Energy Sector Development in the Federated States of Micronesia

Environmental Social and Management Plan(ESMP) for Upgrades and Expansions to Existing Power Stations and Networks

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

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Contents

1 Introduction

One of the Components of the Energy Sector Development Project (ESDP) is to improve the efficiency and reliability of electricity supply in the four State Utility Companies across the Federated States of Micronesia (FSM). 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. The investments are short term priorities identified in the State Action Plans under the National Energy Policy 2010 (adopted in 2012).

This ESMP covers the proposed upgrades and extensions to the power stations and networks funded by the ESDP in each of the four states; Pohnpei, Yap, Chuck and Kosrae. The ESMP meets the requirements of the World Bank Safeguard Policy 4.01 Environmental Assessment for Category B projects. The ESMP may also be used as supporting information in the preparation of documentation as per the Environmental Impact Assessment Regulations of the FSM Environmental Protection Act.

These projects have very small footprints, mostly within the boundaries of existing power stations, and in the case of solar PV installation, on government building rooftops. Consequently the severity of environmental and social impacts is low. Standard mitigation and management plans, and standard approaches to consultation, ESMP monitoring, supervision, reporting and review are included in the main document. Project specific mitigation and monitoring plans are provided in the Annexes as follows:

- Annex 1 Pohnpei and Kosrae projects
- Annex 2 Yap projects
- Annex 3 Chuuk projects

State power utilities should refer to the standard mitigation and monitoring plans and their separate Annex to manage their specific work program. Also annexes of required Occupational Health and Safety (OHS) Standards (Annex 8) and Codes of Conduct for Contractors and their Employees (Annex 9) are provided, the latter two reflecting an increasing importance placed by the WB on workers and public safety and the safety of women and minors.

An Environmental and Social Management Framework (incorporating a Resettlement Policy Framework) (ESMF) has been prepared to manage the environmental and social impacts from a second component of the ESDP – the preparation of Energy Master Plans to prioritise future investments and actions at the National and State levels. The ESMF provides guidance for capacity building within the Implementing Agency (IA) and the State Utilities for safeguards implementation and monitoring, and for long term improvements in the management of environmental and social impacts of the operation of utility assets.

1.1 Contact Details

The contact details of the person responsible for the EMP are:
Mr. Hubert Yamada

Assistant Secretary, Energy Division, National Department of Resources and Development
huberty08@yahoo.com
+691 320 5133

Project Description

The proposed investments are based on a recently completed assessment of the state utilities' technical performance conducted by KEMA[1] in 2010 and updated in 2013, and the priorities identified in the State Action Plans under the National Energy Policy. All machines were specified to have 215 g/kWh efficiency .The ESDP will fund the following investments and provide technical assistance to the utilities for improving their technical performance and implementing maintenance plans. The key investments planned for each utility are:

1.2 Pohnpei Utilities Corporation (PUC)

(i) Acquisition and installation of 2new gensets of 2 MW total capacity to improve reliability and fuel efficiency.
(ii) Acquisition and installation of new distribution transformer
(iii) Repair of Genset 3
(iv) Installation of public street lights

Until recently, the situation at PUC's generation park, Nanpohnmal, Nett, was critical, with an available capacity of 4.7 MW,1.2MW below the maximum load of 5.9 MW. The park has nine high speed diesel fuel power generators housed in four separate power plants in close proximity to one another. However, only 4 out of the 9 generating units are operational, all at de-rated capacity. Generation efficiency is very low at 12.1 kWh/gallon (August 2013).

The shortfall forced regular load shedding and caused frequent unplanned interruptions to supply.To solve the power shortfall Vital Energy Inc., a subsidiary of PetroCorp, purchased four containerized high speed 500kW diesel generators (total 2 MW) to provide power to PUC under a public-private agreement. The generators commenced operations in November 2013.

Even with this recent addition of generation capacity to the grid, PUC still requires an upgrade to their existing power plant in order to ensure that there is reserve available to cover maintenance, and to improve overall fuel efficiency.

PUC has opted for the acquisition and installation of new gensets rather than repairing old generators. Repairing old generators would not provide a long-term solution given the difficulties in procuring spare parts for generators with more than 20 years of use.

The works will involve the removal and disposal of 2gensets, and lead to an increase in the total installed capacity of 2MW at the power plant.

1.3 Yap State Public Services Corporation (YSPSC)

(i) Acquisition and installation of one 1.6 MW genset
(ii) Acquisition and installation of temperature compensated digital fuel meters

[1]KEMA: electrical equipment testing company Keuring van ElektrotechnischeMaterialen.

(iii) Installation of public street lights

(iv) Substation Upgrade having the following components

a. a new 5MW transformer to replace the old step-up transformer;
b. Installation of a new containerized switchgear of 8 HV circuit breakers.
c. After the above, installation of a new underground MV cables linking up the above and the generators

On Yap's main islands, Falalop, Ulithi and Woleai, and Mogmog, most of the electricity is produced from diesel. Ulithi also has 19.3kWp of solar power.

YSPSC has currently two Deutz generating units, each with a nameplate capacity of 3.2 MW, available for power production and two White Superior generating units, each with a nameplate capacity of 750 kW, but currently both of these units are de-rated to 450 kW. This way no optimal fuel efficiency can be reached when serving the load which varies from a minimum of1.45 MW up to a maximum of 2.1 MW. YSPSC received a loan from the ADB for purchasing a new generating unit with a nameplate capacity of 1.5 MW.

The new 1.6MW genset will increase power generation capacity, while efficiency will be addressed with the installation of digital fuel meters, the substation upgrade consisting of a new 5MW transformer and new containerized switchgear of 8 HV circuit breakers connected to the generators by a new underground MV cables. Existing street lights will be replaced with more energy efficient (LED) ones.

1.4 Chuuk Public Utility Corporation (CPUC)

(i) Design of 400 kWp solar power station

(ii) Acquisition and installation of 400kW of grid connected photovoltaic generation on rooftops at the airport vehicle park shelters, Waste Treatment Plant and Xavier High School.

(iii) Upgrade to more efficient street public lighting system by replacing light bulbs.

(iv) Installation of cash power (pre-paid) meters

The Chuuk grid only services the main island of Weno. After years of unreliable service and power outages Weno now has a largely uninterrupted electricity supply due to investments in generation and changes to management. All of the electricity is currently produced from diesel. There are four power generators located in a single power plant in Nepukos, Weno. CPUC provides electricity to around 1,540 customers, representing an estimated 26 percent of the total population, and 85 percent of Weno Island.

The installation of solar photovoltaic generation is to reduce CPUC's diesel oil expenditures and advance the State Energy Action Plan target to install 450kW of solar power generation units by 2015. The solar systems will be installed on buildings owned by the State including the airport vehicle parking lot, waste treatment plant, and Xavier High School.

1.5 Kosrae Utility Authority (KUA)

(i) Acquisition and installation of

a. One new genset of 0.6MW to improve fuel efficiency and reliability.
b. LED Public Street lights
c. Transformer

d. Distribution transformers
e. SCADA
f. Bucket truck and
g. Cash power (pre-paid) meters

Most of the power in Kosrae is provided by six diesel generators located in a single power plant centrally located near the Government Office Complex in Tofol. The total diesel installed capacity is 5,400kW, and the grand total capacity including grid-connected solar PV systems is about 5,452kW.KUA provides electricity to 1,900 customers representing about 98 percent of the population (a very small village remains unconnected).

FSM, Kosrae State, KUA, the World Bank and JICA have agreed that JICA would finance two 600kW gensets and the World Bank one 600kW genset based on the basis of a shared demand forecast in Kosrae, as to avoid duplication of assistance which might have resulted in inefficient resource mobilization for FSM and Kosrae State. The new generator allows KUA to operate with reserve generation, where the peak load can still be served even if the largest generator is out of service. The new genset may replace an old, inoperative unit. Other investments in energy efficiency are LED street lights and transformers, the latter to support maintenance and to improve distribution at low voltage for industrial and domestic purposes. SCADA will enhance KUA's operational management and monitoring capacity.

Bucket truck will support installation of public street lights, tree trimming during solar installation etc..Prepaid (cash power) meters will contribute to KUA's financial performance and longer term sustainability.

2 Potential Significant Environmental and Social Impacts

The following is a summary of the significant environmental and social impacts that may arise.

Table 1 Summary of Potential Significant Environmental and Social Impacts from Power Stationand Network Upgrades or Extensions

Phase	Activity	Potential Impact
Construction	Storage, handling, use and disposal of hazardous materials such as waste oil, waste diesel and light bulbs	Soil and water contamination Health and safety risks to workers and public
	Inappropriate disposal of old generating equipment, radiators and other equipment	Soil and water contamination from solid waste, oils and potential for PCB contamination.
	Location of sites for solar panel arrays	Impacts on private assets and land, such as tree trimming. Construction impacts of platforms to support PV modules at Chuuk airport parking area.
	Replacement of street lights on poles located in private owned land	Impacts on land and non-land assets, including tree trimming, damage of private assets Unwelcome intrusion into private property
	Installation of prepaid meters	Social unrest relating to a change in access to, and payment for, power.
Operation and maintenance	Storage, handling, use and disposal of hazardous materials such as waste oils, batteries.	Soil and water contamination Safety of workers
	Air discharges	Deterioration of local ambient air quality
	Noise	Deterioration of local ambient noise
	Environment, Social, Health and Safety (ESHS)	Impact on workers and visitors health and safety (Occupational health and safety; Annex 8) Safety of women from gender-based violence (GBV) and Violence Against Children (VAC) (Annex 9)

3 Reporting

The type of reports, frequency and responsibilities for reporting are summarized in the reporting program below.

