

**Quarterly Progress Report No. 13**

**2nd Quarter 2011**

**(April to June 2011)**

Table of Acronyms

ADB Asian Development Bank

ADR Arthur D Riley

APM Acting Project Manager

AusAID Australian Agency for International Development

CEO Chief Executive Officer

CSO Community Service Obligation

DSR Debt-service Ratio

EA Executing Agency

EARF Environmental Assessment and Review Framework

EBI Egis Bceom International EPC Electric Power Corporation ESU Environment and Social Unit GoS Government of Samoa

IA Implementing Agency

ICB International Competitive Bidding IEE Initial Environmental Examination IRR Internal Rate of Return

JBIC Japan Bank for International Cooperation JICA Japan International Cooperation Agency km kilometre

kV kilo Volt

kVA kilo Volt-Ampere kW Kilo Watt

LARF Land Acquisition and Resettlement Framework LARSF Land Acquisition and Resettlement Screening Form MCIL Ministry of Commerce, Industry and Labour

MNRE Ministry of Natural Resource and Environment

MOF Ministry of Finance

MOU Memorandum of Understanding

MWCSD Ministry of Women Community and Social Development

NCB National Competitive Bidding

NPV Net Present Value

PEAR Preliminary Environmental Assessment Report

PM Project Manager

PMC Project Management Committee

PMU Project Management Unit

PPMS Project Performance Monitoring System

PSC Project Steering Committee

PUMA Planning & Urban Management Agency

REA Rapid Environmental Assessment

SLC Samoa Land Corporation

SMEC Snowy Mountain Engineering Consultant

STEC Samoa Trust Estate Corporation

SWA Samoa Water Authority

TA Technical Assistance

TER Tender Evaluation Report

USD American Currency

Distribution List

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**1. EXECUTIVE SUMMARY**

This is the Quarterly Progress Report No. 14 and it covers the project activities and progress for the 3rd Quarter 2011 from July 1 to September 30, 2011.

The purpose of this report is to provide quarterly progress as well as any issues confronting the Project Management Unit in the implementation of the subprojects under the Samoa Power Sector Expansion Project to enable the EPC Board of Directors, Project Steering Committee, Project Management Committee and Asian Development Bank to monitor the project progress, become aware of the issues and assess whether the immediate project objectives will be met.

The Government of Samoa received a loan of USD26.60 million and a grant of USD15.40 million from the Asian Development Bank (ADB), a loan of USD38.00 from JICA and a grant of USD8.00 million through the AusAID and the Electric Power Corporation contributes USD12.00 million making up the total cost of USD100.00 million for the Samoa Power Sector Expansion Project. The loan was approved on December 11, 2007 and became effective on June 16, 2008.

There was a ADB/JICA/AussieAid Mission this Quarter. They ran through status of each subproject. There were extensive discussions between Mission Team and PSEP PMU and EPC as well as Attorney General. ADB Anti-corruption Committee started their review of PSEP in June, this Quarter. Committee consists of 2 ADB officials, 3 from accounting firm Price Waterhouse from New Zealand and official from Government Audit Office. Committee reviewed 2 projects; Fiaga Power Plant, Access Road to Fiaga Power Plant and Upgrade Stage 1 of Alaoa Feeder and Hospital Feeder.

Implementation Consultant (IC) continued to fulfil its tasks and responsibilities under its Contract to assist PMU with implementation of various subprojects under the PSEP. Implementation Consultant also continued with the preparation of feasibility studies of hydro schemes in Upolu and Savaii. Study now focuses on five schemes; namely Faleseela, Tafitoala, Tiapapata and Fuluasou in Upolu and Faleata in Vailoa, Palauli, Savaii. ADB reviewed and submitted its comments on FS of Faleseela Hydro Scheme. IC is completing this FS.

Construction of the upgrades of the Alaoa Feeder and Hospital Feeder Stage 1 from 6.6 to 22

KV by Bluebird Ah LAL JV are completed and the contract closed. Final payment is still pending. Issue is variation which exceeded allowable percentage without ADB approval. ADB is still reviewing and have not submitted its decision. EPC paid final payment to avoid payment of penalty for late payment.

Construction continued on Hospital Feeder Upgrade Stage 2 to upgrade the feeder from 6.6kV to

22kV. Feeder high voltage cable is underground from Tanugamanono power plant to Savalalo and continued overhead to Mulinuu. Overhead mounted transformers will be left overhead except replacing 6.6kv transformers with 22kv ones. LV network will also remain overhead. Contractor is Bluebird Ah LAL JV. Construction and installation of cables to tie the feeder to switchgear inside power plant is carried out by EPC. About 90% of trenching and installation of conduits is complete. Most of vaults and road crossings are also completed. Construction is a very challenging because it is done in middle of most busy business area of Apia. There were no major land issues other than carrying our surveys to determine legal boundaries. Some families have encroached legal boundaries. Arrangements were made for them to move their fences out of legal boundary of the road. There are some variations to contract due to extra work.

Construction of 650 meters of underground section of Alaoa and Fale Ole Fee transmission line is 60% complete.

Construction continued on Reconductoring of Upolu 22kV Powerlines. There are 5 feeders included; West Coast Feeder, South Coast Feeder; East Coast Feeder; 33kv tie from Lalomauga hydro to the Tanugamanono power plant; and Transmission line from Alaoa and Fale Ole Fee hydro plants to Tanugamanono power plant. Contractor is GMA. 40% of the work is completed.

Contractor for reconductoring of the Puapua to Asau 22kV Powerline in Savaii has been completed and final payment made.

Refurbishment of the Alaoa hydro plant by Tenix is complete and machine is in operation. Silva Transport Ltd have not completed all of the civil work contract. Outstanding work is repair of access road to the headpond.

On installation of prepayment meters; conversion to PPM is continuing. All new installations are installed with prepayment meters. customers were installed with PPM during this 3rd Quarter

2011. are new electric installations and are conversion from induction meters.

The customers converted and installed with Prepayment Meters this Quarter brought the total number of customers converted to Cash Power under ADR‟s contract to 18,922 meters; this is 90.1% of the total 21,000 meters to be converted to Cash Power under A D Riley‟s contract. This left only 2,078 meters to be converted to complete ADR‟s contract. Project is ahead of schedule. Two of the subcontractors already completed installation of their allocations. Only one subcontractor is installing meters now. Total number of electric customers with Cash Power meters at end of this Quarter is 23,688 or 64.67% of total number of electric meters of 36,634. Total number of electric customers is being verified. If this figure is correct, we may not achieve the 75% of total number of customers with the remaining number of Cash Power meters left to be installed by A D Riley. EPC needs to order 1,782 more Cash Power meters in order to meet the 75% requirement. But if total number of active meters is less than the figure above, we may achieve the 75% with remaining meters to be installed in A D Riley‟s contract. There is an increasing number of defective meters under A D Riley‟s contract. At end of June this year over

600 meters are defective. Most of defective meters have blank screens. This is a major concern because these defective meters with blank screens continue to supply power to these consumers without topping up. Problem has been brought up to A D Riley but so far, they have not come up with a solution. Because of this problem and cost of meters from A D Riley, PMU is seeking other supply of cash power meters. PMU solicited quotes from 3 suppliers to supply

2,000 single phase meters and 100 three phase meters without current transformers.

A total of Cash Power meters were lowered this quarter. Total number of meters lowered so far is 3,590 or about 32.6% of total number of meters to be lowered under A D Riley contract. Subcontractors lowered these meters as they are converted to Cash Power or during maintenance of meters. For all new installations, consumers install their meters at 1.6 meters, so it did not require subcontractors to lower them. EPC have taken over installation of Cash Power meters for new installations. Lowering of meters is covered under Variation 1 to A D Riley‟s contract. Variation 1 has not been signed. Variation 1 only covers labor cost. Cost of bulk supply of materials to lower the meters has been paid under the loan. Subcontractors were supplied with these materials. Left over materials are returned to EPC.

Scratch cards are widely used now with more outlets set up by EPC in villages to sell these cards. EPC is signing a contract with National Bank of Samoa for bank to introduce a new system where by customers with accounts with NBS could buy top up tokens through texting the bank. Cost of token will be deducted directly from customer‟s bank account. Customers don‟t need to leave their houses to purchase top up tokens.

Remaining new 22kv switchgear for Lalomauga hydro has arrived. Installation by Northpower Nz Ltd is scheduled in October this year. This is part of Taelefaga/Lalomauga/Samasoni/Tanugamanono 22kv Switchgear replacement contract.

For refurbishment of Tanugamanono diesel generators Units 5A and 9A, later is completed. Work on 5A has not started. Unit 7A, not part of contract, failed from damaged crankshaft. Because of urgency to get 7A repaired, EPC requested ADB for approval to use overhaul parts of Unit 5A on 7A. ADB approved it. EPC bought a replacement crankshaft for Unit 7A. Unit 5A is still running. EPC will later buy overhaul parts for 5A after 7A is back in operation.

Construction of Fiaga‟s Power Plant Lot A continued. All engine concrete pads, floor, tie beams of floor, building column footings have been poured. All structure steel has been received. Contractor is targeting October 29 to complete engine foundations and building ready for arrival of engines and generators to start installation. Factory testing of alternators in Hyundai factory in South Korea and 4 new engines in Mitsubishi factory in Yokoama were successfully completed. Four of EPC‟s maintenance staff attended a 3-long week long training in Japan during factory testing. They have returned. EPC did not send any engineers for factory testing of engines and alternators eventhough they were supposed under the contract. There was a misunderstanding with contractor.

All Medium Voltage equipment for Lot B contract of the Fiaga‟s New Power Plant arrived in Apia. Because switchgear room of power house is not complete, switchgear will be placed on storage.

415 volt distribution panel, backup generator, and concrete ducting for cable installation also arrived from NZ. These will be put on storage.

Construction of Hospital Feeder Upgrade Stage 2 continued. Contractor is Bluebird Ah LAL JV. About 90% of all trenching and laying of electrical conduits is complete; same with installation of vaults. Construction of this project has been very challenging because the underground runs through the business area of town. Work is carried out during business hours from Monday to Friday. Little work is done on weekends. Included with this project is trenching and installation of conduits for a section of the 33kv underground tieline from Fuluasou substation and Tanugamanono as well as 22kv transmission underground line from Samasoni hydro to Tanugamanono power plant. Underground still uses pole mounted transformers; but existing

6.6kv transformers will be replaced with new 22kv units. Installation and termination of cables is scheduled to start in August.

Construction continued on reconductoring and repair of all 22kV powerlines in Upolu. Contractor is GMA. Five distribution feeders will be upgraded under this contract. They are; South Coast, West Coast, East Coast, Vaitele, and Lalomauga 33kV tie. Also the new Alaoa /Fale ole Fee transmission line will be constructed under this project to connect the Alaoa and Fale ole Fee hydro plants direct to Tanugamanono power plant instead of connecting to East Coast

distribution feeder. Construction period is one year. Scope covers replacing existing conductors to a large one, replace rotten poles and cross arms, straighten leaning poles, and relocation of about 7.0 kilometers of the Lalomauga 33kV tie line from mountain to the side of the main east coast road for ease of access for maintenance. 30% of total work is complete and about same percentage of contract time is used up. Work is progressing well. Contractor only uses two crews of 10 men each. Contractor is supposed to use 3 crews and he has been told to provide a

3rd crew. Contractor has a shutdown each day, Monday to Friday.

For the Upolu Low Voltage System Improvements, materials and related equipment have started to arrive. Construction has not started. EPC will carry out construction in house.

Feasibility Study of the Savaii new power plant in Vaiaata to replace the Salelologa power plant is revised based on ADB comments. New power plant will house two new medium speed base load machines and three existing generators from Salelologa refurbished before installing them in Vaiaata. Salelologa will be turned into a substation where feeder from Vaiaata will be redistributed into smaller feeders. This will greatly improve power reliability. With new power plant located in Vaiaata, a mini control center will be located in EPC‟s depot in Salelologa to monitor and control the system. A telecommunication link will be made from Upolu National Control Center to Vaiaata and mini control center in Salelologa so that system in Savaii can be monitored from EPC national control center in Fuluasou.

There was no activity in Vaipu pump assisted system subproject this Quarter. This project will put additional water in the Afulilo Dam to increase power generated from the Taelefaga power plant. Decision is waiting on outcome of investigation by SMEC where the dam is safe after the

2009 earthquake.

***Table 1*** below provides a summary of Withdrawals Application and Disbursements at end of this

Quarter for different subprojects:

**Table 1: WA's Disbursements - FAALEPO TO UPDATE THIS WA disb**

Latest status of items identified from previous and current quarterly reports:

*(i) Lowering of the first 10,500 meters converted to cash power without lowering - Variation to A D Riley’s contract to lower meters was approved after these meters were converted to Cash Power. ADR’s base contract did not include lowering of meters. EPC is only lowering meters for consumers who requested them.*

*(ii) Number of EPC active electric meters – EPC is still working on this. This is not an easy task because EPC has to reconcile and inspect just about all electric meters shown on computer system to find out if they really exist. The number of active meters is needed to correctly determine the number of additional prepayment meters to be installed to achieve the 75% mark of total number of electric consumers on prepayment meters.*

*(iii) Drilling a new water well in Fiaga for new power plant water supply – No activity. (iv) Loan Buy Back Agreement between MOF and EPC – No activity.*

**2. INTRODUCTION**

This is the Quarterly Progress Report No. 13 and it covers the project activities and progress for the period from April to June 2011 (1st Quarter 2011 Progress Report).

The purpose of this report is to provide quarterly progress as well as any issues confronting the Project Management Unit in the implementation of the subprojects under the Samoa Power Sector Expansion Project to enable the EPC Board of Directors, Project Steering Committee, Project Management Committee, and Asian Development Bank to monitor the project progress and become aware of the issues and assess whether the immediate project objective will be met.

**2.1 Vision**

Provide reliable, affordable electricity for Samoa.

**2.2 Mission**

To provide quality electricity services in partnership with customers and stakeholders, be financially viable by adopting the most economical use of our resources and continued pursuit of technology and innovation to achieve excellent services, through technical, commercial and environmentally sound work practices.

**2.3 Objectives**

(i) Improve the capacity of the sector to meet growing electricity demand and improve quality, reliability, and cost-effectiveness of power supply.

(ii) Support and implement EPC‟s investment plan to meet growing demand. (iii) Improve the operational efficiency of EPC.

(iv) Improve the financial performance of EPC.

(v) Assist in establishing effective regulation of the power sector.

(vi) Develop a demand-side management strategy to promote energy efficiency and conservation.

(vii) Provide accurate and timely reports to Lending Agencies, Stakeholders, Sponsors and customers.

(viii) Collaboratively work as a team with Lending Agencies, Stakeholders, Sponsors and customers to ensure timely delivery of the Power Sector Expansion Project.

**2.4 Rationale**

Reliable power supply is essential for enhancing the quality of life of all Samoans. Good performance of the power sector and reliable electricity services are vital for promoting private sector investments to diversify the economy and achieve sustainable economic growth. The performance of the power sector is increasingly becoming a hindrance to economic growth. High system losses and voltage drops, insufficient generating capacities for reserve, and insufficient maintenance resulting in equipment failure have resulted in poor reliability and quality of electricity supply. As a consequence, consumers are resorting to more expensive self-generation or loss of production and damage to electrical equipment.

**2.5 Sector Loan Data**

|  |  |
| --- | --- |
| ADB Sector Loan Number:  ADB Grant Number: JBIC Loan Number: AUSAID Grant Number: | **2368**  **0087**  **8232**  **0101** |
| Project Title: | **Power Sector Expansion Project** |
| Borrower: | **The Government of Samoa** |
| Executing Agency: | **Ministry of Finance** |
| Implementing Agency: | **Electric Power Corporation** |
| Lending Agencies: | **Asian Development Bank (ADB)**  **Japan Bank for International Cooperation**  **(JBIC)**  **Australian Agency for International**  **Development (AusAID)** |

**2.6 Key Loan and Asian Development Bank (ADB) Mission Dates**

|  |  |
| --- | --- |
| **Loan Approval Date:** | 21st November 2007 |
| **Date Loan Signed:** | 11th December 2007 |
| **Date of Loan Effectiveness:** | 19th June 2008 |
| **Loan Closing Date:** | 31st December 2016 |
| **Last ADB Mission:** | Last full ADB mission was in February 2011; ADB, JICA and Aussie Aid officers were present. |

**2.7 Estimated Project Cost and Financing Plan**

|  |  |  |
| --- | --- | --- |
| **Source** | **Total**  **USD** | **%** |
| **Asian Development Bank ADF Loan:** | 26.61 | 26.61 |
| **Asian Development Bank ADF Grant:** | 15.39 | 15.39 |
| **Japan Bank for International Cooperation:** | 38.00 | 38.00 |
| **Government of Australia:** | 8.00 | 8.00 |
| **Electric Power Corporation:** | 12.00 | 12.00 |
| **Total** | **100.00** | **100.00** |

The estimated Project cost, as presented in the ADB RRP, is US$100 million comprised of:

 US$80 million as Investment Costs;

 US$14.8 million as Contingencies; and

 US$5.2 million as Financial Charges during Implementation.

The ADB will finance 26.61% under the ADF Loan, and 15.39% under the ADF Grant. This covers 42% of the total Project cost which is anticipated to cover Civil Works, Equipment Supply and Installation, and Consultant Services. JBIC/JICA will finance 38% of the total Project cost to cover the 42.2% of Civil Works and 47% of Equipment Supply and Installation. AusAID will finance 8% of the total Project cost to cover 35% of Land Acquisition and Resettlement and

15% of Equipment Supply and Installation. The Electric Power Corporation finances 12% of the total Project costs; which is USD$12 million. EPC‟s contribution covers 65% for Land Acquisition and Resettlement cost, 10.3% of Civil Works, 5.1% of Consultant Service, and 20% on taxes and interest of loan repayment during implementation. All local taxes and import duty and interest is paid by EPC. Please refer to Appendix 1 for Revised Project Estimates.

2.8 Project Financing and Counterpart Funding

Detailed Cost Estimate by Financier at 19 June 2008 - (US$ millions)

A. lnve:stment Cost

A DF Loan A DF Grant JBIC L.•oan Go·vemmentof EPC

Australia Cost

$ 'o/o $ "'a $ lo/o $ lo/o $ 'o/o

1. Land Acquisitionand 0.00 0.0 0.00 0.0 0.00 0.0 1.53 35.0 2. 8:4 65.0 4.38: Resettlement

2. CivilWorks 3.47 47.5 0.00 0.0 3.09 42.2 0.00 0.0 0.75 10.3 7.31

3. Equipment Supply and 18:.99 30.8: 8:.42 13.7'" 28:.98: 47.0 5.22 0.00 0.0 61.61

s:.se

Installation

4. Consultant Serv ices 0.00 0.0 4.57 94.9 0.00 0.0 0.00 0.0 0.25 5.1 4.8:2

5. Taxes and Duties 0.00 0.0 0.00 0.0 0.00 0.0 0.00 0.0 1.S:9 100.0 1.89

Subtotal(A)'' 22.46 1299 *32.!07* 6.76 5.73 80.00

B. Cont ngenci:e.s

1. Physicaf 1.31 28:.1 0.76 16.2 1.8:7 40.1 0.39 *8:.4* 0.33 7.2 4.67

2. Priced 2.8:4 28:.1 1.64 16.2 4.06 40.1 0.&5 *8:.4* 0.72 7.2 10.12

Subtotal! -( B) 4.15 2.4. 0 5 93 11 .25 11.06 11 4.7•9

Finanoi'n·g ChaJges Dulling

c.

I'mplementati:on•

1. Interest During 0.00 0.0 0.00 0.0 0.00 0.0 0.00 0.0 5.21 100.0 5.21

Construction

Subtotai(Cl 0.00 0.00 0.00 0.00 5 21 5.21

TotalPFoject Costs (A+B+C )'

6. 61 5.39 3!U).0 .s.oo 112 100.100

'% T·otalProject Costs 26.6 11 5.4 38.10 8.0 12.10

ADF =Asian Development Fund, EPC =Electric Power Corporation, JBIC = Japan Bank for InternationalCooperation.

The overall financing percentage Ylill be 22.2% fo r the ADF grant and the Gov emment of Australia grant. The financing percentage for 1he ADF and Govemment of Australia grant proceeds \•Jill be changed over years as fo llo\•B: *Q)* the financing percentage for the ADF grant \•Ji ll be 7.7% (rounded to 7%} fo r FY2008--FY2012 and 22.2% (rounded to 22%) thereafter; and O)i the financing percentage for the Gov emment of Australia grant \l'ill be 14.5% (rounded to 15%) for FY200S:-

FY2012 and zero th ereafter. Fo r disbursement purposes, ttle financing percentages wiII be rounded. "' In May 2007 prices.

c: Computed at 14% for hydropower, 10% for system ·control and data acquisition,and5% for other subprojects.

Ill computed at av erage annual rate of 1.7% on foreign exchange costs and3.9% on local currency costs ov erthe200S:- 2015 inv estment plan.

'-' Includes interest during construction, computed at the 6.5% reiending rate from 1he Gov emment to the Electric Power Corporation and induding an interest rate of 1% during grace period and1.5% thereafter,whiCh will be settled through cash payments onthe Asian Development Fund loan portion.

Includes taxes and duties ofS2.18 million. Interest duringconstructionfortheADF l oanwill be settledthrough cash payments. Source: ADB estimates.

**3. PROJECT IMPLEMENTATION**

**3.1 Project Management Unit Staff Movement**

PMU has 14 core staff, 4 for the materials store, and 2 for Cash Power meter inspection. Included in PMU 14 staff are 4 graduate engineers; which are three electrical and one civil. Two other graduate engineers (1 civil and 1 electrical) are assigned to PMU from EPC Renewable Section.

From time to time, hydrological staff with EPC Renewable Division is assigned to work with Implementation Consultants related to data collection for hydro scheme study. EPC PMU submitted a further request to JICA for two additional volunteers; one is a telecommunication engineer or technician experienced in fibre optic work and second volunteer is a machinist to assist with setting up a mechanical maintenance workshop in Fiaga new diesel power plant and training of EPC maintenance staff in use of equipment and tools to repair major components and require engine parts for overhaul.

EPC advertised for two senior experienced engineers; a power generation and a power distribution engineer. No appointment was made.

ADB approved to hire three independent consulting engineers (1 civil, 1 generation and 1 power distribution) for PMU seeing that Implementation Consultant‟s contract is coming to an end in May. The advertisement for the 3 positions closed on March 31, 2011.

Fifteen (15) subprojects are now in construction phase concurrently. The status of construction of each subproject at end of 1st Quarter 2011:

1. Access road and water pipeline to Fiaga new power plant – 90% completed.

2. Levelling and preparation of site for new power plant – 80% completed.

3. Construction of security fence around Fiaga property – 10% completed.

4. Upgrading of the Hospital Feeder to 22kv and undergrounding medium voltage cable from Tanugamanono power plant to Apia – 20% completed.

5. Reconductoring of all 22kv overhead line feeders in Upolu – 30% completed.

6. Refurbishment of the Alaoa hydro plant and civil work – 100% completed.

7. Reconductoring of Puapua to Asau 22kv Overhead line – 95% completed.

8. Refurbishment of the two generators in Tanugamanono.

9. Replacing of 22kv switchgear in Tanugamanono, Samasoni, Lalomauga and Taelefaga power stations - 100% is completed except for additional switchgear for Lalomauga hydro plant.

10. Fiaga New Power Plant and Generators – re-started work on site, manufacture of generators and associated equipment are about 50% completed. Recent tsunami

disaster in Japan followed with nuclear plant meltdown did not affect delivery time of the engines and equipment. Delivery is still on scheduled to arrive in Apia on October.

11. Electrical switchgear – switchgear was successfully tested in factory in Germany.

Equipment is now being shipped to Apia.

12. Construction of 33kv underground cables from Fiaga to Fuluasou substation and

Tanugamanono is delayed due to change in design which would change materials required. For the two 33kv circuits, one will be underground as originally planned and other circuit remain aerial but using concrete poles.

13. 22kv underground cable from Fuluasou to Apia wharf – 70% of installation of electrical conduits is completed. This was done as part of the 4 lane road corridor

project with Ott Transport as main contractor. Materials are being ordered.

14. 33kv underground transmission line from Fiaga new power plant to Fuluasou substation and continuing to Tanugamanono power plant – line was redesigned to underground one 33kv circuit and overhead the other circuit and using concrete poles. Bid for cables and poles were cancelled. These items will be rebided.

15. Prepayment meters – 90% completed. There is an increasing number of defective meters with blank screens. Contractor, A D Riley has been notified for a solution but they have come up with a solution.

These require good experienced inspectors and construction managers to maintain quality of works.

Implementation Consultant‟s (Egis International) contract ended at end of May 2011 and is not being extended except for the extension of Team Leader‟s contract for 6 months to end in November to allow for completion of the feasibility studies of 5 hydro schemes and tender documents of 3 schemes which is currently being prepared by IC. TD/Generation engineer‟s contract ends at end of July. Administrative Assistant contract was extended from May till end of August.

Hydro feasibility study of 5 schemes by the Implementation Consultant is progressing well. The Study started in September. Study now focuses on preparation of estimate costs. IC will then submit an interim report in mid January recommending the top 3 schemes to be designed first for tendering. Because detailed design is not part of IC‟s Variation for the hydro feasibility studies, IC submitted a formal proposal to EPC to carry out detailed designs of 3 schemes. EPC wanted the hydro projects to be designed before bidding. IC plans to start on detailed designs immediately after EPC and ADB approves recommendation and IC proposal to perform this work.

**3.2 PMU Actual Personnel Movement during this Quarter and Plan for next Quarter**

|  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
|  | | **2nd QUARTER 2011 ACTUAL** | | | **3rd QUARTER 2011 PLAN** | | | |  |
| **NAME** | **DESIGNATION** | | **START** | **FINISH** | | **START** | **FINISH** | **COMMENTS** | |
| **Tologatā Tile**  **Tuimalealiifano** | Project Manager | | 1 Apr. 2011 | 30 Jun 2011 | | 1 Jul 2011 | 30 Sept. „11 | Will be available for whole 3rd quarter | |
| **Taulealea**  **Aumalaga Tiotio** | Transmission& Distribution Engineer | | 1 Apr. 2011 | 30 Jun 2011 | | 1 Jul 2011 | 30 Sept. „11 | Will be available for whole 3rd quarter | |
| **Tupai Mau Simanu** | Generation Electrical  Engineer | | 1 Apr. 2011 | 30 Jun 2011 | | 1 Jul 2011 | 30 Sept. „11 | Will be available for whole 3rd quarter | |
| **Nuulopa Pereira** | Graduate Engineer - Power System Planner | | 1 Apr. 2011 | 30 Jun 2011 | | 1 Jul 2011 | 30 Sept. „11 | Will be available for whole 3rd quarter | |
| **Faalepo Solofa** | Project Accountant | | 1 Apr. 2011 | 30 Jun 2011 | | 1 Jul 2011 | 30 Sept. „11 | Will be available for whole 3rd quarter | |
| **Mathew Lemisio** | Legal Environment  Advisor | | 1 Apr. 2011 | 30 Jun 2011 | | 1 Jul 2011 | 30 Sept. „11 | Will be available for whole 3rd quarter | |
| **Seukeva Asi Tuuau** | Land Acquisition  Specialist | | 1 Apr. 2011 | 30 Jun 2011 | | 1 Jul 2011 | 30 Sept. „11 | Will be available for whole 3rd quarter | |
| **Seumalo Afele**  **Faiilagi** | Environment Specialist | | 1 Apr. 2011 | 30 Jun 2011 | | 1 Jul 2011 | 30 Sept. „11 | Will be available for whole 3rd quarter | |
| **Moetuasivi Asiono** | PRCS | | 1 Apr. 2011 | 30 Jun 2011 | | 1 Jul 2011 | 30 Sept. „11 | Will be available for whole 3rd quarter | |
| **Raema Schuster** | Graduate Engineer –  SCADA | | 1 Apr. 2011 | 30 Jun 2011 | | 1 Jul 2011 | 30 Sept. „11 | Will be available for whole 3rd quarter | |
| **Sila** | Electrical Inspector | | 1 Apr. 2011 | 30 Jun 2011 | | 1 Jul 2011 | 30 Sept. „11 | Will be available for whole 3rd quarter | |
| **Posi Moe** | Linesman | | 1 Apr. 2011 | 30 Jun 2011 | | 1 Jul 2011 | 30 Sept. „11 | Will be available for whole 3rd quarter | |
| **Elisapeta Collins** | Secretary | | 1 Apr. 2011 | 30 Jun 2011 | | 1 Jul 2011 | 30 Sept. „11 | Will be available for whole 3rd quarter | |
| **Alfred Matatia** | Graduate Civil Engineer | | 1 Apr. 2011 | 30 Jun 2011 | | 1 Jul 2011 | 30 Sept. „11 | Will be available for whole 3rd quarter | |

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**3.3 Implementation Consultants Personnel Movement**

The Implementing Consultants continued to fulfil their tasks under the contract to assist PMU. A total of 6 staff from IC worked on the Project during 2nd Quarter, 2011. Only 3 were fulltime. Rest worked from IC‟s home office. This included additional experts involved with hydro development feasibility study under Variation 2. IC‟s TD/Generation Engineer‟s contract will end at end of July. He will return to New Zealand. Team Leader‟s contract ends at end of November 2011. Administrative Assistant‟s contract ends at end of August.

Table below provides number of days worked in each month and combined for 2nd Quarter 2011 for each of IC personnel.

