

# **Public Utilities Board**

Short Term Recovery Action Plan

May 2012

#### **ABBREVIATIONS**

ADB Asian Development Bank BOP Business and Operational Plan

CEO Chief Executive Officer GoK Government of Kiribati

HRM Human Resources Management
KAP Kiribati Adaption Project
KDP Kiribati Development Plan
KIT Kiribati Institute of Technology

KRA Key Result Area

MELAD Ministry of Environment, Lands and Agricultural Development

MHMS Ministry of Health and Medical Services
MIS Management Information System
MISA Ministry of Internal and Social Affairs

MFED Ministry of Finance and Economic Development

MPWU Ministry of Public Works and Utilities

NWSCC National Water and Sanitation Coordination Committee

OB Office Te Beretitenti (Office of the President)

PPP Public Private Partnership
PUB Public Utilities Board
SOE State Owned Enterprise

SWOT Strengths, Weaknesses, Opportunities, Threats (analysis)

TNA Training Needs Assessment

ToR Terms of Reference WHO World Health Organization

WSSW Water, Sanitation and Solid Waste Program (Government Task

Force)

#### **NOTES**

- (i) The fiscal year (FY) of the Government and its agencies ends on December 31.
- (ii) In this report, "\$" refers to Australian dollars, unless otherwise stated.

This is a publication of the Public Utilities Board (PUB) of Kiribati.

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### **CONTENTS**

		Page
Exec	cutive Summary	
l.	Introduction	1
II.	Performance Assessment and Short Term Actions Required	2
	<ul> <li>A. Customer Service</li> <li>B. Tariffs</li> <li>C. Billiing System</li> <li>D. Water</li> <li>E. Electricity</li> <li>F. Organisation and Human Resources</li> <li>G. Financial Management</li> <li>H. Governance and Legal Framework</li> </ul>	2 3 3 5 6 11
III.	Project Progress	17
IV.	Conclusion	18
APP	PENDICES	

- 1.
- Terms of Reference List of People Consulted 2.

### **EXECUTIVE SUMMARY**

This summary identifies the short term actions required to assist the recovery of PUB. The actions have been developed with the management team of PUB and support the objectives of the PUB Business and Operational Plan. In this context short term means 6-9 months. The table overleaf provides this summary. A fuller analysis is contained in Section 2 of this report.

### SUMMARY OF KEY PROBLEMS AND SOLUTIONS

Function	Key Problems	Solution	Cost	Results
Customer Service	Customer areas too small and unattractive, difficult to use	Refurbish customer areas at Bairiki and Bikenibeu	\$20,000	Improved customer service
	No means of urgent customer contact	Introduce 24/7 phone line		More efficient communications
	PUB unable to respond to urgent customer requests	Purchase 4 used pickup trucks	\$100,000	Faster response to customer call outs
Tariffs	Power tariff not linked to costs and does not encourage energy saving	Urgently review power tariff		Increased revenue, incentive to conserve energy
	Water Tariff does not reflect costs	Introduce commercial and industrial water tariffs		Increased revenue, incentive to save water
	No transparency of power costs for water department	Implement power metering for water department		Elimination of hidden subsidy
Billing system	Hardware in use is 7 years old and software at end of life.	Replace aging hardware and software	\$75,000	Facilitates billing system, improves communications between offices
	Billing system is manual and uses inaccurate customer database	Complete design and introduce new billing system	\$57,000	Potential increased revenue, more accurate billing
	Water accounts not paid in timely fashion	Combine water and power accounts. Disconnect power for non-payment of either		Increased cashflow
Water	Rising main exposed due to erosion	A seawall of 110 meters in length is required to protect the exposed section. Discussions between PUB and MPWU are ongoing concerning the possibility of including this work in the Roads Rehabilitation Project	\$195,000	Water main protected against sea water action and sunlight
	Tanks at Bairiki and Bikenibeu at risk of unauthorised entry	Replace fences to safeguard tank security	\$50,000	Water quality protected