Table 2 Reporting Program

Type of report, and purpose	Frequency and timing of reporting	Who is responsible for preparing the report?	Who is responsible for receiving the report?	What are the actions / outcomes from reporting?
Construction Environmental Management Report Details of implementation of the ESMP.	Once prior to construction starting, then monthly until the end of construction.	Contractor	Implementing Agency (IA) and State Utility	Improvements to mitigation measures if necessary.
Incident report Serious accidents, serious spills, public complaint.	Construction phase: Within 1 week of the incident occurring	Contractor	IA and State Utility	Contractor to remedy incident. PIA to notify authorities if relevant.
Environmental Performance Monitoring Report A record of all activities and outcomes from the implementation of all EMP including incidents, monitoring data, photos, contractor's monitoring records and records of IA site visits.	Six monthly, for the duration of the project.	IA	World Bank as part of project reporting.	Improvements to environmental mitigation and management if necessary.

4 Consultation and Disclosure

Public and stakeholder consultation and disclosure of the ESMP 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.

Subsequent consultations during the Master Planning exercise covered all four states and stakeholders including state utilities, donors and government agencies. Public and stakeholder discussions covered different energy generation options and issues including solar PV generation, and pre-paid meters.

The draft ESMP was initially disclosed in hard copy at State Utility offices and the office of the Energy Division. The draft ESMP was disclosed in soft copy on the State Utility websites. This updated version (May 2018) provides the finalized activities and investments in power generation and energy in all four states. This document will be similarly disclosed.

Methods, attendance and results are provided in Annex 5, 6, 7 and 8. OHS, Codes of Conduct and the ESMF approved Grievance Redress Mechanism is in Annexes 8,9 and 10.

5 Institutional Responsibilities and Capacity Building

The Energy Division is ultimately responsible for implementation of the ESMP as the Implementing Agency. The Energy Division has only one staff member, the Assistant Secretary, who will be the project coordinator and focal point. 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 ESMP and ESMF.

The project will fund a part time safeguards specialist. This specialist 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 ESMP with the IA and state utilities, integrate the ESMP requirements into the Project Implementation Manual; integrate ESMP into TOR and contracts for all suppliers and consultants, review and comment on bid responses.

All contractors and suppliers shall have the ESMP as part of their contract, and they will be required to comply with the ESMP and implement the relevant parts of the mitigation and monitoring plans.

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 ESMP.

Table 3 Summary of Responsibilities

Action	**Responsible Institution**		
	Pre Construction	**Construction Phase**	**Operational Phase**
Implementing ESMP	State Utility, IA	Contractor / Supplier, State Utility, IA	State Utility
Obtaining State permits for air discharges, hazardous waste and lodging initial environmental assessment forms	IA		
Consultation	State Utility and IA		
Supervision of ESMP	IA	IA	IA
Monitoring Data Collection and Analysis	IA	Contractor	State Utility
Reporting	IA, State Utility and Contractor As per Section 4		
Oversight of ESMP implementation	World Bank		

6 Budget

The following is an approximate budget for implementing the ESMP, based on the tables in Annexes 1, 2 and 3. These items are over and above those considered to be covered by normal operations.

Table 4Approximate ESMP Budget

Item	Cost estimate $US
Consultation during project preparation	$1,000
Workshops with IA and State Utility for ESMP implementation and monitoring	$6,000
Baseline monitoring of ambient noise – Pohnpei, Kosrae, Yap	$6,000
Publicity campaign for prepaid meters, Yap	$3,000
Total	$16,000

Annex 1 Pohnpei PUC and Kosrae KUA Mitigation and Monitoring Plan

Pre-Construction Mitigation Plan PUC and KUA

Environmental or social impact	Pre-Construction Mitigation Actions	Costs	Responsible	Start	End
Soil and water contamination as a result of leaks and spills entering the environment.	For new and replacement gensets, include in the design and procurement: Ensure, through design of spill containment at the genset and / or within the building, that 100 percent of fuel and oil held within the generators can be contained and collected for removal within the footprint of the building. Include in tender documentation.	Moderate, included in Construction Cost	IA	Design phase	Award of construction tender.
Noise	Tender documents for equipment procurement will specify sound attenuation as part of the package.	Minor, Included in tendering costs	IA	Tender preparation	Selection of preferred supplier
General / all impacts	The ESMP will be included in the Contractors / Suppliers specification and contract. Specific mitigation measures for the contractor / supplier shall be highlighted in the general conditions.	Minor, included in tendering costs	IA	Tender preparation	Award of tender.
	Prepare an Initial Environmental Assessment in accordance with the Environmental Impact Regulations of the FSM Environmental Protection Act, to support the EPA-required permit application.	Minor	IA	Design phase	Prior to construction starting.
	Apply for and secure permits to construct / install gensets, under the Air Pollution Control Standards and Regulations of Pohnpei State.	Minor	IA	Design phase	Prior to construction starting.
Reduction in air quality due to emissions from gensets	Provide a specification for the gensets that are consistent with the Air Pollution Control Standards and Regulations of Pohnpei State (for PUC projects) and the IFC / World Bank Environment, health and Safety Guidelines for Air Emissions and Ambient Air Quality (for PUC and KUA projects).	Minor	IA	Design phase	Award of tender.
Health and Safety	The tender shall be prepared in accordance with the health and safety guidelines in the IFC / World Bank Environment, Health and Safety Guidelines for Occupational Health and Safety. Refer to Annex 8.	Minor, included in tendering costs	IA	Tender preparation	Award of tender.
Hazardous wastes (not including oil)	For PUC projects, comply with the Pohnpei EPA Solid Waste Regulations, by preparing or updating the existing Hazardous Waste Management Plan.	Minor	State Utility / IA	Design	Prior to operation
	For KUA projects, comply with KIRMA's Solid Waste Management Plan 2011 – 2015 (or subsequent updates) and the FSM National Waste Management Strategy 2012 – 2016.	Minor	State Utility / IA	Design	Prior to operation

Construction Mitigation Plan PUC and KUA

Environmental or social impact	Construction Mitigation Actions	Costs	Responsible	Start	End
Noise	On arrival at site, and prior to installation, the contractor will confirm that the equipment meets the standard for noise emissions as stated in the tender documents.	Minor, Included in Operation Cost	Contractor / Supplier	Prior to equipment installation	Prior to equipment installation
Non-toxic solid wastes (metal, packing, etc.)	Metal, cardboard and plastic will be recycled, where local facilities exist. Waste that cannot be recycled will be transported by licensed contractor to landfills permitted by State EPA.	Minor, Included in construction contract	Contractor / Supplier	In the beginning of construction	At completion of construction
Waste oil and other hazardous wastes	Waste oil will be reused / recycled using local service providers. If necessary, waste oil from Kosrae shall be transported by a licensed operator to Pohnpei for reuse / recycling. Ensure no spill or leakage when waste oil extracted and transferred to the utilities storage tanks. Other hazardous wastes shall be separated for reuse, recycling, treatment and / or disposal by .	Minor, included in construction contract.	Contractor / Supplier	In the beginning of construction	At completion of construction
Old gensets and other equipment	Old gensets and other waste equipment will have oils removed and other parts dismantled, and be removed from site and recycled. Where recycling is not possible, the remains may be stored on site until such time as the option becomes available, or disposed at landfill permitted by the State EPA. Oils shall be sampled for PCB prior to disposal. Any PCB contaminated oils shall be stored separately and removed for treatment and disposal by permitted contractors.	Minor	IA	During construction	At completion of construction
Oil spill or leaks during construction / installation	Oil sorbents and spill kits will be kept on-site to contain any spills, and staff shall be trained in spill procedures. Ensure effective containment of spilled or leaked oil from generators within the footprint of the building, prior to collection and removal to an authorized site.	Minor, included in construction contract	Contractor / Supplier	In the beginning of construction	At completion of construction

Soil and water contamination	Any contaminated soils and water as a result of construction activities will be removed by licensed contractor and disposed to landfill sites approved by local authorities. Records to be kept of the amount of material, contaminants, and destination of the waste material.	Moderate (if required), included in construction contract	Contractor / Supplier	In the beginning of construction	At completion of construction
Construction worker health and safety	All construction workers will have site inductions by the State Utility on health and safety.	Included in operational procedures	State Utility	In the beginning of construction	At completion of construction
	All workers will be provided with hard hats, hearing protection, high visibility jackets and covered boots. All work shall be in accordance with the World Bank / IFC Environment, Health and Safety Guidelines for Occupational Health and Safety. Refer to Annex 8.	Included in construction contract	Contractor / Supplier	In the beginning of construction	At completion of construction
Air Discharges	Apply for and obtain a permit to operate gensets in accordance with the Air Quality Regulations of Pohnpei and the relevant regulation of Kosrae.	Minor	State Utility	During construction	Prior to operation
Access into private lands for streetlights installation	State utility or its contractor to make contact with householders at least 48 hours' prior and agree with the householder the date and time (allowing a half-day window) within which works will be done. Confirm prior permission for entry.	Refer budget	State utility / Contractor / Supplier	During installation period	Completion of installation program.

