitutions echo the national prohibition of discrimination on grounds of sex, language, national origin, ancestry, race, in most cases social status, religion and in one case dialect. The role of tradition and custom is generally recognized. Some provisions in State Codes may become relevant in downstream projects.

Land registration and lease law and procedure is well articulated in the Chuuk Civil Code, which prescribes in some detail the procedures for notification, public consultation and appeal. Access to and across public land is also protected. State Lease agreements are authorized, and a process of compensation for trees is prescribed.

The Kosrae Constitution declares waters, land and other resources in the marine space as public property regulated for the public good by the State. The State Code contains provisos for State acquisition of land, with a process for 'good faith' bargaining. The Governor has discretion to allocate an area public land to eligible persons, clans, lineages, families and groups for

homesteading, including dwelling, agriculture or grazing. The Code provides for determination and registration of interests in land, including a detailed disclosure, consultation and appeals process.

Pohnpei's Draft Civil Code is currently under consideration for enactment by its State Legislature.

The Constitution of Yap, the most traditional of the States, gives explicit recognition to customary governance structures, and establishes two Councils responsible for tradition and custom. Its Civil Code requires the State to receive and hold public land in trust on behalf of the people, including provisos covering leasing and conveyancing. As in Kosrae it has powers of eminent domain, and of homesteading government land.

Powers of eminent domain are rarely exercised, Government and State agencies generally preferring to enter into long-term lease agreements of land required for public purposes.

State Constitutions and codes are not complete in relation to the principles of OP 4.12, but there is no conflict in the fundamental intent that adversely affected persons should not be discriminated against or disadvantaged by projects.

6.3.4 Land Donation Arrangements and Documentation

Especially for small-scale projects that are for community benefit, it is customary in some Pacific Island Countries for people to donate communal or small amounts of private land for public development purposes. Under some circumstances in this project, or in future projects developed under the Master Plans, this practice may be an appropriate means for the people involved to show their commitment to public purposes and the development of their community, and may, as a result, eliminate the need for potentially difficult or expensive formal expropriation proceedings. If applicable, arrangements will be put in place to ensure that any land donation process is not coercive, manipulative, or unduly harmful to owners or users of the land involved.

In the FSM Energy Sector Development Project and downstream projects under the implementation of the Master Plans, any donation of land or lease rights will be consistent with the following principles:

- a. The donation would be made for a specified purpose and term. If the land is not donated in perpetuity, the donation agreement would specify what will happen to the land at term
- b. The potential donor will be made aware that refusal is an option, and the right of refusal will be specified in the donation document the donor will sign
- c. The act of donation will be undertaken without coercion, manipulation, or any form of pressure on the part of public or traditional authorities
- d. The donor may negotiate for compensation (in full or in part) or alternative forms of benefits as a condition for donation
- e. The proportion of land that may be donated cannot exceed 10 percent of the potential donor's land area
- f. Donation of land cannot occur if it were to necessitate any involuntary household relocation
- g. For community or collective land, donation can only occur with the consent of all individuals using or occupying the land, or recognized in custom to have some claim
- h. The NDRD will establish that the land to be donated is free of encumbrances or encroachment prior to commencement of any work on the land

- i. Any donated land that is not used for its agreed purpose by the project will be returned to the donor.

These principles will also be included in the Master Planning processes as good practice guidelines if voluntary donation is an option in downstream projects.

The intention of these conditions is that the new owner or tenant should be able to undertake any lawful transaction with respect to the land in question without legal impediment or delay. The responsible project implementation and land registration agencies in the national or State Government of the FSM will maintain a documented record of each instance of land donation, will make the documentation available for review in any grievances that may arise, and will make documentation available to the World Bank upon request for any project involving voluntary land donation undertaken in collaboration with the Bank.

6.3.5 Preparing and Approving RPs

If it is determined that involuntary impacts on land and assets are unavoidable, the GoFSM undertakes responsibility for preparation and implementation of RPs (including responsibility for meeting all associated costs). The agency with overall responsibility for safeguards Plans under this project is the Energy Division in the National Department of Resources and Development (NDRD). As necessary, NDRD will exercise its authority to coordinate actions with any other agencies involved to ensure timely and effective RP implementation.

Preparation of an RP will begin once it is determined that land acquisition is essential to complete any project activities, and once siting criteria establish the land area to be acquired. NDRD will carry out, or cause to be carried out, a census survey to identify and enumerate affected/displaced persons and to identify and inventory land and other assets required. The census survey will cover 100 percent of the affected persons. The census survey will also confirm the scale of land acquisition required for the project. If impacts are minor, an ARAP will be prepared, based on the principles, planning procedures and implementation arrangements established in this RPF. If impacts will be more significant and the census survey indicates that any person would require physical relocation, or that the livelihood of any person were to be significantly affected (e.g. loss of more than 10 percent of his or her productive land area), a full RAP will be prepared, including additional planning to ensure that livelihoods are restored at least to pre-project status. Tools for determining the appropriate instrument and preparing summaries of the affected person census and asset inventories are at Annex 1.

The table below shows the indicative contents of an ARAP and RAP.

Item	ARAP	RAP
a. A description of the activity causing land acquisition, anticipated impacts and measures taken to avoid/minimize land acquisition	✓	✓
b. Range and scope of potential adverse impacts	✓	✓
c. Socioeconomic survey and baseline census information		✓
d. Census survey	✓	
e. Review of relevant laws relating to land acquisition and resettlement		✓
f. Description of valuation procedures and specific compensation rates /procedures for affected assets	✓	✓

Item	ARAP	RAP
g. Other assistance measures for livelihoods restoration of affected/displaced persons if required		✓
h. Assistance to affected commercial enterprises		✓
i. Eligibility criteria for compensation and all other forms of assistance	✓	✓
j. Relocation arrangements if necessary, including transitional support		✓
k. Resettlement site selection, preparation and measures to mitigate impacts on hosts		✓
l. Restoration or replacement of community infrastructure and services		✓
m. Land donation and documentation instruments if relevant	✓	✓
n. Organizational arrangements for implementation		✓
o. Consultation and disclosure arrangements	✓	✓
p. Resettlement implementation schedule/timetable	✓	✓
q. Costs and budget	✓	✓
r. Monitoring arrangements		✓
s. Complaints/grievance procedure	✓	✓
t. Summary entitlements matrix		✓

6.3.6 Eligibility Criteria

Eligibility criteria apply to both affected persons and affected assets.

Resettlement planning will ensure that affected persons have sufficient opportunity to replace assets they will lose, and to improve or at least restore their incomes and living standards. In line with the provisions of the FSM and State Constitutions, it will ensure that there is no discrimination against any affected person due to sex, social status, language or other criteria. Traditional rights will be recognized even if the affected person does not have registered title to the property, but is a customary owner or user. To achieve these objectives, NDRD will ensure that all affected persons are identified, and that all affected persons are deemed eligible for appropriate mitigation measures in the RP.

To avoid opportunistic claims, to be eligible for consideration, a person would have had to have a legal or custom-recognized right to the affected land or asset at the time of commencement of the census survey. Later claims will not be recognized.

Affected persons will be eligible for compensation at replacement cost for:

- a. All land to be acquired. If agricultural land is acquired, the project will assist affected persons to obtain replacement land of equivalent productive and locational value if that is their preference
- b. The market value of any unharvested crops and estimated future value of productive trees (fruit, nut or timber)
- c. Any fixed assets or improvements on the land to be acquired
- d. If land is temporarily acquired to facilitate project construction, temporary use compensation will apply, and the land will be returned to its original condition (or better) after use
- e. Loss of income due to the project or the process of acquisition.

If partial land acquisition would render the remainder of the plot economically unviable, inaccessible, or unsafe for use or habitation, the project will acquire the plot in its entirety at the request of the affected persons. Similarly, if acquisition of part of a building renders the balance unsuitable for purpose, the project will acquire the whole building at the request of the owner.