	PUB staff untrained in use of chlorine – OSH risk.	Chlorine OSH training	\$20,000	Eliminates OSH risk
	Poor customer perception of PUB performance, wastage of water based on 2 hours water every other day.	Pilot study – 1 hour daily supply		Improved corporate image, reduction in waste
	High rates of leakage	Early start to pipe rehabilitation as part of roads project		Reduced leakage
Electricity	Old meters now replaced with new meters instead of being recalibrated	Purchase of KwH meter calibration equipment	\$38,000	Reduction in cost of purchasing new meters
	Poor payers need pay as you go system	Install prepaid meters	\$85,000	Improved collections
	In heavy rainfall poor underground cable protection causes power outages	Underground cable rehabilitation	\$150,000	Reduction in outages
	Fuel measurements inaccurate, unable to monitor fuel deliveries	Digital fuel meters	\$80,000	Accurate fuel readings including at delivery, potential cost reduction
	Power division lacks GIS equipment and cannot provide compatible data to TSKL or Lands department	GIS mapping upgrade and training for Water and Power divisions	\$20,000	Improved records of networks
	Daihatsu generator service now 4 years overdue. Some funding secured but shortfall exists.	Fully fund ggenerator service	\$400,000	Generators maintained without financial burden on PUB.

	Staff skill shortage in power generation	Introduce 3 shift working		Increased efficiency of staff rostering and concentration of scarce skills
Organisation and HR Management	Job descriptions and performance assessments not linked to plans	Link job descriptions and performance assessments to strategic plan.		Increased accountability and operational alignment with strategic plan
	Non core activities need to be outsourced	Subcontract functions of security, vehicle maintenance, building maintenance, cleaning		Reduced costs and management
	PUB not fully staffed	Confirm need and recruit accountant, HR Officer, Water engineer, Electrical engineer		Increased PUB resources
	Unable to manage the number of major projects coming on stream	Recruit younger local engineer. Eliminate overlap in TOR for ADB and KAP engineers and use one to assist with project co-ordination		Enhanced PUB project management capacity
	Lack of management training – only 4 staff have management training	Arrange management training through KIT to Australian standards	\$32,000	Cadre of trained managers
	Inadequate office premises: no accommodation for PUB Staff and TA consultants to be stationed at PUB and associated with major projects.	Refurbishment/expansion of office premises.	\$100,000	Improved office accommodation able to handle all staff and TA consultants.
Financial Management	Debtors' ledger at high levels. Contains old debts	Review debtors ledger and identify provision for bad debts required		A reduction in debtors' ledger balances
	Depreciation policy and treatment of donor provided assets do not meet current standard practice (IFRS).	Review depreciation policies		Accounts meet international standard
Corporate Governance	Annual accounts not audited since 2008.	Complete audits up to date		Accounts officially signed of and issues identified
	Need for private sector perspective	Appoint commercial Board member		

### I. INTRODUCTION

- 1. This report is concerned with a programme of consulting assistance provided to the Public Utility Board, managed by the Pacific Regional Infrastructure Facility, a facility funded by development partners and managed by the Asian Development Bank. This programme began April 26, 2012.
- 2. This recovery plan is required under the agreed Terms of Reference. Its purpose is to identify short term improvements within PUB.
- 3. A copy of the full Terms of Reference is contained in Appendix 1. . Appendix 2 contains details of individuals met.

4.	In addition to the introduction, this report consists of the following sections:			
	□ Performance Assessment and Short Term Actions Required			
	□ Project progress and forward workplan			
	□ Conclusion			

- 5. This report draws upon many earlier documents and reports. These are cited in the text.
- 6. It is opportune to record thanks to all those people who contributed to this report, especially the management team and Board of PUB.

#### II. PERFORMANCE ASSESSMENT AND SHORT TERM ACTION REQUIRED

### A. CUSTOMER SERVICE

- 7. Since the appointment of the current CEO PUB has begun the development of a customer service structure. This has included customer service training for front line staff and the refurbishment of the customer service office at Betio. Further development of this structure is required including the refurbishment of customer service areas at Bairiki and Bikenibeu and the establishment of a free 24/7 telephone service.
- 8. The total vehicle fleet at PUB consists of:
  - 1 Water tanker
  - 2 crane trucks
  - · 2 pickup trucks
  - 1 minibus
- 9. At present PUB does not have the means to attend urgent customer call outs since PUB vehicles are either unreliable or unavailable. There is an immediate need to purchase 4 used pickup trucks for this purpose to be allocated individually to each division. This allocation will include a vehicle for Recovery department, as well as Administration, Water and Electricity.

### **Customer Service Short Term Action Required**

- Refurbish Bairiki and Bikenibeu customer service areas.
- Introduce 24/7 phone line.
- Purchase 4 used pickup trucks.