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| No. | Team Members | Contract man-month | Days work in Apr. | Days worked in May | Days work in June | Days worked on  2nd Quarter |
| 1 | Team Leader / Construction Engineer: PERELINI, Perelini | 36 | 19 | 22 | 20 | 61 |
| 2 | Generation Engineer: HEGERTY, Brendan | 4 | 0 | 0 | 0 | 0 |
| 3 | T&D Engineer: HEGERTY, Brendan | 12 | 17 | 21 | 20 | 58 |
| 4 | SCADA Engineer: PONS, Bernard | 3 | 0 | 0 | 0 | 0 |
| 5 | Environment Specialist: ADAMSON, Charles | 4 | 0 | 0 | 0 | 0 |
| 6 | Resettlement Specialist: WILLIAMS, Jean | 4 | 0 | 0 | 0 | 0 |
| 7 | Administrative Assistant: POE, Penelope | 36 | 18 | 22 | 20 | 60 |
| 8 | Hydro Expert/Coordinator: GIRAUD, Dominique | 4.3 | 9 | 6 | 7 | 22 |
| 9 | Hydro Expert: GINON, Laetitia | 2.87 | 5 | 0 | 3 | 8 |
| 10 | Hydologist 1: DAVAL, Emmanuel | 2.75 | 0 | 0 | 0 | 0 |
| 11 | Hydrologist 2: PYRON, Nelly | 2 | 0 | 0 | 0 | 0 |
| 12 | Civil Engineer (Int): GUERPILLON, Herve | 3.58 | 0 | 0 | 0 | 0 |
| 13 | Civil Engineer (National); PERELINI, Peri T | 4.75 | 5 | 5 | 2 | 12 |
| 14 | Environment Specialis (National): SESEGA, Sam | 3.17 | 5 | 0 | 1 | 6 |
| 15 | Land Resettlement (National): SESEGA, Sam | 3.17 | 5 | 1 | 1 | 7 |

Implementation Consultant had 3 full time staff in office here during this Quarter when TD/Generation Engineer moved to live in Apia. The 3 full time staff are; Team Leader, Transmission Distribution & Generation Engineer and Administrative Assistant. To maintain continuity of work by IC, Team Leader worked on preparation and review feasibility studies, tender documents, evaluation reports, monthly and quarterly reports, and plans subprojects assisted by Generation/Distribution Engineer.

There are no major outstanding environmental issues related to any of the original subprojects. During construction, EPC‟s local environmental staff will handle all environmental matters. IC is using a local firm for environmental and resettlement part of hydro study.

Team Leader/Construction Engineer of IC continued to assist PMU Project Manager with various activities; such as preparation of monthly and quarterly reports, preparation of Cabinet and EPC Board submission, in addition to planning, and preparation of feasibility studies, tendering documents of various generation and power distribution subprojects and evaluation of bids. He was also greatly involved in the supervision and management of construction projects to assist PMU engineers assigned by Project Manager to coordinate each of projects. This is same with the TD/Generation Engineer. Administrative Assistant filled in for PMU secretary who was on maternity leave during this quarter.

**3.4 Egis Bceom International Personnel Remaining Man-months at end of 2nd Quarter,**

**2011**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
|  | Expert | Contract man mns | Days worked 02  2011 | Remaining man-mn 02 |
| 1 | Team Leader *I* Construction Engineer: PERELINI,  Perelini | 36 | 61 | 4.8 |
| 2 | Generation Engineer: HEGERTY, Brendan | 4 | 0 | 0 |
| 3 | T&D Engineer: HEGERTY, Brendan | 12 | 58 | 1.05 |
| 4 | SCADA Engineer: PONS, Bernard | 3 | 0 | 0 |
| 5 | Environment Specialist: ADAMSON,Charles | 4 | 0 | 0 |
| 6 | Resettlement Specialist: WILLIAMS,Jean | 4 | 0 | 0 |
| 7 | Administrative Assistant: POE,Penelope | 36 | 60 | 2.09 |
| 8 | Hydro Expert/Coordinator: GIRAUD, Dominique | 4.3 | 22 | 0.626 |
| 9 | Hydro Expert: GIN ON,Laetitia | 2.87 | 8 | 0.03 |
| 10 | Hydologist 1: DAVAL, Emmanuel | 2.75 | 0 | 0 |
| 11 | Hydrologist 2: PYRON,Nelly | 2 | 0 | 0 |
| 12 | Civil Engineer ( lnt): GUERPILLON, Herve | 3.58 | 0 | 0 |
| 13 | Civil Engineer (National); PERELI Nl,Peri T | 4.75 | 12 | 1.28 |
| 14 | Environment Specialis (National): SESEGA, Sam | 3.17 |  | 0.26 |

**3.5 - Egis Bceom International Personnel Movement during this Quarter and Plan for next Quarter**

|  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
|  | | **2ND QUARTER 2011 ACTUAL** | | | **PLAN for 3rd QUARTER 2011** | | |  |
| **NAME** | **DESIGNATION** | | **START** | **FINISH** | **START** | **FINISH** | **COMMENTS** | |
| **Perelini S.**  **Perelini** | Contract/Construction  Engineer (Team Leader) | | 01 Apr 2011 | 31 Jun. 2011 | 01 Jul. 11 | 30 Sept 11 | Available for whole of 3rd Quarter  2011. Prepared feasibility studies, tenders, evaluation reports, and reviewed same various subprojects which included Fiaga new diesel power station, access road to new Fiaga power station; 33 kV transmission from Fiaga to Fuluasou and 22 kV feeder from Fuluasou to Lepea and Fiaga diesel power station;  22 kV underground from Fuluasou substation to Apia wharf; prepared  monthly and quarterly report. Assist  prepared board papers and attended EPC Board, Project Steering Committee and Project Management Committee meetings with Project Manager to present status reports of the Project. Coordinator of Fiaga power plant subproject now under construction and assisted with managing of construction of other subprojects. His contract with Egis International expires at end of November 2011. | |
| **Dominique**  **Giraud** | Power System Planner | | 01 Apr 2011 | 31 Jun. 2011 | 01 Jul. 11 | 30 Sept 11 | He continues to monitor project and has 1.24 man-mnths left in his contract to complete hydro feasibility  study reports and tenders of 3 schemes. | |
| **Brendan**  **Hegerty** | Transmission and  Distribution Engineer/ | | 01 Apr 2011 | 31 Jun. 2011 | 01 Jul. 11 | 30 Sept 11 | His contract will end at end of July and he plans to move back to New  Zealand. | |
| **Brendan** | Generation Engineer | | 01 Apr 2011 | 31 Jun. 2011 | 01 Jul. 11 | 30 Sept 11 | His contract will end at end of July | |

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| **Hegerty** |  |  |  |  |  | and he plans to move back to New  Zealand. |
| **Charles**  **Adamson** | Charles Adamson | 01 Apr 2011 | 31 Jun. 2011 | 01 Jul. 11 | 30 Sept 11 | He completed his involvement with project. |
| **Jean**  **Williams** | Resettlement Spec | 01 Apr 2011 | 31 Jun. 2011 |  |  | She completed her involvement with project. |
| **Bernard**  **Pons** | SCADA Engineer |  |  |  |  | He completed his involvement with project. |
| **Penelope**  **Poe** | Administrative Assistant | 01 Apr 2011 | 31 Jun. 2011 | 01 Jul. 11 | 30 Sept 11 | Her present contract with  Implementation Consultants ends at end of Aug. this year. |
| **Dominique**  **Giraud** | Hydro Expert & Coordinator | 01 Apr 2011 | 31 Jun. 2011 | 01 Jul. 11 | 30 Sept 11 | He continued to direct project and coordinates preparation of feasibility  studies and completion of FS reports for 5 hydros and tender of 3 selected  hydros. |
| **Ginon**  **Laetitia** | Hydro expert | 01 Apr 2011 | 31 Jun. 2011 | 01 Jul. 11 | 30 Sept 11 | She continued to assist with  preparation of feasibility studies of 5 hydros and tender document of 3 schemes. |
| **Emmanual**  **Daval** | Hydrologist |  |  |  |  | He completed his work on Project |
| **Nelly Pyron** | Hydrologist |  |  |  |  | She completed her work on Project. |
| **Herve**  **Guerpillon** | International Civil  Engineer | 01 Apr 2011 | 31 Jun. 2011 | 01 Jul. 11 | 30 Sept 11 | Continues to assist with hydro feasibility studies. |
| **Peri**  **Perelini** | National Civil Engineer | 01 Apr 2011 | 31 Jun. 2011 | 01 Jul. 11 | 30 Sept 11 | Worked and continues to work on hydro study and tender documents. |
| **Sam**  **Sesega** | National  Environmentalist | 01 Apr 2011 | 31 Jun. 2011 | 01 Jul. 11 | 30 Sept 11 | Worked on hydro feasibility studies |
| **Sam**  **Sesega** | National Resettlement  Specialist | 01 Apr 2011 | 31 Jun. 2011 | 01 Jul. 11 | 30 Sept 11 | Worked on hydro feasibility studies |

**3.6 Implementation Progress**

All implementation activities or tasks are reflected in measuring implementation progress against the subprojects implementation schedules and referred to as “project progress”. All pre-implementation activities or tasks are considered in calculating subproject implementation progress. These activities or tasks include preparation of the Subproject Outline, Feasibility Study, Rapid Environmental Assessment, Initial Environmental Examination, Screening for Land Acquisition and Resettlement, Tender documents, Evaluation of tenders and preparation of awards and contracts. Each task in the implementation schedule is weighted according to its overall contribution (using time as a reference) to progress of subproject implementation. These weights are used to calculate the percentage of subproject progress along the entire time span of the project. This is to provide a holistic view of the pace on implementation. Due to the magnitude of the Power Sector Expansion Project and the number of its subprojects, it is not practical to list all the tasks or activities. Therefore only milestones are listed for the purpose of simplicity of subprojects progress but more details can be obtained from the Project Schedule Gantt Chart of each respective subproject. Please refer to Appendix 2 for Project Monitoring.

**A. Core Subprojects:**

**1. Hospital Feeder Upgrading Project Stage 1**

Construction completed in 2010. Making final payment for additional work is still outstanding. ADB disapproved payment because PMU did not get prior approval. PMU argued that their understanding is that contract is a unit cost contract based on actual units built by contractor. ADB in its Mission in February agreed to approve payment as a one case due to misunderstanding between their office and PMU related to contract cost. Final payment still has not been made to Contractor at end of this Quarter.

**2. Single and Three-Phase Prepayment Metering (PPM)**

A total of 273 prepayment meters were installed by A D Riley‟s subcontractors during this Quarter. This number of prepayment meters is made up of 51 new installations and 222 customers converted from induction to prepayment meters. This brought the total number of meters installed under this contract at end of the 2nd Quarter is 18,922; which is 90.1% of

21,000 meters to be converted under this Contract in AD Riley Contract.

The total overall number of customers with prepayment meters at end of June 2011 is 23,688;

which is 64.67% of total number of EPC electric customers of 36,634.

All new meter installations of prepayment meters were referred to A D Riley‟s subcontractors to install until new installations were referred back to EPC in June. ADR continues with meter conversions. EPC carry out pre-inspection and now installing new meters. Only one subcontractor is now installation PPMs for ADR.

Besides converting to PPMs, contractor also lowered the meters. 131 meters were lowered to

1.6 meters this Quarter. This is carried out under Variation 1 to A D Riley‟s contract.

Here are some remaining and outstanding matters with prepayment meters:

(i) Lowering of 10,500 meters not covered under A D Riley‟s Variation 2 Contract; these are meters converted to Cash Power before approval of Variation 2. PMU/IC submitted costs to ADB to lower these meters. Approval by ADB is pending.

(ii) Increasing number of defective meters with blank screens. Major problem is that these blank screen meters will continue to supply power without recharging with credits. THIS IS SERIOUS. Matter has been brought up to ADR but they have not come up with a technical solution other than replacing them with new ones. Problem is the possible large number of defective meters out there resulting in EPC losses. Until ADR come up with a solution, EPC must monitor monthly purchases of tokens by consumers on prepayment meters to find those who have not made any purchases of recharge tokens and then follow up to find out if meters are defective.

(iii) Getting true count of active meters.

Need to buy and install more Cash Power meters after the 21,000 are installed, in order for

EPC to achieve 75% of its customers on Cash Power. It is estimated that we would need

1,453 meters purchased to meet the 75% requirement. PMU requested cost of 2000 single phase meters and 100 three phase meters.

Meters originally installed by EPC without weatherproofed boxes and need to reinstall inside these boxes. This is not part of A D Riley‟s contract. There are cases of ADR installed meters not installed inside the weatherproof boxes. This will shorten lives of these meters now that they are lowered and more exposed to weather and rain.

All new installations with single phase meters are fitted with prepayment meters. There are customers that are impractical to be on Cash Power meters as long as they are current with their electric bills. This includes Government, some church organizations, and large businesses. The most important goal is that customers pay their bills on time whether they are on prepayment or induction meters. EPC reports showed a marked improvement in collection of arrears since introduction of prepayment meters under this project.

At end of this 2nd Quarter 2011, there is 1,782 meters remained to be installed to complete ADR‟s contract and 4002 meters to be installed to achieve 75 % figure of consumers on prepayment meters.

Table below shows meters installed by each sub-contractor during the 1st 2010 and 2nd

Quarters 2011:

|  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **No.** | **Subcontractors** | **Meters**  **installed in Jan**  **2011** | **Meters**  **installed in Feb**  **2011** | **Meters**  **installed in Mar**  **2011** | **Meters**  **installed in Apr.**  **2011** | **Meters**  **installed in May**  **2011** | **Meters**  **installed in June**  **2011** |  |
| 1 | All Electrical | 0 | 0 | 0 | 0 | 0 | 0 |
| 2 | McLean Electrical | 192 | 131 | 127 | 131 | 59 | 83 |
| 3 | Telecom. Tronics  Ltd. | 0 | 0 | 0 | 0 | 0 | 0 |
| Total meters installed  each month | | 192 | 131 | 127 | 131 | 59 | 83 |  |

Breakdown below are meter lowered during 1st Quarter 2010 and 2nd Quarter 2011:

|  |  |  |  |
| --- | --- | --- | --- |
| **Categories** | **Cable length** | **Q1 - 2011**  **Quantity** | **Q2 – 2011**  **Quantity** |
| 1 | 0-5 meters | 134 | 94 |
| 2 | 5-10 meters | 36 | 19 |
| 3 |  10 meters | 2 | 3 |
| 4 | no cable needed | 0 | 0 |
|  | Lowered during maintenance |  | 15 |
|  | Total meters lowered | 172 | 131 |

Included in meter count above are meters that were lowered during maintenance.

Only 3,590 meters or 32.6% have been lowered of total number of meters converted to Cash Power. So there is still a lot of meters to be lowered. Beside ADR‟s subcontractor lowering meters as they convert them, EPC is lowering meters already converted on request by consumers. All new meters are installed at 1.6 meters.

Variation 1 in ADR‟s contract covered lowering of meters. Cost of Variation 1 is based on unit prices of materials and labour involved. ADR supplied materials bulk to its three subcontractors and billed EPC accordingly. Invoices of bulk materials supplied to lower meters were paid in full under the loan. Labour costs were paid in accordance with unit costs as agreed on in Variation 1.

Here are unit prices for labour and materials under Variation 1 of A. D. Riley‟s contract to lower meters:

|  |  |  |
| --- | --- | --- |
| **Categories** | **Length of Cables**  **Meters** | **Labor Unit Cost**  **Samoan Tala** |
| 1 | 0 – 5m | $20.00 |
| 2 | 5 – 10m | $38.00 |
| 3 | Over 10m | $55.00 |
| 4 | Attend meter  recently installed and lower to 1.6m; only by request by PMU. | $89.00 |

All materials required to lower meters are supplied by ADR and paid for my EPC as lump sum.

**B. Candidate Subprojects:**

**1. Upolu**

a. Generation

(i). Tanugamanono Power Station Noise & Emission Control

Work started on Feasibility study; not finished.

(ii). Refurbishment of Alaoa Hydro Power Station

Installation and civil work are completed and machine is in operation.

(iii). Fiaga Diesel Power Station

*Powerhouse and Generators(Lot A)*

Bluebird Ah LAL JV had mobilized on site setting up site offices. They started on earthwork and construction of building footing and generator foundations. Planned completion date is October 29, when the 4 engines and generators arrive.

Design and preparation of construction drawings is 50% complete.

Manufacture of generators and associated equipment by MHI is 50% complete. Factory testing is scheduled in August and September, shipment in September and equipment arriving at end of October.

*Fiaga power station electrical switchgear (Lot B)*

All medium volt switchgear was successfully tested in factory in Germany in May. Equipment is now being shipped. Transformers is made in Indonesia but have not confirmed when they will be ready for factory testing.

*Fiaga access road and water pipeline and fence*

Construction continued. Contractor, Silva Transport Ltd, completed 90% of the access road and pipeline. They started constructing fence.

Road was officially dedicated in June by the Prime Minister and coincided with the groundbreaking of start of construction of the powerhouse.

*Water source*

Investigation of where to drill a new well is on hold. Hydrological information available so far is inadequate to rightly locate where to drill the new well. In meantime water for the power plant will be collected from rain. Million liter storage tanks will be built to store rainwater collected from roof of the power plant.

(iv) Refurbishment of 9A and 5A Generators at Tanugamanono Power Plant

MAN, contractor, completed refurbishment of first generator, Unit 9A. Generator is back in operation. EPC has not scheduled when MAN starts overhaul of Unit 5A until Alaoa hydro plant is back in operation.

Replacement of 22kv switchgear in Taelefaga, Lalomauga, and Samasoni hydro plants and

Tanugamanono power plant by Northpower is complete. There is a variation to replace rest of

22kv equipment in Lalomauga hydro plant. New switchgear has not arrived.

b. Transmission

(i). Upgrade of Alaoa 6.6kV Transmission Line to 22kV

This project was completed in 2010. It was combined with Hospital Feeder Upgrade Stage 1. Final payment for extra work still outstanding. ADB did not approve payment due to some procedural matter. ADB during February Mission agreed to approve payment as a one case only. Final payment is still outstanding at end of this Quarter. Contractor has written numerous letters to PMU to follow up payment. Anti Corruption review of the power sector project is also reviewing this project and outstanding payment.

(ii). 33 kV Underground Cable from Fiaga Power Station to Fuluasou Substation

Contracts were awarded in the last Quarter Q1 2011 for the supply materials for the project. Due to change in design of the transmission line, cables, poles, and hardware materials will be rebided. Change on design will have one circuit of the 33kv TL built underground and second circuit is built overhead using concrete poles. EPC will do the work.

(iii). Hospital Feeder Upgrading Stage 2

This subproject upgrades the rest of Hospital Feeder from 6.6 to 22 kV and underground the HV cables from Tanugamanono power plant to Savalalo. This includes improvement of power supply to the National Health Service and TTMN hospital. Construction has started. Contractor is Bluebird Ah LAL JV. Contract includes pulling and termination of cables, change out of pole structures from 6.6 to 22kv and changing of transformers. Construction continued.

90% of trenching and laying of electrical conduits and installation of vaults is complete. Contractor is planning pulling of cable and splicing it. Contractor brought in one cable splicer to assist with installation of cables.

(iv) 22kV Fuluasou Substation

Bid closed for design built contract of the substation. Evaluation report is finalized for submission to ADB for review and approval. Four bids were received. Contract includes; all

415volts, 11, 22, and 33kv electrical switchgear, substation transformers, two story building, paved road and civil work, undergrounding of incoming and outgoing cables and connection to feeders and transmission lines, standby generator, National Control Center and related furniture and equipment, security fence, and outdoor lights. ADB approved recommendation by Committee who to award contract to Northpower and the submitted a No Objection Letter. Government Tender‟s Board and Cabinet approved it. Notice of award has been submitted to Northpower NZ Ltd.

(v). Upolu Low Voltage Network Improvements

Materials for this subproject are currently on order. EPC will do construction.

(vi). Fuluasou Substation to Apia Wharf Area 22kV Underground Cable

Contracts have been awarded for supply of materials. EPC will carry out work. Part of electrical conduits for this project have been installed under construction of Vaitele Road. This project will underground all high voltage powerlines along Vaitele Road and then remove these high voltage powerlines. All cables to consumers along side of Vaitele Road will be installed underground. We received vehicles and equipment to be used by EPC for construction.

(vii). Fuluasou Substation to Leulumoega via Vaigaga 22kV Underground Cable

This subproject is removed from Project. All powerlines will be installed overhead for this feeder.

(viii). 22kV Overhead Conductor Upgrading Program

The feeders involved in this project are; West Coast, Lalomauga 33 KV line, East Coast, South

Coast, Vaitele, Beach Road, and Alaoa transmission line. All materials are here.

Construction continued. Contractor is GMA. They completed about 35% of the total work. Two crews of 10 men each are currently being used. More trained linemen is needed to set up another crew. GMA and EPC sorted out problem that caused delays in switching power off during shutdowns. GMA schedule a shutdown each working day. There are no shutdowns on Saturdays.

**2. Savaii**

**a. Generation**

(i) Hydropower Scheme

Since disapproval by the village of Sili of developing a hydro scheme in their village, h**ydro scheme subproject in Savaii** has been combined under a new subproject, *Hydro Development.* This includes potential schemes in Upolu and Savaii. Five schemes were

selected for feasibility study. They are: Faleata in Vailoa Savaii, and Faleseela, Tafitoala, Fuluasou, and Tiapapata in Upolu. There is only one scheme in Savaii under this Study.

**b. Distribution**

(i). Puapua-Asau 22kV Distribution Line Reconductoring

Contractor is Tenix NZ Ltd. They subcontracted a local contractor for the works. Tenix only has construction supervisor on site. About 90% of the work is completed. Contract will be completed at end of August.

(ii). Power Factor (PF)

This project is complete. There is no more activity required done on this.

(iii). Low Voltage Network Improvement Program in Savaii

Feasibility study is being prepared.

**3. Measurement Equipment:**

(i). Steam Flow Gauging Equipment

Installation of stream flow gauges is complete. EPC renewable department and MNRE

continue to collect data, carry out maintenance and monitor these gauges monthly.

(ii). HV Testing Equipment

PMU continued to use this equipment for their work.

**SCADA**

Project is being tendered. Tender closes on 15th of August. Over 14 companies bought tender documents.

**New Subprojects**

Listed as follows are new subprojects:

(i). Public Dissemination

Public awareness and dissemination and consultations are continuing for all subprojects.

(ii). Vending System Expansion

Scratch card system is fully operational. Cash Power consumers buy top up cards from various shops in villages in both Upolu and Savaii. National Bank of Samoa proposed a new system using their bank for consumers to buy top up tokens without using scratch cards or buying from EPC outlets. NBS has a multi million law suite against EPC related to this new system. Office of Attorney General has taken over discussions with the bank attorney to settle the case outside of court.

(iii). Power System Planning Software

EPC continued to use software to check on system voltage and feeder loads.

(iv). Refurbishment of Salelologa Power Station

EPC‟s Salelologa power plant will not be refurbished. Instead, a new 8 MW diesel power plant will be built in Vaiaata to replace the Salelologa power plant. EPC will still maintain a depot in Salelologa for its power distribution, customer service and administration office. With the power plant located in Vaiaata, a new substation will be built in Salelologa to introduce

additional distribution feeders. A Mini Control Center will be set up in Salelologa to monitor and operate the Savaii network. Feasibility Study for all these works is being prepared.

Planning of the new power plant tender has started. Survey of the Vaiaata property is completed. It was discovered that most of the land of the 100 acres lot is not suitable for the new power plant. There is very little flat land. Plus there are large natural culverts for streams through the property. PMU wrote to Samoa Land Corporation for permission to acquire part of neighboring land for the power plant. No response has been received from SLC.

(v). Refurbishment of Taelefaga and other power plant 22kV Switchgears

This work is complete in all 4 power plants. Plants are now running with new state of the art

22kv switchgear. For Taelefaga new switchgear is housed inside an aircondition room.

(vi). Refurbishment of Tanugamanono Diesel Generators

Generator 9A is complete and is back on line. This is the one that crankshaft was replaced. Overhaul of generator 5A is pending until Alaoa hydro plant is back in service.

(vii). Vaipu Pumping Station

Still no decision this Quarter whether to go ahead with this project on not.

EPC is waiting on outcome of the study by SMEC on the integrity of the dam after the 2009 earthquake. Report is complete. Outcome of study is that the dam is safe.

This is an excellent project. It will generator more power from Taelefaga hydro plant. Payback is very short. Money is already budgeted for construction. There are no major environmental issues.

**4. RISKS AND ISSUES**

**A. PMU Organization Structure**

There as no further action on this. Egis International contract is winding down to finally complete in November 2011.

**B. Staff Recruitment**

EPC is hiring 3 experienced engineers to add to PMU. Engineers are; civil, distribution, and generation engineers.

**C. Prepayment Meters**

Installation continued during the 1st Quarter. Only one subcontractor is involved. Most critical issue is blank screen defect of meters. Number of black screen defective meters is increasing. Problem is that when meters screens turned blank, they will continue to supply power even if customer credit runs out. So there will be a lot of customers with blank screens receiving free power. This problem has been brought to A D Riley, but they have not come up with a solution. What is needed is, if meter screen turns blank, it should automatically switch off power to customer. Until ADR comes up with a technical solution to this, EPC needs to closely monitor customers who have not purchased top up credits and send inspectors to check on this customers‟ meters.

The blank screen problem is becoming very serious as the number of defective meters reported is increasing. There are over 600 defective meters now. Biggest problem is the number of unreported defective meters still being used by consumers.

**D. Cabinet Policy**

There have been no further discussions on this.

**E. Meter Heights**

Lowering of meters by A D Riley subcontractor continued. New installations are all lowered. There is still no decision how to lower the first 10,000 or more meters first installed by ADR before variation to lower meters came into affect.

**F. Vending and Card System**

Scratch cards are widely used now. EPC is working with a local bank to use this bank dial up system for their bank consumers with EPC accounts to buy tokens without leaving his house. Consumer will text this bank using a 627 number and request EPC token. Bank system will process token and deduct amount from consumer account and bank get token number from EPC electronically and then text back to consumer. This is a very convenient method to buy top up tokens.

**H. Access Road and Pipeline to Fiaga Power Plant and Fence**

Road and pipeline is 90% complete. This work was dedicated by the Prime Minister in June during ground breaking for start of construction of the new Fiaga power plant.

**I. Land transfer to EPC**

Government approved transfer of land in Fiaga and Vaiaata to EPC for new power plants. Transfer has not been done. Office of Attorney General will check on status.

**5. EPC PERFORMANCE MONITORING**

|  |  |  |
| --- | --- | --- |
| **Design Summary** | **Performance**  **Targets/Indicators** | **Current Status** |
| **Impact**  Access to sustainable and reliable electricity services at affordable prices | Consumer satisfaction  ratings of EPC‟s services  Complaints to EPC‟s consumer service division | Initial Consumer Confidence Survey (CCS) is scheduled for 2011  EPC to reactivate service order tracking system in Daffron System. |
| **Outcome**  Improved quality, reliability, and cost- effectiveness of power supply | System Average Interruption Duration Index (SAIDI) Baseline established and verified  on 4th Quarter of 2008 and reduced by 20% by  2015  System Average Interruption Frequency Index (SAIFI) Baseline established and verified on 4th quarter 2008 and reduced by 20% by 2015  Cost of generation | Baseline SAIDI established on 3rd Quarter 2008: Annual SAIDI for Upolu: 1515 min  Annual SAIDI for Savaii: 2622 min Quarterly SAIDI for Upolu: 379 min Quarterly SAIDI for Savaii: 656 min  2nd Quarter 2011 SAIDI:  Annual SAIDI for Upolu: Annual SAIDI for Savaii: Quarterly SAIDI for Upolu: Quarterly SAIDI for Savaii:  Baseline SAIFI established on 3rd Quarter 2008  Annual SAIFI for Upolu: 26  Annual SAIFI for Savaii: 44  Quarterly SAIFI for Upolu: 6.5  Quarterly SAIFI for Savaii: 11  SAIFI on 2nd Quarter 2011  Annual SAIFI for Upolu: Annual SAIFI for Savaii: Quarterly SAIFI for Upolu: Quarterly SAIFI for Savaii:  Refer to Appendix 8 for SAIDI monitoring  Refer to Appendix 9 for SAIFI monitoring |

|  |  |  |
| --- | --- | --- |
| **Design Summary** | **Performance**  **Targets/Indicators** | **Current Status** |
|  | established and published  by 1st Quarterof FY 2009 | Cost of Generation established and reported to  EPC Board as part of FY 2008 Budget process |
| **Outputs**  1. EPC‟s investment plan meets demand requirements | Power system capacity for energy and power meets demand requirements on Savai‟i and Upolu | Project Implementation Plans meet estimated demand per survey. Planned expansion of power generation is based on N-2 criteria. |
| 2. Operational efficiency  of EPC improves | Baselines for technical  system losses are established and verified by  4th Quarter of 2008 and are to be reduced by 10% by 4th Quarter 2010 and  20% by 4th Quarter 2012  Baseline for non-technical system losses established and verified by 4th quarter  2008 and reduced by 10%  by 2010. | Baselines figures of Total System losses  established on a 12 moth moving average at  September 2008 are:  Upolu: 15.7% Savaii: 18.2% EPC : 15.9%  Updated 12 month moving average of total system losses now reported monthly to the Board. End of December 2008 are:  Upolu: 171% Savaii: 18.2% EPC : 17.2%  Not possible to calculate Technical losses due to lack of metering and dedicated resources.  Not possible to calculate non-technical losses - this can only be calculated as *“total system loss*  *– technical loss”*  Technical loss is established to be 13.5% from studies by the Japanese Volunteer and PMU in  4th Quarter 2008.  Change in non technical loss can be monitored as technical loss level generally remains static  Finance Department have begun diagnostic review of causes of non-technical loss as basis for implementation of reduction measures |

3. The financial performance of EPC improves

Consistent application of disconnection policy

Fuel audits conducted on all EPC‟s diesel power stations

Procedures reviewed in August 2008 and revised procedures implemented. WE NEED TO REPORT ACCOUNTS AGING..

Fuel Audit‟s at both Upolu and Savaii

Generation Stations introduced 1 May 2008 and now routinely conducted monthly. Results reported monthly to Board.

WE SHOULD REPORT Q2 2011 AVERAGE.

Timeliness of tariff adjustments in response to cost

EPC‟s collection performance improves such that accounts

Tariff Increase of 10% from 1 September 2008 incorporated in FY 2009 approved Budget not yet implemented – implementation now anticipated as 1st January 2009.

Customers‟ arrears on 2nd Quarter of 2011 were:

receivables are below 2

Debtor days as =

days

months of sales

Government consumers‟ share of EPC‟s accounts receivables reduced from

55% in 2007 to less than their share of total sales by 31 December 2009

% Government Debt (of total debt) = %

% Government Sales (of total sales) =

%

Debt/Sales Ratio: % Reference Appendix 5

4. Effective regulation of the power sector is established

Electricity Act Reform to govern the power sector was established by 31

December 2009

Amendments of the EPC Act consistent with the Electricity Act by 31

December 2009

Regulatory agency established by 31

December 2010.