For minor land acquisition involving communal or collective land, compensation at replacement cost will normally be provided to the community or collective ownership. Persons directly affected by loss of communal or collective land will be compensated for unharvested crops, productive trees and other fixed assets or improvements they have established on the land they use.

Informal users or encroachers on public land will not be entitled to land compensation, but will be compensated at replacement cost for unharvested crops, productive trees, and other assets or improvements they have established on the land they use.

In harmony with the provisions under the Constitution, if during project planning, it is found that any person's access to lands, water or other natural resources is restricted or encumbered, mitigation measures will be included in the project design. Any persons subjected to unmitigated obstructions or restrictions on access will be eligible for appropriate mitigation assistance through the project.

A draft table for recording the valuation of affected assets is at Annex 1.

6.3.7 Implementation Process

To ensure fairness, a time-bound implementation schedule of all activities relating to land acquisition and payment of compensation will be included in the RP. Payment of compensation should be completed at least one month prior to land acquisition to give the affected person time to adjust. If there is a delay of one year or more between land or asset valuation and payment of compensation, compensation rates will be reviewed and adjusted if necessary for inflation or other cost factors. If the transaction is agreed but there is a justifiable delay in settlement, for example because it is difficult to locate an owner, or because the shares in communal land need to be determined, the compensation amount may be held in a Government escrow account for disbursement as soon as practicable. Any interest accrued on the sum will be paid to, or apportioned amongst the legitimate claimants. This permits project work to proceed without disadvantage to the owner(s).

6.3.8 Funding Arrangements

NDRD will bear responsibility for meeting the costs associated with land acquisition. Any RPs prepared in accordance with this RPF require a budget with estimated costs for all aspects of RP implementation. A draft format is at Annex 1. All persons adversely affected by land acquisition are entitled to compensation or other appropriate mitigation measures. While the process of making an inventory of affected land and assets should identify all affected persons, if there has been a mistake or an omission, persons who had a rightful claim at the time of commencement of the census survey but who are identified after resettlement planning are entitled to compensation even if insufficient mitigation funds have initially been allocated. To meet this and any other unanticipated costs that may arise, the RP budget will include a contingency provision of 10 percent of estimated total costs.

Compensation rates included in the RP will provide the basis for calculating compensation amounts due. Compensation will be paid in full to the affected person or persons losing land or other assets

or income. No deductions from compensation will occur for any reason. The RP will put in place transparent procedures for the flow of compensation funds, from NDRD to the affected persons, and for witnessing and recording of the transactions.

6.3.9 Consultation and Disclosure Arrangements

A complete framework for identification of stakeholders, consultation and participation on all aspects of the project and downstream investments is in Section 9 below.

The RP will require a media release about projects for the general public, and for pre-project consultation with communities in the impact area of projects. Any affected persons will be consulted directly regarding proposed land acquisition and other arrangements. The results of consultations will be summarized and included in the census of affected persons and inventory of affected assets. A draft table for recording the nature of impacts, who may claim, and the basis for valuation is at Annex 1. NDRD will disclose the RP in draft and final stages to the affected persons and the general public in the project area both on its website, and in hard copy in a language and location accessible to them. In this and any future projects undertaken in collaboration with the Bank, disclosure of the draft RP will be undertaken at least one month prior to Bank review. Disclosure of the final RP will occur following Bank acceptance.

6.3.10 Grievance Procedures

Grievance procedures that will apply to the overall project are described in Section 10 below. Projects under the Master Plans will be designed to minimize needs for private land so that major grievances are not anticipated. However, to ensure that affected persons have avenues for raising complaints relating to land acquisition, compensation payment, construction-related damages, or other aspects of project implementation, a multi-step grievance procedure will be established in the RP through a process of negotiation and mediation, with procedure to review and appeal if necessary in accordance with provisions under FSM law. Elements of the grievance procedure are fully described in Section 10. In summary, they comprise:

1. An initial stage within the local village or Municipality, in which any person aggrieved by any aspect of the land acquisition process can lodge an oral or written grievance to the NDRD's local representative.
2. Stage 2, if the aggrieved person is not satisfied with the outcome of initial stage consideration, or if local level review is unable to reach a proposed solution, the aggrieved person can refer the issue to a Grievance Committee established by NDRD.
3. Stage 3, if the aggrieved person is still dissatisfied following review by the Grievance Committee, the case may be referred to legal proceedings in accordance with FSM laws and procedures.

NDRD will keep a record of all complaints referred to the grievance committee, including a description of issues raised and the outcome of the review process. This will ensure consistency in the response to complaints so that the process is, and is seen to be fair. The process will also be available for receiving and resolving any complaints about construction or other project impacts during implementation.

6.4 Equitable Access to Services or Facilities

Master Planning will involve prioritization of investments. The spread of investment amongst States and islands will require vigilance to ensure fair distribution and to avoid induced migration to areas that have benefitted disproportionately. Planning will address social and economic inequity and vulnerability that could frustrate equitable access to project benefits.

Prima facie, factors in the FSM contributing to vulnerability in relation to this project are:

- Remoteness, resulting in relatively poor infrastructure and services
- Distance from transmission and distribution infrastructure, resulting in lack of access to electricity service
- Low status due to gender or social position, which could result in social invisibility unless consciously mitigated against in consultations and planning
- Low and seasonal cash incomes, rendering poor households less able to afford upfront connection costs, appliances and monthly electricity bills
- Lack of access to capital and other inputs required to invest in productive uses of power
- Lack of education or awareness of how to use electricity safely and productively.

These and any other issues emerging from consultations will be taken into account in planning and prioritizing downstream projects. The Consultation Plan (see Section 9) contains measures to ensure effective information disclosure and consultation.

6.5 Social Conflict

It is recognized that earlier and often unrelated animosities can attach themselves to development projects in an effort to level old scores. NDRD will manage this risk by ensuring transparency, consultation and participation so that no project proceeds without broad community consensus. This tends to mute unreasonable or unrelated opposition. A fair and transparent compensation process through resettlement planning will assist to ensure that any potential for conflict is addressed. Measures to ensure general community benefit will also tend to reduce the potential for conflict, and are discussed in Section 6.7.

6.6 Impacts on Income Equity, Employment, Working Conditions or Economic Opportunity

Though the project will not in itself cultivate emergence of income inequalities, it is acknowledged that wealthier and better educated individuals are generally better able to secure employment, develop business opportunities and afford more appliances and power that improve standards of living and daily amenity than the poorer segments of the community. State Energy Master Plans will therefore include efforts to complement and support local socio-economic development plans and programs, including those of other donors, to optimize benefits for the weaker.

Under the Master Plans, contracts for downstream project implementation will adopt ILO labor standards to avoid adverse impacts on employment or business conditions, including employment equity and public health and safety provisos. Projects will also require consideration of how less advantaged or severely impacted members of affected communities could be trained or employed

to participate on downstream projects at design, delivery and implementation stages. This will mitigate the tendency for the weaker members of communities to benefit less from future energy projects.

6.7 Identification of Opportunity to Benefit from the Project

In addition to supporting local development initiatives, this project and Master Planning processes will embrace the concept that all projects should be viewed as an inclusive development opportunity, and consciously plan for general community benefit, for example in ensuring that public facilities are assured of reliable access to electricity, or ensuring power supply to an area where craft, commercial or light industrial activities could be established that would provide employment opportunities for host community members.

Members of affected communities will receive priority consideration for suitable employment on, and supply of goods and services to the projects during all phases.

Master Plans will ensure that the communities that host future projects will also benefit from their deliverables; for example, a non-electrified community that hosts a transmission and distribution system should itself receive electricity from the project.

Projects will be required to be delivered in a manner that respects the culture and mores of the local people, and contractors will be bound by this requirement.