#### **B. TARIFFS**

- 10. The electricity tariff has not been reviewed since 2008. A recent report<sup>1</sup> estimated that: 'PUB generated each kWh at the total cost of \$0.69 in 2010, selling it at \$0.44 per unit, and as a result of increased arrears, it has been receiving an average of \$0.40 in payment per unit sold.'
- 11. We recommend that the electricity tariff is reviewed as a matter of urgency. We suggest that the new tariff is based on usage not customer classification.
- 12. Similarly the current water tariff does not recapture costs. At present the water Department does not pay for any power that its uses. It is estimated that the water Department uses approximately 8% of all power generated (see footnote 3). This is equivalent to approximately 1.7 KwH per year. At the industrial tariff of 0.70c per KwH it would be a cost of \$1.17 million. When added to other costs this represents a monthly charge to users of \$46. The standard monthly charge is currently \$10. The actual

May 2012 Page 2

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<sup>&</sup>lt;sup>1</sup> Kiribati Grid Connected Solar PV Power Station Project Feasibility Study Trama Tecno Ambiental for the World Bank November 2011

- estimated charge of \$46 is high by international standards but reflects the reality of power prices, leakages and the management cost of rationing.
- 13. In the longer term there are proposals to install meters for all water users as part of the introduction of desalination technology. This would also require the introduction of a new tariff structure. In the shorter term PUB now have Board approval to introduce a structured tariff for commercial and industrial users. Under this proposal commercial customers will pay \$5 per cubic metre and industrial users \$10.

### **Tariff Short Term Action Required**

- Urgently review electricity tariff
- Introduce commercial and industrial water tariffs
- Implement metering of power usage by water department

#### C. BILLING SYSTEM

- 14. At present the billing system in use by PUB is manual and a constant source of irritation to customers. The database of water customers is inaccurate and that for electricity customers is suspect. PUB already has in place a survey of electricity meters and has conducted a household survey of water users. In addition an IT specialist has recently been recruited and has begun design of a computerised billing system.
- 15. The current hardware and software within PUB will constrain these efforts. Server technology in use is now outdated. Windows XP is still in use which Microsoft will discontinue support for in 2013. Most hardware in the general office area is at least 7 years old or more.
- 16. There is an immediate need to replace aging and outdated software and hardware to ensure that the new billing system will realise its full potential. Old servers now in use will be moved to Bairiki and Bikenibeu offices as terminals servers. A private wireless network will be required between power houses and head office.
- 17. Collections of water accounts are poor. One reason is the inability of PUB to disconnect water supply in case of delinquent debts. Combining water and power accounts and disconnecting power supply for non-payment of either account may improve water collections and cashflow.

### **Billing System Short Term Action Required**

- Immediately replace aging hardware and software
- Complete design and introduce new billing system
- The combination of power and water accounts to allow for disconnection of power for delinquent debts of either sort.

### D. WATER

18. In terms of performance in this sector PUB compares badly with its Pacific neighbours. This is demonstrated in the table below:

Measure	Pacific median	PUB
Non-revenue water	47%	30%
Coverage (% of population)	76%	65%
Hours per day of availability	23	2

Source: Benchmarking Report, Pacific Water and Wastes Association (PWWA).2011

- 19. The next 3-4 years will see a series of major projects initiated in Kiribati. This includes: Kiribati Adaptation Programme, South Tarawa Sanitation Project, Desalination Project, Urban Development, Solar Power, and Roads Rehabilitation. It is PUB's objective to capitalise on this influx of investment and skill to quickly provide greatly enhanced service levels and efficiency.
- 20. However there are other shorter term needs identified by PUB. These include:
  - Main protection. The rising main at Steward Causeway (which links Ambo and Taborio) is currently exposed on the shoreline reef flat due to the continuing erosion of the site. A seawall of 110 meters in length is required to protect the exposed section. Discussions between PUB and MPWU are ongoing concerning the possibility of including this work in the Roads Rehabilitation Project.
  - Tank security. The existing fences around three elevated tanks and storage tanks in Bikenibeu, Teaoraereke, and Nanikai are now badly corroded and collapsed leaving the tanks unprotected. To prevent unauthorised entry and to safeguard the quality of water within these tanks reinstating fences is required.
  - Chlorine OSH Training. Existing staff operating the chlorination process are not competent in the safe handling of chlorine gas and they are exposed to danger if leakage of the cylinders occurred. An overseas expert trainer is required to train local staff and provide certification to the trained staff. A training period of 1 to 2 weeks required as in-country training.
- 21. Domestic users currently receive water supply for 2 hours every other day. There are two potential issues: first, possible waste water if domestic tanks overflow; second, a perception that PUB is not doing a good job. In some areas PUB is examining the logistics of supply to domestic users for 1 hour ever day. A pilot study will be carried out in 2 zones with good pressure. This could reduce waste and change public perception without increasing supply.
- 22. The World Bank funded project for Roads Rehabilitation is due to begin in 2012. A critical component of this project for PUB is the rehabilitation of water pipes under the roads. It is anticipated that this action will contribute significantly to a reduction in leakage. Dependent on the overall project plan, timing the action for earlier in the project could demonstrate real benefits in leakage reduction. PUB is in discussion with MPWU on this topic.