Not within Scope of this Project

5. Energy demand-side management

Energy conservation and demand-side management public awareness campaign

implemented

Not within Scope of this Project

6. Development of clean energy

Number of projects by energy subsector financed by the clean energy fund

Number of projects by energy subsector eligible for clean development mechanism

Electricity produced by clean energy resources (baseline of 45

Not within Scope of this Project

**6. COMPLIANCE WITH LOAN COVENANTS (Beneficiary)**

|  |
| --- |
| Covenant  Status Comments |
| The Beneficiary shall carry out the project with due **Complied PMU is carrying out** diligence and efficiency and in conforming with **project with due** sound administrative, financial, engineering, **diligence** environmental and public utilities practices |
| In carrying out of the Project and operation of the **Complied PMU office is being** project facilities the Beneficiary shall perform or **provided with all** cause to be performed, all obligations set forth in **facilities**  schedule 5 of the Financing Agreement |
| The Beneficiary shall make available promptly, as **Complied Beneficiary**  needed, the funds, facilities, services, land and **committed**  other resources which are required in addition to **personnel, funds,** the proceeds of the ADB Loan and Grant, and the **etc support the** JBIC Loan and the Government of Australia Grant, **project.**  for carrying out of the Project and for the operation and maintenance of the Project facilities. |
| The Beneficiary shall enable ADB‟s representatives **Complied There was a full**  to inspect the Project, the goods financed out of the **ADB Mission this** proceeds of the ADB Loan and the Grant and the **Quarter. ADB, JICA** JBIC Loan and the Government of Australia Grant, **and Aussie Aid**  and any relevant records and documents. **participated.** |
| The Beneficiary shall take all action which shall be **Complied**  necessary on its part to enable EPC to perform it‟s obligations under the Project Agreement and shall take or permit any action which would interfere with the performance of such obligations. |
| The Beneficiary shall exercise its rights under the **Complied**  Subsidiary Financing Agreement in such a manner as to protect the interests of the Beneficiary and ADB and to accomplish the purpose of the Loan and Grant, and the JBIC Loan and the Government of Australia Grant. |
| No rights or obligations under the Subsidiary **Complied One outstanding** |

Financing Agreement shall be assigned, amended, or waived without the prior concurrence of ADB.

**issue with variation in Hospital Feeder Stage 1 and Alaoa feeder upgrade contract. Final payment to contractor is still pending ADB final**

**approval.**

**7. LOAN EFFECTIVE MILESTONES (Electric Power Corporation)**

|  |
| --- |
| Details Status |
| Settlement of Government arrears as of 30 September 2007 **Complied** |
| Subsidiary Financing Agreement with EPC **Complied** |
| Establishment of the Project Steering Committee (PSC) **Complied** |
| Establishment of the Project Management Committee (PMC) **Complied** |
| Establishment of Project Management Unit **Complied**  Hire of Implementation Consultant **Complied** |
| Project Manager **Complied**  Restructure of PMU **Cancelled.** |
| Project Accountant **Complied** |
| Generation Engineer **Complied** |
| Transmission & Distribution Engineer **Complied** |

|  |
| --- |
| Power System Planner **Complied** |
| Public Relation & Community Liaison Specialist **Complied** |
| SCADA Engineer **Complied** |
| PMU Secretary **Complied** |
| Establishment of Environment and Social Unit **Complied** |
| Legal / Environment Advisor **Complied** |
| Environment Specialist **Complied** |
| Land & Acquisition Specialist **Complied** |
| Effectiveness of the JBIC Loan Agreement **Complied** |
| Commitment of the Government of Australia Grant **Complied** |
| Legal Opinion from the Attorney General‟s Office **Complied** |

**8. RESETTLEMENT (updated quarterly)**

There has been no activity this quarter related to officially transferring Fiaga 97 acres and

Vaiaata 100 acres to EPC for the new power plants. This is still pending.

Status of land acquisition and resettlement for subprojects at end of 2nd Quarter 2011:

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **Subproject** | **Temporary**  **Land**  **Acquisition** | **Permanent**  **Land**  **Acquisition** | **Percentage**  **Obtained**  **%** | **Commentary on**  **Negotiations and**  **Compensation paid** | |
| **1) Hospital Feeder**  **Upgrading Stage 1** | N/R | N/R | N/R |  | N/R |
| **2) Single & Three**  **Phase PPM** | N/R | N/R | N/R |  | N/R |
| **3) Tanugamanono**  **Power Station Noise**  **& Emission Control** | N/R | N/R | N/R |  | N/R |
| **4) Refurbishment of**  **Alaoa Hydropower**  **Station** | N/R | N/R | N/R |  | N/R |
| **5) Fiaga Diesel**  **Power Station** | NO | YES | 50% | Official transfer of land to  EPC is still outstanding | |
| **6) Upgrade of Alaoa**  **6.6 kV Transmission**  **Line to 22kV** | N/R | N/R | N/R | N/R |  |
| **7) Fiaga Diesel**  **Power Station to**  **Fuluasou Substation**  **33KV Underground**  **Cable** | N/R | N/R | N/R | N/R, cable installed inside  road reserve | |
| **8) Hospital Feeder**  **Upgrading Stage 2** | N/R | N/R | N/R | UG is built inside road  reserve, but there are families who have encroached legal reserves. | |
| **9) 22kV Fuluasou**  **Substation** | NO | YES | 50% | Use old EPC Hydropower  Station land & requesting Land Board for extra land to Golf Course fence and right of way for underground cables to substation | |
| **10) Low Voltage**  **Network** | N/R | N/R | N/R |  | N/R |

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Improvement**  **Program** | | | | |
| **11)Fuluasou**  **Substation to Apia Wharf Area 22kV Underground Cable** | N/R | N/R | N/R | Underground feeder will  terminate at corner of  Vaitele and Falealili Road |
| **12) Fuluasou**  **Substation to Leulumoega via Vaigaga 22kV Underground Cable** | N/R | N/R | N/R | N/R |
| **13) 22kV Overhead**  **Conductor**  **Upgrading Program** | N/R | N/R | N/R | N/R |
| **14) Hydro Scheme** | YES | YES | YES | YES |
| **15) Puapua-Asau**  **Transmission Line**  **22kV Reconductoring** | N/R | N/R | N/R | N/R |
| **16)Power Factor**  **Improvement**  **Program** | N/R | N/R | N/R | N/R |
| **17)Low Voltage**  **Network**  **Improvement** | N/R | N/R | N/R | N/R |

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **18)Stream Flow**  **Gauging**  **Equipment** | | | | |
| **19)HV/LV Testing**  **Equipment** | N/R | N/R | N/R | N/R |
| **20)Supply,**  **Installation & Operation of SCADA System** | NO | YES | 50% | NCC included in Fuluasou  Substation at old Fuluasou hydro site. |
| **21)Public**  **Dissemination** | N/R | N/R | N/R | N/R |
| **22)Vending System**  **Expansion** | | | | |
| **23)Power System**  **Planning Software** | N/R | N/R | N/R | N/R |
| **24) Refurbishment**  **of Salelologa**  **Power Station** | N/R | N/R | N/R | Old power plant will be  replaced with a new plant at Vaiaata. Old plant will be converted to a substation and a mini Control Center for Savaii system. |
| **25) Refurbishment**  **of Taelefaga**  **Switchgears** | N/R | N/R | N/R | N/R |
| **26)Refurbishment**  **of Samasoni**  **Switchgears** | N/R | N/R | N/R | N/R |
| **27) Refurbishment**  **of Tanugamanono**  **Generators** | N/R | N/R | N/R | N/R |
| **28)Vaipu Pumping**  **Scheme** | | | | |

**9. ENVIRONMENT (updated quarterly)**

PUMA approved development consents of all subprojects that are now under construction. PMU is monitoring construction in accordance the DC and reported to PUMA. Inspectors from PUMA also visited construction sites to carry out their own independent inspection of these projects.

Only subprojects that PUMA has not approved Development Consent is new power plant in

Vaiaata in Savaii and proposed hydro plants.

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|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Subproject** | **Constraints** | **Activities** | **Action Taken** | **Comments** |
| **1) Hospital Feeder**  **Upgrading Stage 1** | NIL | NIL | NIL | Completed |
| **2) Single & Three**  **Phase PPM** | NIL | NIL | NIL | To decide how to  lower 10,500 meters, funding and who does it. Defective meters. |
| **3) Tanugamanono**  **Power Station Noise**  **& Emission Control** | NIL | NIL | NIL | Started Feasibility  Study |
| **4) Refurbishment of Alaoa Hydropower Station** | NIL | NIL | NIL | Monitor EMMP during  construction currently in progress. |
| **5) Fiaga Diesel**  **Power Station** | NIL | YES | YES | Relocate fences of  two leases affected by new access road. Saved 3 Aoa trees in road and more at quarry site. Cleared trees in plant site.  Lots of excavation at site and access road. Also relocated fences that have encroached  15m legal road reserve. |
| **6) Upgrade of Alaoa**  **6.6kV Transmission**  **Line to 22kV** | NIL | NIL | NIL | Completed |
| **7) Fiaga New Diesel**  **Power Station to Fuluasou Substation Underground Cable** | NIL | NIL | NIL | Contracts are  awarded for supply of materials. EPC will do construction |

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **8)Hospital Feeder**  **Upgrading Stage 2** | NIL | NIL | NIL | Construction started;  90% of trenching and installation of ducts is complete. |
| **9) 22kV Fuluasou**  **Substation** | YES | NIL | NIL | MNRE approved to  use back access for underground cable. PMU requested Land Board to transfer extra land to Golf Course fence for Substation to fit refurbishment of old hydro with new penstock and powerhouse. |
| **10) Low Voltage**  **Improvement**  **Program** | NIL | NIL | NIL | Contract awarded for  supply of materials. No IEE required |
| **11) Fuluasou**  **Substation to Apia Wharf Area 22kV Underground Cable** | NIL | NIL | NIL | Contracts were  awarded for supply of materials. Vehicles and other materials have arrived. |
| **12) Fuluasou**  **Substation to Leulumoega via Vaigaga 22kV Underground Cable** | NIL | NIL | NIL | NIL |
| **13) 22kV Overhead**  **Conductor**  **Upgrading Program** | NIL | NIL | NIL | Construction  continued. 30% is complete. |
| **14) Hydro Scheme** |  |  |  | Feasibility Study  reports are finalized. |
| **15) Puapua-Asau**  **Transmission Line**  **22kV Reconductoring** | NIL | NIL | NIL | Rapid Environmental  Assessment and Dev. Consent approved.  Construction continued. 90% of work is complete. |

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **16) Power Factor**  **Improvement**  **Program** | NIL | NIL | NIL | Assessment  completed. PF is good.  No further work required. |
| **17) Low Voltage**  **Improvement program** | NIL | NIL | NIL | Rapid Environmental  Assessment has been prepared and submitted to ADB.  No IEE required |
| **18) Stream Flow**  **Gauging Equipment** | NIL | NIL | NIL | Completed. |
| **19) HV/LV Testing**  **Equipment** | NIL | NIL | NIL | NIL |
| **20) Supply,**  **Installation & Operation of SCADA System** | NL | NIL | NIL | It is being tendered.  Tender closes on 15th of Aug, 2011. |
| **21) Public**  **Dissemination** | NIL | NIL | NIL | NIL |
| **22) Vending System**  **Expansion** | | | | |
| **23) Power System**  **Planning Software** | NIL | NIL | NIL | NIL |
| **24) Refurbishment of**  **Salelologa Power**  **Station** | YES | YES | YES | Feasibility study is  almost done. Includes new plant in Vaiaata and Substation and Mini Control Center in Salelologa. |
| **25) Refurbishment of**  **Taelefaga**  **Switchgears** | NIL | NIL | NIL | NIL |
| **26) Refurbishment of**  **Samasoni**  **Switchgears** | NIL | NIL | NIL | NIL |
| **27) Refurbishment of**  **Tanugamanono**  **Generators** | NIL | NIL | NIL | NIL |

**28) Vaipu Pump**

**Assisted Scheme**

**29) Upolu hydro schemes**

|  |  |  |  |
| --- | --- | --- | --- |
|  | | | Implementation |
| Consultant completed |
| Faleseela Feasibility |
| study and continued |
| with rest of FS for |
| other 4 schemes and |
|  |  |  | tender of 3 schemes. |

NIL NIL NIL Awaiting EPC decision. SMEC study confirmed that dam is safe.

**10. LOAN DRAW DOWN TO DATE (31 March 2011)**

10 LOAN DRAW DOWN TO DATE (31December 2010)

|  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| No.  1  2  3  4  5  6  7  8  9  10  11  12  13  14  15  16  17  18  19  20  21  22  23  24  25  26  27  28  29 | TITLE OF SUBPROJECTS |  | | | | | | | |
| *ADB Loan ADB Grant JICA Loan Ausaid Grant EPC* | ADB categ• | Schedule Date  Contract Award | **Revised**  Contract  Budaet | Actual Contract  **Price** | **Contract**  Number | Actual Date  Contract  Awarded | **Draw Down to**  date | **Balance** |
|  |  | USD$M |  |  |  |  |  |
| *26.61* |
| *15.39* |
| *38.00* |
| *8.00* |
| *12.00* |
| *100.00* |
| CORE SUBPROJECTS |  |  |  |  |  |  |  |  |
| Project Manager (0,37 + 0,38 unallocated) | 4 | Q4 2007 | 0.75 | 0.37 | CO N-0108 | 30th Oct 2 007 | 0.06 | 0.69 |
| Pr oject r mplementatr on consultant: EBI(73 man.  m onths) | 4 | Q 1 2008 | 2.67 | 2.67 | CON-05058 | 2 Ma y 2008 | 1.74 | 0.93 |
| Hosprtal Feeder Upgradr ng Project- Stage 1 | 3 | Q 1 2009 | 0.60 |  | SAM·PSEP·02 |  | 1.94 | ·1.34 |
| Smgle.and Thr ee-Phase Prepayment Metenng  Pro·ect | 3 | Q3 2008 | 5.67 | 5.89 | PP M1207 | 30 July 2008 | 4.90 | 0.77 |
| CANDIDATE SUBPROJECTS |  |  |  |  |  |  |  |  |
| UPOLU Generation |  |  |  |  |  |  |  |  |
| T anugamanono Power StatJon Noise and Em1ss1on  Control Proaram | 3 | Q4 2009 | 0.17 |  |  |  | 0.00 | 0.17 |
| Refur brshment of Alaoa Hydropower Statron | 3 | Q3 2009 | 1.34 |  | SAM·PSEP -03 |  | 0.00 | 1.34 |
| Fraga New Dresel Power Station Project | 3 | Q1 2010 | 22.27 | 35.88 | SAM·PSEP -08 |  | 6.10 | 29.78 |
| UPOLU Transmission |  |  |  |  |  |  |  |  |
| Upgrade of the Aal oa 6.6 kV Transmrssr on Line to 22  kV Pro·ect | 3 | Q3 2009 | 1.14 |  | SAM·PSEP -02 |  |  | -0.80 |
| Upolu Diesel Power St ation to Fuluasou Substatron  Underaround Cable Pro·ect | 3 | Q1 2010 | 3.12 |  |  |  |  | 3.12 |
| Hosprt al Feeder Upgradr ng Project- Stage 2 | 3 | Q4 2009 | 3.20 |  | SAM·PSEP -09 |  | 0.84 | 2.36 |
| 22 kV Fuluasou Substatr on Project | 3 | Q2 2010 | 2.93 |  |  |  |  | 2.93 |
| Low- Voltage Network Expansion Program | 3 | Q2 2010 | 1.29 |  |  |  |  | 1.29 |
| Fuluasou Subst ation to Apr a Wharf Area 22 kV  Underaround Cable Pro·ect | 3 | Q2 2012 | 0.00 |  |  |  |  | 0.00 |
| Fuluasou Subst ation to Leulumoega via Vaigaga 22  kV Underaround Cable Proect | 3 | Q2 2012 | 2.78 |  |  |  |  | 2.78 |
| 22 kV Overhead Conductor Upgradrng Program | 3 | Q3 2009 | 6.03 |  | SAM·PSEP -09 |  | 0.41 | 5.62 |
| SAVAII Generation |  |  |  |  |  |  |  |  |
| Hydropower Scheme | 3 | Q3 2012 | 10.65 |  |  |  |  | 10.65 |
| SAVAI'I Transmission |  |  |  |  |  |  |  | 0.00 |
| Puapua-Asau Transmrssron Line 22 kV  Reconductonna Pr oect | 3 | Q3 2009 | 1.24 |  | SAM-PSEP-02 |  |  | 1.24 |
| Low- Voltage Network Expansion Progr am | 3 | Q2 2010 | 0.56 |  |  |  |  | 0.56 |
| Measurement Equipment |  |  |  |  |  |  |  |  |
| Stream Flow Gaugrng Equrpment | 3 | Q3 2008 | 0.05 |  | SAM·PSEP -04 | 23rd Oct 08 | 0.06 | -0.01 |
| Electrical Test Equipment Equr pment | 3 | Q3 2008 | 0.06 |  | SAM·PSEP -05 | 23rd Oct 08 | 0.07 | -0.01 |
| SCADA | 3 | Q4 2009 | 3.48 |  |  |  |  | 3.48 |
| CORE AND CANDIDATE SUBTOTAL |  |  | 70.00 | 44.81 |  |  | 16.12 | 53.88 |
| APPROVED NEW SUBPROJECTS |  |  |  |  |  |  |  |  |
| Vendrng System | 3 | Q 1 2009 | 0.25 |  |  |  | 0.10 | 0.15 |
| Public Dr ssemr natron | 3 | Q 1 2009 | 0.10 |  |  |  |  | 0.10 |
| Power System Plannrng Sof tware | 3 | Q3 2008 | 0.06 |  | SAM·PSEP -06 | 23rd Oct 08 | 0.06 | 0.00 |
| Refurbrshment of Taalefaga and Samasonr SW1tchgea | 3 | Q2 2009 | 1.60 |  | SAM·PSEP -07 |  | 1.97 | -0.37 |
| Refurbrshment of Salelologa Power Statr on | 3 | Q2 2009 | 5.90 |  | SAM-PSEP-10 |  |  | 5.90 |
| Refurbrshment of Tanugamanono Two Generators | 3 | Q3 2009 | 0.75 |  | SAM-PSEP-08 |  | 0.47 | 0.28 |
| Upoul Hydro | 3 | Q ! 20 10 | 3.51 |  |  |  |  | 3.51 |
| Contrngency (Var pu Assrsted Pumprng Scheme) | 3 | Q 1 2010 | 0.50 |  |  |  |  | 0.50 |
| NEW SUBPROJECTS SUBTOTAL |  |  | 12.67 | 0.00 |  |  | 2.60 | 10.07 |
|  |  |  |  |  |  |  |  |  |
| GRAND TOTAL |  |  | 82.67 | 44.81 |  |  | 18.7 | 63.95 |

PMU/EBI 2nd QUARTER 2011 PROGRESS REPORT Page 48 of 104

TOTAL DISBURSEMENTS SUMMARY AS AT 31ST DECEMBER 2010

PROJECT I f'An

txchange ro:atl! (2'9}12}2010)

TOTAL DISBURSEMENT

SAT$

ADB loan

LOANS

ADB Grant JICA

TOTAL LOANS

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COUNTERPART

EPC

TOTAL LOANS+ GOVT CAPITAL+ EPC C/PART

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COLUMN A

*TOTAL I'ROJ Cf' APPROWD FUNDS*

COWMN B

COLUMN C

*USD*

COLUMN D COLUMN E 1 COWMN F 1 COLUMN G COLUMN H COLUMN I COLUMN J COLUMN K =LNO=U•gCCMOLUM:N :M:: COUMNN::I

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METERS:

Dog:<IO. ntPI(l"ty

11,792,007

3,655,522

825,441

5,542,243

10,023, 206

1,768,801

11,792,007

15,139,803 *$*

*3,347,795*

*ZZ%*

POW ER SYSTE:M PLANNING SOFTWARE: Ltd

5JoM-P SEP-D6

134,810

41,791

9,437 63,361

114,589

20,222

134,810

136,126 *$*

*1,316*

STREAM FLOW GA UGING E:QUIPMENT:

4 f.IVTE:ST E:QUIPMENT

5 EGIS BCEOM IMPLE MENTATOI N CONSTULTANTS:

EPC REIMBURSEMENTS:

6.1A. PROJECT MANAGER

6.2. B. 22 KV OVERHEAD UPGRADIN G

C Ull'GRADING OF SUil'RIMA VE:NDING

51-M-P SEP--011

51-M-P SEP-{); CO N05£J E:

145,397

163,443

4,004,841

140,851

991,727

45,073

50,667

307,435

10,178

11,441

4,004,841

140,851

69,421

68,337

76,818

466,112

123,588

138,927

4,004,841

140,851

842,968

21,810

24,516

148,759

184,659

249,338

145,n7

163,443

4,189,500

390,189

991,727

16 3,988 *$*

153,341 *-$*

7,105,010 *$*

*$*

612,000 *$*

991,727 *-$*

*18,591*

*10,10.2*

*.2,915,510*

*221,811*

*0*

MACHINE:$

UPGRADING HOSPITAL FEEDER STAGE: 1, ALAOA DIST. LINE & ASAU 22K V RECONDUCTORING:

244,218

75,708

17,095

114,782

207,585

36,633

244,218

*-$ 244,218 #DIV/D!*

*$*

7.1TRANSF ORMERS

7.2. CABLES & CONDUCTOR S

7.POLES & CROSSARMS

5AM-PSEP-<Jl/<l1·0

oi.,.:Au.rtr;al ><l"tyltd SAM+P5Ef>-<J 2/01C·

ue blr d}Ahla l JV SAM-PSEP--<l2/01-B

543,527

683,914

88,804

168,493

212,013

27,529

38,047

47,874

6,216

255,458

321,439

41,738

461,998

581,327

75,483

81,529

102,587

13,321

543,527

68l,U4

88,804

571,118 *$*

684,687 *$*

102,124 *$*

*27,591*

*773*

*13,321*

7.4 SUPPLY Of GALVANISE:D LINE: HARDW AR outn Au.rtr ll"tyLtd SAM-P5EP--<l1j{J1·A

2,743,428

850,463

192,040

1,289,411

2,331,914

411,514

2,743,428

154,689 *-$*

*2,588,74()*

*-1674'}6*

7.5 PROCUREMENT OF WORKS & RElATE:D S BlubrdJAI IJV SAM-PSEf'I-02/02-A

RE:FURBISHMENT OF ALAOA HYDRO

491,223

152,279

34,386

230,875

417,540

73,683

101,680

592,903

154,690 *-$*

*438,214*

*-283%*

POW ER STATION

HOSPITAL FEEDER STAGE 2 & 22KV UPGRADING:

9.1 SUPPLY Of MATERIALS

9.2. SUPPLY Of MATE:RIALS

10 REFURBISHMENT OF TAE:LEFAGA, LALOMAUGA,SAMASONI & TANUGAMA NON 0 SW ITCHGEAR$:

SJ.M-P SEP-(13.

5AM-P5EP--<l9/{J1·A

oottl Austral F't>!Lttl. SAM+P5Ef>-<J 9/01-B

NDrltlJ>OWerLtd 51-M-P SEP-(17

657,916

768,178

1,251,531

4,730,718

203,954

238,135

387,975

1,466,523

46,054

53,772

87,607

331,150

309,221

361,043

588,220

2,2 23,438

559,229

652,951

1,063,801

4,021,110

98,687

115,227

187,730

709,608

657,U6

768,178

1,251,531

4,730,718

3,432,945 *$*

768,178 *$*

4,625,858 *$*

5,390,576 *$*

*2,775,029*

*0*

*3,374,327*

*659,858*

11

RE:FURBISHMENT OF TANUGAMANONO Mn o.,.ul &.rurbo

GE:NE:RATORS SA A ND 9A

12

SJ.M-P SEP-D8

1,138,081

352,805

79,666

534,898

96 7,369

170,712

1,138,081

2,855,377 *$*

*1,717,296*

CONSTR UCTION OF PUAPUA FEEDER REFURBISHMENT OF AlAOA HYDRO POW ER STATION

14

FIAGA ACCE:SS ROAD AND FE:NCING

15

FIAGA DIESE:l POWE:R STATION

:S1'-"rrMport

comp;ony

A M-PSEf"-12/02-A&C

5AM-PSEPl2· /{J3o $

125,163

272,636

300,521

14,079,945

38,801

84,517

93,162

4,364,783

8,761

19,085

21,036

985,596

58,827

128,139

141,245

6,617,574

106,389

231,7 41

255,443

11,96 7,953

18,774

40,895

45,078

2,111,992

41,018

45,164

125,163

313,654

345,685

14,079,945

*-$ 125,163 #DIV/D!*

16 FIAGA SITE LE:VELING

17 ELE:CTRICAL DUCTING-VAITE:LE: ROAD

PPCitng1neenng SAM-PSEfl.-12/02-B $

70,324

WIDENING

ottrrMport

SAM-PSEP-W/01

325,682

TOTAL DISBURSfMI!NTS AS AT JOTH NOVI!MII!R 2010

45,888,887

12,817,62i $

7,03i,ii5 $

19.433,17i

3i,2i0,803

6,202,078

621,85i

46,114,740 $ 24,210,886 *$ 22,903,854*

INTER EST DURING CONSTRUCTION (IDC):

*lnteres,t Due*

*/,;>s,sl rltrUri' Stp crid*

*6.50 833,145.86 $*

*-s 114,942 lis -s*

*457,599.68 $ 1,263,156.63 $ Z,553,90Z.l8*

*63.131.46 -s 174.267 s9 s 3s2.342.oo*

352,342\_00 $

352,342.00 352,342.00 *$*

o..

*Totallnteres,t Outs,tandlng* "" ot *31s,t December 2010*

*$ 718,203.22 $ 394,468.21 $ 1,088,888.75 $ 2,201,56fJ.18*

*$ $ 2,201,56().18 -$ 2,201,56().18*

*-100'}6*

*TOTAL DISBURSEMENTS* + *JDC*

TAXES AND DUTIES

*....*

*45 887*

ZZf<

*13535*

z no

*7 434 463* 20 22 *068 $ 41492\_,363 6 02078 974 oz. $*

*46,467,082*

19..

*26764 788*

19702

(GOVERNMENT CONTRIBUTION- MOF

3,845,254.17

3,845,254.17

5,241,592 *-$ 1,396,337.83*

*-27'}6*

*TOTAL DISBURSEMENTS* + *JDC+TAXES* tl *DUTIES*

*....*

*13535*

*7434463*

zo *22 068*

ZZfO

*4 49 63*

zz..

*6 02078*

*32..*

*4* 19 *55 $*

*50312 336*

21,.