7 Social Assessment During Project Implementation: Scope and Arrangements

The social assessment in this document provides country context and indicates where further consultation and survey-based research is needed. During project implementation, the Master Plan consultant will generate State-specific Social Assessments to highlight local opportunities and issues that will inform Energy Master Plans and future project design.

Methods should include:

- Review of the 2010 Census results as they come to hand; any other relevant secondary data
- Preparation and implementation of a State-specific Stakeholder Consultation Plan¹¹
- Key Informant interviews and meetings with institutional stakeholders, separately or together
- Consultation with industrial and commercial energy user groups
- Focus group meetings with relevant civil society organizations in each State
- Community meetings in prospective project sites, ensuring formats that encourage participation of women, youth, occupational group leaders (farmers, fishers, foresters, business owners) as well as community leaders
- With technical and environmental team members, development of a strategy to mainstream findings into the project design planning processes under the Master Plan.

The output from the State Social Assessments will be reports including:

- Socioeconomic information for prospective project sites; population distribution and demography with particular reference to employment and incomes, poverty and vulnerability including any IP issues that are not addressed in environmental and resettlement planning
- Report from consultations including:
 - Discussion of State and local development aspirations, especially those with energy inputs (health, education, communications, commerce and industry etc.)
 - Constraints to achievement of development aspirations
 - Present patterns of energy use and costs by fuel and sector – household, commercial, industrial, government, with particular attention to the type and cost of lighting fuel for households
 - Gender aspects of energy planning:
 - Energy uses and costs
 - Health impacts of fuel use
 - Energy needs, including household use and domestic enterprises
 - Division of household labor
 - Time use – men, women, children, especially fetching fuel wood and water
 - Reasons for non-connection to existing power grids – distance, cost, dwelling/premises unsuitable for connection etc.

¹¹ Consultations at all levels will be integrated with the program of consultation on project plans, including the relevant safeguards instruments – see Section 9, Public Consultation and Information Disclosure.

- Assessment of willingness and ability to pay for electricity especially in the household sector
- Consumer awareness-raising needs, especially in relation to safe, efficient and productive uses of power
- Availability of energy project-critical inputs – land and other assets, labor, skills, training needs
- Conclusions and recommendations for the State Master Plans, including impact monitoring indicators and evaluation criteria.

8 Institutional Arrangements and Responsibilities

The Energy Division is ultimately responsible for implementation of the safeguards instruments as the Implementing Agency. The Energy Division has only one staff member, the Assistant Secretary, who will be the project coordinator and focal point. This person will be supported by the AMU in the role of a technical committee, and four consultants. There is currently no capacity for safeguards within the Energy Division, therefore one of the four consultants will be a safeguards specialist, and will assist the IA to implement and monitor the safeguards requirements of the project. Key tasks will be to: conduct training on World Bank safeguards policies and the EMP and ESMF with the IA and AMU, integrate the EMP and ESMF requirements into the Project Implementation Manual; integrate EMP and ESMF into TOR and contracts for all suppliers and consultants, review and comment on bid responses to TOR, review and comment on the safeguards components of the Master Planning process (including any ESIA or RPs prepared), assist with consultation strategies, and otherwise assisting the IA to implement and supervise actions under the EMP and ESMF.

There are no environmental or social specialists in the state utilities and only one, YSPSC, has any form of formalized standard operating procedures that could be further developed into a format for the management of impacts from plant and network operations. Managers and supervisors will need training in order to implement the EMP and ESMF.

The State EPAs do not have many staff, and often require the support of the Division of Environment and Pacific agencies such as SPREP¹² to review complex or large EIA. Staff should be invited to training and capacity building opportunities, and be engaged in consultation for this project.

The States take the lead role in ensuring that development is avoided in vulnerable areas and ensuring critical natural systems are protected. Although there is still much to be done, most of the States have made initial efforts to guide sustainable development through the creation of: land use plans; coastal zone plans; environmental impact assessment acts, environmental impact regulations (including earthworks regulations and, in Pohnpei, air quality regulations) and other relevant legislations and regulations¹³. NDRD will ensure that back-to-back arrangements are made with the States for assuming responsibility for implementation of Environmental Management and/or Resettlement Plans for projects in their jurisdictions. A suitably qualified NGO could be engaged to lead the required survey, consultation, mediation, monitoring and reporting tasks on behalf of the government.

The World Bank task team, including safeguards specialists, will make twice-yearly supervision missions. There will be opportunities for capacity building, training and other support and mentoring tasks during the missions to support the IA and utilities to implement and supervise the EMP and ESMF.

¹² Secretariat of the Pacific Regional Environment Programme

¹³ Federated States of Micronesia Agriculture Policy 2012 – 2016, Department of Resources and Development 2011.

9 Public Consultation and Information Disclosure

Consultation and information disclosure is key to securing public understanding of benefits of projects, and to acceptability of project impacts. NDRD will identify stakeholders, and the media and fora that are most accessible and acceptable to them in local context.

9.1 Methods of communication

It is expected that methods of information dissemination and consultation will include:

- Broadcast and print media releases of project information for the general public
- Written project information for affected communities and individuals that explains the project, applicable safeguards documents and how to obtain any additional information
- Key informant interviews with officials and community leaders
- Focus group meetings with consumer, occupational and civil society groups
- Public meetings in affected communities in fora that enable all segments of the community, including youth, women, aged, poor or otherwise vulnerable individuals to participate
- Socioeconomic baseline surveys of areas where impacts are expected to be substantial
- Household interviews with affected individuals to complete a census and inventory of affected assets
- Ad hoc courtesy meetings to inform community leaders of project developments as required
- Monitoring and evaluation meetings with community leaders and any other interested stakeholders.

The medium of communication will be a language that meets the requirement of comprehensibility to the target population. It is expected that for formal and technical documents, English as the sole official language will be appropriate. Media releases may also be translated into the appropriate local language for local radio and press.

Materials prepared for presentation at community meetings will be in simple language and include ample visual content. At public meetings, take-home copies of any Project Information Bulletins that have been released will be available, along with consultation copies of the Environmental and Social Management Framework and any subsequently developed Plans for ready reference. Attendees should understand the legal framework within which the project will operate, their rights, and how to make comments or register complaints about any project. The presenter will make sure that there is ample discussion time, and that the format is conducive to participation. S/he will keep records of attendance, comments and any resolutions or agreements adopted at meetings of all kinds. These will be promptly fed back to technical team members as appropriate, reflected in project design and in reports on consultations that will form part of the regular project reporting structure.

9.2 Stakeholders

Stakeholder identification, consultation and participation will be an important input to State and National Energy Master Planning, and in planning, implementation and monitoring of downstream projects.

9.2.1 Institutional stakeholders

Stakeholders in the project are the institutional actors – the Energy Division of the NDRD as Implementing Agency for the GoFSM and the four State Utilities. There are several agencies that have been developed to oversee and coordinate activities in the energy sector, and they will be key stakeholders in the process:

- National Energy Workgroup (NEW) has been established to oversee and coordinate activities in the energy sector, especially the implementation of NEP. NEW comprises members from key Departments in the National Government¹⁴,
- Regional Energy Committee (REC)¹⁵,
- Four State Energy Workgroups (SEW)¹⁶. SEWs are responsible for: (i) overseeing and coordinating all state efforts in the energy sector; (ii) implementing the State Energy Action Plans that are in line with the NEP; (iii) advising the state government on energy issues; and (iv) assisting in developing and designing specific and technically-sound Energy Efficiency and Renewable Energy projects for development partner consideration, funding, and implementation.

Other FSM Government and State agencies whose remit is energy-dependent or energy-enhanced and agencies involved with achievement of most Millennium Development Goals are also stakeholders: the Departments responsible for women's and youth development; Division of Environment and Sustainable Development, Office of Environment and Emergency Management, Health and Social Affairs; and Education at national level, commercial operational arms of Departments such as the FSM Telecommunications Corporation, and the equivalent agencies at State level (including the four State EPA).