Operation Mitigation Plan PUC and KUA

Environmental or social impact	Operation Mitigation Actions	Costs	Responsible	Start	End
Soil and water contamination from oil and diesel	Oil collectors and separators (such as bunds), and any storm water treatment devices, will be regularly checked and maintained. Equipment will be regularly checked and maintained to prevent leaks.	Minor, included in Operation Cost	State Utility	During operation	Continuous
Waste oil	All waste oil will be stored in leak proof containers under cover / inside a building, and be collected for reuse or recycling by permitted operators. Explore and where feasible, utilize all opportunities for reuse of waste oil by licensed operators.	Minor, included in Operation Cost	State Utility	During operation	Continuous

<table>
<tr><th>Environmental or social impact</th><th>Operation Mitigation Actions</th><th>Costs</th><th>Responsible</th><th>Start</th><th>End</th></tr>
<tr><td>Hazardous wastes (not including oil)</td><td>All hazardous wastes will be stored in leak proof containers under cover / inside a building and be transported for reuse, recycling, treatment and / or disposal at special disposal places permitted by State EPA.

For PUC projects, comply with the Pohnpei EPA Solid Waste Regulations, by implementing the hazardous waste management plan.

For KUA projects, comply with KIRMA's Waste Management Plan 2011 – 2016 or subsequent updates.</td><td>Minor, included in Operation Cost</td><td>State Utility</td><td>During operation</td><td>Continuous</td></tr>
<tr><td>Complaints from the neighbours and local community</td><td>Complaints shall be recorded and followed up through the ESMF approved Grievance Redress Mechanism (Refer to Annex 10).</td><td>Minor, Included in Operation Cost</td><td>State Utility</td><td>During operation</td><td>Continuous</td></tr>
<tr><td>Air discharges</td><td>Operate and maintain to achieve air emissions consistent with IFC / World Bank Environment, health and Safety Guidelines for Air Emissions and Ambient Air Quality (for PUC and KUA projects) and air permit (PUC).</td><td>Minor, included in operation cost</td><td>State Utility</td><td>During operation</td><td>Continuous</td></tr>
<tr><td>Noise</td><td>Noise impacts should not exceed the following Noise Level Guidelines or result in a maximum increase in back ground levels of 3 dB at the nearest receptor location off-site.

<table><tr><td></td><td colspan="2">One Hour LAeq (dBA)

(World Bank / IFC Environment, Health and Safety Guidelines for Noise Management)</td></tr><tr><td>Receptor</td><td>Daytime

07:00 - 22:00</td><td>Night time

22:00 - 07:00</td></tr><tr><td>Residential; institutional;

educational</td><td>55</td><td>45</td></tr><tr><td>Industrial; commercial</td><td>70</td><td>70</td></tr></table>
National or State regulations replace these where they are more stringent</td><td>Refer to monitoring plan</td><td>State Utility</td><td>During Operation</td><td>Continuous</td></tr>
</table>

Construction Monitoring Plan PUC and KUA

Environment or social impact	Monitoring parameter	Place of monitoring	Monitoring method	Monitoring schedule	Cost	Responsible	Start	End
Solid and hazardous waste	Checkservice provider's permit is valid	Prior to access to site to collect waste	Visual inspection	Prior to granting access to construction site	Included in contract	Contractor / Supplier	The beginning of construction	The end of construction
Noise	One Hour LAeq (dBA)	At the location of the nearest receptor off site.	Measurements to be made by specialized company holding an appropriate licence, consistent with international standards for noise monitoring.	Three recording events to establish a baseline prior to operation.	$4,000	State Utility / IA	The beginning of construction	The end of construction

Operation Monitoring Plan PUC and KUA

Environment impact	Monitoring parameter	Place of monitoring	Monitoring method	Monitoring schedule	Cost	Responsible	Start	End
Noise	One Hour LAeq (dBA)	At the location of the nearest receptor off site.	Measurements to be made by specialized company holding an appropriate licence, consistent with international standards for noise monitoring.	Within 2 weeks following a complaint	Minor, included in Operation Cost	State Utility	Start of operation	Continuous
Air discharges	As per permit	As per permit	As per permit	As per permit	Minor to moderate	PUC	Start of operation	Continuous
Solid and hazardous waste	Checkservice provider's permit is valid	Prior to access to site to collect waste	Visual inspection	At the time of pick up	Minor, included in Operation Cost	State Utility	Start of operation	Continuous

Annex 2 Yap YSPSC Mitigation and Monitoring Plan

Pre-Construction Mitigation Plan YSPSC

Environmental or social impact	YSPCS Pre-Construction Mitigation Actions	Costs	Responsible	Start	End
Soil and water contamination as a result of leaks and spills entering the environment.	For new and replacement gensets, include in the design and procurement: Ensure, through design of spill containment at the genset and / or within the building, that 100 percent of fuel and oil held within the generators can be contained and collected for removal within the footprint of the building. Include in tender documentation.	Moderate, included in Construction Cost	IA	Design phase	Award of construction tender.
Noise	Tender documents for equipment procurement will specify sound attenuation as part of the package.	Minor, Included in tendering costs	IA	Tender preparation	Selection of preferred supplier
General / all impacts	The ESMP will be included in the Contractors / Suppliers specification and contract. Specific mitigation measures for the contractor / supplier shall be highlighted in the general conditions.	Minor, included in tendering costs	IA	Tender preparation	Award of tender.
	Prepare an Initial Environmental Assessment to the Secretary of Human Resources in accordance with the Environmental Impact Regulations of the FSM Environmental Protection Act, to support the EPA-required permit application.	Minor	IA	Design phase	Prior to construction starting.
	Apply for and secure permits to construct / install gensets, under the Air Pollution Control Standards and Regulations of Pohnpei State.	Minor	IA	Design phase	Prior to construction starting.
Reduction in air quality due to emissions from gensets	Provide a specification for the genset upgrades that are consistent with the IFC / World Bank Environment, health and Safety Guidelines for Air Emissions and Ambient Air Quality, or as close to possible given existing equipment constraints.	Minor	IA	Design phase	Award of tender.
Health and Safety	Tenders for contractors / suppliers shall be prepared in accordance with the health and safety guidelines in the IFC / World Bank Environment, Health and Safety Guidelines for Occupational Health and Safety. Refer to Annex 8.	Minor, included in tendering costs	IA	Tender preparation	Award of tender.

Construction Mitigation PlanYSPSC

Environmental or social impact	Construction Mitigation Actions	Costs	Responsible	Start	End
Noise	On arrival at site, and prior to installation, the contractor will confirm that the equipment meets the standard for noise emissions as per the supply agreement.	Minor	Contractor / Supplier	Prior to equipment installation	Prior to equipment installation
Non-toxic solid wastes (metal, packing, etc.)	Metal, cardboard and plastic will be recycled, where local facilities exist. Waste that cannot be recycled will be transported by licensed contractor to landfillspermitted by State EPA.	Minor, Included in construction contract	Contractor / Supplier	In the beginning of construction	After completion of construction
Waste oil and other hazardous wastes	Waste oil will be reused / recycled using local service providers. If necessary, waste oil from Yap shall be transported by a licensed operator to Pohnpei for reuse / recycling. Ensure no spill or leakage when waste oil extracted and transferred to the utilities storage tanks. In the event of spill or leakage, ensure through design of spill containment at the genset and or within the building, that 100% of fuel and oil within the generators can be contained and collected for removal within the footprint of the building. Other hazardous wastes shall be separated for reuse, recycling, treatment and / or disposal by permitted providers.	Minor, included in construction contract.	Contractor / Supplier	In the beginning of construction	After completion of construction
Contaminated soil and water	Ensure through design of spill containment at the genset and or within the building, that 100% of fuel and oil within the generators can be contained and collected for removal within the footprint of the building.				
Old waste equipment	Old radiators and other waste equipment will be stored on site / removed from site and recycled. Where recycling is not possible, refer to waste options above. Oils shall be sampled for PCB prior to disposal. Any PCB contaminated oils shall be stored separately and removed for treatment and disposal by permitted contractors.	Minor	IA	During construction	
Workers health and safety	All construction workers will have site inductions by YSPSC on health and safety.	Minor	YSPSC	In the beginning of construction	After completion of construction

Environmental or social impact	Construction Mitigation Actions	Costs	Responsible	Start	End
	All workers will be provided with hard hats, hearing protection, high visibility jackets and covered boots. All work shall be in accordance with the World Bank / IFC Environment, Health and Safety Guidelines for Occupational Health and Safety. Refer to Annex 8.	Included in construction contract	Contractor / Supplier	In the beginning of construction	After completion of construction
Social unrest due to installation of prepaid meters	Public communication program to inform customers. YSPSC or its contractor to make contact with householders at least 48 hours' prior and agree with the householder the date and time (allowing a half-day window) within which works will be done. Confirm prior permission for entry.	Refer budget	YSPSC / Contractor / Supplier	During installation period	Completion of installation program.
Access into private lands for streetlights installation	YSPSC or its contractor to make contact with householders at least 48 hours' prior and agree with the householder the date and time (allowing a half-day window) within which works will be done. Confirm prior permission for entry.	Refer budget	YSPSC / Contractor / Supplier	During installation period	Completion of installation program.