### **Water Short Term Action Required**

- Steward Causeway main protection.
- Tank security
- Chlorine OSH Training
- Pilot study daily one hour supply
- Early timing of Rehabilitation of pipes as part of roads project.

#### E. ELECTRICITY

23. In comparison with its Pacific colleagues PUB performs at reasonable levels as indicated below:

Measure	Pacific median	PUB
Forced outage	0.9%	2.9%
Transmission/ distribution loss	15%	8%
Average Tariff	0.40	0.55

- 24. Short term needs identified by PUB include:
  - Kilowatt-hour meter calibration machine. Most used kilowatt-hour meters are more than 20 years old. Some have been stuck and have been replaced. Some may have fallen below recommended 2.5% slow speed after tampering or due to aging. The calibration machine would reduce the purchase of new meters as existing stuck ones could be recalibrated and used again. Slow meters can be recalibrated to recommended speed to reduce under charging and increase revenue. In 2011 PUB costs included approximately \$40,000 for new meters.
  - **Introduction of Prepaid meters**. To improve collections it is proposed to introduce prepaid meters for poor payers at rate of 100 in 2012 and 400 in 2013.
  - Underground cable rehabilitation. The most common method of power reticulation in Kiribati is underground cable. In the rainy season it is estimated that 40% of the distribution crews' workload is occupied by isolating and repairing faults caused by insufficient cable protection against rain.
  - Introduction of digital fuel meters in power stations. Currently the monitoring and recording of fuel meter reading is done manually or by using the analogue

system. Shift workers have to obtain two types of readings on an hourly and 24 hourly basis and record on the log sheet. The data represents fuel consumption per generator. Data discrepancy occurs as a result of operator error. Switching to a digital fuel meter will enable an exact fuel meter reading for monitoring during fuel delivery; from supplier and also fuel consumption of each diesel generator will be monitored by linking all fuel meters to a computer for data logging and recording.

- GIS Mapping Upgrade and Attachment. Records of PUB single line diagrams are maintained manually and are not up to date. They are incompatible with the GIS system now used by Lands and Survey Department and Telecom Kiribati. With some upgrading and staff training the GIS used by the Water department could also be used by the Power Engineering department.
- 25. Generator service. Servicing of Daihatsu generators is now overdue by four years placing supply continuity at risk. Finance has been partially secured but there remains a need for funding of the shortfall.
- 26. At present generator staff operate a 4 shift system of 6 hours each shift. Most power companies use a 3 shift, 8 hour system. In addition PUB has tried unsuccessfully to fill 4 skilled vacancies in the powerhouses. Total staff on shift amount to 20, including vacancies. There is, therefore, a 20% staff shortage. We suggest that a three shift arrangement be tried out as soon as possible.

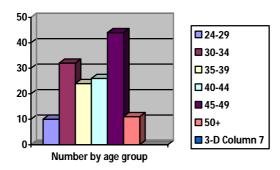
### **Electricity Short Term Action Required**

- Kilowatt-hour meter calibration machine
- Introduction of Prepaid meters
- Underground cable rehabilitation
- Introduction of digital fuel meters in power stations
- GIS Mapping Upgrade and Attachment
- Generator service
- Three shift arrangement to be tried out as soon as possible.

### F. ORGANISATION AND HUMAN RESOURCES

- 27. The organisation structure of PUB is shown in the diagram overleaf. In general terms the structure is sound and follows functional design principles. Longer term there is an opportunity to reduce hierarchies and flatten the structure. In addition there is a need to link strategic plans with job descriptions and performance assessments. This should take place as part of the strategic planning process for 2013.
- 28. In terms of staff levels there are a number of measurements available. The first of these is to examine the proportion of mission related staff to the proportion of non-mission related staff. In PUB approximately 67% of total staff are employed within power and water sectors mission related activities. Administration and accounting staff account for the other 33% of total staff. This proportionality is in line with other utility companies.