9.2.2 Local Government

Under the State Governments, which have their individual executive, legislative and judicial branches, municipalities govern at the village level and are important stakeholders. States raise income through excise and other taxes and devolve some of their budget to Municipalities for maintenance of local infrastructure and services. Municipalities also have limited powers to raise taxes or levies on items specified in their individual Constitutions and Civil Codes. Projects will seek to complement local development plans funded by these means.

¹⁴ Energy Division, Department of Resources & Development; OEEM; Office of Statistics, Budget & Economic Management & Compact Management; Department of Transportation, Communication and Infrastructure, a State Representative coming out of each State Energy Workgroup, a Representative from the Association of Micronesian Utilities (AMU), a Representative from the College of Micronesia and the Government Energy Advisor(s).

¹⁵ REC is the body under the Micronesian Chief Executives Council consisting of energy sector representatives from Micronesia.

¹⁶ SEWs comprise three or four people: one from the state government, one from the utility, the state energy officer (this position only exists in Pohnpei) or an energy expert, and one from private sector or NGO.

The formal authority of traditional village leadership has weakened with increased contact with the outside world, but it is still generally respected and relevant in local life and in discussion and decision making about local issues. Some local leaders also serve on Municipalities. In Yap, two tribal councils perform functions that concern tradition and custom. In all project areas, customary leaders will play an important part in consultations.

9.2.3 Civil Society

Civil society organizations working in the health, socio-economic development and environment sectors may have a pivotal role in assisting consumers to make socially and economically productive and efficient uses of power. The umbrella Federated States of Micronesia Alliance of Non-Governmental Organizations (FANGO) will be a useful point of contact with these stakeholders.

9.2.4 Consumers

As the household sector is the largest electricity consumer (39% of the total), existing and prospective consumers in the household sector are critically important to the project, and will be consulted through village or consumer advocacy groups. Some villages maintain the traditional separation of the sexes at meetings. Village-level consultations will ensure that women's groups participate in a culturally appropriate setting.

Commercial and industrial energy users are important stakeholders as potential engines for employment and economic growth. They will be consulted through industry or sector organizations and as members of the general public. Local level occupational groups such as farmers, fishers and foresters will also be consulted about energy issues and needs.

9.2.5 Consultation and Information Disclosure During Project Preparation

Public and stakeholder consultation and disclosure of the EMP was undertaken in each state, led by the IA and state utilities.

Key stakeholders were invited to each meeting. The meetings provided opportunity for questions to be asked and answered.

The draft EMP was disclosed in hard copy at State Utility offices on March 10th in Yap, Chuuk and Kosrae and on March 12, 2014 in Pohnpei and the office of the Energy Division. The draft EMP was disclosed in soft copy on the Chuuk utility website. The final EMP has been disclosed on the World Bank Infoshop on March 20, 2014

Methods, attendance and results are provided in Annex 3, 4 5 and 6.

9.2.6 Consultation and Participation Matrix During Project Implementation

The matrix below provides an outline for stakeholder consultation to be undertaken or arranged by the NDRD and the four state Utilities. It integrates safeguards considerations into the wider process of stakeholder consultation that will inform Energy Master Planning, and foreshadows the process of information and consultation that will take place in the context of downstream projects under the Master Plans. The matrix will be amended as appropriate for local context and to respond as appropriate to findings as consultations progress.

Stakeholder	Content	Participants	Method and Responsibility	Timing	Outcome
1. Institutional Stakeholders	Energy Master Plans, program coordination; downstream project design and safeguards instruments	NDRD, State Energy Departments, Departments of Resources and Development; Transportation, Communication and Infrastructure; Health and Social Affairs; Education, National Energy Workgroup and State Energy Workgroups	Scheduled inter-agency meetings coordinated by NDRD	Regularly (at least quarterly) through life of program	Whole of government overview and coordination of Master Plans and safeguards principles in Plans/projects to improve efficiency and optimize benefits
2. Development Partners of the GoFSM	As above	World Bank, ADB, European Union, UNDP, JICA, EIB, SPC, PIFS as appropriate	NDRD to organize exchange of information and coordination meetings on Master Plans and downstream investments	During Master Planning, investment in and implementation of downstream projects as appropriate	Single coherent approach to safeguards in sub-projects to improve benefits and efficiencies and to reduce administrative burden for GoFSM
3. Commercial and industrial energy sector	Coordination with the wider energy sector	Industry associations, Vital, PPA;	NDRD and Utilities to take account of all energy uses and costs in Master Planning	During Master Planning	Master Plans reflect a whole-of-sector perspective

Stakeholder	Content	Participants	Method and Responsibility	Timing	Outcome
4. Industrial and commercial consumer groups	Outline Master Plan; forecast of energy needs/provision; safeguards principles	Existing and potential industrial and commercial consumer advocacy groups	NDRD to inform of public consultations;	During Master Planning	Energy needs of sectors that may contribute to economic development are taken into account in planning; industrial and commercial users are made aware of safeguards principles
5. Local leaders in prospective project areas	Outline Master Plan; potential project benefits and impacts in the area; provisions under the ESMF and the RPF; how and where to consult them and comment	Municipality officials, village leaders, other respected persons in the community, e.g. teacher, health officer, relevant NGO representatives	NDRD/Utilities to arrange consultations with local leaders	During Master Planning and downstream project identification and planning	Community representatives can give informed comment on Master Plan and project design options.
6. Civil Society Organizations	Environmental and social risk identification and management; safeguards instruments	FANGO and /or individual members as appropriate, especially environmental, women's, youth and economic development NGOs	NDRD to notify public consultations; participants contribute to consultations, implementation and monitoring of impacts as per Frameworks/ Plans as appropriate	During project identification, planning, implementation and at their option during monitoring	Relevant expertise captured in project design; independence in administration and monitoring of safeguards if applicable
7. Communities that may be affected by downstream project site selection and civil works ¹⁷	As above	Men, women, youth, occupational and other groups in communities in project impact areas	NDRD/Utilities to arrange community meeting and provide copies of the PIB; maps sketches, site and equipment photographs if available to use as visual aids	During downstream project identification, planning, implementation of safeguards	Broad community support for downstream projects is obtained. Any potentially affected person knows where they can lodge comments and seek redress for any involuntary

¹⁷ Persons affected by involuntary impacts on land or livelihoods will also be engaged in consultation of resettlement measures under the RPF or subsequent Plan

Stakeholder	Content	Participants	Method and Responsibility	Timing	Outcome
				measures and civil works and at their option during monitoring	personal loss, or for damage to the environment. Mitigation/compensation measures are implemented
8. Directly affected households and individuals	Proposed project, benefits, involuntary impacts and their avoidance or mitigation; resettlement planning if unavoidable	NDRD/Utilities or their appointed representatives, APs	Household survey for projects with greater impacts, census of affected persons and inventory of affected assets; resettlement planning and implementation as per RPF/RP	From project identification to implementation and impact monitoring	Unavoidable adverse impacts are minimized and if necessary compensated; livelihoods of APs are restored or improved
9. Contractors	Obligations under safeguards instruments; occupational health and safety; briefing on AIDS awareness and cultural sensitivity if non-local contractors are used. Feedback received from consumers and members of the general public.	Contracting firm, managers and employees	NDRD/Utilities to include safeguards provisos as part of contract and brief contractors; Contractor to report on safeguards incidents and complaints received as part of Contractors' standard activity reports.	Prior to commencement of civil works and throughout implementation until sign-off.	Client's consumer relations are maintained; positive and negative feedback; steps taken or recommended as a result; routine reports to NDRD/Utility and development partners
10. General public	Information about development of Master Plans, and how to make submissions. Project Information Bulletins informing about downstream projects, likely benefits and impacts, safeguards instruments, how and where to consult them and comment.	All members of the public at their option	NDRD to release Project Information Bulletins (PIB) to local radio and press in each State.	During Master Planning, downstream project identification, planning	General public is aware of Master Plans and downstream projects; public acceptability and cooperation secured; complaints mechanism is known.