Operation Mitigation Plan YSPSC

Environmental or social impact	Operation Mitigation Actions	Costs	Responsible	Start	End
Waste oil	All waste oil will be stored in leak proof containers under cover / inside a building, and be collected for reuse or recycling by permitted operators. Explore and, where feasible, utilize all opportunities for reuse of waste oil by licensed operators.	Minor, included in Operation Cost	YSPSC	During operation	Continuous
Hazardous wastes (not including oil)	All hazardous wastes will be stored in leak proof containers under cover / inside a building and be transported for reuse, recycling, treatment and / or disposal at special disposal places permitted by State EPA.	Minor, included in Operation Cost	YSPSC	During operation	Continuous
Complaints from the neighbors and local community	Complaints shall be recorded and followed up through the ESMF approved Grievance Redress Mechanism.	Minor, Included in Operation Cost	YSPSC	During operation	Continuous
Air discharges	Operate and maintain to achieve air emissions consistent with IFC / World Bank Environment, health and Safety Guidelines for Air Emissions and Ambient Air Quality.	Minor, including in operation cost	YSPSC	During operation	Continuous

Environmental or social impact	Operation Mitigation Actions	Costs	Responsible	Start	End
Noise	Noise impacts following upgrades should not result in a maximum increase in background levels of 3 dB at the nearest receptor location off-site. National or State regulations replace these where they are more stringent	Refer monitoring plan	YSPSC	During Operation	Continuous

Construction Monitoring Plan YSPSC

Environment or social impact	Monitoring parameter	Place of monitoring	Monitoring method	Monitoring schedule	Cost	Responsible	Start	End
Solid and hazardous waste	Check service provider's permit is valid	Project site	Visual inspection	Prior to granting access to construction site	Included in contract	Contractor / Supplier	The beginning of construction	The end of construction
Noise	One Hour LAeq (dBA)	At the location of the nearest receptor off site.	Measurements to be made by specialized company holding an appropriate licence, consistent with international standards for noise monitoring.	Three recording events to establish a baseline for operation phase.	$1,000	YSPSC	The beginning of construction	The end of construction
Public safety	Complaints register	Complaints register	Consultations with local people; local media reports	Ad hoc	Minor, included in operation cost	YSPSC	The beginning of construction	The end of construction

Operation Monitoring Plan YSPSC

Environment impact	Monitoring parameter	Place of monitoring	Monitoring method	Monitoring schedule	Cost	YSPSC	Start	End
Noise	One Hour LAeq (dBA)	At the location of the nearest receptor off site.	Measurements to be made by specialized company holding an appropriate licence, consistent with international standards for noise monitoring.	Within 2 weeks following a complaint	Minor, included in Operation Cost	YSPSC	Start of operation	Continuous

Environment impact	Monitoring parameter	Place of monitoring	Monitoring method	Monitoring schedule	Cost	YSPSC	Start	End
Solid and hazardous waste	Check service provider's permit is valid	Prior to access to site to collect waste	Visual inspection	Prior to granting access to site	Minor, included in Operation Cost	YSPSC	Start of operation	Continuous

Annex 3 ChuukCPUC Mitigation and Monitoring Plan

Pre-Construction Mitigation Plan Chuuk

Environmental or social impact	Chuuk Pre-Construction Mitigation Actions	Costs	Responsible	Start	End
General / all impacts	The ESMP will be included in the Contractors / Suppliers specification and contract. Specific mitigation measures for the contractor / supplier shall be highlighted in the general conditions.	Minor, included in tendering costs	IA	Tender preparation	Award of tender.
General / all impacts	Consult with Chuuk State EPA to confirm permit requirements as per Chuuk State Environmental Protection Act 1994. Prepare and submit, as required, the Environmental Impact Assessment report(s) to CSEPA in accordance with the Chuuk State EP Act 1994.	Minor	IA	Design phase	Prior to construction starting.
Land acquisition or involuntary resettlement issues from siting of solar PV arrays.	Avoid impacts on private land and assets by locating solar PV arrays on government leased land. Review and confirm leases prior to construction. Prepare appropriate resettlement instrument to address resettlement impacts whereprivate land and or assets will be impactedin accordance with the project Resettlement Policy Framework. Where impacts on privately owned assets are minor (e.g. trimming of trees), integrate mitigation measures into Contractors ESMP in lieu of a resettlement plan. Consult with affected landowners prior to construction.	Moderate costs if private land or assets will be impacted. Otherwise, minor costs.	IA	Design phase	Prior to construction starting
Health and Safety	The tender shall be prepared in accordance with the health and safety guidelines in the IFC / World Bank Environment, Health and Safety Guidelines for Occupational Health and Safety. Refer to Annex 8.	Minor, included in tendering costs	IA	Tender preparation	Award of tender.
	Ensure solar panels are resistant to corrosion and will enable the collection of rain water for drinking.	Minor, included in tendering costs	IA	Tender preparation	Award of tender.
	Ensure all foreigner workers sign GBV and VAC Code of Conducts (Refer to Annex 9).	Minor, included in tendering costs	IA and Contractor/Supplier	Tender preparation	Award of tender.

Environmental or social impact	Chuuk Pre-Construction Mitigation Actions	Costs	Responsible	Start	End
	Cover inverters with a locked metal cage firmly attached to the wall in order to avoid unauthorized manipulation or theft.	Minor, included in tendering costs	IA and Contractor/Supplier	Tender preparation	Award of tender.
	Inhibit unauthorized access to the PV modules using fences, gates, locks	Minor, included in tendering costs	IA and Contractor/Supplier	Tender preparation	Award of tender.
	Mark sites with comprehensive and visible signs (pictograms) indicating danger and no-go areas.	Minor, included in tendering costs	IA and Contractor/Supplier	Tender preparation	Award of tender.
	Put wiring underground in order to avoid accidents and damage (accidently or intentioned by vandalism)	Minor, included in tendering costs	IA and Contractor/Supplier	Tender preparation	Award of tender.

Construction Mitigation PlanChuuk

Environmental or social impact	Construction Mitigation Actions	Costs	Responsible	Start	End
Noise	Noise impacts following upgrades should not result in a maximum increase in background levels of 3 dB at the nearest receptor location off-site.	Minor, included in construction / installation contract	Contractor / Supplier	In the beginning of construction	After the completion of construction
Non-toxic solid wastes (metal, packing, etc.)	Metal, cardboard and plastic will be recycled, where local facilities exist. Waste that cannot be recycled will be transported by licensed contractor to places specially allocated for landfills, approved by local authorities.	Minor, Included in construction contract	Contractor / supplier	In the beginning of construction	After completion of construction
Waste light bulbs and other hazardous wastes	Hazardous wastes such as light bulbs that contain heavy metals shall be separated for reuse, recycling, treatment and / or disposal by permitted providers.	Minor, included in construction contract.	Contractor / Supplier	In the beginning of construction	After completion of construction

Environmental or social impact	Construction Mitigation Actions	Costs	Responsible	Start	End
Construction worker health and safety	All construction workers working at the power station will have site inductions by CPUC on health and safety. All work shall be in accordance with the World Bank / IFC Environment, Health and Safety Guidelines for Occupational Health and Safety. Refer to Annex 8.	Included in CPUC operational procedures	CPUC	In the beginning of construction	After completion of construction
	All workers will be provided with hard hats, hearing protection, high visibility jackets and covered boots.	Included in construction contract	Contractor / Supplier	In the beginning of construction	After completion of construction
Public safety	Consult with Xavier school principal (Martin Carl – 330-4266) re construction schedule at least a week before commencement of PV installation. Fenced off all working siteswith accesslimited to authorized personnel.	Minor, included in construction contract	Contractor / Supplier	In the beginning of construction	After completion of construction
	Inform the public on radio and other public media of possible access restrictions to airport parking lot at least 48 hours prior to commencement of construction/installation activities.	Minor, included in construction contract	Contractor / Supplier	Prior to the beginning of construction	After completion of construction
	State utility or its contractor to make contact with householders at least 48 hours' prior and agree with the householder the date and time (allowing a half-day window) within which works will be done. Confirm prior permission for entry.	Refer budget	State utility / Contractor / Supplier	During installation period	Completion of installation program.
Access into private lands for streetlights installation	CPUC or its contractor to make contact with householders at least 48 hours' prior and agree with the householder the date and time (allowing a half-day window) within which works will be done. Confirm prior permission for entry.	Refer budget	State utility / Contractor / Supplier	During installation period	Completion of installation program.