006

*18 956*

RemalnlBa ante as at 31st Dec:ember 2010

$ 165,6!JB,313

50,445,252

2!J,56!J,253

70,845,132 1 $ t50,85!J,637 $ 13,033,122 $ 24,033,345

190,127,664

*R mlllnlng BtltiS tit 31st mbM 2010*

•*of fundsnlng tiS tit 31st D«r 2010*

I$ *68914620 $ 20980.391 $ 12297976 $ 29464786 1$ 62743153* I$ *5,420.531> $ 9995.569 $*

*78.. 7900* - *71100 78.. 68.. 83fO*

*79,074,889*

*79 ..*



PMU/EBI 2nd QUARTER 2011 PROGRESS REPORT Page 49 of 104

**11. PROJECT FORECAST FOR 2nd QUARTER 2011 AGAINST ACTUAL**

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**12. PROJECTED FORECAST YEAR TO DATE AGAINST ACTUAL**

SAtut:lA POVfRSI:CTOR EXPANSION PROJECT ADBL·ADBG-OO!f, JCoiJ..-823215.1Ju1.P1, UUS-0101

YTD fiNOCI.IJ. REPORT

111-09

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| 22*V Ole-head Cood cror* u*pgrad* ng *Program*  La nowlioo a no R ellemem  Ci'No s  ESU &Irnblon |  |  |  |
| s..ttotil | **· I ·I · I ·I** | **·I ·I · I ·I** | **·I ·I ·I ·I** |
| s.IVIGm i!ion  *ydropowe-*Sa'lenre  La nowlioo a no R elleme!il  Ci'No s  Esu &lrnblon  Corsu a SeMres |  |  |  |
| s..ttotil | **· I ·I · I ·I** | **·I ·I · I ·I** | **·I ·I ·I ·I** |
| s.IV/olllransnission  PI*apta..,! sa*1rar S1!is&o liile 2m  *d aoil gPit!e:i*  Lane Al: wlioo ane Rellemem  Ci'No s  ESU &Irnblon |  | 1i!il00 1 &1111  3,534111 3,1:!1.68 793.32  112,1B3.8J 2i,ll9:ll 18) :423400 | 1,1liJ.Ill 1, .111  3,53400 3,1:!1.68 766.32  112,1B31)J 2i,ll92J 18) 5 234111 |
| s..ttotil | **· I ·I · I ·I** | 115,617.9:11 ai,3l9.:!il 173P72B81 illOO I 2,116.:!! | 115,611£111 ai,3l9lll 173P72B81 55,:B4.00I 2,116.:!! |
| *owVolage wwkEtpar sProgram*  La nowlioo a no R elleme!il  Ci'No s  Esu &lrnblon  Corsu a SeMres |  |  |  |
| s..ttotil | **· I ·I · I ·I** | **·I ·I · I ·I** | **·I ·I ·I ·I** |
| !Ym!Jem611 Eq.l  rei111FiowGa gi g Fmell  ESU &Irnblon | 13.4;s11 3[JJ2ll llJ,JI)J 6,4lH6 | 15,5111.111 3,[MJIIJ 23[1JIIJ ?;moo | [11)B9 457.62 3,1:!174 1,002[6 |
| s..ttotil | 13 2111 1 3,crl2.:!il 20,$112£1 6,4'l1.95l | 15,500.001 3,&10.001 Zl,[IJOO I 1pOOOO I | O?lBSI 467.6:!1 3,1:!1.141 1,002(61 |

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| *eark<l* lesrEq pmaTt pma!t  E IJ'I nSl & tlsb ion | WRiffi 3,318.4i Z!l8102 7,1 lJ.97 | | | | | '!S,60JOO JXJIII 20)10111 9))ll00 | | | | | 3,9:1401 ffitffi 5,918.9l 1,ffi9.1JJ | | | | |
| s..tt a | 41, .31 9,$321 6354 31,1ts.81 | | | | | '8po)DO 4)10.oo **1** :E O.OO 9))ll00 | | | | | 3,9l4.01 001.55 5,918.93 1,009,(1) | | | | |
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| fii D serri bit  Lano Acqtlimon anoR ett me |  | | | | | I))JIOO 13[1)JOJ | | | | | 7,000.00 13,000.00 | | | | |
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| *Taa faaMSamasoni* Swirrli1ears  E IJ'I nSl & tlsb ion |  | | | | |  | | | | |  | | | | |
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| *Power* Sy&em anni*Sofrwle*  E IJ'I nSl & tlsb ion | 11,££6.14 2,7CG.$ \1,193.18 5,80410 | | | | | '!S,60JOO 20)10111 9))ll00 | | | | | 6,9J493 1,411.4! 10,013.52 3,195.9J | | | | |
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| BTOT!ll. | 512.849.11 m,11o.«1 111 .51 248,01 23388 | | | | | 610,'!!2.91 1P9l 4.8ll 922,344.41 1.'6 11 35 | | | | | ll.'B 1(11,03)82 270,9l197 94il(l101 !J1.(11 | | | | |
| APPROD EPC, NOT ADBNEWSUBPROJECTS  *VapfllmpScllwe*  E ui meSu& lrnlal n |  | | | | |  | | | | |  | | | | |
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| *Rffilr &\* 2on1/nooo Dies*Gener ors*  E ui meSu& lrnlal n |  | | | | |  | | | | |  | | | | |
| s..tt a |  | | | | | . I | | | | |  | | | | |
| NOT YET APPRCI.'ED EPCIADBNEW UBPROJEC!S  Up® *HydroGa1eradon*  Lano Acqtlimon anoR ett me  CiWo s  E IJ'I nSl & tlsb ion  Cornu an!S |  | | | | |  | | | | |  | | | | |
| s..tt a |  | | | | | I | | | | |  | | | | |
| TaxuoDm PhcaiCoolriJel¥ (e Cooli1 erq lnleresC!nOornlruction | 15,&3.$ | | | | | 315,000111  2'!1711.67 !Lii,IBOIII 312,111.67 ffi [() OO 56,CIIDIII  473 5333 273 40111 676,353.33 141,6[()00 121,4IDIII  938,333.33 | | | | | 199,736.4!  218,711.67 !Lii,IBOIII 312,111.61 65,:!10.00 56,CIIDIII  473, .33 273 40111 616,353.33 141,1BV.OO 121,4IDIII  938,333.33 | | | | |
| s..tt a |  |  |  |  | 15,&3.1!1 | 69lP&lDO | :m,330.00 | 900,465.00 | 311p9)00 | 1,$0,813.33 | &l5.00 | :m,330.00 | 938,465.00 | 311,(61).00 | 1, ,519.i5 |
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| TOmPROJECT CC61S | 512,849.11 | m,11o.«1 | 111 .51 | 248,0 | 61A9126 | 1 ,:!11 | 1,4al,101.9l | 1,9!J.41 | 9:$,$1.'6 | 1,43!,188 | 813,1m.'B | 5tli,39lS2 | 1,259 | ll!P:E01 | 1,310,1!)1.42 |

**13. LAST ADB REVIEW MISSION**

ADB had a full Mission in February this 1st Quarter 2011 representatives from ADB, JICA, and Aussie Aid attended. Also Anti corruption committee of ADB started their review of project in June:

Matters discussed and reviewed:

a) Status of each subproject;

b) Payment of variation costs of contract for construction of Hospital Feeder Stage 1 and Alaoa Feeder Upgrades. ADB Mission decided to recommend approval of payment as a one time case, due to misunderstanding between PMU and ADB related to contract cost.

c) Anti Corruption Committee review of 2 subprojects; Fiaga power plant and Fiaga Access Road. They are also reviewing Upgrade of Alaoa Feeder and Hospital Feeder Stage 1 subproject Committee includes 2 ADB people, 3 Price Waterhouse people and representative from local government audit office.

d) Improvement in process to speed up payment of contractor invoices.

e) Verifying of total number EPC‟s electric consumers so that it can be accurately determined if additional Prepayment Meters are needed to be purchased and installed to meet PSEP objective of having 75% of electric consumers on Prepayment Meters.

f) Hydro study; feasibility studies of 5 schemes; budget and funding; proposal from

Implementation Consultant for detailed design as required by EPC.

g) Recruit of 3 independent consultant engineers; 1 civil, 1 generation, and 1 power distribution engineer.

ADB next Mission is not known when.

**14. APPENDICES**

**Appendix 1 - Revised Project Estimates**

Appendix 1 -Revised Project Estimates March 2009

|  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| TITLE OF SUBPRO ECTS |  | |  |  |  |  |  |  |
| ***ADB Loan ADB Grant*** *JICA*  ***Ausaid Grant***  *EPC* | ADB  **categ"'** | | **Award Date** | **Revised Budget** |  |  |  |  |
| L.A.R | cw | ESI | cs |
| **Grant** | **Loan** |  | USD$M |  |  |  |  |
| ***Proceeds*** | ***Proceeds*** | *26.61* | *0.00"* | *47.50"* | *31.00"* | *0.00"* |
| *1* = ESI | *1-CW* | *15.39* | *0.00"* | *0.00"* | *7.00"* | *94 .90"* |
| 2=CS | *2=ESI* | *38* | *0.00"* | *42.20"* | *47.00"* | *0.00"* |
| *3-UnafiOCated* | *3 Unaf!ocated* | *8* | *35.00"* | *0.00"* | *15.00"* | *0.00"* |
|  |  | *12* | *65.00"* | *10.30"* | *0.00"* | *5.10"* |
|  |  | *100* | *100.00"* | *100.00"* | *100.00"* | *100.00"* |
| CORE SUBPRO ECTS |  |  |  |  |  |  |  |  |
| Project Manager (0,37 + 0,38 unallocated) | 2 |  | 04 2007 | 0 75 |  |  |  | 0 75 |
| Pro- ect implementation consultant: EBI (73 man-months) | 2 |  | 0 1 2008 | 2.67 |  |  |  | 267 |
| Hospital Feeder Upgrading Pm"ect Stage 1 | 1 | 2 | 01 2009 | 0 60 |  |  | 0.60 |  |
| Single- and Three-Phase Prepayment Metering Project | 1 | 2 | 03 2008 | 5 67 |  |  | 5 67 |  |
| CANDIDATE SUBPRO ECTS |  |  |  |  |  |  |  |  |
| **UPOLU Generation** |  |  |  |  |  |  |  |  |
| T anugamanono Power Stati on Noise and Emission Control Program | 1 | 2 | 04 2009 | 0 17 |  |  | 017 |  |
| Refurbishment o f Alaoa HydropOV'Iier St ation | 1 | 1 & 2 | 03 2009 | 1 .34 |  | 0 27 | 1 07 |  |
| Upolu Dies el Pow er Station Project | 1 | 1 & 2 | 01 2010 | 22 27 | 1. 67 | 1.67 | 18.93 |  |
| **UPOLU Tr3nsmission** |  |  |  |  |  |  |  |  |
| Upgrade of the Alaoa 6.6 k V Transmi ssion Line to 22 k V Pro- ect | 1 | 2 | 03 2009 | 1 .14 |  |  | 1 14 |  |
| Upolu Dies el Power Station to Fuluas ou Substati on Underground Cable Pm"ect | 1 | 2 | 01 2010 | 3 12 |  |  | 3.1 2 |  |
| Hospital Feeder Upgrading Project - Stage 2 | 1 | 2 | 04 2009 | 3 20 |  |  | 3 20 |  |
| 22 kV Futuasou Substation Pro.ect | 1 | 2 | 022010 | 2 .93 |  |  | 2 93 |  |
| Low-Volt age Network Expansoi n Program | 1 | 2 | 02 2010 | 1 29 |  |  | 1.29 |  |
| Fuluasou Substation to Apia Y\t'iarf Area 22 kV Underground Cable Project | 1 | 2 | 02 2012 | 0 00 |  |  | 0.00 |  |
| Fuluasou Substatio n to Leutumoega via Vaigaga 22 kV Underground Cable Pro.ect | 1 | 1 & 2 | 022012 | 2 .78 |  |  | 2 78 |  |
| 22 kV Overhead Conductor Upgrading Program | 1 | 2 | 03 2009 | 6.03 |  |  | 603 |  |
| **SAVAll Generation** |  |  |  |  |  |  |  |  |
| Hydropow er Scheme | 1 | 1 & 2 | 03 2012 | 10.65 |  | 5 33 | 5 32 |  |
| **SAVAI'I Trans mission** |  |  |  |  |  |  |  |  |
| Puapua-Asau Transmission Line 22 kV Reconductoring Project | 1 | 1 & 2 | 03 2009 | 1 24 |  |  | 1.2 4 |  |
| Low-Volt age Network Expansion Program | 1 | 1 & 2 | 022010 | 0.56 |  |  | 0 56 |  |
| **Measurement Equipment** |  |  |  |  |  |  |  |  |
| Stream Flow Gauging Equipment | 1 | 1 & 2 | 03 2008 | 0 05 |  |  | 0.05 |  |
| Electrical Test Equipment Equipment | 1 | 1 & 2 | 03 2008 | 0.06 |  |  | 0 06 |  |
| SCADA | 1 | 1 & 2 | 04 2009 | 3.48 |  |  | 3.4 8 |  |
| CORE AND CANDIDATE SUBTOTAL |  |  |  | 70.00 1.67 7.26 57.65 3.42 | | | | |
| APPROVED NEWSUBPRO ECTS |  |  |  |  |  |  |  |  |
| R e furbishment of Sav aii DieselPower Station | 1 | 2 | 02 2009 | 5 90 |  |  | 5 90 |  |
| Vendinq System | 1 | 2 | 0 1 2009 | 0 .25 |  |  | 0 25 |  |
| Public Dissemination |  |  | 01 2009 | 0 10 | 0. 10 |  |  |  |
| T aalefaga and Samas oni s....,;tchgears | 1 | 2 | 02 2009 | 1 60 |  |  | 1 60 |  |
| Power System Planninq Softw are | 1 | 1 & 2 | 03 2008 | 0.06 |  |  | 0 06 |  |
|  |  |  |  |  |  |  |  |  |
| **Approved EPC, Not Yet Ap proved ADB, New Sub projects** |  |  |  |  |  |  |  |  |
| Vaipu Pumping Scheme | 1 | 1 & 2 | 0 1 2010 | 0. 50 |  | 0.15 | 0.35 |  |
| Refurbish 2 Only Tanugamanono Diesel Generators | 1 | 2 | 03 2009 | 0.75 |  |  | 0.75 |  |
|  |  |  |  |  |  |  |  |  |
| **Not Yet Approved EPC/ADB, New Subprojects** |  |  |  |  |  |  |  |  |
| Upotu Hydro Generation | 1 | 1 & 2 | 01 2010 | 3 51 |  | 1 76 | 1 76 |  |
|  |  |  |  | 4.76 | 0.00 | 1.91 | 2.86 | 0.00 |
|  |  |  |  |  |  |  |  |  |
| GRAND TOTAL |  |  |  | 82.67 | 1.77 | 9.17 | 68.31 | 3.42 |

**Appendix 2 – Project Progress Monitoring**

**TASKS / MILESTONES TARGET DATE**

**ACHIEV DATE**

**ASS AC WT PR**

**WT COMMENTS PR**

**A. CORE SUBPROJECTS % % %**

**1. Hospital Feeder Upgrading Project -Stage 1**

2. Approved Outline

3. Approved Feasibility Study

4. Settle all Environmental issues

5. Settle all Land Issues

6. Approved Tender Documents

7. Approved Tender Evaluation

Report

8. Award Contract

9. Receive Materials

10. Complete Construction

11. Final Report

15.08.08

05.12.08

10.04.09

13.02.09

13.02.09

29.05.09

11.09.09

04.12.09

26.02.10

26.03.10

25.08.08

27.11.08

27.11.08

27.11.08

10.3.09

29.05.09

30.09.09

31.10.10

30.11.10

2.0

5.0

5.0

5.0

5.0

5.0

5.0

20.0

43.0

5.0

100

100

100

100

100

100

100

100

100

100

2.0

5.0

5.0

5.0

5.0

5.0

5.0

20.

0

43.

0

5.0

EPC Board approved outline on 25 August 2008. Feasibility Study was reviewed and endorsed by ADB in October 2008. This was submitted and approved by the EPC Board in November 2008. Tender is combined with Upgrade of Alaoa 6.6 Transmission Line to 22kV and Puapua-Asau Transmission Line 22kV Reconductoring. PMU prepared 2 separate tenders; ICB-Goods & NCB- Labour. 4 contracts for supply of all materials were awarded. All materials received. Needed more

materials; included LV materials; were not included in bid. Contract of Works awarded to Bluebird. Contract signed. Construction is complete. Outstanding is final payment of extra cost to contract. Extra cost is 335,284

Tala.

**Total Wt 100**

**Imp.Prog 100**

**1. Single and Three-phase Prepayment Metering Project**

1. Approved Outline

2. Approved Feasibility Study

3. Settle all Environmental Issues

4. Settle all Land Issues

5. Approved Tender Documents

6. Approved Tender Evaluation

Report

7. Award Contract

8. Install 1-1650 meters

9. Install 1651-3238

10. Install 3239-4826

11. Install 4826-6414

31.12.08

31.03.09

30.06.09

30.09.09

31.12.09

31.12.08

31.03.09

30.06.09

30.09.09

20.11.09

2.0

5.0

5.0

5.0

5.0

5.0

5.0

5.0

5.0

5.0

5.0

5.0

100

100

100

100

100

100

100

100

100

100

100

100

2.0

5.0

5.0

5.0

5.0

5.0

5.0

5.0

5.0

5.0

5.0

5.0

273 meters were installed this 2nd Quarter 2011 bringing total number of meters installed by A D Riley to 18,922 since project started in 2008. Total number of meters installed included new customers and customers converted from induction meters to PPM.

Installation is ahead of schedule by 12 months. Overall total number of customers installed with PPM is

23,688. This is 64.67% of total number of electric customers of 36,634.

Total number of meters lowered during this quarter is

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| 12. Install 6415-8000  13. Install 8001-9250  14. Install 9251-10500  15. Install 10500-11750  16. Install 11750-13000  17. Install 13001-14250  18. Install 14251-15500  19. Install 15501-16750  20. Install 16751-18000  21. Install 18001-18750  22. Install 18751-19500  23. Install 19501-20250  24. Install 20250-21000  25. Final Report | 31.03.10  30.06.10  30.09.10  31.12.10  31.03.11  30.06.11  30.09.11  31.12.11  31.03.12  30.06.12  30.09.12  31.12.12  31.02.12 | 31.12.09  31.01.10  29.02.10  31.03.10  31.05.10  30.06.10  31.12.10  31.3.11 | 4.0  4.0  4.0  4.0  4.0  4.0  4.0  4.0  2.0  2.0  2.0  2.0  3.0 | 100  100  100  100  100  100  100  100  50  13 | | 4.0  4.0  4.0  4.0  4.0  4.0  4.0  4.0  1.0  0.3 | 131. This brings the total number of meters lowered to  3,590.  Installation is over 12 months ahead of schedule. |
|  |  | **Total Wt** | **100** |  | |  |  |
|  |  | **Imp.Prog** |  |  | | **90.3** |  |
| **B. CADIDATE SUBPROJECTS** | | | | | | | |
| **1. Upolu** | | | | | | | |
| **a. Generation** | | | | | | | |
| **(i) Tanugamanono Power Station Noise & Emission Control Program** | | | | | | | |
| 1. Approved Outline  2. Approved Feasibility Study  3. Settle all Environment Issues  4. Settle all Land Issues  5. Approved Tender Documents  6. Approved Tender Evaluation  Report  7. Award Contract | 11.09.09  01.01.10  07.05.10  12.03.10  12.03.10  25.06.10  15.10.10  14.01.11 |  | 2.0  5.0  5.0  5.0  5.0  5.0  5.0  20.0 | 100  20 | 2.0  1.0 | | There was no activity on this subproject during this  Quarter.  PMU started on preparation of Feasibility Study this  Quarter. |

|  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| 8. Receive Materials  9. Complete Construction  10. Final Report | 27.05.11  24.06.11 |  | | 43.0  5.0 |  | |  | |  |
|  |  | **Total WT** | | **100** |  | |  | |  |
|  |  | **Imp.Prog** | |  |  | | **3.0** | |  |
| **(ii) Refurbishment of Alaoa Hydropower Station** | | | | | | | | | |
| 1. Approved Outline  2. Approved Feasibility Study  3. Settle all Environment Issues  4. Settle all Land Issues  5. Approved Tender Documents  6. Approved Tender Evaluation  Report  7. Award Contract  8. Receive Materials/Equipment  9. Complete Construction  10. Final Report | 15.08.08  05.12.08  24.04.09  16.01.09  06.03.09  03.07.09  06.11.09  23.04.10  23.04.10  21.05.10 | 25.07.08  27.11.08  27.11.08  27.11.09  10.06.09  30.09.09  31.12.09 | 2.0  5.0  5.0  5.0  5.0  5.0  5.0  20.0  43.0  5.0 | | 100  100  100  100  100  100  100  100  100  100 | | 2.0  5.0  5.0  5.0  5.0  5.0  5.0  20.0  43.0  5.0 | | Construction and installation of generator and equipment are completed. Plant is commissioned and  put into service. |
|  |  | **Total Wt** | **100** | |  | |  | |  |
|  |  | **Imp.Pro**  **g** |  | |  | | **100.0** | |  |
| **(iii) Fiaga Diesel Power Station Project** | | | | | | | | | |
| 1. Approved Outline  2. Approved Feasibility Study  3. Settle all Environment Issues  4. Settle all land issues  5. Approved Tender Documents  6. Approved Tender Evaluation  Report  7. Award Contract  8. Receive Materials  9. Complete Construction  10. Final Report | 08.08.08  17.04.09  04.09.09  26.06.09  24.07.09  01.01.10  12.03.10  27.08.10  14.02.14  14.03.14 | 25.07.08  30.09.09  30.06.09  31.01.10  31.01.10 | | 2.0  5.0  5.0  5.0  5.0  5.0  5.0  20.0  43.0  5.0 | 100  100  100  100  100  100  100 | 2.0  5.0  5.0  5.0  5.0  5.0  5.0  20.0  0 | | Construction of powerhouse started. Official groundbreaking by Prime Minister was held in June.  Factory testing of engines and generators schedule at end of Aug and Sept. 2011. Engines and equipment will arrive at end of October 2011. | |
|  |  | **Total Wt** | | **100** |  |  | |  | |
|  |  | **Imp.Prog** | |  |  | **52.0** | |  | |
| **b. Transmission** | | | | | | | | | |

|  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **(i) Upgrade of Alaoa 6.6KV Transmission Line from 6.6 to 22kV Project** | | | | | | | | |
| 1. Approved Outline  2. Approved Feasibility Study  3. Settle all Environment Issues  4. Settle all Land Issues  5. Approved Tender Documents  6. Approved Tender Evaluation  Reports  7. Award Contract  8. Supply Materials  9. Complete Construction  10. Final Report | 10.10.08  30.01.09  12.06.09  27.03.09  24.04.09  21.08.09  15.01.10  09.04.10  30.07.10  27.08.10 | 25.07.08  27.11.08  27.11.08  27.11.08  10.03.09  30.09.09  30.09.09 | 2.0  5.0  5.0  5.0  5.0  5.0  5.0  5.0  20  40  3 | 100  100  100  100  100  100  100  100  100  100  100 | | | 2.0  5.0  5.0  5.0  5.0  5.0  5.0  5.0  20  40  3 | Construction was completed in 2010. Contractor, Bluebird Ah LAL is waiting on final payment. ADB is  reviewing variation to contract which is included in last payment. Anti Corruption Committee of ADB is  reviewing this contract and payment. |
|  |  | **Total Wt** | **100** |  | | |  |  |
|  |  | **Imp.Prog** |  |  | | | **100** |  |
| **(ii) Fiaga Diesel Power Station to Fuluasou Substation 33KV Underground Cable Project** | | | | | | | | |
| 1. Approved Outline  2. Approved Feasibility Study  3. Settle all Environment Issues  4. Settle all Land Issues  5. Approved Tender Documents  6. Approved Tender Evaluation  Report  7. Award Contract for materials.  8. Supply Materials  9. Complete Construction  10. Final Report | 08.05.09  28.08.09  01.01.10  09.10.09  06.11.09  10.02.10  04.06.10  09.04.10  11.02.11  11.03.11 |  | 2.0  5.0  5.0  5.0  5.0  5.0  5.0  20  43  5 | 100  100  100  100  100  100  100  0  0  0 | | 2.0  5.0  5.0  5.0  5.0  5.0  5.0  0  0  0 | | Feasibility Study is complete and approved by ADB. Tender for Goods and Materials closed in December,  2010. Evaluation report was submitted to ADB for  approval. Award contracts for supply of materials and equipment. Construction will be done by EPC crew.  Award of contract for supply of materials was cancelled due to delay and change in design of the transmission line. 33kv line is changed to underground one circuit and built other circuit overhead using concrete poles. Underground cables and aerial conductor, hardware, poles and other materials will be retendered. |
|  |  | **Total Wt** | **100** |  | |  | |  |
|  |  | **Imp.Prog** |  |  | | **32.0** | |  |
| **(iii) Hospital Feeder Upgrading Project Stage 2** | | | | | | | | |
| 1. Approved Outline  2. Approved Feasibility Study  3. Settle all Environment Issues  4. Settle all Land Issues | 07.08.09  27.11.09  02.04.11  08.01.10 | 28.3.09  31.3.09  31.03.09  31.03.09 | 2.0  5.0  5.0  5.0 | | 100  100  100  100 | | 2.0  5.0  5.0  5.0 | Project is implemented in two parts. Part 1 is purchase  of materials and Part 2 is construction and installation of cable and related equipment. Supply of materials is 90% complete. Rest of materials was rebided. Contract has |

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| 5. Approved Tender Documents  6. Approved Tender Evaluation  Report  7. Award Contract  8. Receive Materials  9. Complete Construction  10. Final Report | 19.02.10  04.06.10  17.09.10  10.12.10  27.05.11  24.06.11 | 30.09.09 | 5.0  5.0  5.0  20.0  43  5 | | 100  100  100  90  100  0 | | 5.0  5.0  5.0  20  4  0 | | been awarded for rebid materials. Construction is awarded to Bluebird Ah LAL JV. Construction started in  December 2010 and continuing. 90% of trenching and  laying of electrical and fiber optic conduits, and installation of vaults are complete. |
|  |  | **Total Wt** | **100** | |  | |  | |  |
|  |  | **Imp.Prog** |  | |  | | **57** | |  |
| **(iv) 22KV Fuluasou Substation Project** | | | | | | | | | |
| 1. Approved Outline  2. Approved Feasibility Study  3. Settle all Environment Issues  4. Settle all Land Issues  5. Approved Tender Documents  6. Approved Tender Evaluation  Report  7. Award Contract  8. Supply Materials  9. Complete Construction  10. Final Report | 06.11.09  26.02.10  02.07.10  09.04.10  21.05.10  03.09.10  17.12.10  10.03.11  26.08.11  23.09.11 | 28.3.09 | 2.0  5.0  5.0  5.0  5.0  5.0  5.0  20.0  43.0  5.0 | 100  100  100  100  100 | | 2.0  5.0  5.0  5.0  5.0 | | ADB approved feasibility study and tender as a turnkey project. Tender was advertised in December 2010. Tender closes in February 2011.  Evaluation report ready to submit to ADB. ADB approved  award and issued No Objection Letter. Govt Tender‟s  Board and Cabinet also approved to award contract to Northpower NZ Ltd. Notice of award has been issued to contractor. | |
|  |  | **Total Wt** | **100** |  | |  | |  | |
|  |  | **Imp.Prog** |  |  | | **22.0** | |  | |
| **(v) Low Voltage Network Improvement Program** | | | | | | | | | |
| 1. Approved Outline  2. Approved Feasibility Study  3. Settle all Environment Issues  4. Settle all Land Issues  5. Approved Tender Documents  6. Approved Tender Evaluation  Report  7. Award Contract  8. Supply Materials  9. Complete Construction  10. Final Report | 06.11.09  26.02.10  02.07.10  09.04.10  21.05.10  03.09.10  17.12.10  11.03.11  26.08.11  23.09.11 | 31.3.09 | 2.0  5.0  5.0  5.0  5.0  5.0  5.0  20.0  47.5  5.0 | | 100  100  100  100  100  100  100 | | 2.0  5.0  5.0  5.0  5.0  5.0  5.0 | Materials were tendered separately. Construction is done by EPC. PMU issued ICB tender for supply of  materials. Contract was awarded for materials supply. Materials started to arrive and stored in project store. | |
|  |  | **Total Wt** | **100** | |  | | **32.** |  | |

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|  |  |  |  | |  | | **0** |  | |
|  |  | **Imp.Prog** |  | |  | |  |  | |
| **(vi) Fuluasou Substation to Apia Wharf Area 22kV Underground Cable Project** | | | | | | | | | |
| 1. Approved Outline  2. Approved Feasibility Study  3. Settle all Environment Issues  4. Settle all Land Issues  5. Approved Tender Documents  6. Approved Tender Evaluation  Report  7. Award Contract  8. Supply Materials  9. Complete Construction  10. Final Report | 06.11.09  26.02.10  02.07.10  07.05.10  21.05.10  03.09.10  17.12.10  11.03.11  27.07.12  24.08.12 | 30.06.09 | 2.0  5.0  5.0  5.0  5.0  5.0  5.0  20.0  43.0  5.0 | | 100  100  100  100  100  100  100 | | 2.0  5.0  5.0  5.0  5.0  5.0  5.0 | Feasibility study was completed and approved by ADB.  Materials supply was tendered separately. Construction will be done by EPC. Work of undergrounding electrical conduits and vaults from Lepea to Malifa has started as part of Vaitele Road widening project. EPC, Tender Board and ADB approved contract with Ott to start this work. Ott completed construction. There are a few items to be corrected by Ott. Contract for installation of cables to feed street lights and control panel for street lights was awarded to All Electrical. Work is complete.  Evaluation Report for supply of cables and other related materials was submitted to ADB. ADB and Tender‟s  Board granted their approval. Contracts were awarded. | |
|  |  | **Total Wt** | **100** | |  | |  |  | |
|  |  | **Imp.Prog** |  | |  | | **32** |  | |
| **(vii) Fuluasou Substation to Leulumoega via Vaigaga 22kV Underground Cable Project** | | | | | | | | | |
| 1. Approved Outline  2. Approved Feasibility Study  3. Settle all Environment Issues  4. Settle all Land Issues  5. Approved Tender Documents  6. Approved Tender Evaluation  Report  7. Award Contract  8. Supply Materials  9. Complete Construction  10. Final Report | 05.08.11  25.11.11  30.03.12  03.02.12  17.02.12  01.06.12  14.09.12  07.12.12  25.04.14  23.05.14 |  | 2.0  5.0  5.0  5.0  5.0  5.0  5.0  20.0  43.0  5.0 |  | |  | | This subproject is cancelled from PSEP. Powerlines for  West Coast feeder will remain overhead. | |
|  |  | **Total Wt** | **100** |  | |  | |  | |
|  |  | **Imp.Prog** |  |  | | **0.0** | |  | |
| **(viii) 22kV Overhead Conductor Upgrading Program** | | | | | | | | | |
| 1. Approved Outline  2. Approved Feasibility Study  3. Settle all Environment Issues | 06.02.09  29.05.09  02.10.09 | 23.10.08  28.02.09  31.3.09 | 2.0  5.0  5.0 | | 100  100  100 | | 2.0  5.0  5.0 | | Materials were supplied under separate contracts. All materials have arrived. Works was tendered  separately. |

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| 4. Settle all Land Issues  5. Approved Tender Documents  6. Approved Tender Evaluation  Report  7. Award Contract  8. Supply Materials  9. Complete Construction  10. Final Report | 07.08.09  21.08.09  04.12.09  19.03.10  11.06.10  11.04.14  09.05.14 | 31.3.09  30.09.09 | 5.0  5.0  5.0  5.0  20.0  43.0  5.0 | | 100  100  100  100  100 | | 5.0  5.0  5.0  5.0  20.0 | | | Feeders included in this subproject are: Lalomauga Feeder, East Cost Feeder, South Coast Feeder, Alaoa transmission line, West Coast Feeder, Beach Road and Vaitele Feeders.  Construction was tendered. ADB approved to award contract to GMA. Contract was signed in December  2010. Contractor is yet to provide performance bond, advance payment bank security, and advance  payment invoice. Construction started in Feb, 2011 and continuing. 30% of work is completed for 30% of contract time. |
|  |  | **Total Wt** | **100** | |  | |  | | |  |
|  |  | **Imp.Prog** |  | |  | | **52.0** | | |  |
| **2. Savaii** | | | | | | | | | | |
| **a. Generation** | | | | | | | | | | |
| **(i) Hydro Scheme** | | | | | | | | | | |
| 1. Approved Outline  2. Approved Feasibility Study  3. Settle all Environment Issues  4. Settle all Land Issues  5. Approved Tender Documents  6. Approved Tender Evaluation  Report  7. Award Contract  8. Receive Materials  9. Complete Construction  10. Final Report | 05.08.11  13.04.12  31.08.12  22.06.12  30.07.12  23.11.12  08.02.13  26.07.13  13.01.17  10.02.17 |  | 2.0  5.0  5.0  5.0  5.0  5.0  5.0  20.0  43.0  5.0 | 100 | | 2.0 | | Hydro in Sili is put on hold due to land dispute. Faleata scheme at Vailoa, Palauli is included under subproject  Hydropower Development. There are 5 schemes being studied under this project. There are 4 hydro schemes selected in Upolu.  Implementation Consultant is conducting Feasibility Studies of 5 hydropower schemes. From 5 schemes, 3 will be selected for detailed design and tender preparation. IC submitted a proposal and EPC to perform detailed designs of three schemes.  This subproject is combined with Hydro Development. | | |
|  |  | **Total Wt** | **100** |  | |  | |  | | |
|  |  | **Imp.Prog** |  |  | | **2.0** | |  | | |
| **b. Transmission** | | | | | | | | | | |
| **(i) Puapua-Asau Transmission Line 22kV Reconductoring Project** | | | | | | | | | | |
| 1. Approved Outline  2. Approved Feasibility Study | 15.08.08  05.12.08 | 25.07.08  27.11.08 | 2.0  5.0 | | 100  100 | | 2.0  5.0 | | ADB approved Feasibility Study and tender. Materials  are supplied under separate contracts which were | |