Stakeholder	Content	Participants	Method and Responsibility	Timing	Outcome
	Project progress and public safety notifications; success stories, lessons learned		NDRD/Utilities' information release on conduct and results of the project	During project implementation and monitoring	General public is informed; projects and processes enjoy public acceptability; successes celebrated.

10 Grievance Redress Mechanism

Grievances could arise in relation to impacts of project elements with physical impacts in the immediate project and downstream projects based on the Energy Master Plans. These could stem from environmental damage, disputes about ownership or loss of land, assets or elements of livelihood, construction impacts or accidents. The process described below applies to the present project, and in accordance with this ESMF and local law will be mainstreamed into Master Planning processes for future projects in the sector.

Irrespective of cause, the grievance mechanism will address affected people's concerns and complaints promptly, using a transparent process that is responsive, culturally appropriate, and readily accessible to all segments of the affected communities at no cost and without retribution. The mechanisms will be described in all project and environmental management or resettlement plans, and information about how to register a complaint will be given in all public communications and consultations about the project. The grievance mechanism will comprise a three-stage process:

1. An initial stage within the local village or Municipality, in which any person aggrieved by any aspect of the land acquisition or other project process can lodge an oral or written grievance with the NDRD's local representative, directly or through a village leader. Complainants will be heard on neutral territory in a culturally congenial manner, and will be encouraged to bring a relative or friend as a supporter if they wish. If the complaint cannot be resolved within 30 days of receipt, it advances to the second step of the process.
2. Stage 2: if the aggrieved person is not satisfied with the outcome of initial stage consideration, or if local level review is unable to reach a proposed solution, the aggrieved person can refer the issue to a Grievance Committee established by NDRD. The grievance committee, which is chaired by the head of NDRD and includes representatives not directly affiliated with NDRD reviews issues raised in the initial complaint and any actions for resolution suggested at the lower level and makes recommendations for resolution within 30 days.
3. Stage 3: if the aggrieved person is still dissatisfied following review by the grievance committee, the case may be referred to legal proceedings in accordance with FSM laws and procedures, generally the District Court, within 120 days of notice of the grievance being notified. If the matter remains unresolved by the District Court, the complainant may appeal to the High Court, and ultimately to the national Supreme Court.

All complaints received will be recorded and sent through the reporting chain to NDRD, where the IA will consolidate complaints on resettlement and any other issues into a matrix recording the complainant's details, date, cause of complaint, steps taken to resolve the issue, outcome and date, any further steps to be taken, date of ultimate resolution and number of days elapsed from first notification to final resolution. The matrix will be updated and included as part of the Project record, and of the regular reports to the Bank. Analysis of causes of complaints will be undertaken during each downstream project to inform improvements in future project design as appropriate.

11 Monitoring and Reporting

The IA will establish monitoring and reporting systems for the project as a whole, for the development of each State and National Energy Master Plan, and for the planning and implementation of downstream projects.

Monitoring tasks for Component 1 are detailed in the EMP, including responsibilities, schedules and budgets.

The State Social Assessments under Component 2 will identify environmental and socioeconomic indicators to be integrated into projects under the Master Plans, and institutional arrangements for monitoring and reporting on implementation and impacts. The IA and States may elect to contract a reputable local NGO to assist. Monitoring should be a participatory process, with stakeholder input in both the identification of indicators, and in follow-up reporting if they are able and willing. The results of State level monitoring and evaluation should be systematically fed back to inform the GoFSM Energy Master Plan and the design of downstream projects.

Reporting on Safeguards activities under Component 1 (EMP) and Component 2 (ESMF) will be hard-wired into the regular, six monthly, reporting to GoFSM and the Bank. The safeguards consultant will assist the IA to undertake the monitoring and reporting functions. These functions should be mainstreamed into planning of future projects under the Master Plan

12 Budget

The tasks requiring budget are listed below:

Table 2 Budget to implement the EMSF

Tasks	Budget Estimate Total over 4 years (\$US)
Engagement of part time safeguards specialist consultant ¹⁸	\$60,000
Safeguards training workshops	\$3,000
Monitoring of social indicators	\$3,000
Consultation during project implementation	\$4,000
Total:	\$70,000

Other aspects are integrated into the budgets of Component 1 and Component 2.

¹⁸ Covered under the technical advisory budget of the project.

Annex 1: Resettlement Planning Tools

Definitions

The bases of eligibility for compensation, and the manner in which compensation is calculated require clarity. The Bank definitions below set out these bases.

“Displaced persons” in OP 4.12 refers to all the people who, on account of the activities listed above, would have their (1) standard of living adversely affected ; or (2) right, title, interest in any house, land (including premises, agricultural and grazing land) or any other fixed or movable asset acquired or possessed temporarily or permanently; (3) access to productive assets adversely affected, temporarily or permanently; or (4) business, occupation, work or place of residence or habitat adversely affected; and “displaced person” means any of the displaced persons. The term incorporates all potential categories of persons affected by land acquisition and associated impacts; all of those adversely affected are considered “displaced” under this definition regardless of whether any relocation is necessary.

"Replacement cost" is defined as follows: For agricultural land, it is the pre-project or pre-displacement, whichever is higher, market value of land of equal productive potential or use located in the vicinity of the affected land, plus the cost of preparing the land to levels similar to those of the affected land, plus the cost of any registration and transfer taxes. For land in urban areas, it is the pre-displacement market value of land of equal size and use, with similar or improved public infrastructure facilities and services and located in the vicinity of the affected land, plus the cost of any registration and transfer taxes. For houses and other structures, it is the market cost of the materials to build a replacement structure with an area and quality similar to or better than those of the affected structure, or to repair a partially affected structure, plus the cost of transporting building materials to the construction site, plus the cost of any labor and contractors' fees, plus the cost of any registration and transfer taxes. In determining the replacement cost, depreciation of the asset and the value of salvage materials are not taken into account, nor is the value of benefits to be derived from the project deducted from the valuation of an affected asset. Where domestic law does not meet the standard of compensation at full replacement cost, compensation under domestic law is supplemented by additional measures so as to meet the replacement cost standard. Such additional assistance is distinct from resettlement measures to be provided under other clauses in OP 4.12, Para. 6.

Which Resettlement Instrument?

Use the following checklist to determine if land¹⁹ or assets will be involuntarily impacted, and if so, which safeguard tool to use:

1	If land is required, is the location of the required land known?	No	Refer to the Resettlement Policy Framework
		Yes	Proceed to next screening question
2	Is the land required under Government lease?	Yes	Ascertain that there is no dispute or informal use of the land or land based assets, and proceed to next screening question. If there are disputes, proceed to next screening question.
		No	Proceed to next screening question
3	Is the required land under a registered title?	Yes	Ascertain that the title is not disputed; proceed through steps below.
		No	Identify all persons (men and women) with rights to occupy or use the land and any assets on it and proceed through steps below.
4	Will there be tree trimming, alternations to buildings (demolition or construction), removal of vegetation, etc. due to installation of project infrastructure?	Yes	Note and go to question 5
		No	Go to question 5
5	Are the land owners/users willing to donate the land and/or assets voluntarily for the public good?	Yes	Prepare voluntary land donation documents.
		No	Proceed to identify required form of resettlement plan (Questions 6 and 7).
6	Will physical displacement of affected persons ²⁰ be required?	Yes	Prepare a Resettlement Action Plan in accordance with the RPF.
		No	Determine the scope and severity of impacts.
7	Will more than 200 people be affected, and/or will affected persons lose more than 10% of their livelihood assets?	Yes	Prepare a Resettlement Action Plan in accordance with the RPF.
		No	Prepare an Abbreviated Resettlement Plan in accordance with the RPF.

¹⁹ 'Land' includes the ground and any assets on it, such as structures, trees or crops.