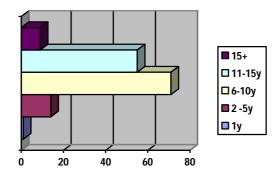
- 29. The second measurement is concerned with the water sector. If administration staff are allocated to each mission sector based on revenue the number of water connections per employee is 49. This compares favourably with a Pacific wide average of 42<sup>2</sup>.
- 30. The third measurement relates to the power sector and is similar in nature to that used for the water sector. Allocating administration staff based on revenue the number of connections per employee is 73. This compares well with a Pacific average of 74<sup>3</sup>.
- 31. Whilst the total staff of 169 remains within performance benchmarks the opportunity exists to contract out some non-core activities to the private sector. These activities include security, cleaning, vehicle maintenance and building maintenance. In the longer term further maintenance activities could be considered for outsourcing including maintenance associated with desalination, sewerage and electrical activities.
- 32. It should be noted that all staff numbers used in the calculations above include vacancies. Following confirmation of need, these vacancies should be filled as soon as possible. They include:
  - Accountant
  - HR Officer
  - Water engineer
  - Electrical engineer Distribution
- 33. Over the next 2-3 years scheduled projects with impact within PUB include Solar Energy, ADB South Tarawa Sanitation Project, KAP III, Urban Development Programme, Desalination, plus input to Road Rehabilitation Project. PUB lack skilled resources to participate in so many major projects. We note that both KAP III and the ADB South Tarawa projects foresee the need to locate a senior water engineer in PUB with a focus on operations and management. Both projects see a need for the engineer to be with PUB for 2 years. Rather than duplicate resources in this way it would be helpful if one of these engineers took up a project co-ordination role for all PUB related projects. The recruitment of a younger local engineer would provide a valuable capacity building opportunity.
- 34. The profile of the workforce within PUB may be considered using three parameters:
  - Age:



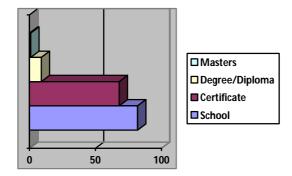
<sup>&</sup>lt;sup>2</sup> Benchmarking Report 2011 Pacific Water and Wastes Association (PWWA).

<sup>&</sup>lt;sup>3</sup> Benchmarking Report 2011 Pacific Power Association

### Length of Service:



### Qualification



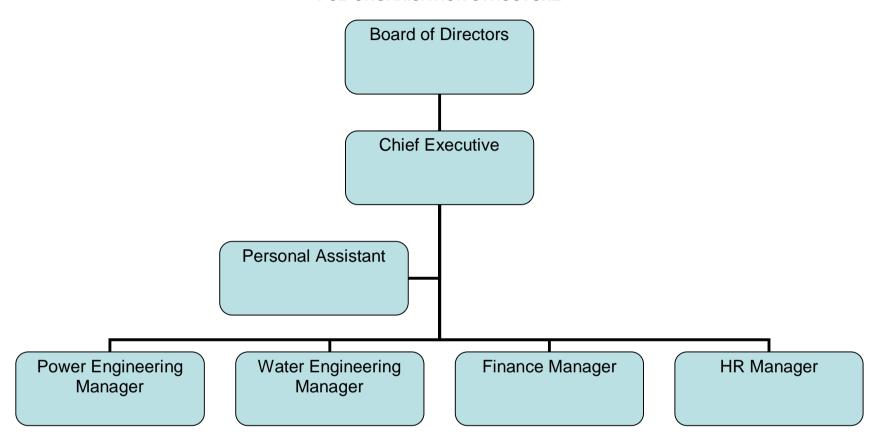
- 35. On this evidence the PUB workforce is:
  - Largely middle aged.
  - Made up of people with 6-15 years of service. It is not an organisation with high staff turnover.
  - Generally equipped with school or certificate level qualifications.
- 36. It should be noted that PUB expenditure on training has been nonexistent for the last four years. In addition only 4 of the current staff have received any management training. There is an urgent need to provide this type of training.
- 37. PUB office premises are in need of considerable maintenance and refurbishment. On the basis of recruitment plans identified above and the assignment of two technical advisors in the coming months there is also a need to expand office accommodation. This should be completed as soon as possible.