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| 3. Settle all Environment Issues  4. Settle all Land Issues  5. Approved Tender Documents  6. Approved Tender Evaluation  Report  7. Award Contract  8. Supply Materials  9. Complete Construction  10. Final Report | 10.04.09  13.02.09  27.02.09  12.06.09  25.09.09  18.12.09  12.03.10  09.04.10 | 27.11.08  27.11.08  10.3.09 | 5.0  5.0  5.0  5.0  5.0  20.0  43.0  5.0 | | 100  100  100  100  100  100  80 | | 5.0  5.0  5.0  5.0  5.0  20.0  35.0 | | combined with materials for Alaoa and Hospital Feeder  Upgrades. All materials for this subproject have arrived and shipped to Savaii.  Contract for construction was awarded to Tenix New Zealand. Contract has been signed. Construction started at end of March 2011. Contract subcontracted a local contractor. 90% of work is complete. |
|  |  | **Total Wt** | **100** | |  | |  | |  |
|  |  | **Imp.Prog** |  | |  | | **87.0** | |  |
| **(ii) Power Factor Improvement Program** | | | | | | | | | |
| 1. Approved Outline  2. Approved Feasibility Study  3. Settle all Environment Issues  4. Settle all Land Issues  5. Approved Tender Documents  6. Approved Tender Evaluation  Report  7. Award Contract  8. Receive Materials  9. Complete Construction  10. Final Report | 15.08.08  05.12.08  10.04.09  13.02.09  27.02.09  12.06.09  25.09.09  18.12.09  12.02.10  12.03.10 | 25.07.08  05.01.09  05.01.09  05.01.09 | 2.0  5.0  5.0  5.0  5.0  5.0  5.0  20.0  43.0  5.0 | 100  100  100  100 | | 2.0  5.0  5.0  5.0 | | PF improvement for high voltage lines in Savaii has been removed from PSEP. PF is high and in an acceptable  level. There is another PF correction project to improve  PF inside large consumers. This is not part of PSEP. PMU and Implementing Consultant is managing  implementation of this project.  No further work is required. | |
|  |  | **Total Wt** | **100** |  | |  | |  | |
|  |  | **Imp.Prog** |  |  | | **100** | |  | |
| **(iii) Low Voltage Network Improvement Program** | | | | | | | | | |
| 1. Approved Outline  2. Approved Feasibility Study  3. Settle all Environment Issues  4. Settle all Land Issues  5. Approved Tender Documents  6. Approved Tender Evaluation  Report  7. Award Contract  8. Receive Materials  9. Complete Construction | 06.11.09  26.02.10  02.07.10  07.05.10  21.05.10  03.09.10  17.12.10  11.03.11  27.07.12 | 31.03.09 | 2.0  5.0  5.0  5.0  5.0  5.0  5.0  20.0  43.0 | | 100  100  100  100  100  100  100  100 | | 2.0  5.0  5.0  5.0  5.0  5.0  5.0  20.0 | | ADB approved Feasibility Study and tender. Contracts have awarded for supply of materials. Construction will  be carried out by EPC. Construction has not started. |

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| 10. Final Report | 24.08.12 |  | 5.0 | |  | |  | | |  | |
|  |  | **Total Wt** | **100** | |  | |  | | |  | |
|  |  | **Imp.Prog** |  | |  | | **52.0** | | |  | |
| **3. Measurement Equipment** | | | | | | | | | | | |
| **(i) Stream Flow Gauging Equipment** | | | | | | | | | | | |
| 1. PMU prepare subproject outline  2. EPC Board approves Outline  3. PMU notify ADB  4. PMU notify PSC  5. PMU prepares Equipment Specs  6. PMU prepares Tender  Documents  7. PMU calls tenders  8. PMU evaluate tenders  9. PMU prepares TER  10. ADB review and endorse TER  11. EPC Board approves TER  12. PMU advise Successful bidder  13. Successful Bidder supply equipment  14. Equipment hand over to  REU/MNRE  15. PMU process payment  16. PMU provide final report | 17.07.08  31.07.08  07.08.08  07.08.08  07.08.08  14.08.08  11.09.08  18.09.08  25.09.08  09.10.08  09.10.08  23.10.08  04.12.08  11.12.08  17.09.09  20.11.08 | 15.07.08  25.07.08  11.08.08  11.08.08  01.08.08  08.08.08  05.09.08  09.09.08  16.09.08  23.10.08  23.09.08  23.10.08 | 5.0  10.0  2.0  2.0  10.0  10.0  5.0  5.0  10.0  10.0  10.0  2.0  10.0  2.0  5.0  2.0 | 100  100  100  100  100  100  100  100  100  100  100  100  100  100  100  100 | | 5.0  10.  0  2.0  2.0  10.  0  10.  0  5.0  5.0  10.  0  10.  0  10.  0  2.0  10.  0  2.0  5.0  2.0 | | | Outline was approved by the EPC Board of Directors on  25 Jul 2008. PMU notified ADB and PSC on 11 Aug  2008. Delay in notification is due to official approval of the Board can only be available and confirmed when the  minutes of the previous meeting are approved in the  proceeding meeting. This subproject does not need a  Feasibility Study and prior review and endorsement of ADB. PMU prepare equipment specification and called tenders for the supply of equipment. Tender Evaluation Report was completed on 18 Sept 2008. ADB endorsed TER on 23 Oct 2008. EPC Board approved Tender Evaluation Report during its meeting on 23 Sept 2008. Withdrawal application for payment is now with ADB. Equipment has not been received.  8 gauges have been installed; 1 left to be installed. Installation of rain gauges will be added to this project. | | |
|  |  | **Total Wt** | **100** |  | |  | | |  | | |
|  |  | **Imp.Prog** |  |  | | **100** | | |  | | |
| **(ii) HV/LV Testing Equipment** | | | | | | | | | | | |
| 1. PMU prepare subproject outline  2. EPC Board approves Outline  3. PMU notify ADB  4. PMU notify PSC  5. PMU prepares Equipment Specs | 18.07.08  01.08.08  08.08.08  08.08.08  08.08.08 | 18.07.08  25.07.08  11.08.08  11.08.08  11.08.08 | 5.0  5.0  2.0  2.0  7.0 | | 100  100  100  100  100 | | | 5.0  5.0  2.0  2.0  7.0 | | | Outline of this subproject was approved by EPC Board on 25 July 2008. PMU notified ADB and PSC  on 11 Aug 2008. Delay in notification is due to official approval of the Board can only be available and  confirmed when the minutes of the previous meeting |

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| 6. PMU prepares Tender  Documents  7. PMU calls tenders  8. PMU evaluate tenders  9. PMU prepares TER  10. ADB review and endorse TER  11. EPC Board approves TER  12. PMU advise Successful bidder  13. Successful Bidder supply equipment  14. PMU receive equipment  15. PMU test & use equipment  16. PMU process payment  17. PMU provide final report | 15.08.08  12.09.08  19.09.08  26.09.08  10.10.08  10.10.08  24.10.08  05.12.08  19.12.08  16.01.08  21.11.08  13.02.09 | 18.08.08  22.08.08  22.09.08  29.09.08  15.10.08  23.10.08  24.10.08  29.02.09  31.3.09  31.3.09  31.3.09 | 7.0  5.0  5.0  10.0  5.0  10.0  2.0  10.0  5.0  10.0  5.0  5.0 | 100  100  100  100  50  100  100  100  100  100  100  100 | | 7.0  5.0  5.0  10.0  5.0  10.0  2.0  10.0  5.0  10.0  5.0  5.0 | | | are approved in the proceeding meeting. This subproject does not need a Feasibility Study and  prior review and endorsement of ADB. PMU  prepared equipment specification and called tenders for the supply of equipment. Tender Evaluation Report was completed on 29 Sept 2008 and forwarded to ADB. This is yet to be endorsed due to some misunderstanding. EPC Board approved TER on 23 Oct 2008. Withdrawal application is now with ADB. Suppliers received their payments.  Project is completed. |
|  |  | **Total Wt** | **100** |  | |  | | |  |
|  |  | **Imp.Prog** |  |  | | **100** | | |  |
| **4. System Control and Data Acquisition (SCADA)** | | | | | | | | | |
|  | | | | | | | | | |
| 1. Approved Outline  2. Approved Feasibility Study  3. Settle all Environment Issues  4. Settle all Land Issues  5. Approved Tender Documents  6. Approved Tender Evaluation  Report  7. Award Contract  8. Receive Materials  9. Complete Construction  10. Final Report | 03.04.09  17.07.09  01.01.10  23.10.09  30.10.09  05.03.10  21.05.10  05.11.10  24.06.11  22.07.11 | 31.3.09 | 2.0  5.0  5.0  5.0  5.0  5.0  5.0  20.0  43.0  5.0 | 100  100  100  100  100 | 2.0  5.0  5.0  5.0  5.0 | | ADB approved Feasibility study. ADB approved tender. Tender is advertised. Over 10 bidders bought tender  documents. Tender closes on Aug 15, 2011. | | |
|  |  | **Total Wt** | **100** |  | **22.0** | |  | | |
|  |  | **Imp.Prog** |  |  |  | |  | | |
| **5. New Subprojects** | | | | | | | | | |
| **(i) Public Dissemination** | | | | | | | | | |
| 1. EPC Board approved Outline  2. PMU notify ADB | 22.08.08  05.09.08 | 23.09.08  01.10.08 | 5.0  2.5 | 100  100 | 5.0  2.5 | | | This is a new subproject. It was the EPC‟s  understanding that all the supporting components of | |

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| 3. PMU notify PSC  4. PMU to implement  5. Final Report | 12.09.08  19.11.15  17.12.15 | 01.10.08 | 2.5  85.0  5.0 | 100  50 | 2.5  34.0 | | the subprojects such as advertisement, awareness programs, public notices, education programs, etc are  all covered under the Power Sector Expansion  Project. Unfortunately when the need aroused to pay for these costs during the Prepayment Meter Core Subproject, it was realized that there is no provision for this under the loan. Preliminary discussions took place between PMU and ADB took place. ADB advised this can be added as a new subproject and PMU has to follow the process as outlined in Appendix  7 of the RRP. PMU then prepared the outline to be submitted to the EPC Board. EPC Board approved the outline of this new subproject on 23 Sept 2008. PMU notified ADB and PSC on 01 Oct 2008. ADB agreed to include advertisement of tenders under this subproject. |
|  |  | **Total Wt** | **100** |  |  | |  |
|  |  | **Imp.Prog** |  |  | **44.0** | |  |
| **(ii) Vending System Expansion** | | | | | | | |
| 1. EPC Board approved Outline  2. PMU notify ADB  3. PMU notify PSC  4. ADB endorses Feasibility Study  5. PSC endorses Feasibility Study  6. EPC Board approves FS  7. Implementation  8. Final Report | 26.12.08  02.01.09  02.01.09  27.03.09  17.04.09  30.04.09  24.12.10  24.01.11 | 23.09.08  01.10.08  01.10.08 | 5.0  2.5  2.5  10.0  10.0  10.0  45.0  5.0 | 100  100  100  100  100  100  100  100 | 5.0  2.5  2.5  10.0  10.0  10.0  45.0  5.0 | Scratch card system was successfully tested in A D Riley workshop in New Zealand. New card system was  successfully launched in February 2010. More than 50 shops sell cards in Upolu and Savaii. There are some  problems with new card system that EPC is working to resolve.  Scratch cards are widely used now. | |
|  |  | **Total Wt** | **100** |  |  |  | |
|  |  | **Imp.Prog** |  |  | **100** |  | |
| **(iii) Power System Planning Software** | | | | | | | |
| 1. PMU prepare subproject outline  2. EPC Board approves Outline  3. PMU notify ADB  4. PMU notify PSC  5. PMU prepares Software  Specification  6. PMU prepares Tender | 22.08.08  05.09.08  12.09.08  12.09.08  12.09.08  19.09.08  17.10.08 | 23.09.08  23.09.08  01.10.08  01.10.08  26.08.08  15.08.08  22.08.08 | 5.0  5.0  2.0  2.0  5.0  5.0  5.0 | 100  100  100  100  100  100  100 | 5.0  5.0  2.0  2.0  5.0  5.0  5.0 | As part of Northpower‟s scope of work for replacement  of 22kV switchgear in Taelefaga, Lalomauga, Samasoni, and Tanugamanono power plants, a  variation was approved for NP to conduct a load flow  study and protection study of Upolu system. NP used EPC DigSilent software for the studies and used this to train 3 of EPC electrical engineers. The project is | |

|  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| Documents  7. PMU calls tenders  8. PMU evaluate tenders  9. PMU prepares TER  10. ADB review and endorse TER  11. EPC Board approves TER  12. PMU advise Successful bidder  13. Successful Bidder supply software  14. Successful bidder installed  software  15. Successful bidder provide training  16. PMU take over  17. PMU process payment  18. PMU provide final report | 24.10.08  31.10.08  14.11.08  14.11.08  21.11.08  05.12.08  12.12.08  19.12.08  02.01.09  19.12.08  30.01.09 | 29.08.08  05.09.08  05.09.08  17.09.08  23.09.08  26.09.08  15.12.08  31.03.09  31.03.09  31.03.09  30.04.09 | 2.0  2.0  5.0  5.0  2.0  5.0  10.0  10.0  10.0  10.0  5.0  5.0 | | 100  100  100  100  100  100  100  100  100  100  100 | | 2.0  2.0  5.0  5.0  5.0  5.0  10..0  10.0  10.0  10  5.0  5.0 | | completed. EPC will continue to model the rest of distribution feeders using the same software. What is  left to be done is actual testing and recalibration of all  protection replays in feeders, transmission lines and generators. NP schedules to this in Feb. 2011. |
|  |  | **Total Wt** | **100** | |  | |  | |  |
|  |  | **Imp.Prog** |  | |  | | **100** | |  |
| **(iv) Refurbishment of Salelologa Power Station** | | | | | | | | | |
| 1. Approved Outline  2. Approved Feasibility Study  3. Settle all Environment Issues  4. Settle all Land Issues  5. Approved Tender Documents  6. Approved Tender Evaluation  Report  7. Award Contract  8. Receive Materials  9. Complete Construction  10. Final Report | 07.11.08  20.03.09  07.08.09  23.01.09  26.06.09  30.10.09  15.01.10  02.07.10  03.09.10  01.10.10 | 23.10.08  31.3.09  31.3.09  31.3.09 | 2.0  5.0  5.0  5.0  5.0  5.0  5.0  20.0  43.0  5.0 | 100  50  50  50 | | 2.0  2.5  2.5  2.5 | | EPC will not refurbish Salelologa Power Station. Instead, a new power station will be built in Vaiaata. Cabinet  approved 100 acres of govt land for new power plant. PMU is redoing feasibility study. Topographic survey of land is completed. | |
|  |  | **Total Wt** | **100** |  | |  | |  | |
|  |  | **Imp.Prog** |  |  | | **9.5** | |  | |
| **(v) Refurbishment of Taelefaga/Lalomauga/Samasoni/Tanugamanono power plant 22kV Switchgears** | | | | | | | | | |
| 1. Approved Outline | 26.12.08 | 23.10.08 | 2.0 | 100 | | | 2.0 | | Contract was awarded to Northpower Ltd. Original |

|  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| 2. Approved Feasibility Study  3. Settle all Environment Issues  4. Settle all Land Issues  5. Approved Tender Documents  6. Approved Tender Evaluation  Report  7. Award Contract  8. Receive Materials  9. Complete Construction  10. Final Report | 03.04.09  14.08.09  15.05.09  08.05.09  04.09.09  01.01.10  03.12.10  03.12.10  31.12.10 | 31.3.09  31.3.09  31.3.09  30.09.09 | 5.0  5.0  5.0  5.0  5.0  5.0  20.0  43.0  5.0 | 100  100  100  100  100  100  100  75 | | 5.0  5.0  5.0  5.0  5.0  5.0  20.0  35.0 | | contract is complete. New 22kV switchgear is now in operation. A 2nd variation to NP was approved to replace the 4 old remaining switchgear in Lalomauga hydro plant. Additional switchgear still have not arrived. | |
|  |  | **Total Wt** | **100** |  | | **87.0** | |  | |
|  |  | **Imp.Prog** |  |  | |  | |  | |
|  | | | | | | | | | |
| **(vi) Refurbishment of Tanugamanono Power Station Generators** | | | | | | | | | |
| 1. Approved Outline  2. Approved Feasibility Study  3. Settle all Environment Issues  4. Settle all Land Issues  5. Approved Tender Documents  6. Approved Tender Evaluation  Report  7. Award Contract  8. Receive Materials  9. Complete Construction  10. Final Report | 19.12.09  03.04.09  21.08.09  12.06.09  19.06.09  25.09.09  11.12.09  05.02.10  30.07.10  27.08.10 | 27.11.08  31.3.09  31.3.09  31.3.09  25.06.09  30.09.09 | 2.0  5.0  5.0  5.0  5.0  5.0  5.0  20.0  43.0  5.0 | | 100  100  100  100  100  100  100  100  50 | 2.0  5.0  5.0  5.0  5.0  5.0  5.0  10.0  22.0 | | | Contract was awarded to MAN to refurbish generators  5A and 9A. Unit 9A has a defective crankshaft; to be replaced with a new one. Work started on 9A. There  was delay due to reorder of additional parts. There  was a lot of reorder parts for 9A. Refurbish of 9A is completed and put on line. Start on 5A is postponed until Alaoa hydro is back in operation; this scheduled in May 2011.  Alaoa hydro plant is back in service but no decision is made when to start overhaul of Unit 5A. |
|  |  | **Total Wt** | **100** | |  |  | | |  |
|  |  | **Imp.Prog** |  | |  | **64.0** | | |  |
| **(viii)Vaipu Pump Assisted Scheme** | | | | | | | | | |
| 1. Approved Outline  2. Approved Feasibility Study  3. Settle all Environment Issues  4. Settle all Land Issues  5. Approved Tender Documents  6. Approved Tender Evaluation  Report  7. Award Contract  8. Receive Materials | 19.12.08  08.05.09  25.09.09  17.07.09  14.08.09  25.12.09  12.03.10  27.08.10  29.10.10 | 18.12.08 | 2.0  5.0  5.0  5.0  5.0  5.0  5.0  20.0  43.0 | | 100  50 | 2.0  2.5 | Subproject is on hold until SMEC completed evaluation of dam if it is safe to take more water for storage. PMU  completed Feasibility Study and IEE. | | |

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| 9. Complete Construction  Final Report | 26.11.10 |  | 5.0 |  |  |  |
|  |  | **Total Wt** | **100** |  |  |  |
|  |  | **Imp.Prog** |  |  | **4.5** |  |
| **(ix) Upolu Hydro Investigation** |  |  |  |  |  |  |
| 1. Approved Outline  2. Approved Feasibility Study  3. Settle all Environmental Issues  4. Settle all land issues  5. Approved Tender Documents  6. Approved Tender Evaluation Report  7. Award Contract  8. Received Materials & equipment  9. Complete Construction  10. Final Report | 30.06.09  31.12.09  31.12.09  31.12.09  30.06.10  30.09.10  31.10.10 |  | 2.0  5.0  5.0  5.0  5.0  5.0  5.0  30.0  33.0  5.0 | 100 | 2.0 | Implementation Consultant under Variation 2 is currently  doing feasibility studies of 5 hydropower schemes; Faleata, Faleseela, Tafitoala, Fuluasou and Tiapapata. Study started in March 2010. First consultations with villages concerned are done. Vailoa for Faleata and Faleseela approved for investigation of schemes to continue, pending their final decision on the Govt plan to build hydropower plants using rivers in the two villages. Estimate cost of each scheme is currently being done. Ones EPC and ADB approves top 3 schemes to be built, detailed designs and preparation of tenders for 3 schemes then start. IC submitted a proposal to EPC for detailed design. |
|  |  | **Total Wt** | 100 |  |  |  |
|  |  | **Imp. Prog** |  |  | **2.0** |  |

a

**Appendix 3 – Revised Procurement Plan**

DSI = design, supply, install and operate

DSIO = works - design, supply, install and operate

EPC = Electric Power Corporation

G = Good supply

ICB = international competitive bidding kV = kilovolt

QCBS = quality – and cost-based system SCADA = system control and data acquisition W-DSI = works contract, design

W-SIM = supply, install and maintain

W-SI = supply and install

SS = sole source

a = exclusive of taxes, duties and price contingencies

b = a single-stage, two envelope procedure will be used. Separate envelopes for technical and financial proposals will be submitted simultaneously. Bids will be evaluate using an 80:20 technical/financial weighting.

c = EPC will prequalify in accordance with ADB‟s *Procurement Guidelines* (2007, as amended from time to time). Bidding for the

Upolu diesel power station, inclusive of plant and control equipment, will be limited to prequalified bidders.

d = contract to cover supply, installation and maintenance of prepayment meters until 31 December 2014.

e = contract to cover operation, maintenance and upgrading of SCADA system until 31 December 2015.

**Sources: RRP updated by PMU and Egis Bceom International, Approved by PMC, October 10th 2008**

**REVISED INVESTMENT PLAN ON DECEMBER 31, 2010**

|  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **No.** | **Location** | **Contract Description** | **Procurement Method** | **Actual Contract or Orig Budget** | **Variation**  + **(incr)**  **or**  **-(deer)** | **Actual Contract Value** & **Budget** | **Contract deer. or** - **incr.** | **Revised dates of bids Advertisement** | **Prior Review (Y/N)** | **Coordinator(s:** |
|  | **CORE SUBPROJECTS** |  |  |  |  |  |  |  |  |  |
| 1 | Upolu | Hospital Feeder Upgrade- Stage 1 | ICB Goods | 0.186 |  | 0.186 | 0.2139 | 9-Apr | y | Tau |
|  |  |  | ICB Equip | 0.125 | 0.067 | 0.192 | 0.0778 | 9-Aug | y | Tau |
| 2 | Upolu/Savaii | Single & 3 phase Prepayment  Meters 1 | ICB Goods & Works | 5.583 | 0.115 | 5.698 | 0.8722 | 8-Mar | y | Perelini |
| 3 | Upolu | Project Manager | Individual selection | 0.75 |  | 0.75 | 0 | 7-Jan | y | Tolo |
| 4 | Upolu | Project Implementation Consultants  - 73 man-months | QCBS | 2.67 |  | 2.67 | 0 | 7-0ct | y | Perelini |
|  | **CANDIDATE SUBPROJECTS** |  |  |  |  |  |  |  |  |  |
|  | **UPOLU Generation** |  |  |  |  |  |  |  |  |  |
| 5 | Upolu | Tanugamanono Power Station  Noise and Emission Control  Program | ICB Goods | 0.1 |  | 0.1 | - | 10-J un | y | Perelini |
|  |  |  | ICB Equipment | *O.D7* |  | *O.D7* | - | 10-Aug | N | Perelini |
| 6 | Upolu | Refurbishment of Alaoa Hydro  Power Station | ICB Goods & Installation | 1.291 |  | 1.291 | 0.049 | 9-Jul | y | Mau, Brendan |
|  |  |  | ICB Works | 0.459 |  | 0.4591 | -0.4591 |  |  | Alfred |
| 7 | Upolu | Fiaga Diesel Power Station | ICB Equip. & Installation |  |  |  |  | 9-0ct | y | Perelini |
|  |  | Relocate 3 Tanugamanono generators | ICB | 1.5 |  | 1.5 | 0 | 10-Dec | y | Perelini |

|  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
|  |  | Access road & site survey | Shopping | 0.05 |  | 0.05 | 0 | 9-Aug | y |
|  |  | Road & site design | Shopping | 0 |  | 0 | 0.01 | 9-0ct | y |
|  |  | Road construction & water pipe | ICB Works | 0.802 | 0.12 | 0.922 | -0.322 | 10-Jan | y |
|  |  | Site Preparation | ICB Works | 0.098 | 0.015 | 0.113 | 0.637 | 10-Jan | y |
|  |  | Water welldrilling & test pumping | Shopping | 0.1 |  | 0.1 | -0.07 | 9-Sep | y |
|  |  | Water supply design & construction | ICB | 0.25 |  | 0.25 | 0.5 | 10-Jan | y |
|  |  | Security Fence | ICB Works | 0.211 |  | 0.211 | -0.211 |  |  |
|  |  | Power house & Generators | ICB Equip Supply & Install | 14.65 | 12.031 | 26.681 | -12.031 | 9-0ct | y |
|  |  | Electricalswitchgear | ICB Equip & Installation | 4.102 | 0.25 | 4.352 | -0.459 | 9-0ct | y |
|  |  | Extend (UG) powerline to site | ICB Equip Supply & Install by  EPC | 0.2 |  | 0.2 | -0.1 | 10-Jan | y |
|  |  | Fuel,oil,waste oilstorage facilities | ICB Equip Supply & Install | 1.5 |  | 1.5 | -0.12 | 10-Feb | y |
|  |  | Land acquisition improvements |  | 0 |  | 0 | 0.484 | 9-Nov | y |
|  | **UPOLU Transmission** |  |  |  |  |  |  |  |  |
| 8 | Upolu | Alaoa Feeder Upgrade | ICB Equip Supply | 0.186 |  | 0.253 | 0.377 | 9-Apr | y |
|  |  |  | ICB Equip Install | 0.125 | 0.067 | 0.192 | 0.298 | 9-Aug | y |
| 9 | Upolu | Fiaga to Fuluasou substation 33 kV  underground cable | ICB Equip Supply | 4.46 |  | 4.46 | -1.557 | 10-Jul | y |
|  |  |  | Works by EPC | 0.75 | 0.363 | 1.113 | 1.79 | 10-Sep | y |
| 10 | Upolu | HospitalFeeder Upgrade - Stage 2 | ICB Equip Supply | 1.014 |  | 1.014 | 0.286 | 9-Sep | y |
|  |  |  | ICB Equip Install | 0.741 |  | 0.741 | 0.059 | 10-Jan | y |
| 11 | Upolu | Fuluasou Substation3 | ICB Equip Supply & Install | 2.747 |  | 2.747 | 0 | 10-Jan | y |
| 12 | Upolu | Low Voltage Network Improvements | ICB Equip Supply | 0.38 |  | 0.38 | 0.91 | 9-Sep | y |
|  |  |  | Works by EPC |  |  |  |  |  |  |

|  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| 13 | Upolu | Fuluasou substation to Apia Wharf  22kV underground cable | ICB Equip Supply | 0.364 |  | 0.364 | 0 | 12-Jan | y |
|  |  |  | Equip install by EPC | 0.088 |  | 0.088 | 0.277 |  | y |
| 14 | Upolu | 22kV Overhead conductor upgrade | ICB Equip Supply | 1.014 | 0.363 | 1.377 | 2.286 | 9-Sep | y |
|  |  |  | ICB Equip Install | 2.154 |  | 2.154 | 1.646 | 9-0ct | y |
|  | SAVAI'IGeneration |  |  |  |  |  |  |  |  |
| 15 | Savaii | Hydropower scheme | ICB | 7.7 |  | 7.7 | 0 | 12-0ct | y |
|  | SAVAI'ITransmission |  |  |  |  |  |  |  |  |
| 16 | Savaii | Puapua-Asau OH line reconductoring | ICB Equip Supply | 0.186 |  | 0.186 | 0.434 | 9-Apr | y |
|  |  |  | ICB Equip Install | 0.711 |  | 0.711 | -0.091 | 9-Aug | y |
| 17 | Savaii | low Voltage Network Improvements | ICB Equip Supply | 0.56 |  | 0.56 | 0 | 9-Sep | y |
|  |  |  | Works by EPC |  |  |  | 0 | 10-Jan |  |
|  | Measurement Equipment |  |  |  |  |  |  |  |  |
| 18 | Upolu/Savaii | Measurement equipment: stream  flow gauging | Shopping | 0.062 |  | 0.062 | -0.012 | 8-0ct | N |
| 19 | Upolu/Savaii | Measurement equipment: electric  HV/current | Shopping | 0.058 |  | 0.058 | 0.002 | 8-0ct | N |
| 20 | Upolu/Savaii | SCADA | ICB Equip & Install | 3.48 |  | 3.48 | 0 | 10-Jan | y |
|  | APPROVED NEW SUBPROJECTS | |  |  |  |  |  |  |  |
| 21 | Savaii | Refurbishment of Salelologa diesel  • 4  power stat1on | ICB Equip & Install | 5.8 |  | 5.8 | 0 | 9-0ct | y |
| 22 | Upolu/Savaii | *5*  Vending System | Shopping | 0.2 |  | 0.2 | 0.25 | 9-Jul | N |
| 23 | Upolu/Savaii | Public dissemination |  | 0.1 |  | 0.1 | 0 | 9-Jan | N |

|  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| 24 | Upolu | Taelefaga,Lalomauga & Samasoni hydras & Tanugamanono power station 22 KV switchgear  6  replacement | ICB Equip & Install | 2.349 | 0.202 | 2.55 | -0.202 | 10-Jan | y |
| 25 | Upolu | Power System Planning Software | Shopping | 0.051 |  | 0.051 | 0.009 |  | N |
| 26 | Upolu | Refurbishment of Tanugamanana  generators8 | ICB Equip & Install | 1.178 | 0.5 | 1.678 | -0.278 | 9-Jul | y |
|  | **APPROVED EPC, NOT APPROVED ADB, NEW SUBPROJECTS** | | |  |  |  |  |  |  |
| 27 | Upolu | 7  Vaipu Pumping Scheme | Civilworks | 0.5 |  | 0.5 | 0 | 9-Dec | y |
| 28 | Upolu | 9  Upolu Hydro Schemes | ICB | 3.51 |  | 3.51 | 0 | 10-Feb | y |
|  | **NOT YET APPROVED EPC/ ADB, NEW SUBPROJECTS** | |  |  |  |  |  |  |  |
| 29 | ALL | 10  Training | ICB | 0.25 |  | 0.25 | 0 |  | N |
| 29 | ALL |  |  |  |  |  | 1 |  |  |
| 30 | Contingency: |  |  | 75.414 | 14.092 | 90.574 | -4.444 |  |  |
|  | | | | | | | | | |

**NOTES:**

1 - Prepayment meters installation contract is increased by US$0.5m to lower 13,000 meters. EPC is seeking approval from ADB to fund materials to lower 10,500 meters.