²⁰ An 'affected person' is anyone, irrespective of gender, titled, customary or informal land ownership or access status, who involuntarily loses land or any element of their livelihood, such as structures, trees, crops or income due to a project.

Content of Census Surveys and Asset Inventories

The tables in the follow sections provide models that can be followed or adapted to summarize results from census surveys of Affected Persons and consultations with key informants to determine affected assets. The census survey that provides inputs will be designed for the specific project circumstances. For both an ARAP and a full RAP it will typically include such data as:

- Name of Head of Household
- Name of Spouse of Head of Household
- Location and contact details for household
- Occupation of Head of Household
- Occupation of Spouse of Head of Household
- Number of normally resident household members
- Language most commonly used in the household
- Media accessed by the household – radio, press, TV, internet
- Approximate annual household income (confidential, and used only to assess vulnerability)
- Number of household members that are aged or have some disability
- Area of land owned or controlled by the household
- Area of project affected land
- Legal description or status of project affected land owned or controlled by the household
- Current use of project affected land
- Land-based project-affected assets
- Other sources of livelihood affected by the project.

Additional data that may be required for a full RAP could include such information as:

- Area and style of house or other structure – permanent materials, semi-permanent, non-permanent,
- Water and sanitation facilities
- Distance of the house from nearest:
 - Elementary school
 - Secondary school
 - Health facility
 - Public transport
 - Market
- Social organizations to which household members belong (church, youth group, women’s group, sports group etc.).

Household or census surveys should be kept brief and confidential; as a guideline they should not take more than 15 minutes to administer. The data gathered should be relevant to the project, gathered only for project purposes. Respondents will be informed of the purpose and use of the information they give, and assured of confidentiality.

Entitlements Matrix

Category of Impact	Subcategory of Impact	Eligible Persons	Compensation or Mitigation Principle	Compensation Rates or Standards for Assistance
Loss of agricultural land	Private agricultural land	Registered or acknowledged land owner	Compensation at replacement cost	RP includes compensation rates by category
	Private pasture	Registered or acknowledged land owner	Compensation at replacement cost	Compensation rates in RP
	Leaseholder on private land	Acknowledged land user	No land compensation; transitional assistance for disruption of livelihood	Typically allowance is calculated with reference to remaining term of lease
	Tenant on communal land	Acknowledged user of communal land	Other arrangements for communal land provided, or transitional assistance for disruption of livelihood	RP specifies means of assistance
	Agricultural encroachment on public land	User	No land compensation; transitional assistance for disruption of livelihood	RP specifies means of assistance
Loss of production	Unharvested crops	Cultivator	Compensation for loss of standing crop	Compensation rates by category
	Fruit/nut trees	Cultivator	Compensation for estimated future production value	Compensation rates by category
	Trees: timber or other use	Cultivator	Compensation for estimated future production value	Compensation rates by category
Loss of structures, fixed assets	Permanent residence	Owner	Compensation at replacement cost	Compensation rates by category
	Well	Owner	Compensation at replacement cost	Compensation rates by category
	Wall or fence	Owner	Compensation at replacement cost	Compensation rates by category
	Outbuildings	Owner	Compensation at replacement cost	Compensation rates by category
	Other	Owner	Compensation at replacement cost	To be determined on case-by-case basis
	Permanent business structure	Owner	Compensation at replacement cost	Compensation rates by category
	Temporary or mobile structure	Owner	Moving assistance	To be determined on case-by-case basis
	Wall or fence	Owner	Compensation at replacement cost	Compensation rates by category
	Other fixed assets for business	Owner	Compensation at replacement cost	Compensation rates by category
	Community facilities or infrastructure	Community or settlement	Compensation at replacement cost, or full restoration	Determined on case-by-case basis
Loss of access to resources	Water	User or community	Restoration of access or provision of equivalent alternative	Determined on case-by-case basis
	Grazing area	User or community	Restoration of access or provision of equivalent alternative	Determined on case-by-case basis
	Fuel or fodder	User or community	Restoration of access or provision of equivalent alternative	Determined on case-by-case basis

Summary Census of Affected Persons

District /Village	Land Acquisition		Significantly Affected by Land Acquisition		Housing Affected		Business Affected		Vulnerable Persons		Other
	Owners HH: People:	Users HH: People	Owners HH: People:	Users HH: People:	Partially Affected Owner HH: People: Tenant HH: People:	Require Relocation Owner HH: People: Tenant HH: People:	Owners	Workers	Category	Category	
(name)											
Total											
TOTAL											

Summary Inventory of Affected Assets

Category	Subcategory	Volume/Unit	Unit Cost	Local Currency	USD
Land Compensation	Private land – residential				
	Private land – agricultural				
	Private land – commercial				
	Private land – other				
	Community land				
Productive Assets Compensation	Crop (Specify)				
	Crop (Specify)				
	Crop (Specify)				
	Crop (Specify)				
	Tree – fruit				
	Tree – nut				
	Tree- other				
	Other productive assets				
Residential Structures Compensation	Private housing				
	Community housing				
	Water facilities				
	Ancillary structures				
	Walls, fences				
	Other				
Business Structures Compensation	Shops, food services				
	Other services				
	Other businesses				

Summary Schedule of Affected Land

District, Village	Total Land Acquisition (hectares)	Private Land Acquisition	Number of Plots Affected	Community Land Acquisition	Number of Plots Affected	Other Land Acquisition	Number of Plots Affected
(Name)		Residential		Community Use		(Specify purpose)	
		Agricultural		Residential		(specify purpose)	
		Commercial		Agricultural			
		Other		Other			
		TOTAL		TOTAL		TOTAL	

Summary Schedule of Affected Agricultural Products

District, Village	Total Agricultural Land Acquired	Number of Plots Affected	Plots Significantly Affected (>10%)	Crops Affected		Productive Trees Affected		Other Productive Losses	
				Type	Extent of Loss	Type	Number Affected	Type	Extent of Loss
(Name)				Taro		Nut Tree		(Specify)	
				Rice		Fruit Tree		(Specify)	
				(Specify)		Timber Tree		(Specify)	
				(Specify)					
				Other					

Annex 2 Terms of Reference for Safeguards in the Master Plan

Safeguards clauses for the Terms of Reference for the Master Plan

The Terms of Reference for the Master Plan should include the following clauses as a minimum:

Aims

To produce Energy Master Plans with safeguards integrated into the planning process and outputs, and safeguards analysis and outcomes consistent with World Bank policies and FSM policies and legislation.

Scope

1. To provide environmental and social context and impact analysis to the Master Planning process as part of the technical planning team.
2. To evaluate the proposed projects for safeguards issues and propose suitable mitigation (including avoidance, management, and / or compensation measures) for project design.
3. To contribute to the project prioritization process, with sound rationale regarding sensitivity of environmental and social receptors and risks and benefits of the various technologies / projects.
4. Prepare tools, guidance and other materials for the Energy Master Plans. These should guide and inform the development of future projects, so that safeguards are integrated into detailed design.
5. Prepare safeguards documents (ESIA, EMP, RP etc.) for priority projects identified during the ESDP project.

Methods

1. All analysis, outputs and outcomes shall be consistent with the safeguard policies of the World Bank, the Environmental and Social Management Framework of the FSM Energy Sector Development Project and the National and State policies and legislation.
2. Review the National and State policies, legislation and regulations relating to environmental impact, land acquisition, resettlement, natural resources, sustainable development and waste (and any other relating to the potential projects in the Energy Plans). This includes consultation with the Division of Environment and Emergency Management, and the State EPA.
3. Conduct other desk top research and review of secondary data as appropriate to describe the existing environmental context in each of the four states. Note in particular sensitive receptors, sites of national or international significance, and current threats and pressures to natural habitats and other receptors.
4. Social assessment – Ann
5. Provide a screen of environmental and social issues relating to the probable projects (whether policy development, education and awareness, technical advisory or investments), by comparing known or foreseeable typical or expected impacts with the existing environmental and social context. The screening process should identify high risk projects that would not be acceptable for development using the World Bank safeguard policies,

Category A projects²¹, projects that require mitigation and management, and projects that would provide benefits.