Operation Mitigation Plan Chuuk

Environmental or social impact	Operation Mitigation Actions	Costs	Responsible	Start	End
Hazardous wastes including batteries and light bulbs	All hazardous wastes will be stored in leak proof containers under cover / inside a building and be transported for reuse, recycling or disposal at landfillsoperated by service providers with valid permits.	Minor, included in Operation Cost	CPUC	During operation	Continuous

Environmental or social impact	Operation Mitigation Actions	Costs	Responsible	Start	End
Complaints from the neighbours and local community	Complaints shall be recorded and followed up through the ESMF approved Grievance Redress Mechanism. (Refer to Annex 10).	Minor, Included in Operation Cost	CPUC	During operation	Continuous

Construction Monitoring PlanChuuk

Environment or social impact	Monitoring parameter	Place of monitoring	Monitoring method	Monitoring schedule	Cost	Responsible	Start	End
Solid and hazardous waste	Check service provider's permit is valid	Prior to access to site to collect waste	Visual inspection	Prior to granting access to construction site	Included in contract	Contractor / Supplier	The beginning of construction	The end of construction
Workers health and safety	PPE requirements (Refer to Annex 8)	Work site	Visual inspection	Ad hoc	Included in contract	Contractor / Supplier	The beginning of construction	The end of construction
Public safety	Complaints register	Complaints register	Consultations with local people; local media reports	Ad hoc	Minor, included in operation cost	CPUC	The beginning of construction	The end of construction
	Presence of adequate barriers to working sites	Contractors' Working sites	Visual inspection	Ad hoc	Included in contract	Contractor / Supplier	The beginning of construction	The end of construction
	Signed Code of Conducts	Work site and surrounding communities	Consultations with local people; local media reports	Ad hoc	Minor, included in operation cost	CPUC	The beginning of construction	The end of construction

Operation Monitoring Plan Chuuk

Environment impact	Monitoring parameter	Place of monitoring	Monitoring method	Monitoring schedule	Cost	Responsible	Start	End

Environment impact	Monitoring parameter	Place of monitoring	Monitoring method	Monitoring schedule	Cost	Responsible	Start	End
Solid and hazardous waste	Any sign of damage to PV panels	Site of installation	Visual inspection	Prior to granting access to site	Minor, included in Operation Cost	CPUC	Start of operation	Continuous
	Presence of waste	Storage facility for waste	Visual inspection	Ad hoc during operation	Minor, included in Operation Cost	CPUC	Start of operation	Continuous
Complaints from the neighbours and local community	Any complaint received	Complaints register	Visual inspection	Ad hoc during operation	Minor, included in Operation Cost	CPUC	Start of operation	Continuous

Annex 4Consultation 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. KadalinoLorens, 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. TrevayneEsiel, FSM Petroleum Corporation and Board of Director, PUC
Mr. Henry Susaia, Pohnpei State EPA
Mr. Michael Liemen, Chief Magistrate, Sokehs Municipality
NanitaMirelles, T&I

Record of Meeting:

Mr. KadalinoLorens, 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 KadalinoLorens _____

BAZIC

Attachment A

Attendance

Name	Office
1. Hubert K. Yamada	FSM R&D, Energy
2. Actouka, Marcelino	PUC, CEO/GM
3. Joses R. Gallen	PUC, General Counsel
4. Feliciano Sam	PUC, Director / CDA
5. Trevayne Tore	PUC, Director / [illegible]
6. Michael Liemen	Sokehs Mun. Gov't / Chief Mag
7. Henry Susaia	Pohnpei EPA
8. Nanita Miralles	T & I
9. Joseph Saimon	Fisheries and Aquaculture
10. Kadalino Lorens	Energy Commission Pohnpei

Annex 5Consultation 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.

AMPAD

Name / Title	Office / Dept	Email address
Alik Isaac	DOA	aliklsaac@mail.fm
Hans Skilling	KYDA / Red Cross	kacheng_08@yahoo.com
Shiro Sigrah	DOHS	shsigrah@fsmhealth.fm
Katrina Adams	KCC	Katrina.Kosraevillage.com
Nena G. Nena	KUA	kua@mail.fm
Gerry B. Protacio	KUA	kuaengr@mail.fm
Siân Nivison	ODA / KSG	snivisontosrae.oda@gmail.com
Josaiah F. Waguk	KSL	strwaguk@gmail.com
Alikin Jr. Sigrah	KSL	ajbsigrah088@gmail.com
Palikun Shrew	KSL	palikunshrew@yahoo.com
[illegible] Tolenna	MMG	
Kilafwa Joe	KSM	
Alister Tolenoa	DOE	[illegible]@gmail.com
Sweetyrose Tulensru	Gov's Office	sweetmeta@yahoo.com
Mary N. Liwaye	KUA	[illegible]@yahoo.com
Timothy Timothy	Board member - KUA	mr.lene.tim@gmail.com
Lorrie Asher	OAG	lorrie.asher.esq@gmail
Reeson Abraham	Legislature	sen.reesonabraham@yahoo
Robert I. Taulung	KSL	ritaulung@yahoo.com
Tulensa W. Palik	KSL	tulensapalik@yahoo.com
Hardy Andrew	DREA	dreahardy70@gmail.com
Gibson Sıba	KSL	GibsonSiba@gmail.com
Freddy W. Taulung	TIMG	
Jesse, Ben	LTG	bsesse210@gmail.com
Witson Phillip	KCC	witson.phillip[illegible]


FSM
Energy Sector Development Project
Stakeholder Meetings

Annex 6Consultation 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). Tamdad Sulog, Chief, Division of Agriculture, Department of R&D, Yap State Government;
4). John Wanyan, 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. Torwan, CEO/President, Waab Transportation Company;
8). Jeffrey Adalbai, Secretary, Yap Chamber of Commerce;
9). Sebastian Taman, Waab Transportation Company;
10). Paul Ayin, Sole Proprietor, Quality Catch;
11). Sara Fillmed, United Airlines;
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

	Name	Office / Title	Email	Phone
1.	John Waayan F.	DYCA / WEB	waayan@gmail.com	350-2168
2.	Johnny Libyan	DYCA / [illegible]	jlibyan@yapstate.gov.org	350-2168
3.	Sara Fillmed.	United Fisheries	sara-fillmed@united.com	350-2768
4.	Christina Fillmed	Yap EPA	epayap@mail.fm	350-2113
5.	Frank Haregaichig	R&D	yaprd@yapstategov.org	350 2182
6.	Leona LF Tamag	WIO / YWA	ltamag@hotmail.com	
7.	Charles Falmeyog	YSPSC	charlesfalmeyog@yspsc.com	350-7515
8.	Jeffrey Adallai	Chamber / Sec.	jeff@adallai.com	350-2113
9.	George Torum	WTC		350-2301
10.	Tamdad Sulog	DAF	agriculture@yapmail.fm	350-2183
11.	Tom Ferant	YCC	————	
12.	Sebastian Thaman	WTC	[illegible]	350-4984
13.	Virginia Hernandez	YSPSC	virgie0403@yahoo.com	
14.	Steven L. Kin	YSPSC	stevelibman@yspsc.fm	
15.	Francis B. Falan	YSPSC	pwr.gen@yapspsc.org	
16.	Gideon Maofac	YSPSC	gidmaof@gmail.com	350-[illegible]
17.	Garrett Johnson	YSPSC	gjohnson@mail.fm	
18.	Paul Ayin	Quality Catch	paul@ayinglobal.com	350-7160
19.	Marie Alamar	YCC	ycc-director@mail.fm	
20.	Victor Naboyan	YSPSC	vnaboyan@gmail.com	
21.				
22.				

Annex 7Consultation 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

Wisney Nakayama Chuuk Conservation Society 931-3832

Rocky Inek CPUC Board of Director 330-4116

Kayo Noket Deputy Mayor (Weno) 932-9672

Peter Aten Division of Commerce & Industry 330-8782

Kelly Keller CPUC 330-2400

Kachutosy Paulus Faichuk Development Authority 932-7043

Mino R. Mori CPUC/FSMTC 330-2740

TesimeKofot CPUC/Dept. of Marine Resources 330-6729

Daniel Ham Bank of FSM

Mark Mailo Chuuk State Legislature (Senate) 932-6797

Mark Waite CPUC 931-8598

Benjamin Akkin CPUC Board of Director 330-3282

BerlyKillion Chuuk State Legislature (Rep.)

KetsenHaregaichy Chuuk SBDC ketsen@pacificsbdc.co

Johnson S.Elimo Governor's Office (Governor) jelimo1216@yahoo.com

Kind Kanto COM –FSM Chuuk kank@comfsm.fm

RedleyKillion Chuuk State Chamber of Commerce redleykillion@yahoo.com

Josie Estepa MCM 330-5212

Bill Stinnett Truk Stop Hotel kbstinnett@yahoo.com

Mathias Kuor Chuuk State Legislature (Senate) 931-4216

AtanHetiback Chuuk State Legislature (Senate) 931-8735

JoakimKaminagaKaminaga Enterprise 330-6967

Cindy Mori Chamber of Commerce cindymori@gmail.com

Pintas Kenneth Weno Municipal (Mayor) 932-5262

Frank Cholymay DCO 931-6435

Kiki Stinnett Chuuk Women Council 932-8555

SinoryMeitouWeno Municipal 931-2247

Wilfred Robert Governor's Office (Chief of Staff) 930-3387

Harris Rain Chuuk State Legislature (Senate) 330-4284

Peter Amaraich Chamber of Commerce psamaraich@gmail.com

Larry Gouland CPUC larrygouland@yahoo.com

FernieEsa CPUC 330-2400

ANNEX 8: OCCUPATIONAL HEALTH AND SAFETY (OHS) IMPLEMENTATION PLAN GUIDELINES

1. Objective

The objective of this Code of Practice is to provide guidance on the:

- key principles involved in ensuring the health and safety of workers is protected;
- preparation of Health and Safety Code of Practices and associated Job Safety Analyses (JSA); and
- implementation of Health and Safety Code of Practices during project implementation.

The key reference document for this Guideline is the World Bank Group's *Environmental, Health, and Safety (EHS) Guidelines* together with the relevant Industry Sector EHS Guidelines available at www.ifc.org/ehsguidelines.