2 - 33 KV underground transmission line from Fiaga NDPS/Fuluasou Sub Station/Tanugamanono Plant; includes two 300 mm 2 Al circuits, direct buried, materials purchased under Loan and EPC crew will do construction.

3 - Fuluasou substation includes: 22 kV switchgear with of 9 CBs (4 x600A, 3x1200A, 2x200A CBs); 2-story building; NCC center; 100KVA standby generator; 2x15-20MVA 22/33kV Xmers;

and 2x100KVA local Xmers; and 33kV s/gear with 6x600A CBs

4 - For Salelologa, revised investment plan is based on 2 x 2MW new generators, new power plant, new switchgear, and 1 overhauled Cat. 3516 existing generator.

5 - Increase budget from US$0.25M to US$0.45M to cover new card system & hardware to house it; new card system was launched in Feb 2010.

6 - Increase to include 12 x 22 KV circuit breakers; 5 additional & 7 replacement of rest of Fuji 22 KV switchgear at Tanugamanono. New CBs include Alaoa feeder, Alaoa transmission line, Hospital, Beach Rd, 33/22KV tie from Fuluasou substation, 33/22 KV tie from Lal omauga,

bus tie, tie to 6.6 KV bus, West Coast, Vaitele, South Coast, & East Coast feeders. Budget for CBs in Alaoa and Hospital feeders upgrade

removed from those subprojects and add to Taelefaga, Samasoni and Tanugamanono Switchgear subproject. Project is 50% complete on July 2010.

7 - Funding for construction of pump station and pipeline ones Feasibility Study is completed and approved. Project awaiting decision by ADB and EPC to proceed with implementation.

8 - Two diesel generators; Units 5A and 9A. First one is major overhaul, and second unit is replacement of crankshaft and major o verhaul. Work on 9A started in July 2010.

9 - Feasibility study started; selected 5 hydros (Vaisigano West Branch, Fuluasou, Tafitoala/Fausaga, Faleseela and Faleata/Seuga gogo in Savaii) funding in IP is for construction; would need additional funding to be identified

Covers both Upolu and Savaii. Note that planned hydro in Sili is still on hold due to land dispute.

10 - Training to include: underground cable linemen, system controllers, operators, machinists, mechanics, telecommunication, and SCADA. Other training is included as part of equipment supply.

**Appendix 4 - Revised Project Schedule**

**TITLE OF SUBPROJECTS 2008 2009 2010 2011 2012 2013 2014**

1 2 3 4 1 2 3 4 1 2 3 4 1 2 3 4 1 2 3 4 1 2 3 4 1 2 3 4

**CORE SUBPROJECTS**

Project Manager (0,37 + 0,38 unallocated)

Project"""''""'""""'"'! consultant: EBI(73 """" ""'"" ' Hospital Feeder Upgrading Project· ·stage 1

Single- and T,,""" "" " ,"f'": "'""'Metering Project

**ANDIDATE SUBPROJECTS**

**UPOLU Generation**

Tanugan'""v"v Power station Noise and Emission Control Program

Refuruo '""""' of Alaoa ruoUtJVVV"' Station

Upolu Diesel Power Station Project

**UPOLU** ,...,,,,,,,,VII

Upgrade of the Alaoa 6.6 kV 11 "" "" 'v" Line to 22 kV Project

Upolu Diesel Power Station to Fuluasou Underground Cable

Hospital Feeder Upgrading Project- stage 2

22 kV Fuluasou Substation Project

Lvvv- vu""Y" Network A"u, v• Program

Fuluasou Substation to Apia Wharf Area 22 kV Underground Cable Project

Fuluasou Substation to Ieulumnenvia Vaigaga 22 kV Underground

22 kV Overheadv..uuv'"' Upgrading Program

**SAVAII Generation**

·Scheme

**SAVAI'I**

o,, , .a. I'"""ob ovo Line 22 kV " Project

Luvv-vu""Y" Network ""f'"""'u' Program

**M""'"''r"m"nt Equipment** stream Flow Gauging '-'iu'"'"'""' Electrical Test Equipment

**SCADA**

**APPROVED NEW SUBPROJECTS** Refuru' ""'""' of . Diesel Power station Vending System

Public UISSenmoa.iu, Taalefaga v.vi'v"!:l""'

""''oa v•" v.vi<vo '!:I""'

Power System Planning Software

--

Refuru' ""'""' of Tanu Power station

Vaipu Pumping Scheme

Upolu ruiUfJUVV"I

**Appendix 5 - Revised Disbursement Projections**

AOO Gieg<>y. 1 .l.-d Aaj.Jsloo .00 Restlemert

|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| ITITLE OF SUBPROJECTS | ADB  categ' | Award  Date | Re\ised  Budget | 20 | | 00 | | 2009 | | | | 2010 | | | | 2011 | | | | 2012 | | | | 20 | | 13 | | 2014 | | | |  |
|  | I | 2 | 3 | 4 | I | 2 | 3 | 4 | I | 2 | 3 | 4 | I | 2 | 3 | 4 | I | 2 | 3 | 4 | I | 2 | 3 | 4 | I | 2 | 3 | 4 |
| CORE SUBPROJECTS |  |  | ($M) |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Pro ject Man:<Jer( 0,37 + 0.38 un:J iocaled) | 4 04 2007 | | 0/S | 0.06 | 0.00 | 0.00 | 0.00 | 0.0025 | 0.0025 | 0.0625 | 0.0625 | 0.0025 | 0.0025 | 0.0625 | 0.0025 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | 0.75 |
| Pro jeclirrj> lemeolali on consu tart EBI (73 rmn·ITllnlhs) | 4 012008 | | 267 |  |  | 0.28 01. 445 | | 0.1445 | 0.1445 | 01. 445 | 01. 445 | 0.27/B | 0.2779 | 0.2/ro | 0.27/B | 0.2779 | 0.2779 |  |  |  |  |  |  |  |  |  |  |  |  |  |  | 2.67 |
| Hospital feeder Upgrad•g P roct-Stage 1 | 3 01 2009 | | 06!1 |  |  |  |  |  | 0 15 | 015 | 015 | 0 15 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | 06!1 |
| Si n ga! nd Three- P hase Prepajme nt Met er•g P roct | 3 03 2008 | | 5.67 |  |  |  | 0567 | 0311!) | 0311!) | 0311!) | 0311!) | 0311!) | 0311!) | 0311!) | 0311!) | 0311!) | 0311!) | 0311!) | 0311!) | 0311!) | 0311!) | 0311!) | 0311!) |  |  |  |  |  |  |  |  | 567 |
| CANDIDATE SUBPROJECTS |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| UPOLU Generation |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| a1ugarnanCfiO Power Station Noise and Enission Control Program | 3 04 2009 | | 0 17 |  |  |  |  |  |  |  |  | 0.0255 | 0.0289 | 0.0289 | 0.0289 | 0.0289 | 0.0289 |  |  |  |  |  |  |  |  |  |  |  |  |  |  | 01. 7 |
| Refu rbishme nt ci Al aoa Hydropower Stati on | 3 03 2009 | | 1 34 |  |  |  |  |  |  |  | 0.201 | 0.1627 | 01. 627 | 01. 627 | 0.1 627 | 0.1627 | 01. 627 | 0.1627 |  |  |  |  |  |  |  |  |  |  |  |  |  | 1.34 |
| UpokJ D•sel Power Stati on ProJect mtu dir(l 6.6k'I/33W/2 2W Sub,;tation | 3 01 2010 | | 1127 |  |  |  |  |  |  |  |  |  |  | 33405 | 1 1831 | 11831 | 11831 | 1 1831 | 11831 | 11831 | 1 1831 | 1 1831 | 11831 | 11831 | 1183 | 1183 | 1183 | 1183 | 1183 | 1 183 |  | 2227 |
| UPOLU Transmission |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Upgra oo of the Al aoa 6.6 *W* Transmsso n Line to 22 k'l Pro ct | 3 03 2009 | | 1 .14 |  |  |  |  |  |  |  | 0.285 | 0.285 | 0.285 | 0.285 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | 1.14 |
| UpokJ D•sel Power Stati on to f ul uasoo Substation Underground 33 k'l Cae P r ect | 3 01 2010 | | 312 |  |  |  |  |  |  |  |  |  | 0.78 | *o.ro* | O.IB | 0.78 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | 3.12 |
| Hospita l f eederUpgrad•g P r ect ·Sta ge 2 | 3 04 2009 | | 320 |  |  |  |  |  |  |  |  | 0.48 | 0.544 | 0.544 | 0.544 | 0.544 | 0.544 |  |  |  |  |  |  |  |  |  |  |  |  |  |  | 3.2 |
| 33k'l/22 *W* f ul uasou Substation ProJect | 3 02 2010 | | 293 |  |  |  |  |  |  |  |  |  |  | 0.7325 | 0 7325 | 0 7325 | 0.7325 |  |  |  |  |  |  |  |  |  |  |  |  |  |  | 293 |
| Low-Vo t age Network Ex paoson P ro11am | 3 02 2010 | | 1 .28 |  |  |  |  |  |  |  |  |  |  | 01613 | 01613 | 0 1613 | 01613 | 01613 | 0 1613 | 01613 | 01613 |  |  |  |  |  |  |  |  |  |  | 129 |
| F ukJasou Su bstatro n toAa W imf Area 22 *W* Un dergroond Ca ble ProJect | 3 02 201 2 | | 0.00 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | 0 | 0 | 0 | 0 | 0 | 0 | 0.000 |  |  |  | 0 |
| F ukJasou Sub,;tation to Lal ormuga m Tanugarmnono | 3 02 2012 | | 27B |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | 0.4176 | 0.3944 | 0.3944 | 0.394 | 0.394 | 0.394 | 0.394 |  |  |  | 2.78 |
| 22 kV Overh ead Cond r.ctor Upgrarln g Program | 3 03 2009 | | 603 | 01. 88 | 0.188 |  |  |  |  |  | 0.8481 | 0267 | 0.267 | 0.267 | 0.267 | 0.267 | 0.267 | 0.267 | 0.267 | 0.267 | 0.267 | 0.267 | 0.267 | 0.267 | 0.267 | 0.267 | 0.267 | 0.267 | 0.267 |  |  | 6.03 |
| SAVAll Ga.eration |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| HydropC\11er S cheme | 3 03 2012 | | 1065 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | 15974 | 1293 | 1293 | 1293 | 1293 | 1293 | 1 293 | 1 293 | 1065 |
| SAVAI'I Transmission |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Pua pua-Asau Transms.an Line 22 *W* Recondu ctocrn g ProJ ect | 3 032009 | | 1.24 |  |  |  |  |  |  |  | 0100 | Oli13 | 03513 | 03513 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | 124 |
| Low-Vo tage Net..,rk Expaosn P rO!Jam | 3 022010 | | 0.56 |  |  |  |  |  |  |  |  |  |  | 0 056 | 0056 | 0056 | 0056 | 0056 | 0056 | 0056 | 0056 | 0056 | 0056 |  |  |  |  |  |  |  |  | 056 |
| Measurement Equipment |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| St rea m Fw G aiJ]in g Equi pme | 3 03 2008 | | 0 05 |  |  |  | 005 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | 005 |
| Electr<o Te,;t Equ ment Eq ui)Xllent | 3 03 2008 | | 0.00 |  |  |  | 0.0577 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | 0.06 |
| SCADA | 3 04 2009 | | 348 |  |  |  |  |  |  |  |  | 031 64 | 0.3164 | 0.3164 | 031 64 | 0.3164 | 0.3164 | 0.31 64 | 0.3164 | 0.3164 | 0.31 64 | 0.31 64 |  |  |  |  |  |  |  |  |  | 3.48 |
| CORE AND CANDIDATE SUBTOTAL |  |  | 70.00 | 0.2! | 0.2! | 0.34 | 0.88 | 0.!3 | 0.68 | 0.68 | 2.20 | 2.70 | 3.39 | 7.68 | (89 | 4.83 | 0 | ! 2.47 | 2.30 | 2.30 | 2.30 | 2.!6 | 2.22 | 3.44 | 3.14 | 3.14 | 3.14 | 3.138 | 2.743 | 2.476 | 1.293 | 70.00 |
| APPROVED NEW SUBPROJECTS |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Refurbishme nt ci Savall Oi eso Po1<0r Stati on | 3 022009 | | 5.00 |  |  |  |  |  |  | 07375 | 073/S | 0 73/S | 07375 | 073/S | 0 73/S | 07375 | 07375 |  |  |  |  |  |  |  |  |  |  |  |  |  |  | 59 |
| en di r(l Sygem | 3 01 2009 | | 0.25 |  |  |  | 0095 | 016 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | 025 |
| Public Disserrinalion | 3 01 2009 | | 01. 00 |  |  | 01. 108 | 01. 108 | 0.004 | 0.004 | 0.004 | 0.004 | 0.004 | 0.004 | 0.004 | 0.004 | 0.004 | 0.004 | 0.004 | 0.004 | 0.004 | 0.004 | 0.004 | 0.004 | 0.004 | 0.004 | 0.004 | 0.004 | 0.004 | 0.004 | 0.004 | 0.004 | 01. 00 |
| Refurbishme nt ci Taalefa ga S"'tchqears | 3 02 2009 | | 110 |  |  |  |  |  |  | 0.165 | 0.233: | 0.233:1 | 0.2338 | 0.2338 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | 1.1 |
| Refurbishme nt ci Sarmso nr S"'tchqears | 3 022009 | | 0 50 |  |  |  |  |  |  | 0.075 | 0.125 | 0.125 | 01. 25 | 0.125 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Power System Po nn i r(l Sofi""re | 3 032008 | | 0 06 |  |  |  | 0.06 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | 0.06 |
| APPROVED EPC NOT APPROVED ADB NEW SUBPROJECTS |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| ai pu Pu rrj>ing Scheme | 3 012010 | | 0.50 |  |  |  |  |  |  |  |  |  | 0125 | 0 125 | 0 125 | 0125 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | 05 |
| R ef urlishnent of 2 mlv Taruoamafllfll Di esel Generators | 3 03 2009 | | 0.75 |  |  |  |  |  |  |  | 0.1125 | 02125 | 0.2125 | 0.2125 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | 0.75 |
| NOT YET APPROVED EPCIADB NEW SUBPROJECTS |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| UpokJ Hydro Generatron | 3 | 01 2010 | 3.51 |  |  |  |  |  |  |  |  |  | 0.8775 | 0.877S | 0.877S | 0.8775 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | 3.51 |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| GRAND TOTAL |  |  | 82.67 | 0.2! | 0.2! | 0.3! | 1.04 | 0.68 | 0.68 | 1.66 | 3.41 | t01 | U3 | 9.12 | !.76 | !.69 | U9 | 2.47 | 2.31 | 2.31 | 2.31 | 2.!6 | 2.22 | 3.4! | 3.14 | 3.14 | 3.14 | 3.14 | 2.7! | 2.48 | 1.30 | 82.17 |

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4. ComJt<rt Ser"''

Appendix 6- Electricity Receivables

Schedule 3.1

|  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
|  | | | | | | | | | | | |
|  | Month ended | Previous Quarters | | |  |  |  | cc ouu  Month | vuncm  Month |  | Variance |
| 30-Sep  2008 | 31-Dec  2008 | 31-Mar  2009 |  | 31-Mar  2009 | 30-Apr  2009 | 31-May  2009 | 30--lun  2009 |  | Mayvs une |
| II5Y .::; onsumer allegory | :>000 | :>000 | :>000 |  | :>000 | :>000 | :>000 | :>000 | % | :>000 |
| Ministries  State-Owned Entitles  CSO Street Lighting | 99  353  155 | 227  351 | 99  223 |  | 99  223 | 294  229  - | 208  250  - | 105  134  - | 1.44%  1.83%  0.00% | (103) (11 6)  - |
| Total Government  Private Sector  Debit Note | 607  7, 567  906 | 578  7,430  899 | 322  6,576  824 |  | 322  6,576  824 | 523  6,471  799 | 458  6, 500  791 | 239  6, 259  817 | 3.27%  85.56%  11.17% | (219) (241)  26 |
| Grand Total | 9,080 | 8, 907 | 7,722 |  | 7, 722 | 7,793 | 7,749 | 7.315 | 100.00% | (434) |
| I"'Y Agea ueotor .-rome  cu.....nt  1 - 30 days arr.ars  31 - 60 d ays arrears  61 - 90 days arrears over 90 days arrears Debit Note  Total | $000  4,566  1,380  487  462  1,279  906  9,080 | $000  4,184  1,563  581  500  1, 180  899  8,907 | $000  3,314  1,255  611  454  1 ,264  824  7,722 |  | $000  3,314  1,255  611  454  1 , 264  824  7,722 | $000  3,416  1, 237  546  502  1 , 293  799  7, 793 | $000  3,365  1,323  510  447  1,313  791  7,749 | 2,973  1, 275  509  420  1,321  817  7,315 | %  40.64%  17.43%  6.96%  5\_74%,  18\_06%,  11\_17%,  100.00% | (392) (48) (1) (27)  8  26 (434) |
|  | | | | | | | | | | |

l

Government and Private Sector Electricity Arrears

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| exc t;urrent | 4, •14 | 4, '"' | 4,4ue | 4,4U" | 4,0. | 4,0><4 | 4,04£ |
| 112 monthtotalsales | $f4,UUU | $/, t>UU | $8U,UUU | $8U,UUU | $8U,UUU | $8U,UUU | $1::JU,UUUI |

KEY PERFORMANCE INDICATORS

1) Days of Sales 44.8 43.1 35.2 35.2 35.6 35.4 33.4

PSEP Performance Target Below 61 days Actual 33.4 days

2) Government Debtors

% Government Debt 3.27%

%Government Sales 13.46%

PSEP Performance Target Less than 100'Yo Actual 24.28% =Debt/Sales

Receivables Trend Graph

|  |
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|  | Jul-08 | Aug-08 | Sep-08 | Oct-08 | Nov-08 | Dec-08 | Jan-09 | Feb-09 | Mar-09 | Apr-09 | May-09 | Jun-09 |
| Current | 426 | 418 | 414 | 419 | 382 | 412 | 433 | 382 | 352 | 35 6 | 354 | 334 |
| ADB Covenant | 61 | 61 | 61 | 61 | 61 | 61 | 61 | 61 | 61 | 61 | 61 | 61 |

**Appendix 7- Prepayment Meter Installation Projection & Actuals**

|  |
| --- |
| Projected Project Actual Actual Total Actual% of Customers Total Customers Numbers of Customers with Customers Projected % of with Customers with  Payment Customers with Prepayment Prepayment Meters Prepayment Meters Meters Installed Meters Installed Installed Installed  Sep 5,000 29,800 16.8% 4,760 31,000 15.35%  2008 Dec 6,940 30,000 23.1% 6,248 31,827 19.63% |
| Mar 8,190 30,150 27.2% 8,276 32,158 25.74% Jun 9,440 30,300 31.2% 13,018 39,476 32.98% Sep 10,690 30,450 35.1% 15,792 39,566 39.91%  2009 Dec 12,065 30,600 39.4% 16,692 33,566 49.73% |
| Mar 13,300 30,750 43.3% 23,415 36,584 64.00% Jun 14,560 30,900 47.1% 23,688 36,634 64.66% Sep 15,815 31,050 50.9%  2010 Dec 17,080 31,200 54.7% |
| Mar 18,330 31,350 58.5% Jun 19,580 31,500 62.2% Sep 20,830 31,650 65.8%  2011 Dec 22,080 31,800 69.4% |
| Mar 23,330 31,950 73.0% Jun 24,580 32,100 76.6% Sep 25,830 32,250 80.1%  2012 Dec 26,230 32,400 81.0% |
| Note: Loan buydown mechanism requires 75% of all EPC's electricity customers to be prepayment meters by |
| Note: Loan buydown mechanism requires 75% of all EPC's electricity customers to be prepayment meters by  December 2012 |

Project Target is to get 75% of consumers on Cash Power Meters at end of project in 2016. At end of 2"d Quarter of 2011, 64.67% of consumers are already on Cash Power. There is 10.33% needed to meet target. About 2,000 additional meters are needed added to A D Riley's present contract to complete the 75%. Quotations were received from ADR and tvvo other suppliers for supply of 2000 single phase meters and 100 three phase meters without current transformers. Decision to order has not been made by EPC.

**Appendix 8 -System Average Interruption Duration Index (SAlOl) Monitoring**

5000

4500

**UPOLU ACTUAL TOTAL QUARTERLY & ANNUALLY SAIDI MONITORING**

4000

3500

3000

2500

2000

1500

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c::::::J Annual SAID baseline

c::::::J Quarterty SAJD baseline

-+Ouarterty SAJD

-+Annualty SAIDI

500

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**1/ '\l**

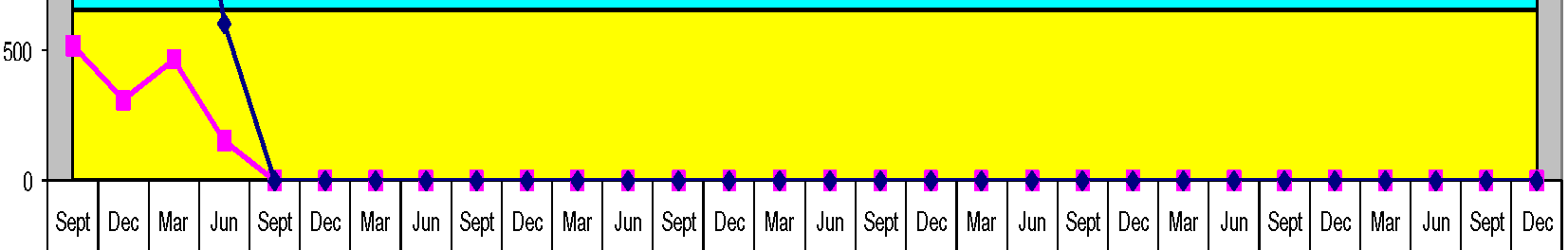
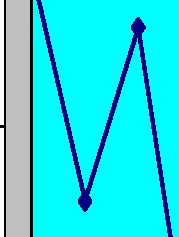
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M-a-r--Jun Sept Dec M-a-r--Jun Sept Dec M-a--r Jun Sept Dec M-ar Jun Sept Dec M-a--r Jun Sept Dec

r I J n I S pt I Dec

2008 2009 2010 2011 2012 2013 2014 2015

3500--------------------------------------------------------------------------------



**SAVAll ACTUAL TOTAL QUARTERLY & ANNUALLY SAIDI MONITORING**

3000

2500

2000

1500

1000

c:::J AnntJal SAIDI baseline

c:::J Quarterly SAIDI baseline

......Quarterly SAIDI

-t-AnntJally SAIDI

2008 2009 2010 2011 2012 2013 2014 2015

• **SAlOl to be reduced by 20% by 2015**

• **Plan interruption is included since** 1st **Quarter 2009.**

**Appendix 9- System Average Interruption Frequency Index (SAIFI)**

40

**UPOLU ACTUAL TOTAL QUARTERLY & ANNUALLY SAJI**

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**SAVAIIAClUAl TOTAL QUARTERLY &ANNUAllYSAIFI**

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2008 2009 ::V10 2011 2012 2013 2014 2015

• SAIFI to be reduced by 20% by 2015

• Plan interruption is included since 1st Quarter 2009.

**Appendix 10- Memorandum of Understanding of ADB REVIEW Mission in October 2008**

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Asian Development Bank

LOANS 2368/8232 AND GRANTS 0087/0101-SAM: POWER SECTOR EXPANSION PROJECT

TA-4994 SAM: IMPLEMENTING THE SAMOA NATIONAL ENERGY POLICY

MEMORANDUM OF UNDERSTANDING REVIEW MISSION

I. INTRODUCTION

1. A review mission1 (the Mission) from the Asian Development Bank (ADB) visited Samoa from 11-19 March 2009 to (i) review progress on Loans 2368/8232 and Grants 0087/01o'1-SAM: Power Sector Expansion Project (Project), and (ii) assess progress on TA-4994 SAM: Implementing the Samoa National Energy Policy. The Executing Agency (EA) for the Project is the Ministry of Finance (MOF). and the Implementing Agency (lA) is Electric Power Corporation (EPC). A list of persons met is included in Appendix 1. A Project Steering Committee meeting was held on 17 March 20092 . A wrap-up meeting was held on 19 March 2009 at MOF. This Memorandum of Understanding (MOU) records the understandings reached between the MOF,

EPC and ADB.

II. MSI SION FINDINGS

Loans 2368/8232 and Grants 0087/0101-SAM: Power Sector Expansion Project

2. *Contract* Awards and Disbursements. The cumulative commitments and disbursements as of 8 March are detailed below (seven months into implementationi:

Fund Source

Loan/Grant Amount (at time or approval)

US$

Equivalent Commitments

*(B* March

% Disbursements %

2009

2368-SAM (Loan) 26,610,000 25,099,633 1,669,291 7% 664,212 3%

8332-SAM (JICA Loan) 38,000,000 46,840,101 2,520,497 5% 534/96. 1%

0087-SAM (ADB Gr~~ant)~~ 15,39J,OOO 15,390,000 3,159.209 21% 633.051 *4%*

0101-SAM (AusAID

~~Grant)~~ 8poo.ooo s.ooo,ooo 1,003,945 13% 173,311 2%

88,000,000 95, 329,734 8,352,942· 9% 2,005,370 2%

1 The Mission comprised Anthony Maxwell, Team Leader (11-19 March 2009), and Susan Francisco, Operations Officer (13-18 March 2009)."Alan Coulthart, Principal lnfrestructure Advisor, Australian Agency for International Development (Aus.A.ID), also accompanied the mission (13-18 March 2009)

2 The PSC was attendeoby MOF, Ministry of Commerce, Industry and Labor (MCIL), Ministry of Natural Resources

and Environment (MNRE), Samoa Water Authority (SWA), and EPC. ADB and AusAID attended as observers.

· MOF CEO chaired the meeting. It was agreed lhat the PSC would meet every 2 monlhs for the interim period.

3 It is anticipated that commitme:1ts and c!sbursements will increase substantially during the year, as PMU has projected to process and a\'lard about 15 subprojects estimated at $35.0 million during 2009 Accordingyl , disbursements are estimated at 2bout $8.0 million.

2

3. Conversion of Loan to Grant. The Project Report and Recommendation to the President (RRP) para. 47 and para. 8 (c) of the Subsidiary Financing Agreement 4 allows for up to 7% of Project costs or a ceiling of $10 million to be converted from loan to grant by MOF to

EPC. Section 6.01 (b) of the Financing Agreement5 requires a conversion mechanism to be established. EPC and MOF agreed that the established performance triggers under the loan buy down mechanism would be suitable for conversion of the loan to grant. MOF indicated that they would formarry advise ADB of this decision b April2009. .

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4. EPC Financial Projections and Project Counterpart Financing. EPC submitted the

2009 financial projections to ADB on 5 March 2009. The projections indicate that, based on the current implementation schedule, EPC would require a tariff increase of 13% in January 2010. Given the recent tariff increase of 10% in January 2009, it was agreed that there may be difficulties in achieving this increase. The projections for financial year 2009 indicate that, due to

financial difficulties experienced over the first 6 months, (i) EPC will have a self-financing ratio of

6% (below the loan covenant of 12%), and (ii) EPC are projected to meet the loan covenants related to debt service and accounts receivable. In financial year 2008, EPC did not meet the self-financing or debt service covenants. The Mission raised its concern regarding EPC's capacity to generate sufficient cashflow to service counterp rt financing obligations. The PMU proposed to revisit the subproject implementation schedule and assess the impact on the required tariff increase. The PMU agreed to forward to ADB the results of this assessment by 24

April2009.

5. PMU Staffing. The PMU manager is currently in an acting capacity. EPC agreed to undertake necessary actions to establish a permanent PMU Managefi. The PMU indicated that the allocated resources under the Implementation Consultant contracts are declining rapidly. The PMU indicated it was preparing a human resource plan covering allocation of remaining budget to separate subprojects, which would be forwarded to ADB by 24 April2009.

6. Salelologa DieselPower Station. The Mission visited the Salelologa power station on

14 March 2009, to assess the proposed subproject. The subproject is divided into 2 phases. The PMU proposed *to* reassess Phase *2* of the subproject, which includes 2 new 2MW diesel

generators, given the relative high cost of these items, and advise ADB of the revised proposal by 24 April 2009.

7. Foreign Exchange Rate losses. The PMU noted that there had been additional costs for some subprojects related to exchange rate losses during J ICA disbursement. ADB agreed to discuss with JICA, and MOF agreed to write to JICA and Bank of Tokyo regarding the issue..

8. Installation of Prepayment Meters. Implementation of the prepayment meter subproject is ongoing. Installation rates are presented in Appendix 6. Refusal rates have

increased to an estimated 30% in some areas, primarily due to an interpretation of the

Prepayment Metering Policy which provides the customer with a right of refusal if they have a good payment record with EPC. To ensure prepayment meter implementation targets are achieved, MOF and EPC have proposed the following:

4 Subsidiary Financing Agreement (Power Sector Expansion Project) between Independent State of Samoa and

Electric Power Corporation, 16 June 2008.

5 Financing Agreement between Independent State of Samoa and Asian Development Bank for the Power Sector

Expansion Project, 11 December2007.

6 EPC indicated to ihe PSC on 16 March 2009 1hat toe proposal for estalishing a permanent PMU manager would

be submitted to the next EPC Board meeting.