6. Work with the rest of the team to priorities projects and prepare the implementation program for the Energy Master Plans.
7. Develop tools and guidance for the Master Plans, so that future projects (developed after the close of the ESDP) incorporate the principles and guidelines of World Bank safeguard policies and the requirements of National and State policies and legislation into the development process.
8. Complete ESIA, EMP and Resettlement Plans for priority projects.
9. For the projects to be 'ready to finance', consultation on the projects and safeguards tools is also required. The Consultant is to support the IA in consultation.

Outputs

1. Environmental context and social assessment
2. Evaluation of energy projects and contribution to the Energy Plans and prioritization of projects.
3. Prepare data and baseline / contextual information, and prepare mitigation and management tools and guidance for the chapters and annexes of the Energy Master Plans.
4. ESIA, EMP and Resettlement Plans, as required, for priority projects (number and type will be confirmed during implementation).
5. Assistance with consultation – summary documents, presentation materials, communications plans, deliver presentations.

Social Assessment:

The consultant will generate State-specific Social Assessments to highlight local opportunities and issues that will inform Energy Master Plans and future project design.

Methods should include:

- Review of the 2010 Census results as they come to hand; any other relevant secondary data
- Preparation and implementation of a State-specific Stakeholder Consultation Plan²²
- Key Informant interviews and meetings with institutional stakeholders, separately or together
- Consultation with industrial and commercial energy user groups
- Focus group meetings with relevant civil society organizations in each State
- Community meetings in prospective project sites, ensuring formats that encourage participation of women, youth, occupational group leaders (farmers, fishers, foresters, business owners) as well as community leaders
- With technical and environmental team members, development of a strategy to mainstream findings into the project design planning processes under the Master Plan.

²¹ Using the World Bank Safeguards Classification Process outlined in OP/BP4.01 Environmental Assessment. The project is currently rated Category B, and

²² Consultations at all levels will be integrated with the program of consultation on project plans, including the relevant safeguards instruments – see Section 9, Public Consultation and Information Disclosure.

The output from the State Social Assessments will be reports including:

- Socioeconomic information for prospective project sites; population distribution and demography with particular reference to employment and incomes, poverty and vulnerability including any IP issues that are not addressed in environmental and resettlement planning
- Report from consultations including:
 - Discussion of State and local development aspirations, especially those with energy inputs (health, education, communications, commerce and industry etc.)
 - Constraints to achievement of development aspirations
 - Present patterns of energy use and costs by fuel and sector – household, commercial, industrial, government, with particular attention to the type and cost of lighting fuel for households
 - Gender aspects of energy planning:
 - Energy uses and costs
 - Health impacts of fuel use
 - Energy needs, including household use and domestic enterprises
 - Division of household labor
 - Time use – men, women, children, especially fetching fuel wood and water
 - Reasons for non-connection to existing power grids – distance, cost, dwelling/premises unsuitable for connection etc.
 - Assessment of willingness and ability to pay for electricity especially in the household sector
 - Consumer awareness-raising needs, especially in relation to safe, efficient and productive uses of power
 - Availability of energy project-critical inputs – land and other assets, labor, skills, training needs
 - Conclusions and recommendations for the State Master Plans, including impact monitoring indicators and evaluation criteria.

Skills required

The consultant is to provide one or more environmental specialist(s) and one or more social specialist(s) with the following skill sets:

1. Working experience in the implementation of World Bank safeguards policies (at least 5 years for the lead consultant).
2. Demonstrated experience working on energy development projects the Pacific (within FSM an advantage), showing an understanding of small to medium scale energy investments in remote locations.
3. Expertise in environmental and social impact assessment (for senior / lead staff: at least 10 years' experience and at least 5 years leading EIA / SIA teams).

For the preparation of ESIA and EMP of priority projects the consultant is expected to provide expertise in relevant, specific areas (such as marine ecology for wave projects, hydrology and dam safety for hydropower projects). Since priority projects will only be identified during project implementation, and so there must be some flexibility with the team members proposed in the bid.

References

Energy Sector Development in the Federated States of Micronesia Environmental and Social Management Framework (copy to be provided, or link to document on line provided)

World Bank Safeguard Policies: [Ext Opmanual - Operational Manual - World Bank](#)

Annex 3 Consultation and Disclosure – Pohnpei

Draft Record of Consultation Meeting –Pohnpei State

Re: World Bank/ FSM Energy Sector Development Project

Venue of Meeting: Governor’s Conference Room

Date: March 12, 2014

Time: 9:000

Participants:

Mr. Kadalino Lorens, Administrator, Pohnpei State Economic Affairs Office

Mr. Hubert Yamada, Assistant Secretary for Energy Division, Department of R&D, National Government

Mr. Joe Saimon, Office of Fisheries and Aquaculture

Mr. Marcelino K. Actouka, General Manager/CEO, PUC

Mr. Joses R. Gallen, General Counsel, PUC

Mr. Peterson Sam, General Manager, FSM Coconut Development Authority and Board of Director, PUC

Mr. Trevayne Esiel, FSM Petroleum Corporation and Board of Director, PUC

Mr. Henry Susaia, Pohnpei State EPA

Mr. Michael Liemen, Chief Magistrate, Sokehs Municipality

Nanita Mirelles, T&I

Record of Meeting:

Mr. Kadalino Lorens, opened the meeting as the Chairman by welcoming everyone in attendance and further expressed his appreciation for everyone for coming to the meeting. He then turn the floor to Mr. Yamada to do his presentation.

Mr. Yamada, presented the overview of the consultation meeting with Pohnpei as a stake holder in the proposed Energy Sector Development Project three components. First Component is to help improve efficiency and reliability of electricity supply in the four states of the FSM which is funded through IDA in the amount of \$9 Million USD. Second Component is the development and preparation of a National and State Energy Master Plan to be funded by IDA with the sum of US\$3.4. Third Component the ESDP is for Technical Assistance and Project Management budgeted for US\$ 1.5. This component will help build the capacity of the Implementing Agency. This is intended for the Energy Division of the National Government and Association of Micronesia Utilities for a centralized data collection.

Mr. Yamada also presented and led the discussion on the draft Environment and Social Management Frame Work (ESMF) and the draft Environmental Management Plan. After his presentation, the floor was open for any question or comments. A question was put on the floor asking if other source becomes available to help Pohnpei Utilities Corporation with the 2MW replacement generators, can Pohnpei divert the use of this grant to other energy project. While this could be considered, depending on the specifics of the project (activity), this could delay the implementation process taking into account environmental and social assessments that would be required.

With respect to the draft EMP and ESMF, there was no expression of great concern from anyone. EPA representative expressed his support for the project in general. It was acknowledged that component 1 was basically to replace existing power generations, while component 2 would

accompany the need to conduct thorough environmental and social reviews during the planning as well as the implementing stages to address potential impact and disturbances, and how to manage or mitigate potential issues. Component 3 of the project hardly has any environmental impact.

It was also noted in the meeting, that Pohnpei will be using the grant to procure generators to replace with the already decapitating generator #7 and #8. The meeting agreed that there will be less environmental issues. Pohnpei will require that any generator that will be procured from the proceed of this project will come with the following prescription: Environmentally Friendly generators with 110% spill containment on board engine fluids and sound attenuated container.

At the conclusion of the meeting, it was the general consensus of the Consultation Meeting to support the project and the draft EMP and ESMF.

Thank you.