2. Requirements

For the purposes of the project, in addition to the national OHS standards the Employer is adopting a code of practice for occupational health and safety based on good international industry practice.

The Employer's Engineer is required to monitor OHS guidance during their regular duties. There will be monthly/bi-monthly independent OHS audits by a certified auditor as part of the consultant's supervision team. The Contractor will be required to report monthly on their performance with the above indicators supplied during bidding, as well as:

- Number of alcohol tests
- Proportion of positive alcohol tests
- Number of site health and safety audits conducted by contractor
- Number of safety briefings
- Number of near misses
- Number of traffic management inspections
- Number of sub-contractor reviews
- Number of stop work actions
- Number of positive reinforcements

3. Principles

Employers must take all reasonable practicable steps to protect the health and safety of workers and provide and maintain a safe and healthy working environment.

The application of prevention and control measures to occupational hazards should be based on comprehensive job safety analyses (JSA). The results of these analyses should be prioritized as part of an action plan based on the likelihood and severity of the consequence of exposure to the identified hazards.

The following key principles are relevant to maintaining worker health and safety:

3.1 Identification and assessment of hazards

Each employer must establish and maintain effective methods for:

- Systematically identifying existing and potential hazards to employees;
- Systematically identifying, at the earliest practicable time, new hazards to employees;
- Regularly assessing the extent to which a hazard poses a risk to employees.

3.2 Management of identified hazards

Each employer must apply prevention and control measures to control hazards which are identified and assessed as posing a threat to the safety, health or welfare of employees, and where practicable, the hazard shall he eliminated. The following preventive and protective measures must be implemented order of priority:

- Eliminating the hazard by removing the activity from the work process;
- Controlling the hazard at its source through engineering controls;
- Minimizing the hazard through design of safe work systems;
- Providing appropriate personal protective equipment (PPE).

The application of prevention and control measures to occupational hazards should be based on comprehensive job safety analyses (JSA). The results of these analyses should be prioritized as part of an action plan based on the likelihood

3.3 Training and supervision

Each employer must take all reasonable practicable steps to provide to employees (in appropriate languages) the necessary information, instruction, training and supervision to protect each employee's health and to manage emergencies that might reasonably be expected to arise in the course of work. Training and supervision extends to the correct use of PPE and providing employees with appropriate incentives to use PPE.

To that end, all safety officers, supervisors and managers for the contractor and Employer's Engineer must have an appropriate level of OHS competency for the role they are fulfilling.

3.4 General duty of employees

Each employee shall:

- take all reasonable care to protect their own and fellow workers health and safety at the workplace and, as appropriate, other persons in the vicinity of the workplace;
- use PPE and other safety equipment supplied as required; and
- not use PPE or other safety equipment for any purpose not directly related to the work for which it is provided.

3.5 Protective clothing and equipment

Each employer shall:

- provide, maintain and make accessible to employees the PPE necessary to avoid injury and damage to their health;
- take all reasonably practicable steps to ensure that employees use that PPE in the circumstances for which it is provided; and
- make provision at the workplace for PPE to be cleaned and securely stored without risk of damage when not required.

4. Design

Effective management of health and safety issues requires the inclusion of health and safety considerations during design processes in an organized, hierarchical manner that includes the following steps:

- identifying project health and safety hazards and associated risks as early as possible in the project cycle including the incorporation of health and safety considerations into the worksite selection process and construction methodologies;
- involving health and safety professionals who have the experience, competence, and training necessary to assess and manage health and safety risks;
- understanding the likelihood and magnitude of health and safety risks, based on:
    - the nature of the project activities, such as whether the project will involve hazardous materials or processes;
    - The potential consequences to workers if hazards are not adequately managed;
- designing and implementing risk management strategies with the objective of reducing the risk to human health;
- prioritising strategies that eliminate the cause of the hazard at its source by selecting less hazardous materials or processes that avoid the need for health and safety controls;
- when impact avoidance is not feasible, incorporating engineering and management controls to reduce or minimize the possibility and magnitude of undesired consequences;
- preparing workers and nearby communities to respond to accidents, including providing technical resources to effectively and safely control such events;
- Improving health and safety performance through a combination of ongoing monitoring of facility performance and effective accountability.

For further information on safety in design see: http://tinyurl.com/ohs-safety-in-design.

5. Job Safety Analysis

The job safety analysis (JSA) is a process involving the identification of potential health and safety hazards from a particular work activity and designing risk control measures to eliminate the hazards or reduce the risk to an acceptable level. JSAs must be undertaken for discrete project activities such that the risks can be readily identified and appropriate risk management measures designed.

The annex to this Code of Practice includes a template for a JSA that must be completed and included as an attachment to the Health and Safety Code of Practice.

6. Implementation

6.1 Documentation

An OHS Management Plan must be prepared and approved and submitted as part of the Contractor's ESMP prior to any works commencing on site.

The OHS Management Plan must demonstrate the Contractor's understanding of how to manage safety and a commitment to providing a workplace that enables all work activities to be carried out safely. The OHS Management Plan must detail reasonably practicable measures to eliminate or minimise risks to the health, safety and welfare of workers, contractors, visitors, and anyone else who may be affected by the operations. The OHS Management Plan must be prepared in accordance with the World Bank's EHS Guidelines, FSM and the applicable State's health and safety legislation, and industry best practices as appropriate.

6.2 Training and Awareness

Provisions should be made to provide health and safety orientation training to all new employees to ensure they are apprised of the basic site rules of work at / on the site and of personal protection and preventing injury to fellow employees. Training should consist of basic hazard awareness, site-specific hazards, safe work practices, and emergency procedures for fire, evacuation, and natural disaster, as appropriate.

Visitors to worksites must be provided with a site induction prior to entering and must be escorted at all times while on site. This induction must include details of site hazards, provision of necessary PPE and emergency procedures. Visitors are not permitted to access to areas where hazardous conditions or substances may be present, unless appropriately inducted.

6.3 Personal Protective Equipment (PPE)

Personal Protective Equipment (PPE) provides additional protection to workers exposed to workplace hazards in conjunction with other facility controls and safety systems.

The PPE requirements shall be clearly defined in the CESMP and be based on the New Zealand Transport Agency's ZeroHarm approach (http://tinyurl.com/ohs-ppe-requirements). It should be noted that these PPE requirements also apply to site visitors, based on the assessed risk.

PPE is considered to be a last resort that is above and beyond the other facility controls and provides the worker with an extra level of personal protection. The table below presents general examples of occupational hazards and types of PPE available for different purposes. Recommended measures for use of PPE in the workplace include:·

- active use of PPE if alternative technologies, work plans or procedures cannot eliminate, or sufficiently reduce, a hazard or exposure;
- identification and provision of appropriate PPE that offers adequate protection to the worker, co-workers, and occasional visitors, without incurring unnecessary inconvenience to the individual;

- proper maintenance of PPE, including cleaning when dirty and replacement when damaged or worn out. Proper use of PPE should be part of the recurrent training programs for Employees
- selection of PPE should be based on the hazard and risk ranking described earlier in this section, and selected according to criteria on performance and testing established

Objective	Workplace Hazards	Suggested PPE
Eye and face protection	Flying particles, molten metal, liquid chemicals, gases or vapors, light radiation.	Safety Glasses with side-shields, protective shades, etc.
Head protection	Falling objects, inadequate height clearance, and overhead power cords.	Plastic Helmets with top and side impact protection.
Hearing protection	Noise, ultra-sound.	Hearing protectors (ear plugs or ear muffs).
Foot protection	Falling or rolling objects, pointed objects. Corrosive or hot liquids.	Safety shoes and boots for protection against moving & falling objects, liquids and chemicals.
Hand protection	Hazardous materials, cuts or lacerations, vibrations, extreme temperatures.	Gloves made of rubber or synthetic materials (Neoprene), leather, steel, insulating materials, etc.
Respiratory protection	Dust, fogs, fumes, mists, gases, smokes, vapors.	Facemasks with appropriate filters for dust removal and air purification (chemicals, mists, vapors and gases). Single or multi-gas personal monitors, if available.
	Oxygen deficiency	Portable or supplied air (fixed lines). On-site rescue equipment.
Body/leg protection	Extreme temperatures, hazardous materials, biological agents, cutting and laceration.	Insulating clothing, body suits aprons etc. of appropriate materials.

7. Monitoring

Occupational health and safety monitoring programs should verify the effectiveness of prevention and control strategies. The selected indicators should be representative of the most significant occupational, health, and safety hazards, and the implementation of prevention and control strategies. The occupational health and safety monitoring program should include:

- **Safety inspection, testing and calibration**: This should include regular inspection and testing of all safety features and hazard control measures focusing on engineering and personal protective features, work procedures, places of work, installations, equipment, and tools

used. The inspection should verify that issued PPE continues to provide adequate protection and is being worn as required.