3

(i) Revise the Prepayment Metering Policy to require consumers to change to prepayment meters.

(ii) Installation of card vending facilities to improve access for customers.

(iii) Introduction of fiscal incentives for customers to install prepayment meters, such as altering the costs of standard billing to reflect full cost recovery and providing power discounts for customers who install prepayment meters.

(iv) Improved public communication activities.

9. Customers are also complaining that some meters are installed too high to easily enter the prepayment code. The PMU also considers this to be a health and safety concern. The PMU has proposed to assess alternatives and advise ADS of the proposed option.

10. Loan Buy Down Mechanism. The Project includes a loan buy down mechanism 7 of $4 million for conversion of loan to grant, funded by AusAID. A summary of progress towards the performance targets is presented below.

Table 1:Progressn the Loan Buy Down Mechanism Triggers

Triggers . .Progress

Appointment of an independent technical and price regulator for the power sector

Improvement of EPC's debt collection performance such tlat accounts receivable shall not have exceeded 2 months Jf electricity sales for a minimum :>ftwo years

Usage of prepaid meters by 75% of all

EPC's e ectricity customers by 31

Decembe2· 012

The Ccninet has approved (i) the proposed structure of the recommended Office of the Power Regulator and (ii) the schedule for drafting the Electricity Act and Regulations and the appointment of the Power Regulator. ADB is providing assistance (grant financed by AusAID) for drafting legislation under TA 4994-SAM: Implementing the Samoa National Reform Energy Policy. The Electricity Act and Regulations have been drafted and 4 public consultation workshops held. A roun dtable meeting was held on 1B March 2009. The documents will be finailzed by mid-April

2009 and the Attorney Generals office proposes to submit to :larlament for

1he June session for the first two readings. It is anticipated that the third reading will then occur in the September 2009 sitting of Parliament, after which the Electricity Act and Regulations will be passed.

Receivables are 38.2 days as of 31 February 2009. ReceivabJes have remained below 2 months since 30 September 2007 (17 months). Current data for receivables is presented in Appendix 5.

Currently 24.9% of EPC's customers are using prepaid meters. The installation of prepaid meters is on-goni g. Installation projections for prepaid meters are included in Appendix 6.

TA-4994 SAM: Implementing the Samoa NationalEnergy Poilcy

11. Component 1 and 2: Establishment of the Clean Energy Fund (CEF) and the

Designated National Authority (DNA). The second interim report was submitted on 3 March

2009. A workshop was held on 13 March 2009 with key government departments to dis.cuss the report. Consensus was reached on the following key issues:

(i) The CEF and DNA would be managed together under a single management unit established under thEnergy Unit, MOF.

(ii) An inter-ministerial body would be established to guide the DNA, chaired by the CEO

of MOF, who would also be the DNA focal point.

1Loan Buydown Agreement between the Government of Australia and As'an D.av.alopme01t 8c:r:k with respect to !he

Power Sector ::xpansion Project Loan in the Independent State of Samoa, 19 February 2008.

4

(iii) MOF indicated that the letter nominating the MOF CEO as Designated National Authority is proposed to be signed by the Prime Minister and forwarded to the United Nations Framework Convention on Climate Change (UNFCCC) by 27 April2009.

12. Component 3: Regulatory and Policy Reform in the Power Sector. Component 3 has conducted 4 public workshops, consulted key stakeholders and drafted the Electricity Act and Regulations providing the regulatory framework for the independent Office of the Power Regulator. A stakeholder roundtable was held on 18 March 2009. The following is proposed:

Mid-April 2009 Finalize Draft Electricity Act and Regulations incorporating stakeholder comments

June 2009

September 2009

Draft Electricity Act and Regulations submitted to Parliament for first two readings

Draft Electricity Act and Regulations submitted to Parliament for

final reading

13. Component 4: Resident Financial Management Advisors to EPC. Component 4 is ongoing, with two financial advisors providing ongoing support to EPC. The financial advisors are proposing their ·next mission to Samoa in April 2009.·EPC has indicated that they were satisfied with the support provided to date.

Other Projects

14. TA-7121 SAM: Preparing the Afulilo Environmental Enhancement Project The project preparation technical assistance *Preparing the Afuli/o Environment Enhancement Project* is financed by the Japan Special Fund for $1.2 million. were mobilized to Samoa on 9

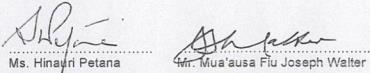
March 2009. The EPC indicated that the current Generation .Section head would manage TA

7121-SAM under the guidance of the EPC General Manager. The Consultants are undertaking initial activities under the TA, and the ADB inception mission is proposed to be conducted in May 2009.

15. RETA: 6485-REG:Promoting Energy Efficiency in the Pacific The regional technical assistance project RETA: 6485-REG: Promoting Energy Efficiency ($1.2 million) will be implemented in Cook Islands, PNG, Samoa, Tonga and Vanuatu. Consultants have been selected and mobilization is anticipated in earty April 2009. The lA in Samoa is MNRE. The Inception Mission is proposed to be conducted in May 2009.

fll. OTHER MATTERS

16. The Mission would like to express its appreciation for the cooperation and the hospitality extended by the GaS and EPC. It is understood that the points of agreement and recommendations as reflected in the MOU are subject to the approval of higher authorities in GaS and ADB.

Signed in Apia, Samoa 18 Ma ch 2009

····· ·············· Mr. Anthony Maxwell

5

CEO

Ministry of Finance

General Manager

Electric Power Corporation

Team Leader

Asian Development Bank

Appendix 1

List of Persons Met

Ministry of Finance Hinauri Petana Noumea Simi

Justina Sau

Benjamin Pereira

Silia Kilepoa Ualesi

Electric Power Corporation Mua'ausa Fiu Joseph Walter Vui Lance Lameko Galumalemana Tologata Tile

-Le'ia Tuimarealiifano

Faumui lese Tomoimoana Taulealeausumai Tiotio Magele Tafu Salevao Leilani Pereira-Moeano Faalepo Solofa

Wairarapa Young

Bobby Ah To

Chief Executive Officer

Assistant CEO, Debt Management

Assistant CEO, State Enterprise Monitoring Division

Assistant Chief Executive Officer, Economic Policy and

Planning Division

Energy Coordinator, Economic Policy and Planning Division

Chief Executive Officer

Manager, Corporate Services

Acting Project Manager, PMU Generation Engineer, PMU

"J:ransmission & Distribution Engineer, PMU

Acting Manager, Savai'i Power Station Legal & Environment A9visor, PMU Project Accountant, PMU

Renewable Energy Officer

Renewable Energy Officer

EGIS-BCEOM (Project Implementation Consultants)

Fonoti Perelini Perelini Team Leader

Brendan Hegerty Transmission & Distribution Engineer

Office of the Attorney General

Rebecca Wendt

Sarona Rimoni

Assistant Attorney General

PrincipalLawyer, Legislative Drafting Div.

Ministry of NaturalResources and Environment

Tu'u'u Laufatasaga Dr. Letitaia

Setu Taule'alo Uaine Loleni Silailai Steve Brown

TA No. 4994-SAM Consultants

Michael Cheng

Hendril< Lund

Unasa Leilani Va'a Tamati

Satui Bentin

Australian High Commission

Heather Dixon

Alan Coulthart

Chief Executive Officer

Asst. CEO, Renewable Energy

Asst. CEO, GEF

Team Leader, PA Consulting (Component 3) Team Leader (Component 1 and 2)

Legislative Drafter (Component 3) . NationalCommunication Expert (Component 1 and 2)

2nd Secretary, Development Cooperation

Principal Infrastructure Advisor, Australian Agency for

International Development (AusAID)

Secretariat of the Pacific RegionalProgramme (SPREP)

Salomone Fifita Program Manager, Pacific Islands Greenhouse Gas · Abatement through Renewable energy ?reject (PIGGAREP)

Appendix 2 7

Revised Procurement Plan

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
|  |  |  | Estimated |  |
|  |  | Cost |
|  | Contract Description | {S million} | Procurement Method |
|  | Hospital Feeder Upgrading Project - Stage 1 | 0.25 | ICB Goods |
|  |  | 0.35 | NCB Works |
|  | Single- and three-ehase Preeavment Metering | 6.07 | ICB |
|  | Project Manager | 0.37 |  |
|  | Unallocated | 0.38 |  |
|  | Project lmelementation Consultants | 2.67 | QCBS |
|  | Tanugamanono Power Station noise and  emission control program | 0 17 | ICB Goods |
|  |  |  |  |
|  |  | Fiaga diesel eower station | 22.27 | ICB |
|  |  | Upgrade of the Alaoa 6.6kV distribution line | 0.65 | ICB Goods |
|  |  |  | *0.49* | NCB Works |
|  |  | Fiaga diesel power station to Tanugamanono | 8.83 | ICB |
|  |  | 33kV underground project and Fuluasou |  |  |
|  |  | Substation |  |  |
| 1D. Upolu | | Hospital Feeder ue9radni g project- Sta9e 2 | 3.20 | ICB |
| 11. Ueolu/Savaii | | Low voltage network im rovement *erogram* | 1.29 | ICB Goods |
| 12. Upolu | | 22kV overhead conductor upgrading program | 6.03 | ICB Goods |
|  | |  |  | NCB Works |
| 13. Savaii | | H dropower scheme | 10.65 | ICB |
| 14. Savaii | | Puapua-Asau transmission line 22kV | 0.44 | ICB Goods |
|  | | reconductoring project | 0.80 | NCB Works |
| 15. Upolu/Savaii | | Measuremeilt equipment electric high | 0.06 | Shopping |
|  | | voltage/current |  |  |
| 16. Ueolu/Savaii | | Measurement eguiement stream-flow gaugng | 0.05 | Shoeeing |
| 17. Ueolu/Savaii | | SCADA | 3.48 | ICB |
| 18. Savaii | | Refurbishment of Salelologa DieselPower | 5.90 | ICB |
|  | | Station |  |  |
| 19. ueolu | | Vending S stem | 0.25 | Direct Contract |
| 20. ueolu | | Public Dissemination | 0.10 | Single Source |
| 21. Ueolu | | Taelefaga *and Samasoni* Switchgears | 1.60 | ICB |
| 22. Ueolu | | Power S stem Planning Software | 0.06 | Shoeeing |
| 23. Upolu | | Refurbishment ofTanugamanono Diesel | 0.75 | ICB |
| Generators | | | | |

Location

1. Upolu

2.Uolu/Savaii

3.Upolu

4.Ueolu

5.Upolu

6. U olu Refurbi shment of Alaoa h droeower station 1.34 ICB

7. Ueolu

8. Upolu

9. Upolu

Total 82.67

8 Appendix 3

Revised Project Schedule

TITLE OF SUBPROJECTS 2008 2009 2010 2011 2012 2013 2014

1 2 3 4 1 2 3 4 1 2 3 4 1 2 3 4 1 2 3 4 1 2 3 4 1 2 3

CORE SUBPROJECTS

Project Manager (0,37 + 0,38 unallocatEd)

Project implementation consultant EBI(73 man-months) HospitalFeeder Upgradirg Project-Stage 1

Sil])le- and Three-Phase Pr epayment Metering Proie::t

CANDIDAT E SUBPROJECTS

UPOLU Generation

Tanugamanono Power station NOise and Emission Control Program

Refurbishment of Alaoa Hydropower Station I Fi;:oa Diesel Power station Prqect I UPOLU Tr ansmission

UPJrnrle of the Alaoa 6.6 kV Transmission Line to 22 kV Project

Upolu lleseiPower station to Fuluasou Substation UnderoroundCable

Hospital Feeder Upgradir-g Project • stage 2

22 kV Fuluasou Substation Project

Low-Voltage Network Expansion Pronram

Fuluasou Substation to Apia Wharf Area 22 kV Unda-ground Cable

Fuluasou Srbstation to Leulumoeua via Vaigaga 22 kV Underground

22 kV Overhead Conductor Upgrading Program

SA VAll Generation

r--·

Hydropower Schem e r-

SAVAi'lTransmission

Puapua-Asau Transmission Line 22 kV Reconductoring Project

Low-Vollage Network Expansion Program

Measurement Equipment

Stream Fl<mGauging Equipment ElectricalTest Equipment SCADA

APPROVED NEW SUBPROJECTS

Refurbishment of Salelologa Diesel Power Station

Vending System

Public Disseminalion Taalefaga SIVitchgears Samasoni SNitohgears

Power System Planning Software

Refurbishment of Tanuoamanono Powa- Station

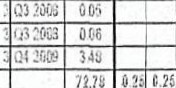
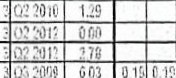
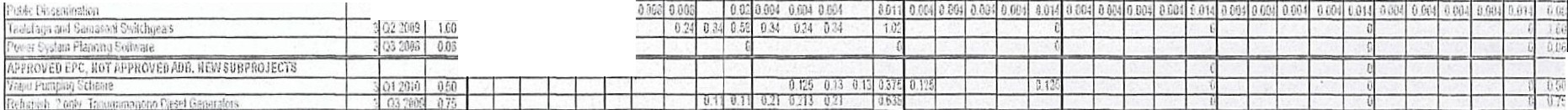
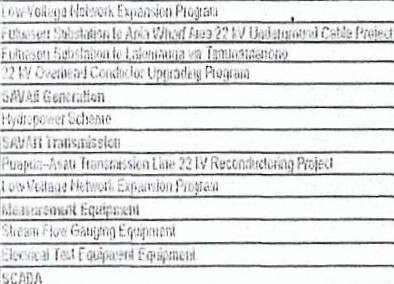
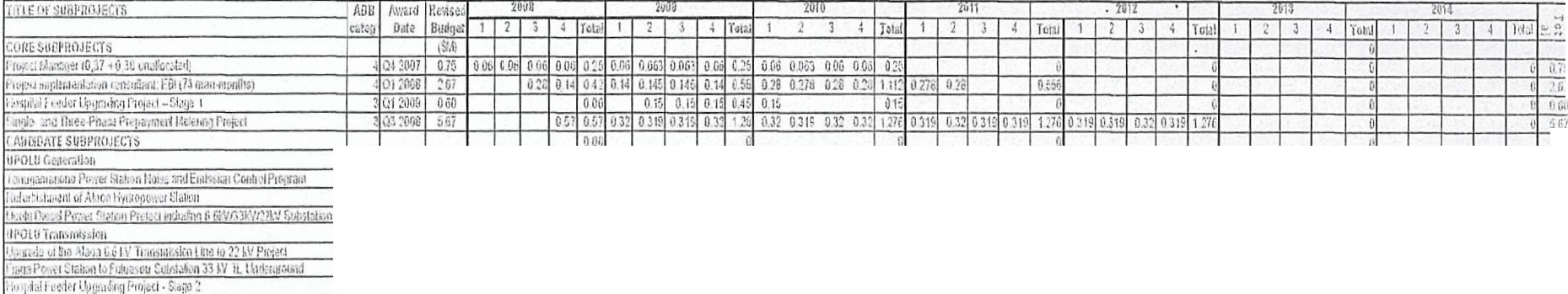
Vaipu Pumping Scheme

Upolu Hydropowers

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Appendix 4 9

**Revised Disbursem nt Projections**



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10 Appendix 5

Electricity Receivables

Government and Private ector Electricity Arrears

ARR-ct.RS (ercl Current,

|  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| Month ended | Previous Quarters | | |  | l"'reVIOUS  Month | ,u;rrent  Month |  | Variance |
| 30-Jun  2008 | 30-Sep  2008 | 31-Dcc  2008 |  | 31-Jao  2009 | 28-Feb  2009 |  | January vs  February |
| By Consumer Category | $000 | $000 | $000 |  | $000 | $000 | % | $000 |
| Ministries  State-Owned Entities  CSO Street Lighting | 176  849  269 | 99  353  155 | 227  351  - |  | 228  291  112 | 146  276  - | 1.74%  3.30%  0.00% | (82) (15) (112' |
| TotalGovernment  Private Sector  Debit Note | 1,294  8,154  802 | 607  7,567  906 | 578  7,430  899 |  | 631  7,966  893 | 422  7,118  827 | 5.04%  85.07%  9.88% | (209) (848)  (66) |
| Grand Total | 10,250 | . 9,080 | 8,907 |  | 9,490 | 8,367 | 100.00% | (1,123) |
| By Aged Debtor Profile  Current  1 - 30 days arrears  31 - 60 days arrears  61 - 90 days arrears over 90 days arrears Debit Note  Total | $000  4,785  1,826  855  506  1,476  802  10,250 | $000  4,566  1,380  487  462  1 ,279  906  9,080 | $000  4 ,184  1,563  581  500  1 ,180  899  8,907 |  | $000  4,870  1,403  567  487  1,270  893  9,490 | $000  3,754  1,522  531  465  1,268  827  8,367 | %  44.87%  18.19%  6.35%  5.56%  15.15%  9.88%  100.00% | (1,116)  119 (36) (22) (2) (66)  (1,123) |

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112month total sales

$74.000 $75,500

$80,000

$80.000 sso.ooo!

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1) D<"ys of Sales 50.€ 40.6 C.2

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2) Government Debtors

% Gove1rnment De!>t

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PSE? ?erform::mce T <:roet

5.0 %

•3.46%

Lers than 100% .t.ctual *':.7 1.7%* =DebUSales

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Receivables Trend Graph

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| Projected Project Actual Actual Total Actual% of  Customers Total Customers Numbers of Customers with Customers Projected %of with Customers with  Payment Customers with Prepayment Prepayment Meters Prepayment Meters Meters Installed Meters Installed Installed Installed  Sep 5,000 29,800 16.8% 4,760 31,000 15.35%  2008 Dec 6,940 30,000 23.1% 6,248 31,827 19.63% |
| Mar 8,190 30,150 27.2% 8,276 32,158 25.74%  Jun 9,440 30,300 31.2% 13,018 39,476 32.98% Sep 10,690 30,450 35.1% 15,792 39,566 39.91%  2009 Dec 12,065 30,600 39.4% 16,692 33,566 49.73% |
| Mar 13,300 30,750 43.3% 23,415 36,584 64.00%  Jun 14,560 30,900 47.1% 23,688 36,634 64.66% Sep 15,815 31,050 50.9%  2010 Dec 17,080 31,200 54.7% |
| Mar 18,330 31,350 58.5%  Jun 19,580 31,500 62.2% Sep 20,830 31,650 65.8%  2011 Dec 22,080 31,800 69.4% |
| Mar 23,330 31,950 73.0%  Jun 24,580 32,100 76.6% Sep 25,830 32,250 80.1%  2012 Dec 26,230 32,400 81.0% |
| Note: Loan buydown mechanism requires 75% of all EPC's electricity customers to be prepayment meters by |
| Note: Loan buydown mechanism requires 75% of all EPC's electricity customers to be prepayment meters by  December 2012 |

Appendix 11- Revised PMU Organisational Structure (Note: This Org Chart is out of date)

REVISED PROJECT MANAGEMENT UNIT ORGANISATIONAL STRUCTURE JUNE 2009

Proic<t Mana ger

Tile. le'ia.Tuimal ea l iifano

EBITeam Lcade;r

P.SPerelinl

EB Isecretary

P.Poe

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F.lona

EBISCAQA EnCincer

B.Pons

Ll!gal & Environme:nt

Advisor

L. Pereira

ElectroniCS !SCAOA) Engineer R.Schuster

rY1echan1calE ncineer

Land Acguisinon

2ffi&ll

A.Tuuau

Prorect Accountant

F.Solofa

EB! lAR Exoen

J.WIIIiems

EBIPower System

Power System Planner

N. Pereira

TransmlsSJon Engtneer

vac-.a nt

EBIOvN Encmeer

r.nnel

vacant

CivilEne1neer

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vacant

Env•r·onment *Officer*

S. Fa letolu

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EBIEnvironment ml!:!l C.Adamson

Planner

O. G ireud

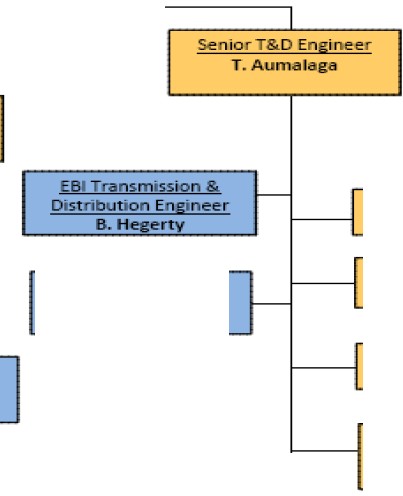
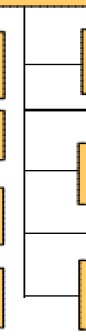
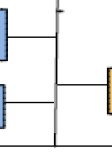
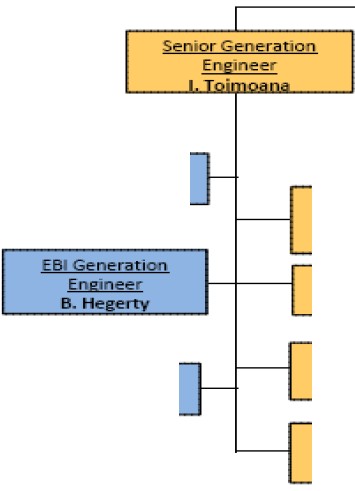
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SCADA: System Control And Data Acqu lsit on



Appendix 12- Withdrawal Applications Register to date

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28,Bo.c5.50

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WA00<>8

pce pa y cpen t M.\_ 6

£ W! Tf-<1 RAW""" ..,.pp

, ..1........ee.f

.....R.QRIL€V

.................... ......

..... -. .......-··-·· ...

*.2 80 64..5.87'*

87,0<>9. 2.2.

w- .., PP!V'!12QZ\YVAQQQ1'! ssHr;a c•e•UJ :z

=

A.B.Q-BJ..LCr.::

*.2 0-8.8-8*

34 ,30-0-0

19,64.5.2.1

7.7.:5& .72

:1.3::1.,993•.56

52.09-4 - 27

42.,096.88

10.02.5- 83

WAOO:& O

W.A.00:&.8

WA09 9

WA.OO:ZO

Pre a .-.-.-n t. M- IPPM :I.20?"\WAOO:I.O SSHT:I. C:l a o ....... 3

'SU:.et.m....£..Lo..w.\_Oot Q H •fR'OR r:g•••p s

p1PM12Qz:>.YVAQQ12 SSHT:& PIPM:&?QZ x i s

IPPM120Z\VY.A.Q9.19 SSHT) PPM :L2QZ x l ;a!C

ppty1]!2QDYVAOQJ,1 :;;sHy=a PP'Y1 1 2QZ "''..

H "V' E I m-nt. H "V' E I ..,.... \_ ..,,\_ WA.OCJ SSHT H "V' T-•'- E

ppM :1.2QZ'\"""""'QQ:1.6 SSHT:I. ppM:1.2.QZ x i s

ppM12Q7"'YVAOQ:&Z :;;""i HT:& ppM:1. 2QZ :te l &

1-rT> -...,t.•t• ,..,.... •- -.-.t•t.• n c::-ne'-"" 1 •n W""" 10 R-

QO s.t::L T

P P pp M1 2QZ\)O(AQQ:ZQ 55HT1 ppry t1 :ZQZ x l p;

ARI>RIL£V

A . ! R !LEY

"""""""

ARQR I L£Y

l\ AQB!l FX

sco ..... t. h IP-s E:tcp

ABQBIL£¥

,a,npn • LCX

teo .. p .. ... .... ..... . ... . . . ...

t·epoo•T>.\_.........\_.. ..... \_ ...........\_. ,,\_..,. ....

£Q ..I P'T',...,ta..-o..,..-,..,.,,.,,,.,,,\_

\_

ti:o ..,....s...- . ... ....,..,..,.....

....................... ..... -. .......-··-·· ...

.

*.28.03.0.00*

*4-2.,74.2 . -Z..S*

*·-.373 .04*

*.:14.8• .:143.05*

*S>S>.0-46.06*

*.319• .2 .3.2 ..2..!S*

*7104.67*

*7'.5.733.-'l-4*

*.2. S... .38.0.2*

-Z..2,464..SO

*B..... S>..:s--4• .:S*

- &3.10

..1. . . 06

:1.4.!'0!'0.::0 .. t4,

4.5,924.35

30,704.28

12,130.06

1 3 , 4. . 4.5

:01; 3.-77.30

3,8 6 . 93

20.33.5-511

1.200.'70

.::.080.:& :1.

10.37o.o:a.

2.7:5!9.1 8

31,0.59.313

8.464.70

20.00.8.00

:z.;...Z31.:5.313

69,627.23

46,551.6-5

18 . 91.ft.4

2.0.541.1 2

!J-,\_ -0

319.!32.& - ft.-4

2.701. 0

Z.:;c:5.:5.SIO

22,221.4 6

1 4 ,8 .!56.511

.809.07

6. .5.70

:1.1.3 -

12.7 43.1 &

WA.OO.:Z.:I.

PP......1 0 WAOO PP.....,120?'\WAOO:Z1 SSMT1 PP......120 7.x i S AAA I L£V

4

teo... ..... . ... ..... ... . . . ...

*.224. 999.64*

*.S>B.-Z.46• .53*

3 . 4 . 89

518•.146-B

8.7 49.&3

18.7 49.9

09 1

teo•- ...-.... ..

. . .... .. . .

*.2 .-0.2 .90*

8,::.0 0.!"-!'0

:&.azo.:&::.o

1 ;.,.!'0-!'00.8SI

4.o;.,o,:;;r..o

VVA..OOJ.O

......., ip < ..., iap·"!"F"'~~""!oe=.!nivvi -iuo! !"'-'i., .,i;!;i !rl': "o. '!i'i;;'i~~

lf:q• P'T'-•"H ... \_ t v- ,..,.,,\_ ,,\_ . ,\_...,

*.:1.9.:1.\_985.7'3*

*S>-83..:5/>.S • .S-2*

4.9,91. . 58

30,4351.513

9,299.00

62,933.29

4 6, 50.&&

&.909..:53

19,797.86

1 4 ,72'!J> .OO

WAOO:Z7'

ppty1J:2QZ\YVAQQ?:5 5SHTJ: PP'Y1:1. 2QZ !!I & AAQA I I

WA.OO PP......,120Z'WA.002G SSHT1 PP......1 207 x l • A.RQR I LEV

EX

"; :;"z"j.a'i· B"=J !::i = o!f!•LEx

PP A PP.....,120Z\VY.AQQ24 SSHT) PP......1207 x l ;a ARQA I L£Y

ppM1-:ZQZ'\"""""'QQ.2.Z SSHT1 pp......12QZ x i s ARQR !b£¥

£Q ..I \_ ,...,, ...\_ ,..,..\_ 1.-oao•ll ••l-

*.2 9.0-8-4..2 0*

*. 3 .2 007.4 7*

.910.07

4.0,22.2..32.

1 .3:5!.5.89

2,2.40.52.

62.,043.51

2.802..02.

J-2,8 0 1 .1 2

WA.0030

...................... \_

-··-·· ...

WA.0021

PP'Y1J2QZ\YVAQQ.2" ;-;;"'iHT:& ee"t1:& ;zgz x i s ,a,npn • LCX

P A IIi S WI PA \_J I; $ W !TH O A AWA APP I AT! - i;G!S

!i:o .., -"'" s...,,.. . ... ....,... , ....

*3.7'-:::T'.69<Ji• .S<Ji*

.20 •.f114-4.47

4-Z.4,-Z.4..5..27'

-- -87

::1.2.8,38.5 03

:1.2..2.98 .7

20 ,2 -4 7

28,999.::1. 7

IPJ 2.. 7'.2.S

:1.9-4 ,6.48.2.8

0 . 3 ----5

62,12 . .7'9

WA0929

V - Q.2..2. ....D QQ.z.:.l!.....!i

..... -.

.......

*S>..2.B.:Z.:S.OO*

26......0.5-7

o.427.7

43.1..:57.75

13.773.75

WA.0032

WAS WA0032 .,WAS\WA0032 SSHT1 PP......12Q7f2 ) .:>eiS AAA I L£V

teo .. p. . . .. . ..... ... . . . ...

*.2.HI .5.6BB .4.0*

4 2 . 0 6 . 4.0

9.498.19

03.773. -5

:z.o.:a3• .:Z.6

*'YV"S'\)O('l'-* \)O('"'S\)O(f'.- jli

:;;SHTI PP'Y1 '"'0Z-K.t.s

*.z. .72 . -Z.O*

1.B83.L5

..1..1 6-02.6.5

77. 03.451

2.4.862..8..1.

'\YVA.•'\YVAQQ:!f- SSHT1 IPIPM12 QZ tc ls AAQAI LEY

te o•- ...-.... ..

. . .... .. . .

*.2.B.I'li'•.B0.\_,.2*

58.!"-::.00.o

1 .:z.:&o.4 o

HB,Z3SI.r::J.O

::Z8.::-;..o.9s

WA.0037

WA0038

WA.0040

WAO<lo4 :1. WA.OCJ-4.2

'VYAs\'O(AQQ35 SSHT) PP M1297 x l ;a ARQR !L£Y

'-YVA 1ii'\)O(A.QQ3ft 5SHT'I PP'Y1J::ZQZ ... ... AAQA!l EX

WA.• WA003'7 '\WA. •\WA0037 SSHT1 IPIP......1207 :tc l • A.AQR I LEV

.A ARQBIL£¥

'\)O(A.&'\)O(A.QQ!J"'! r:sal X I & rm

W A WA '\WAs'\WAQQ.4.9 SSHT1 PP......12Q7 tc l s AAQA I L€V

'\YYA s'\'O'A 004 '\YYAJi'\yvA.OQ4...J...,\_,!il:u::.t:T AB..O...B..l.LCE:

\)O(A• '\,)O(AQQ42 SSHT:& PP'Y'1 2QZ rs l e A AQB I LEy:

· P-,....\_ .......\_. .... \_ . ......\_ ,,\_. ,\_...,

..................... ...\_..... -. .......-··-·· ...

*.:197',..HI.2.2• .:1 7'*

*3.8.<1'3.8.3.,*

*..20..31.749.8.2*

*8 .9 299.00*

*-'l0-4.3- .SO*

*.56•.2.97'.0.9*

*.z.o.OS-4.64*

.S2• .2.3J.2• .:S.2

61 . 6 9. 87

03.3,:,0 :01; 93

1 ,4 1-10

9.51fto0.'77'

:19,8::1. 2.55

7.2.02.49

82,2.29.00

;1.4.30 -0

3,933.&0

92,74:1.. .4 2.