Prepared by: PUC _____

Concurred by: Chairman Kadalino Lorens _____

Attachment A

Attachment A

<u>Name</u>	<u>Office</u>
1. Herbert K. Foyt	Fish & Wildlife
2. Adolfo, MARCELINO	PUC, CEO/ADM
3. Jose R. Gallen	PUC, General Counsel
4. Peterson Sam	PUC, Director / COA
5. Trayne Tom	PUC, Director / Fish & Wildlife
6. Michael Leman	State Mun. Govt / Chief Neg
7. Henry Susaia	Partner EPA
8. Nanita Miralles	T & I
9. Joseph Saimon	Fisheries and Aquaculture
10. Karolimo Lotens	Energy Commission Finance

Annex 4 Consultation and Disclosure – Kosrae

FSMEnergy Sector Development ProjectStakeholder Meetings Notes

March 10, 2014, held at the Governor’s conference room from 10am to 12pm.

Meeting objectives:

1. Energy project overview
2. Discussion of environmental / social risks & mitigation
3. Get feedback

Overview

Who is involved:

Division of Energy - Project Implementing Agency

Contact Person: Hubert Yamada, Assistant Secretary, Division of Energy,
huberty08@hotmail.com

State Utilities

Association of Micronesian Utilities / AMU (Technical Steering Committee)

Funded by the World Bank

The World Bank is prepared to fund one of two proposed projects.

Plan A is the proposed ICT fiber project. The bill is still with Congress and they may not act.

Plan B is this proposed FSM energy project, which will run from 2014 – 2018, following World Bank Board approval in June, 2014. The entire grant is \$13.9m, with Kosrae’s share being \$1.58m.

The project components include:

- Addressing most urgent investment needs in each state power utility
- Developing four State Energy Master Plans and a National Energy Master Plan
- Providing technical assistance to build capacity in the Division of Energy and the Association of Micronesian Utilities

Kosrae’s request includes

- Installation of a new diesel generator, 1.2MW capacity.
- Fuel injection services in all generators
- Energy audits at the plant

Risks &Mitigation

Risks	Mitigations
Waste (oil, equipment, etc.)	Hazardous waste separated for recycling, treatment and disposal. Waste recycled where possible, otherwise must be disposed at municipal landfill.
Air emissions from generators	Air quality guidelines from World Bank, Pohnpei EPA, and World Health Organisation to be met.

Health and safety of workers	World Bank health and safety guidelines and local laws to be followed for noise in the workplace, working around electricity, personal protective equipment etc.
Health, safety and wellbeing of neighboring community	Consultation prior to work. Complaints mechanism. Equipment standards for air and noise emissions.

Master Plans

- Build on the National Energy Policy and Energy Action Plans
- Confirm the power sector investments for the next 5 years
- Environmental and social aspects will be integrated into the planning process
- For priority projects: feasibility studies, environmental and social impact assessment and other specific studies will be done to make them 'investment ready'

Potential Impacts and Benefits

- More reliable energy supply
- Lower costs than without the project
- Energy efficiency and awareness of energy wastage will increase
- Reduced use of fossil fuels
- Future investments may:
 - Require land
 - Create waste or emissions to land, water and air
 - Disturb natural habitats (forests, marine, coastal, river)
 - Affect communities (noise, odor, physical cultural resources)

Mitigation:

- Consult with stakeholders to seek least impact design solutions and monitor implementation
- Avoid impacts on private land or resources as far possible – and compensate if impacts are unavoidable
- Avoid or mitigate significant environmental impacts, in particular on natural habitats, forests and physical cultural resources
- Ensure that any complaints are fairly handled
- Build capacity and provide training for energy and environmental sectors

Following the presentation there was an active discussion session.

Fred Skilling explained that if the project goes through the KUA energy production will be more efficient. Currently the plan produces 12.7 kw per gallon of fuel, the new generator and fuel injection system will increase that to about 15.8kw per gallon, this will result in a savings of about \$100,000 per year.

Questions included:

Will we need the power produced by the new engine? Yes, future demands include the new hospital.

What about the new solar array. The solar array funded by the Japanese is expected to cover about 30% of current usage. Construction will start in June and will take 1-2 years to build.

What about wave power? This project depends on funding. Right now there are no funds to move ahead.

A private sector request: to include training of local staff (KUA) under the capacity building / TA section of the grant request, so that they will be qualified to evaluate and advise businesses on possible renewable energy sources for their location.

Conclusion:

All stakeholders attending the consultation meeting endorsed the FSM Energy Sectors Development Projects for WB Financing.

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Annex 5 Consultation and Disclosure – Yap

MINUTES

STAKEHOLDERS MEETING FOR CONSULTANCY
ON THE
ENVIRONMENTAL MANAGEMENT PLAN FOR UPGRADES AND EXPANSIONS TO EXISTING
POWER STATIONS AND NETWORKS
IN YAP STATE, FSM

Date and Venue: Meeting was held on 11 March 2014 at the Small Business Development Center conference room in Colonia, Yap, Federated States of Micronesia.

Presenter: Meeting was conducted by Victor Nabeyan, the Assistant General Manager of the Yap State Public Service Corporation (YSPSC).

Attendance: In attendance were the following:

From the Public Sector –

- 1). Frank Haregaichig, Director, Department of Resources & Development, Yap State Government;
- 2). Christina Fillmed, Executive Director, Environmental Protection Agency, Yap State Government;
- 3). Camilad Sulog, Chief, Division of Agriculture, Department of R&D, Yap State Government;
- 4). John Waayan, WFB, Department of Youth & Civics Affair, Yap State Government;
- 5). John Libyan, ourYap, Department of Youth & Civics Affair, Yap State Government;

From the Private Sector

- 6). Tom Fetan, Member, Yap Chamber of Commerce;
- 7). George R. Lorwan, CEO/President, Waah Transportation Company;
- 8). Jeffrey Adalbai, Secretary, Yap Chamber of Commerce;
- 9). Sebastian Taman, Waah Transportation Company;
- 10). Paul Ayin, Sole Proprietor, Quality Catch;
- 11). Sara Fillmed, United Air Lines;
- 12). Marie Laamar, Member, Yap Chamber of Commerce;

From the NGO Sector –

- 13). Leona LF Tamag, Women's Interest Officer, Yap Women's Association;

From YSPSC –

- 14). Francis Falan, Power Plant Manager;

March 11, 2014 Stakeholder's Meeting

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21.			
22.			

Annex 6 Consultation and Disclosure – Chuuk

FSM/ World Bank Energy Sector Development Project Chuuk State Stakeholder Consultation Meeting 20th March 2014. Meeting Report.

The full report can be read at <http://www.cpuc.fm/development-partners/world-bank/energy-sector-development-project/>)

Introduction

A stakeholder consultation meeting was held on Monday 10th March 2014 to present the Proposed FSM Energy Sector Development Project funded through IDA grant. Formal Invitations were issued to stakeholders during the week of 3rd March 2014. CPUC staff also issued invitations to landowners and other stakeholders in the vicinity of the power house and within the general community. A total of 32 people attended the meeting.

A powerpoint presentation provided the overview of the Energy Sector Development Project. Many questions came from the floor, including questions about waste management (particularly hazardous waste), how to ensure the project would be a success (and not reinvent the wheel, and be delivered in a timely manner), how local businesses could / would be involved, and ensuring that any equipment purchased and installed is of good quality to ensure sustainability.

List of Invited Agencies/Organisations

Chuuk State Senate;

Chuuk State House of Representatives;

Chuuk State Governor & Department Heads;

Chuuk State Mayors;

Chuuk State Energy Workgroup;

Chuuk Women’s Council;

Chuuk Conservation Society;

Chuuk State Chamber of Commerce Members;

Development Bank of FSM;

Bank of FSM;

Bank of Guam;

Faichuk Development Authority;

FSM Telecom;

CPUC Power Plant Landowners;
College of Micronesia – Chuuk;
Chuuk State Small Business Development Centre;
CPUC;

Chuuk State Stakeholders Consultation Meeting

March 10, 2014

List of Participants - Name Organization Email/Phone

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Peter Aten Division of Commerce & Industry 330-8782
Kelly Keller CPUC 330-2400
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