- **Surveillance of the working environment**: Employers should document compliance using an appropriate combination of portable and stationary sampling and monitoring instruments. Monitoring and analyses should be conducted according to internationally recognized methods and standards.
- **Surveillance of workers health**: When extraordinary protective measures are required (for example, against hazardous compounds), workers should be provided appropriate and relevant health surveillance prior to first exposure, and at regular intervals thereafter.
- **Training**: Training activities for employees and visitors should be adequately monitored and documented (curriculum, duration, and participants). Emergency exercises, including fire drills, should be documented adequately.
- **Accidents and Diseases monitoring**. The employer should establish procedures and systems for reporting and recording:
    - Occupational accidents and diseases
    - Dangerous occurrences and incidents

These systems should enable workers to report immediately to their immediate supervisor any situation they believe presents a serious danger to life or health. Each month, the contractor shall supply the following data to the Employer's Engineer for reporting to the client. These data are to also include incidents related to any sub-contractors working directly, or indirectly, for the Contractor.

Lead Indicators	Lag Indicators
Number of drug and alcohol tests	Number of Fatal injuries
Proportion of positive drug and alcohol tests	Number of Notifiable Injuries
Number of site health and safety audits	Number of Lost Time Injuries (LTI)
Number of safety briefings	Number of Medical Treatment Injuries (MTI)
Number of near misses	Number of First Aid Injuries (FAI)
Number of traffic management inspections	Total Recordable Injuries
Number of Safety in Design workshops (Designers only)	Number of serious environmental incidents
Number of Safety in Design issues eliminated (Designers only)	Number of service strikes
Number of sub-contractor reviews	Number of property damage incidents
Number of stop work actions	Number of staff on reduced/alternate duties
Number of positive reinforcements	Lost Time Injury Frequency Rate (LTIFR)
	Total Recordable Frequency Rate (TRFR)

Definitions of the above are to be in accordance with those used by the New Zealand Transport Agency (http://tinyurl.com/nzta-ohs-reporting).

The Employer's Engineer shall be notified of any incident in accordance with the standards below:

Incident Severity Class	Incident Classification	Notification timeframe
Class 1	Fatality	As soon as possible
	Notifiable Injury, Illness or Incident	As soon as possible
Class 2	Lost Time Injury	As soon as practicable but within 48 hours
	Medical Treatment	Within 72 hours

All Class 1 and Class 2 health and safety incidents must be formally investigated and reported to the Employer's Engineer through an investigation report. This report shall be based on a sufficient level of investigation by the Contractor so that all the essential factors are recorded. Lessons learnt must be identified and communicated promptly. All findings must have substantive documentation. As a minimum the investigation report must include:

- Date and location of incident
- Summary of events
- Immediate cause of incident
- Underlying cause of incident
- Root cause of incident
- Immediate action taken
- Human factors
- Outcome of incident, e.g. severity of harm caused, injury, damage
- Corrective actions with clearly defined timelines and people responsible for implementation
- Recommendations for further improvement

Job Safety Analysis (JSA)

Add Organisation Name:

Ref: Version:

Business details			
Business name:			
Contact person:			
Address:		Contact position:	
Contact phone number		Contact email address:	
Job Safety Analysis details			
Work activity:		Location:	
Who are involved in the activity:		This job analysis has been authorised by: Name:..... Position: ..... Signature:..... Date:.....	
Plant and equipment used:			
Maintenance checks required:			
Tools used:			
Materials used:			
Personal protective equipment:			
Certificates, permits and/approvals required			
Relevant legislation, codes, standard MSDSs etc applicable to this activity			

ANNEX 9: ESHS – CODES OF CONDUCT

CODES OF CONDUCT AND ACTION PLAN FOR IMPLEMENTING ESHS AND OHS STANDARDS, AND PREVENTING GENDER BASED VIOLENCE (GBV) AND VIOLENCE AGAINST CHILDREN (VAC)

Table of Contents

1. Background

The purpose of these *Codes of Conduct and Action Plan for Implementing ESHS and OHS Standards, and Preventing Gender Based Violence (GBV) and Violence Against Children (VAC)* is to introduce a set of key definitions, core Codes of Conduct, and guidelines that:

i. clearly define obligations on all project staff (including sub-contractors and day workers) with regard to implementing the project's environmental, social, health and safety (ESHS) and occupational health and safety (OHS) requirements, and;
ii. prevent, report and address GBV and VAC within the work site and in its immediate surrounding communities.

The application of these Codes of Conduct will help ensure the project meets its ESHS and OHS objectives, as well as preventing and/or mitigating the risks of GBV and VAC on the project.

Mutual respect and fair treatment between those working on the project and local communities is critical to a safe, respectful, and productive workplace and operating environment. GBV and VAC can be one of the most serious violations of respect and fair treatment which can harm the local community, and significantly damage trust and cooperation between parties.

These Codes of Conduct are to be adopted by those working on the project and are meant to:

i. create awareness of the ESHS and OHS expectations on the project;
ii. create common awareness about GBV and VAC and:
    a. ensure a shared understanding that they have no place in the project; and,
    b. create a clear system for identifying, responding to, and sanctioning GBV and VAC incidents.

Ensuring that all project staff understand the values of the project, understand expectations for all employees, and acknowledge the consequences for violations of these values, will help to create a smoother, more respectful and productive project implementation thereby helping ensure that the project's objectives will be achieved.

2. Definitions

The following definitions apply:

- **Environmental, Social, Health and Safety (ESHS):** an umbrella term covering issues related to the impact of the project on the environment, communities and workers.
- **Occupational Health and Safety (OHS):** Occupational health and safety is concerned with protecting the safety, health and welfare of people engaged in

work or employment. The enjoyment of these standards at the highest levels is a basic human right that should be accessible by each and every worker.

- **Gender-Based Violence (GBV):**is an umbrella term for any harmful act that inflicts physical, sexual, emotional or psychological harm or suffering to a person, threats of such acts, coercion, and other deprivations of liberty, which is based on power inequalities that are based on gender roles in which a perpetrator gains power and exerts control over the other person. These acts can occur in public or in private. GBV is abuses of power perpetrated against any persons because of their gender.
- **Violence against Women and Girls (VAWG):** is an umbrella term for any harmful act that is perpetrated against girls and women, expressly because she is a girl or woman, and that is based on socially ascribed (i.e. gender) differences between men and women. It includes acts that inflict physical, sexual, emotional or psychological harm or suffering, threats of such acts, coercion, and other deprivations of liberty and can occur in public or in private. Since women and children are most vulnerable to violence, VAWG specifically speaks to the power dynamics between men and women in which women are perceived to have less power than men.[2]
- **Violence Against Children (VAC):** is defined as physical, sexual, emotional and/or psychological harm, neglect or negligent treatment of minor children (i.e. under the age of 18), including exposure to such harm,[3] that results in actual or potential harm to the child's health, survival, development or dignity in the context of a relationship of responsibility, trust or power. This includes using children for profit, labor, sexual gratification, or some other personal or financial advantage. This also includes other activities such as using computers, mobile phones, or video and digital cameras appropriately, and never to exploit or harass children or to access child pornography through any mediums.
- **Sexual Harassment:**is unwelcome sexual advances, requests for sexual favors, and other verbal or physical conduct of a sexual nature. Sexual harassment is not always explicit or obvious, it can include implicit and subtle acts but always involves a power and gender dynamic in which a person in power uses their position to harass another based on their gender. Sexual conduct is unwelcome whenever the person subjected to it considers it unwelcome. Ex. Looking somebody up and down; kissing, howling or smacking sounds; hanging around somebody; whistling and catcalls; giving personal gifts.
- **Accountability Measures:** are the measures put in place to ensure the confidentiality of survivors and to hold contractors, consultants and the client responsible for instituting a fair system of addressing cases of GBV and VAC.
- **Contractors Environmental and Social Management Plan (CESMP):** The plan prepared by the contractor as to how they will implement the works activities in accordance with the project's environmental and social management plan (ESMP).

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[2] It is important to note that although disproportionately perpetrated against women and girls, violence can also be perpetrated against men and boys. While VAWG specifically relates to violence against women and girls, GBV relates to violence against persons of any gender, including men, boys, and transgender.

[3] Exposure to domestic violence is also considered VAC.

- **Child:** is used interchangeably with the term 'minor' and refers to a person under the age of 18.[4] This is in accordance with Article 1 of the United Nations Convention on the Rights of the Child.
- **Child Protection (CP):** is an activity or initiative designed to protect children from any form of harm, particularly arising from VAC.
- **Consent:** is the informed choice underlying an individual's free and voluntary intention, acceptance or agreement to do something. No consent can be found when such acceptance or agreement is obtained through the use of threats, force or other forms of coercion, abduction, fraud, deception, or misrepresentation. In accordance with the United Nations Convention on the Rights of the Child, the World Bank considers that consent cannot be given by children under the age of 18, even in the event that national legislation of the country into which the Code of Conduct is introduced has a lower age[5]. Mistaken belief regarding the age of the child and consent from the child is not a defense.
- **Consultant:** is as any firm, company, organization or other institution that has been awarded a contract to provide consulting services in the context of the ERAP, to the project, and has hired managers and/or employees to conduct this work.
- **Contractor:** is any firm, company, organization or other institution that has been awarded a contract to conduct infrastructure development works in the context of the ERAP project and has hired managers and/or employees to conduct this work. This also includes sub-contractors hired to undertake activities on behalf of the contractor.
- **Employee:** is as any individual offering labor to the contractor or consultant within country on or off the work site, under a formal or informal employment contract or arrangement, typically but not necessarily in exchange for a salary (e.g. including unpaid interns and volunteers), with no responsibility to manage or supervise other employees.
- **GBV and VAC Allegation Procedure:** is the prescribed procedure to be followed when reporting incidents of GBV or VAC.
- **GBV and VAC Codes of Conduct:** The Codes of Conduct adopted for the project covering the commitment of the company, and the responsibilities of managers and individuals with regards to GBV and VAC.
- **GBV and VAC Compliance Team (GCCT):** a team established by the project to address GBV and VAC issues.
- **Grievance Redress Mechanism (GRM):** is the process established by the VAIP project to receive and address complaints (see www.vaip.vu).
- **Grooming:** are behaviors that make it easier for a perpetrator to procure a child for sexual activity. For example, an offender might build a relationship of trust with the child, and then seek to sexualize that relationship (for example by encouraging romantic feelings or exposing the child to sexual concepts through pornography).