### Organisation and Human Resources Short Term Action Required

• Link strategic plans with job descriptions and performance assessments. This should take place as part of the strategic planning process for 2013.

- Subcontract functions of security, vehicle maintenance, building maintenance, cleaning
- Recruit Accountant, HR Officer, Water engineer, Electrical engineer Distribution
- Utilise project provided engineer as senior Technical Project Manager and recruit a younger local engineer.
- Arrange management training through KIT
- Refurbishment/expansion of office premises.

### **PUB ORGANISATION STRUCTURE**



### **G. FINANCIAL MANAGEMENT**

- 38. There are a number of measures of financial management. Below we comment on those of most importance. All benchmark comparisons are taken from the Benchmarking Report of Pacific Power Association 2011.
- 39. **Debt/Equity Ratio:** the ratio of long term debt to equity, plus long term debt, expressed as a percentage. This measures the relative proportion of the business that is financed by debt as distinct from equity. The Pacific median value is 17%. The PUB debt/equity ratio is 48%. Whilst amongst Pacific utility companies this seems high it should be noted that a commercial company would typically operate on a ratio of 50%.
- 40. **Return on equity:** This is the key determinant of an acceptable or sub-standard result, by comparing the net profit after tax as a percentage of the total equity (net assets) that is effectively invested in the business. If bank deposits are relatively risk free and pay, say 7% this becomes an indicator of what could be considered an acceptable return. The Pacific median is 1%. PUB presently returns 0.3%.
- 41. Current ratio: This measures the relationship between current assets and current liabilities. On the basis that such elements of the financial statements should be realisable and payable in the near future, this ratio measures the capacity to meet obligations with liquid funds. It is a key measure of liquidity and an inferior current ratio is usually an early sign of liquidity problems. A general guideline is that ratios about 2:1 indicate suitable liquid cover to meet arising obligations while ratios below this and particularly at a level of 1:1 or below are indicative of serious liquidity problems. Ratios substantially higher than 2:1 may indicate that the financial structure is inefficient and surplus liquid funds can be better utilised invested elsewhere. Pacific median is 1.5. PUB achieves 1.8. It should be noted that this includes outstanding debtors. Liquidity could, therefore, be considerably worse than indicated if debtors are not controlled.
- 42. **Debtor days:** This indicator measures how long it takes, on average, for the utility to collect debts. Pacific median is 57 days almost 2 months. In contrast PUB measure is 274 days almost 10 months. PUB has put into place a recovery team with the responsibility for collecting debts. In addition we suggest that a detailed examination of the debtors' ledger may reveal some debts to be written off. As at March 2012 the debtors' ledger was valued at \$8.1 million split evenly between water and power customers. The PUB Board has recently approved a new method of collection for domestic water customers where power and water charges will be bundled together. Disconnection of power in case of delinquency will be applicable to either balance.
- 43. **Accounting policies:** depreciation policies within PUB and treatment of donor supplied assets may require review before the onset of the 2013 financial year. Treatment of donor supplied assets should comply with IFRS standards. Depreciation policies should compare with best practice for Pacific SOEs. Depreciation rates in use in Pacific SOEs are:

Buildings 2.5% - 5%
Plant & Machinery 10% - 20%
Office furniture and fixtures 10% - 20%
Office Equipment 25%
Motor Vehicles 25%

### **Financial Management Short Term Action Required**

In support of the collection actions already initiated by PUB, the following actions require priority:

- Detailed examination of the debtors' ledger to identify debts to be written off as part of 2012 annual accounts
- Depreciation policies within PUB and treatment of donor supplied assets require review before the onset of the 2013 financial year