0.0.::1':1..2.

26,4:& 2.63

1.!5.101..&1

29,599.33

4.8 1 9.73

WA.0043

WAS WA.0043 '\,WAS\WA.0043 SSHT1 PP......1207.M I S AA HIL£V

'\YV"S'\YVf'.-004-4 \YV"'S\)O(f'.--4 Q.L Q-l.SiUs.

£Q ...p<T

> ....... . .... . . . . .. . ...

*.!S.B-48.90*

*2..1.-L. :S>• .S<Ji'*

1 ,1513.10

6.:5.017. 0

::1..4.816.06

2.7 48.98

.4--60

& 77.34

3..1. .7.50.40

'\YV::::•'YV::::.- 5 b l y •b t rd pdf rrorro Sh b

1

Adb La l

*.31.31.3.1'l1'\_,, ,.31*

*9..HI,4 60• .97'*

:1.0.:::1.::0.0.8&

:;;r..a ..,- o

93,460.97

1 .!5.093.2.7

WA.001

WA.00 3

'-YV" 1''-YVAQQ47 5SHT'I PP........ "I?. n 7 !! "' A AQA I I EX

WA.5 WA.004S '\,WA. •\W.A.D0-48 SSHT1 IPP......1207 :tc l • A.AQA !LEV

'\,yyAs'\,yyAQSM2 '\,yyAs'\,yyAQC!>:<!2 SSHT1 pp......12QZ tf i S ABQBIL£¥

'\yy,a,s'\)O(AQQ5Q !5"'iHT:1 ppryq.:zgz rc l s ,a,npnuc-y

W A WA '\WAs'\WAQQ 1 SSHT1 PP......12Q7 PC I S

\YVA• '\,)O(AQQ5:=1 c::u.,.. -•a

£Q ..I\_.,..,....\_,..,..\_ ,...,.,•.,,,., , ...

\_

ti:o ..,\_...\_ ...s..,...,... •. ... ....... ,\_...

..................... ....

*24.3.2.5.3.05*

*.31.2 B4-..!S.06*

*20, .23.3• .2..2*

*85•./!13 .- ,0,*

*.2.29,6.29.76*

7.5,4 0 . 4.5

10.188.17

6,23.5.10

:01;0.1 3-9

....o.:a.a 2.1B

17,02.7.71.

2.300.!j,.5

0.077'.31-

9,07.38

1:&4.3:Z8.514

1.5.44-0..:58

9,4.53.21

. .0.0·04- 7'

6 ,921-29

21 ,375.40

36,487.51&

4 . 929.'70 a .o1 6.28

:l.;:,o.o:z-eo

:1.9.-2.96

WAOO.S2

WA.00 4

'\YYA s'\YVA OQ '\YVAJi'\yvA.OQ!i>z.

'\,WA.S\WA0054 so....t. h A ....st.ra l .x l s

:il:u::.t:T

so.... t. h A ....st ra l

..... -.

.......-··-·· ...

4*...*.*.,.4*,6 *,*.5*..*-Z*.*.*,.7*2 *0*6

.-.o..-

13,84::1..89

1 4 ,09&.71

1"7.999.319

3.1&3-.:S&

4.064.98

20,986.09

7.2.89.39

6,697.69

0,82::1..90

8.709.38

'\YV"'S'\YVA..OO=t=t pp......,l?<l..Z..Z:U.:i

'\'6'A•'\YVACKJ29 IPIPM1?QZ x i s

""-"£>

A.RQR!LEY

£Q ...p<T> . .. ...\_ .... . .. . . . .. . ...

*.z..:za.7u.z. . 7*

*.240.-.74*

39,5110.14

.... .00&. &

9.Bft.O .ft.O

2.

6-0.1 8.02.

00,2.00.90

1 , . 314.26

2: . ;..9.80

A 1 h .- a t r .-

*.:1 56 0.5.:1 .66*

1.56,0.5::1..66

WA0062

WA0963

WA.OOft.-4

WA.OO

'YVA1i'\\,O{AQQ5H y eni•·5A "t1P5EPQ3·Ac;tyn ;cc;t x l 1i

\WA. 5'\, W.A.009 T•n t x - S.A.......,IPSEP03- A.dv - pco .....,n ds x l •

'\,yyAs'\,yyAQQ!?Q Q l yep! cd AHL.AL )oS I S

'\\,O(A'!i'\VVAQQQ:& ;5 py t. h Ay'!i t rl X l fi

'\WA.s'\WAOQ62 -C> r-t. h PC>w-.- >e l s

'\YYA s'\ YYA OOQ.a.......b.tor.:.t.b..P...owe

'\yye.e'\,)O(AQQQA Nq rt h PQ'Of•r ,.. ,.

'\,WA.S'\,WAO<l-6 ........... Dio!!tSei C :>e i S

'\YV"S'\YVl'..OQCOQ\_bl.o..a..b....e.O'O'ec e••c? *K.1s*

:I:o<.o..LI>

p t ye;pt cq A D ba t

:ipy t. D e.y'li t. ra l

-C> r-t.b PC>w-.­ b'Q,,. Q,""'-e..r:: N q rt h PQ'Of•["

.....,..,..•-•c•

<»<><=

£Q ..I\_.,..,....\_,,...\_ ,...,.,•.,,,., , ...

ti:o ..,\_........s...-• . .. ........ ,\_...

.........p......-.....\_ . .... -... ..... · - · ...

£Q ...p<T> . .. ...\_ .... . . . . .. . ...

*51>.5 .:.6. 28.6.2*

*..2..!S2 246.4.S*

*9.2..2 .67*

*.27'-:::T'•.f!S30.00*

.2.26,.204..5.2

*74,89-Z. . -Z.O*

.2.24.*74.0..54*

*8.51>:51>,0.2'7. -Z.-4*

2.51,485 1. 8"7

4 '7 , 90 . 41

1 6 . 7:1...5.72.

8,:,0 0"7-30

29 , 23.4-0

2.3,06::1..2 .4

04-0..92

00. 09.!57

278.6 9 . 4:1.

10.0.57\_ 2..!j.

3,774.52.

:1.,.308-10

1 .....0- .0&

.03 1 .114

62.93..1. !J<>

-.7':1.0.4.5

7 1 •.:S.:S.!:So .

2.!5,343 .1 8

:I..:Ol --0-10

:59,3:& 115 .12

3 4 ,963.82

!380.82

1 00.92.8.0

422. 2.-76

1 4.2ft'!J>.2'!J>

2:2.830.97

41.37--o

1 8,90.68

1::1. ,158.67

3 1 3.03

22.2 1 1.08

:1.. 3 4.0.5-4.97

WA.007CJ

').Vw'A•'\Y'YA.QQ§Z Nqrth P Q'O'•r nzd 2 x l p;

\WA. •'\, W.A.007CJ Sc:.....t h A......, •t r-1 x l •

N q rth Pp'Of•r

=

teo•- ...-.... ..

\_ . . .... .. . .

*.290.74.31 . 7*

!'0-9,:1.:1& 0 !'0-4

1 .3.::0.2..0.0

H9•..,..\_9•.5011

::Z8.o:&:1.•.:5a

WA.0071

WA.008:1

WA.0082.

WA.0084

WAOQ&.S WA.OO&G WA.0087

'\,Y'(.A:5'\,Y'(AQQ68 £t.elMSI

'YVAfi'\\,O(AQQft"! Fpc zc l 'li

'\,yyAs'\,yyAQQz-1 PPM:1.2.QZ x • s

'\\,O(A'!i'\\,O{AQQZ2 PP'Y112QZ X l fi

W A WA 7 l t.hd r w•l f'C> r P I A 7TH c::l •orT">

'\YYA s'\'OfA QQZ.-4\_.0-U.t, -'-.XJ,.s

...., 0

\YVA.• '\,)O(AQQZ.5 Q l •p;•l ,.- x l p;

'\,WA.S'\,WA0076 PP......1207 SAT :>eiS

\)O('"S'\YVf'..OQZZ pp.. ...., 2Q7-usd ts 'S

'Vw'A•'\VYA.QQ7R Scu,U\_h Ay st\_ ra f x i s

'\,Y'(A :5 ''0fA QQ72 Cps M ia

'YVAfi'\\,O(A QQHQ y eni!!·5A"t1P5EPQ?Q2 H Ac;ty o;cd x l 'li

\WA. 5'\, W.A.0081 r.lc:> rt h Pcow•r •.... ci! x l 5

'\,yyAs'\,yyAQQB? N p rt n p gwe;c-nzd &J x t 5

'\\,0(81''\VVAQQft :l Nq rt h PCl'O'""!" & 1. 2 "'"

'\W A •'\ WAOQ84 Squ 't h A ust.ra l x i s

'\YV A s'\YVA 006 AJ"

\)O(A.• '\,)O(AQQRQ PP....,:& i2Q7-yed x l •

'\,WA.S'\,WAOOB7 a ll :o!!!l$!lC'l.Ci SII!Itl SAT :>eiS

\YV"S'\'O'f'..OQ66......JS .I....Z:U..=i.

Sco ..... t. h ,a,..,.,.,\_ ..\_ ,

ABQRIL£¥ AFIIOFII I '-e-'w"' lliG I S

*!I>'-'"-*

....,n e•••• 1

AR BIL£V

.ft.FII AibEV

Sco....., t. h Ast r•l

r.lc:o .-t.h Pc:>ow• r

-onn Power r.IO.-t.h POW9C S.co ..... ll.h A..\_.st r•l

AFitFt !LE'V A.B.DB. I b

A ll Elec-tr ical

SOU 'II.h .ft.UStrel

lf:q• P-,....\_ .......\_. .... -. ......\_ ,,\_. ,\_...,

£Q ..I\_.,..,....\_,,..\_ ,..,.,•.,,,., ,\_

ti:o ..,\_...\_ ....s......\_ > v ... ......, \_...

.......p......-.....\_ . .... -... ..... · - · ...

EQ ...p<T> . .. ...\_ ..... .. . . . .. . ...

£Q ..I \_ .,,...a.. o va. o..-.ao•••••I-

E<a ..• o.,...•"'" s...- . ... .... . , ....

.......p......- .5 .. . .... -. . ......-· - · ...

EQ ...p<T> . .. ...\_ .... . . . . .. . ...

-o...

*.2B.B• .B.B.2.00*

*.50•.277.33*

*7'6 .28.5.60*

*.246 • .294• ..20*

*.S.S• .2,.2.-:::T' 7*

.2.23,.f113.2 .4.8

*-Z. B.B140.2 . -Z.6*

*.:Z::11. 4,74 0• ..!S-4*

.26.5.*7..2 8...29*

*3.27',.30-S .B-3*

*::1/,.31.4-!S$.*

*9.2,7'60• .:14*

*47 • ..1.83.20*

*..2 ::11. 0 G.:Z. 0.8.2*

*307,666'.02*

*.2.28.4.89.*

*-Z.57,B7'9.6.5'*

*.S.:S.S>.20.,:S.S*

*4.5.09..2 • .39*

*38.2,43:51>.*

*9.3/•.!S. ::I/,7*

99,5 3 . 92.

1.5,58 .517

23.0-4-8.4

4.!5 ,32.0.17

:&.0.30- 70

.58,4-04 . 67

GO•.:SOSI- Z

51 ,37 2 .67

10:1.,46-4. 8:1.

4:;;r.,:: .00 .

28,75.5 64

14,62.7.41

::.0 4.2..89.3.5

9.5,37 . 46

1,2.80-8

2 , 7 1.'7.5

....8,942 . 69

11,13 .38

13.978.313

118. .50.=

2.9.0oCJo.:&a

2.0,2::1.& .24

3,5::1.51.41

!j,,3i!9.99

10.233.52

1 3 , 31.4.8

13. :&.88.:a..s

1.5. 0 1. 8-4

11.609.2.8

2 .2. 1 .4..1.

9.!'0-.5:1.. 89

6,499 .2::1.

7.742.'76

21. 36.62.

!J<> -4-5

8,294.27

1::1. 0 .51•.58

2.514--

3. 6.40

2.6.770.77 o•.:54 9.ZZ

:1.3.5,751.04

23.&30.34

3.:S.&.:S4.2.3

68 , 7 1 ::1..23

:;L.-7.,:5:1.

88,.5-4 9.01

10oCJ.S2.& .0.5

77.887. 9

1.53.8BB.74

........ 34.:&011

4 3,.597.26

22.1'77.04

.51 .9&7.08

:a.-,603.03

1- 0-17'

:55,690.0"7

7 4.203.4 3

10.&82:.0-7

2 1 .192.9

17'!J>.746- 7

4011.9Z7.c.4

43,32..4 .80

1 1 \_ \_ .,.\_ \_

2 1 . 922.11

28,2.60.32.

312.211 .0&

2A.&.!S7.7 4

4'!J>.0, .07

::zo•.-.os.OII4

13,9::1.4.92.

10.591 .02.

46,:1.42.20

o:z:z.::s

:1. 7,773.4 3

23,681.9.5

.5.3&& .09

0.71153.71

7.36.5.'!}>3

1 4.0;)15.2.3

').Vw'A•'\Y'YA.QQB"! P l y•bt rd A H L\_AL x i s

B l•b o rd A.b '--- ' teo•- ...-.... ..

. . .... .. . .

'\,Y'(A:5''0(AQQ2Q ss;u,.Jh A ysll.ra l M l s

'YVAfi'\\,O(A QQ"!"I pp......, I?Q7 5A T "'1'

'\WA.5'\, W.A.0092. PPM120'7 ....., •d.x l •

Se>oull.h .A ....t. rB I

.ft.AA I'-E"V

A.RA I LEV

oo:qo p...-.-.-.• ...\_ ,,...- ,.., ,.,\_ ,,\_. ,\_...,

*5.:10.9.55.00*

*.52.-.2.48*

*::11. 8 G..2.5.94*

::1..58,3 9 . 0.5

16,33:1.•.57

. '7'74.04

35,766.85

3,&&7.77'

1 .30:5! .82

2..40 , 4.9.&.S

24.7'&0.'77

"76,649.2.5

7,'!J> O:Z .37

2.793.89

'\VVA5'\'0('AQQ2!3 Stl y ar SAM-psrp-QQJ-RJ- <a A I M ')

Sliva Tran sport

£Q ..I p ...

a o.•tt .. CI ..-I I 'W -"'-a

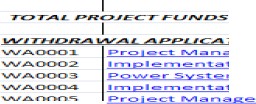
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13,182..87

**Appendix 13- Withdrawal Applications by Contract as of June 30, 2011**

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TOTAL LOANS GOVTCAPITAL COUNTERPART TOTALLOANS t TOTAL *Remainder*

PROJECT PAYEE CONTRACT NO. DISBURSEMENT ADBLoan ADBGrant JICA TOTAL AUSAID EPC GOVTCAPITAL+ AWARDS *{Variance)*

:cre Rlte129/11/2010 2.4044 SAT LOANS EPCC/PART SAT *5* %

COLUMNA COLUMNB COLUMNC COLUMND COLUMN E I COLUMN F I COLUMNG COLUMNH COLUMNI COLUMN! COLUMN K COLUMN L COLUMN M COLUMN N

***TOTAL PIOlCT* APflfiOVfD*RM*** *IJSD* ***$88,001,001*** *$26,610,001 $153, ,()))* ,())),())) *$W),())),())) $8,())),())) $12,())),())) $11KMKKMXK1* 2,1WJ,())).00

,**TOTAL £Sll4ATEDPIKIICTfUNDS SATS 211,587,200 ,981,114 7,003,716 m.367,200 192,352,101 19,235,200 ,852,1Xl** 2«!,440,!nl **)4 592**

1 -

.1/thurO. Riley&

SI NGlEDTHREE PHASE PREPAYMENT METERS: c.ltd. PPM1207 11,792,007 S3,65s,sn 25,441 ,542,243 S10,o23,206 S1,768,801 s 11,792,007 S15,139,803 *$3,347,795 22%*

Di¥ilent PaciiicPty

POWERSYSTEM PlANNING SOFTWARE: ltd SAIMSE P-o6 134,810 1,791 S9,437 3,361 S114,589 s2o,m s 134,810 S136,126 *$1,316 1%*

STREAM flOW GAUGING EQUI PMENT: NIWA SAM·PSEP-64 145,397 5,073 s1o,118 ,337 S123,588 s21,81o s 145,397 S163,988 *$18,591 11%*

4 HV TESTEQUIPMENT : 8ectroto;t ltd. SAM·PSE P-65 163,44l ,667 S11,441 S76,818 S138,927 S24,516 s $163,443 S153,341 *l$10,101)* -7%

5 EGBCIDM

EGIS BCEOM IMPlEMENTATION CONSTUlTANTS: lntern:tiora l CON0508 ,004,841 ,004,841 ,004,841 St84,659 $4,189,500 S7,105,01o *$2,91.5,510 41%*

EPC RE MBURSEMEifS: *$*

6.1 A PROJECT MANAGER EPC CONOO!S 140,&51 St40,851 St40,85t S249,338 390,189 12,00) *$211,811 36%*

61 B.22 KVOVERH EAD UPG RADING EPC SAM·PSEP-G9 991J27 S307,435 9,421 6,112 S842,968 S148,759 s 991,727 S991,m *$0 0%* C. UPGRADING Of SUPRI MA VENDING MACHINES: EPC 244,218 S75,708 S17,095 S114,782 S207,s85 S36,633 s 244,218 s *l$244,218 ) #DIV/0!* UPGRAD1 NG HOSPITAl.FEEDERSTAGE1,AI.AOA DIST.liNE &

ASAU 22KV RECONDUCTOR1NG: *$*

*],*1SFORMERS Elei Umited SAM·PSENI1/0l·D S543,527 S168,493 S38,047 Sl55,458 1,998 1,529 s 543,527 M,118 *$27,591* 5%

*],*2 CABlES & CONDUCTORS ltd. SAM·PSEH1/0! 3,914 s212,013 W,874 21,439 81,327 S102,587 s 3,914 ,687 *$713 0%*

*13* POlES & CROSSARM$ Bluebird/Ahlli N SAM·PSEP-D1/0l·B S88,804 S27,529 ,216 1,738 75,483 S13,321 s .IW4 s1o2,124 *$13,321 13%*

*],*4 SUPPlY Of GAI.VISED UNE HAqDWARE AND INSUlATORS ltd. SAM·PSEP-D1/0l·A 52J43A28 ,463 S192,040 S1,289,411 S2,331,914 11,514 s $2,743,428 S154,689 *l$1,588/40) -1674%*

75 PROCUREMENTOf WORKS& RElATEDSERVICES Bluebird/Ahlli N SAM·PSEP-D1/02-A 91,223 S152,279 S34,386 30,875 17,540 S73,68l S101,680 592,903 S154,690 *1$438,214) -283%*

REFURBISHMENT Of AI.AOA HYDRO POWERSTATION TenNew Zell:nd SAM-PSEP-D3 57,916 S203,954 6,054 09,221 59,229 S98,687 s $657,916 ,432,945 *$2,775,029 81%*

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HO)TAl fHDfR)"AG[*1* & mvUAA01NG:

.1UmOf MAIUIAlS [te/ Urrit<rl AM· .001-/A *1,m* J,m J,m 1,MJ 1, 1 m,m 108,m *1,m 0%*

*1*UmOf MAIUIAlS ltd. AM·.&[HJ/

1ij tfUI)HMHflOf AillfAIAGlOMAUAGM.ASONI &

1,m,m *1, 1 1,W1 ,llij* 1,(l6J,001 m,nij 1,m,m ,o1,&) *,J74,3ll 73%*

ITMIUGMWlONo wCHGtAA: Nortrpowerltd. ll1i[l-

11 RtHfIMUtNT Of MIUGAMMIONOGtNtORAS MID llnml&

*,m,m* 1,466,lJ m, 1,nJ,4S8 ,ijll,m ](r1,fl)8

,Jij,Jo , &)n&o,m

*11%*

A Turbo Silirl AMt.-OS 1,m,ij 1 1,00 19,060 J4, %1,Jo 110,m 1,118, 1 a,,m *vn1% W%*

12 CONSffiUC ON OUfAPUA f[[Q[ T!llaNewleallnd AM·Ht

m,1 ,001 ,7 1 ,8l1 *1(16)* 1,114 m,11 *1>115,161) #DIV/!*

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1l tfUIRSHMtNT Of AlAODARWO fRS A ON Cootpany SAM·l/01 m,olo ,m 1,ij& u,m m,141 1,m m,

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1 GfAACtCROAD *MI D* ftNCING Cooipany lAMr·r·IUOH&C loo,m 1,1 1 *n,mo* 141,14) ),Ml ,ij1 ),1&1 ,08

1 Bluebi rd

GfADIRWfRS A ON Miis/Woodl S.I.M·[-1 03 14,ij19, ) *,JM,1 &),)%* ,011,)14 11,%7, ,111,1 14,i1j ,

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1 fGASIIT lMUNG ffGneering SAM·[-11/H *1ij, 1*

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11 mCffiiCAlOU NG·VmROAD WIDtNING OttTramport S.I.M··l0/01 m, 1

**TOTAliHJMIOOSMAT30THNIMMB1010** n **,11,881 *12,811 1,039,1* 19,4JJ,l ,}Jl,SJJ ,Nl,018** *,m,J$1* **4,210.** *1 1 , ,8 )*

INTEREST DUruNG CONSTRUCllON (lOCI: interest *rate*

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terert *Due*

*6.50% &33,145.86 457,599.68 1,263,156.63 1,553,901.18*

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- 1 -

*less Interest paid IS11442.6j ) 1563,131.46 ) 15174)67.89 )* IS)j1342 00) m,l42.oo 352,l42.00 352,l42.00 *$ 0%*

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*Tota*t*l*eres!*Outrtanding*as *at 30th Nove00er* 2010 *$718,203.22 94,4&.21 $1,088,888.75 l,l01,56J.18 $ $l,l01,56J.18 ! ,ZOL56J.18)* -100%

*TOTAl/NSBURSEMfNJS+* IOC 7 *$13,5J5,831 $7,434, $20,51l,(tl 492,363 078 7101 46 081 764,788* m,u

funds *disbursld* as*atJ1th fk1mnber1010 m m m 19%*

TAXES AND DUllES

(GOVERNMENTCONTruBUllON·MOfl 3,845,254.17 3,845,2.54.17 ,241,592 *!$1,396,337.83) -27%*

*TOTAl/NSBURSEMfNJS+* IOC*+TAXES*& *DUn£5 $ $13,5J5,831 $7,434, $20,51l,ra 492,363 MlB 19,455 )11,336 $18,JlS,956*

*fundsdisbursld* as*atJ1th fk1mnber1010 m m m 21%*

Remaining Ba oceasatDhNovembermo I SAn 165,61,311 ,445,252 . ,253 10,845,132 1 ,859,637 B,03J,122 4,033,)45 1, 127,664

*llerooining BolaiiCt* as*atJlth Ntrmnber1010 USD5 $68,91 $20 ,391 $ 1976 $19,14,786 !&7,431, 53 $5,410,511 $79,074,889*

*nds rerooining*as*at DhNtrmnber1010* I *m*

'""'

*m m m* I *79%*

Appendix 14- Withdrawal Applications Disbursement Advice to date

WITHDRAWAL APPLICATIONS DISBURSEMENT ADVICE

Loan 2368-ADB G-0087-ADB G-0101-AusAid ICA 82321SAM -P1 Exchange SAT USD WA PAYEE Curr **Amount** Value date Amount Value Date **Amount** Value Date Amount Date of Disb USD Equiv .JPY Equiv Curr Total Rate Equivalent Equivalent

A0001 Electric Po er Corpor WST 103,634 15 610812008 WST 103,634 15 1 WST 103,634 15 2.5887 USD 40,033 87

I

A0002 Electric Power Corpor USD 266,402.33 2110812008 USD 266,402.33 2.5887 WST 689,635.71 2. 5887 USD 266,406.28

I

A0003 Digsilent Pacific Pty Lt AUD 18,619.38 2710112009 4,204.38 2710112009 9,009.38 2710112009 28,229.36 20/02/2009 11 18 ,420.05 1,718,038.00 AUD 60,062. 50 20352 WST 122,239.20 2. 5887 USD 47,221.00

I

A0006 Electro test Ltd NZD 4,796 94 1110212009 1,083 18 1110212009 2,321 10 1110212009 7,272 78 27/02/2009 Jl 3,841 06 375,348 00 NZD 15,474 00 1 6527 WST 25,573 73 2.5887 USD 9,87913

I

A0007 Arthur D. Riley & Co. L USD 80, 200.12 1510112009 18,109.71 1510112009 38,806.51 1510112009 121,593.74 2710212009 121,593.74 11,882,140.00 USD 258,710.08 2.5887 WST 669,722.78 2. 5887 USD 258,713.91

I

AOOOS Arthur D. Riley & Co. L SAT 256,033.60 210212009 57,814.04 210212009 123,887.23 2/0212009 388,179.98 2410212009 127 ,377.52 11,998,643.00 SAT 825,914.85 1 WST 825,914.85 2. 5887 USD 319,050.91

I

A0009 Arthur D Riley & Co. L USD 34,360 05 15101/2009 7,758 72 210212009 16,625 83 210212009 52,09427 2710212009 52,094 27 5,090,652 00 USD 110,838 87 2 5887 WST 286,928 58 2.5887 USD 110,840 51

I

A0010 Arthur D Riley & Co. lUSD 5,583 10 1510112009 1,260 70 1510112009 2,70150 1510112009 8,464 70 20/02/2009 11 8,464 70 789,502 00 USD 18,010 00 2 5887 WST 46,622 49 2.5887 USD 18 ,010 27

I

'"au on a r

A0011 l n st Of NZD 24, 776.37 2710112009 5,594.66 27101/2009 11,988.57 27/0112009 37,564.18 20/02/2009 11 19,698.34 1,837,264.00 NZD 79,923. 78 1 6527 WST 132,089.23 2. 5887 USD 51,026.07

A0012 Arthur D Riley & Co. lSAT 43,010 59 210212009 9,712 07 210212009 20, 81158 210212009 65,209 61 24/02/2009 *';1* 21,397 90 2,015,629 00 SAT 138,743 85 1 WST 138 ,743 85 2.5887 USD 53,596 75

A0013 Arthur D. claim USD 45,924.57 10,370.06 22,221.57 69,627.58 USD 148,143. 78

payment USD 45,924 35 2510212009 10,370 01 2510212009 22,22146 2510212009 69,627 23 3103/2009 69,627 23 6,879,866 00 USD 148,143 05 2 5887 WST 383,497 91 2.5887 USD 148 ,145 24

A0014 Arthur D Riley & Co l SAT 87,80177 2610212009 19,82621 2610212009 42,484 73 2610212009 133,118 81 2710212009 40,635 84 3,970,934 00 SAT 283,231 52 1 WST 283,231 52 2.5887 USD 109,412 34

I

A0015 South Pacific Exports AUD 18,686.04 23/03/2009 4,219.43 23103/2009 9,041.63 23/03/2009 28,330.44 25/03/2009 *'5(* 20,239.98 1,942,051.00 AUD 60,277.54 2 . 0352 WST 122,673.95 2. 5887 USD 47,388.95

I

A0016 Arthur D Riley & co \_ L USD 13,54845 4103/2009 3,05933 4/0312009 6,555 70 410312009 20,541 19 13103/2009 20,541 19 2,048,367 00 USD 43,704 67 2 5887 WST 113,138 28 2.5887 USD 43,705 32

I

A0017 Arthur D Riley & Co l SAT 69,914 54 9103/2009 15,787 16 910312009 33,829 62 910312009 105,99947 1310312009 31,952 91 3,186,344 00 SAT 225,530 79 1 WST 225,530 79 2.5887 USD 87,122 54

I

A0018 EGIS BCEOM Internat USD 154,938.01 22104/2009 USD 154,938.01 2.5887 WST 401,088.03 2. 5887 USD 154,940.30

I

A0019 Arthur D Riley & co \_ L USD 3,863 93 2110412009 872 50 2110412009 1, 869 65 2110412009 5,85822 110512009 5,858 22 571,527 00 USD 12,464 30 2 5887 WST 32,266 33 2.5887 USD 12,464 48

I

A0020 Arthur D Riley & Co l SAT 74,542 63 2310412009 16,83221 2310412009 36,069 02 2310412009 113,016 25 110512009 39,838 35 3,886,629 00 SAT 240,460 11 1 WST 240,460 11 2.5887 USD 92,889 74

I

A0021 Arthur D. Riley & Co. L USD 38, 749.89 2210412009 8,749.97 22104/2009 18, 749.95 22/0412009 58,749.83 1510512009 58 ,749.83 5,692,271.00 USD 124,999. 64 2.5887 WST 323,586.57 2. 5887 USD 125,001.49

I

A0022 EGIS BCEOM Internat USD 98,145 58 8/0512009 USD 98,145 58 2 5887 WST 254,069 46 2.5887 USD 98 ,147 03

A0023

A0024

A0025

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| ANZ FX RATES 3010612009 | | | v Forex ra te ba se d on JC! A'S rat e for USD pa yi:-.A.0010·on 20,02,00 | USD1-..JPY93.27 | WST 5,420,647.52 | USD 2,093,996.14 |
| 1 USD | 2 5887 | 2. 7503 | Forex ra te ba se d on AOB book rate on 24,02,00 | USD1-..JPY94. 197495 |  |  |
| 1 AUD | 2 0352 | 2. 2170 | Forex ra te b a se d on JC! A'S rat e for USD pa yi:-ADXI7· on 27,02,00 | USD1-..JPY97.72 |  |  |
| 1 NZD | 1 6527 | 1. 7734 | Forex rate b ase d on J!C A'S rat e fot USD pay!:-A0016- on 13,03,00 | US01-.JPY99.72 |  |  |
| 1 FJD | 1 2369 | 1. 3699 | Forex ra te ba se d on AOB book rate on 25,03,00 | USD1-..JPY95.951248 |  |  |
|  |  |  | Forex rate b a sed on JC! A'S rat e *f or* USD pa vt-.AD019- on 1.U5,09 | USD1-..JPY97.56 |  |  |