[4]FSM is party to this convention. http://www.pseataskforce.org/uploads/tools/1478613357.pdf

[5] The World Bank follows the United Nations for the age of consent (18 years) so this applies on World Bank financed projects.

- **Manager:** is any individual offering labor to the contractor or consultant, on or off the work site, under a formal employment contract and in exchange for a salary, with responsibility to control or direct the activities of a contractor's or consultant's team, unit, division or similar, and to supervise and manage a pre-defined number of employees.
- **Online Grooming:** is the act of sending an electronic message with indecent content to a recipient who the sender believes to be a minor, with the intention of procuring the recipient to engage in or submit to sexual activity with another person, including but not necessarily the sender.
- **Perpetrator:** is the person(s) who commit(s) or threaten(s) to commit an act or acts of GBV or VAC.
- **Response Protocol:**is the mechanisms set in place to respond to cases of GBV and VAC.
- **Sexual Favors**: is a form of sexual harassment and includes making promises of favorable treatment (ie. promotion) or threats of unfavorable treatment (ie. loss of job) dependent on sexual acts—or other forms of humiliating, degrading or exploitative behavior.
- **Survivor/Survivors:** is the person(s) adversely affected by GBV or VAC. Women, men and children can be survivors of GBV; children can be survivors of VAC.
- **Work Site:** is the area in which infrastructure development works are being conducted, as part of the project.
- **Work Site Surroundings:** is the 'Project Area of Influence' which are any area, urban or rural, directly affected by the project, including all human settlements found on it.

3. Codes of Conduct

This chapter presents three Codes of Conduct for use:

- **Company Code of Conduct:** Commits the company to addressing GBV and VAC issues;
- **Manager's Code of Conduct:** Commits managers to implementing the Company Code of Conduct, as well as those signed by individuals; and,
- **Individual Code of Conduct:** Code of Conduct for everyone working on the project, including managers.

3.1 Company Code of Conduct

Company Code of Conduct
Implementing ESHS and OHS Standards
Preventing Gender Based Violence and Violence Against Children

The company is committed to ensuring that the project is implemented in such a way which minimizes any negative impacts on the local environment, communities, and its workers. This will be done by respecting the environmental, social, health and safety (ESHS) standards, and ensuring appropriate occupational health and safety (OHS) standards are met. The company is also committed to creating and maintaining an environment in which gender based violence (GBV) and violence against children (VAC) have no place, and where they will not be tolerated by any employee, associate, or representative of the company.

Therefore, in order to ensure that all those engaged in the project are aware of this commitment, the company commits to the following core principles and minimum standards of behavior that will apply to all company employees, associates, and representatives including sub-contractors, without exception:

General

1. The company—and therefore all employees, associates, and representatives—commits to complying with all relevant national laws, rules and regulations.
2. The company commits to full implementing its 'Contractors Environmental and Social Management Plan' (CESMP).
3. The company commits to treating women, children (persons under the age of 18), and men with respect regardless of race, color, language, religion, political or other opinion, national, ethnic or social origin, property, disability, birth or other status. Acts of GBV and VAC are in violation of this commitment.
4. The company shall ensure that interactions with local community members are done with respect and non-discrimination.
5. Demeaning, threatening, harassing, abusive, culturally inappropriate, or sexually provocative language and behavior are prohibited among all company employees, associates, and its representatives.
6. Respect reasonable work instructions (including regarding environmental and social norms)
7. Protect and ensure proper use of property (for example, to prohibit theft, carelessness or waste)

Health and Safety

8. The company will ensure that the project's occupational health and safety (OHS) management plan is effectively implemented, including wearing prescribed

personal protective equipment, preventing avoidable accidents and reporting conditions or practices that pose a safety hazard or threaten the environment.

9. The company will:
    a. prohibit the use of alcohol during work activities.
    b. The company will prohibit the use of illegal substances at all times.
10. The company will ensure that adequate sanitation facilities are available on site and at any worker accommodations provided by the contractor.

Gender Based Violence and Violence Against Children

11. Acts of GBV or VAC constitute gross misconduct and are therefore grounds for sanctions, which may include penalties and/or termination of employment. All forms of GBV and VAC, including grooming are unacceptable, regardless of whether they take place on the work site, the work site surroundings, at worker's camps or at worker's homes.
12. In addition to company sanctions, legal prosecution of those who commit acts of GBV or VAC will be pursued if appropriate.
13. Sexual contact or activity with children under 18—including through digital media—is prohibited. Mistaken belief regarding the age of a child is not a defense. Consent from the child is also not a defense or excuse.
14. Sexual Harassment—for instance, making unwelcome sexual advances, requests for sexual favors, and other verbal or physical conduct, of a sexual nature, including subtle acts of such behavior, is prohibited. Ex. Looking somebody up and down; kissing, howling or smacking sounds; hanging around somebody; whistling and catcalls; giving personal gifts; making comments about somebody's sex life; etc. is prohibited.
15. Sexual favors —for instance, making promises or favorable treatment dependent on sexual acts—or other forms of humiliating, degrading or exploitative behavior are prohibited.
16. Unless there is full consent[6] by all parties involved in the sexual act, sexual interactions between the company's employees (at any level) and members of the communities surrounding the work place are prohibited. This includes relationships involving the withholding/promise of actual provision of benefit (monetary or non-monetary) to community members in exchange for sex—such sexual activity is considered "non-consensual" within the scope of this Code.
17. All employees, including volunteers and sub-contractors are highly encouraged to report suspected or actual acts of GBV and/or VAC by a fellow worker, whether in the same company or not. Reports must be made in accordance with GBV and VAC Allegation Procedures.
18. Managers are required to report suspected or actual acts of GBV and/or VAC as they have a responsibility to uphold company commitments and hold their direct reports responsible.

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[6]**Consent** is defined as the informed choice underlying an individual's free and voluntary intention, acceptance or agreement to do something. No consent can be found when such acceptance or agreement is obtained through the use of threats, force or other forms of coercion, abduction, fraud, deception, or misrepresentation. In accordance with the United Nations Convention on the Rights of the Child, the World Bank considers that consent cannot be given by children under the age of 18, even in the event that national legislation of the country into which the Code of Conduct is introduced has a lower age. Mistaken belief regarding the age of the child and consent from the child is not a defense.

Implementation

To ensure that the above principles are implemented effectively the company commits to ensuring that:

19. All managers sign the 'Manager's Code of Conduct' detailing their responsibilities for implementing the company's commitments and enforcing the responsibilities in the 'Individual Code of Conduct'.
20. All employees sign the project's 'Individual Code of Conduct' confirming their agreement to comply with ESHS and OHS standards, and not to engage in activities resulting in GBV or VAC.
21. Displaying the Company and Individual Codes of Conduct prominently and in clear view at workers' camps, offices, and in in public areas of the work space. Examples of areas include waiting, rest and lobby areas of sites, canteen areas, health clinics.
22. Ensure that posted and distributed copies of the Company and Individual Codes of Conduct are translated into the appropriate language of use in the work site areas as well as for any international staff in their native language.
23. An appropriate person is nominated as the company's 'Focal Point' for addressing GBV and VAC issues, including representing the company on the GBV and VAC Compliance Team (GCCT) which is comprised of representatives from the client, contractor(s), the supervision consultant, and local service provider(s).
24. Ensuring that an effective GBV and VAC Action Plan is developed in consultation with the GCCT which includes as a minimum:

    a. **GBV and VAC Allegation Procedure** to report GBV and VAC issues through the project Grievance Redress Mechanism (GRM);
    b. **Accountability Measures** to protect confidentiality of all involved; and,
    c. **Response Protocol** applicable to GBV and VAC survivors and perpetrators.

25. That the company effectively implements the GBV and VAC Action Plan, providing feedback to the GCCT for improvements and updates as appropriate.
26. All employees attend an induction training course prior to commencing work on site to ensure they are familiar with the company's commitments to ESHS and OHS standards, and the project's GBV and VAC Codes of Conduct.
27. All employees attend a mandatory training course once a month for the duration of the contract starting from the first induction training prior to commencement of work to reinforce the understanding of the project's ESHS and OHS standards and the GBV and VAC Code of Conduct.

I do hereby acknowledge that I have read the foregoing Company Code of Conduct, and on behalf of the company agree to comply with the standards contained therein. I understand my role and responsibilities to support the project's OHS and ESHS standards, and to prevent and respond to GBV and VAC. I understand that any action inconsistent

with this Company Code of Conduct or failure to take action mandated by this Company Code of Conduct may result in disciplinary action.

Company name: _____

Signature: _____

Printed Name: _____

Title: _____

Date: _____

Annex 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. Stage 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.