#### H. GOVERNANCE AND LEGAL FRAMEWORK

- 44. PUB is established as a statutory corporation with its own empowering Act. A Board of Directors is responsible for overall strategic management of the organisation and report to the Minister of Works and Public Utilities.
- 45. The Board meets monthly and reviews the accounts of PUB. This is consistent with good corporate governance practice. It should also be noted that very few Pacific SOEs achieve monthly accounts for presentation to the Board. However, there is a requirement under the Act for PUB to publish an annual report with audited accounts. The last certified audit was completed in 2008. Completion and updating of annual accounts is now required.
- 46. In theory the PUB Board is free to set tariffs for water or power after consulting the Minister. In practice the Minister will only authorise tariff increases after consulting his Cabinet colleagues.
- 47. The PUB Act also makes PUB responsible for some regulatory activities including the licensing of electricians and the inspection of wiring in new houses.
- 48. As an organisational form the statutory corporation was an early attempt used in many countries to impose business disciplines on public enterprises. The attempt failed because the statutory corporation model does not provide for rigorous financial oversight and fails to separate commercial from social objectives. It has now been largely superseded by state owned enterprises (SOEs). SOEs are usually formed as limited liability companies under Company Law, with the shareholders being the Minister of Finance and the responsible line Minster. In this way greater commercial discipline is imposed using the Companies Act, making the greatest difference between private and public enterprises the nature of the actual shareholders.

### Forthcoming Public Enterprise Legislation

- 49. Draft SOE legislation is currently awaiting the approval of the SOE Steering Committee. This legislation will supersede all other relevant legislation and will apply to PUB. It is understood that the draft contains the following provisions:
  - Size and composition of the Board of Directors including that the proviso that
    no Member of Parliament may be a Director and neither can a civil servant of the
    responsible line ministry. A majority of directors must be drawn from the private
    sector.

- All SOEs are to prepare an annual Statement of Corporate Intent (SCI) for approval by shareholding ministers and publication.
- SCIs will identify activities of the SOE, performance measures and three years' financial projections.
- The draft Act provides for the identification of Community Service Obligations (CSOs). CSOs arise when Government directs a SOE to perform an unprofitable activity. Under the legislation Government must provide funding for such activities.
- Half yearly and annual reports and annual audited accounts are required.
- 50. It is expected that the new SOE legislation may come into force during 2013.

### **Corporate Governance Short Term Action Required**

- 51. There is an immediate need to get annual audits up to date.
- 52. There is much merit in anticipating the forthcoming SOE Act by adding to the Board a new member drawn from the private sector. Such a member could provide a valuable commercial perspective to the Board's deliberations.

### **Summary**

The required short term actions are described overleaf identifying required resources and cross referenced to the PUB Business and Operational Plan.

## SHORT TERM ACTION REQUIRED

Department	Action	Benefits	Resources Required	Links to BOP	Timing
Customer Service	Refurbish customer areas at Bairiki and Bikenibeu	Improved image and improved facilities	\$20,000	Improved customer service	October 31
	Introduce 24/7 phone line	Improved response to customers		Improved customer service	October 31
	Purchase 4 used pickup trucks	Improved service levels and response times	\$100,000	Improved customer service	October 31
Tariff	Urgently review power tariff	Increased revenue		KPA5.13: Strengthened & improved Public Sector Services Timely tariff review in line with market situations in order to recover costs – insertion of Fuel Adjustment Factor clause in PUB Act	By June 30
	Introduce commercial and industrial water tariffs	Increased revenue		KPA5.13: Strengthened & improved Public Sector Services	By July 31
	Implement power metering for water department	Transparent costing		KPA5.13: Strengthened & improved Public Sector Services 3. Install KwH meters for all PUB nonmetered properties/ water and sewerage pumps etc	By August 31
Billing system	Replace aging hardware and software		\$57,000	Strengthened capacity & Improved PUB Services	October 31
	Complete design and introduce new billing system		\$35,000	2. Improved revenue collection	October 31
	The combination of power and water accounts to allow for disconnection of power for delinquent debts of either			2. Improved revenue collection	October 31

Department	Action	Benefits	Resources Required	Links to BOP	Timing
•	sort.				
Water	Steward Causeway main protection	Asset safeguard	\$195,000	Well maintained & upgraded water in S Tarawa only	31/12/12/
	Tank security	Asset safeguard	\$50,000	Well maintained & upgraded water in S Tarawa only	31/12/12
	Chlorine OSH training	Improved risk management	\$15,000	Conduct OHS training to all staff      Safe working environment	31/08/12
	Pilot study – 1 hour daily supply Early start to pipe	Improved customer perception, waste reduction Reduced leakage		Improved customer service  Well maintained & upgraded	31/08/12
	rehabilitation as part of roads project			water in S Tarawa only	
Electricity	KwH meter calibration	Reduced cost of new meters	\$38,000	KRA 2; Power Distribution. KDP Outcome 2. Existing Infrastructures Improved	31/08/12
	Prepaid meters	Improved collections	\$85,000	KRA 2; Power Distribution. KDP Outcome 2. Existing Infrastructures Improved	31/12/12
	Underground cable rehabilitation	Reduced outages	\$150,000	KRA 2; Power Distribution. KDP Outcome 2. Existing Infrastructures Improved	31/12/12
	Digital fuel meters	Improved fuel economy	\$80,000	KPA2: Minimizing impact of increasing price of imported fuel	31/12/12
	GIS mapping upgrade and training	Updated records and plans	\$20,000	Strengthened capacity and improved PUB Services	31/10/12
	Generator service	Reduced risk of outages	\$400,000	Reliable Electricity Supply in Urban Tarawa	31/07/12
	Introduce 3 shift working	Improved productivity		Reliable Electricity Supply in Urban Tarawa 3.     Manning and operation of	31/0712

Department	Action	Benefits	Resources Required	Links to BOP	Timing
				Diesel Engine Generators 24/7	
Organisation and Human Resources	Link job descriptions and performance assessments to strategic plan.	Increased accountability. Improved operations		KPA5.13: Strengthened & improved Public Sector Services Review Job Description	As part of strategic plan to be completed by 30/11/12
	Subcontract functions of security, vehicle maintenance, building maintenance, cleaning	Cost reduction		KPA5.13: Strengthened & improved Public Sector Services	Complete by 31/12/12
	Confirm need and recruit accountant, HR Officer, Water engineer, Electrical engineer	Bring organisation to full strength		KPA5.13: Strengthened & improved Public Sector Services	Complete by 31/12/12
	Eliminate overlap between KAP III and ADB STS and use resource as senior Technical Project Manager and recruit younger local engineer.	Co-ordination of major projects	Funding for senior Project Manager from either KAP III or ADB	KPA5.13: Strengthened & improved Public Sector Services	Complete by 31/12/12
	Arrange management training through KIT	Improved management performance	\$32,000	Organise short and long term training with institutions according to training requirement of PUB	Complete by 31/12/12
	Refurbishment/expansion of office premises.	Improved public image, improved staff morale, improved logistics	\$100,000	KPA5.13: Strengthened & improved Public Sector Services	Complete by 31/12/12
Financial management	Review debtors ledger and identify provision for bad debts required	Prevent carrying costs of outdated debts		KPA5.13: Strengthened & improved Public Sector Services	Complete as part of 2012 annual report
	Review depreciation policies	Realistic provision for capital equipment replacement		KPA5.13: Strengthened & improved Public Sector Services	Complete as part of 2012 annual report

Department	Action	Benefits	Resources Required	Links to BOP	Timing
Corporate Governance	Complete audits up to date	Confirmation of results,		KPA5.13: Strengthened &	Before F/Y 2013
				improved Public Sector	
				Services	
	Appoint commercial Board	Private sector perspective		KPA5.13: Strengthened &	By 31/12/12
	member			improved Public Sector	
				Services	

#### III. PROJECT PROGRESS AND WORKPLAN

- 53. There have been no significant obstacles to project progress.
- 54. To some extent the original terms of reference (shown in Appendix 1) have been overtaken by events. This has had the effect of the short term plan being completed within a 4 week period.
- 55. Outstanding tasks to be completed before June 28 include:
  - Development of presentation of short term plan for development partners
  - A review of the existing power tariff
  - Analysis of the tasks of the two planned Asset Management/O&M experts under ADB and KAP III respectively and development of proposals to make best use of these resources and avoid overlaps.
  - Information collection for the preparation of the strategic plan
- 56. The next stage of the project is to assist PUB to develop a three year strategic plan. This will be completed in time for Board approval before the start of the 2013 financial year.

### IV. CONCLUSIONS

- 57. Historically PUB has suffered from years of neglect and under funding. This Short Term Plan aims to build upon the recent Business and Operational Plan to reverse the historic movement and achieve a vibrant professional organisation.
- 58. The development partners and the Government intend that PUB will be the vehicle for implementation of nearly all the major projects identified in this report. To successfully accomplish this ambitious objective requires that PUB is assisted so that the organisation can provide a firm foundation for those projects.

### **Appendix 1: Terms of Reference**

### **TERMS OF REFERENCE**

Contract S75550

Project TA - 6522 (REG): Establishment of the Pacific Infrastructure Advisory Centre

**Expertise** Utilities Management Expert

**Source** International **Category** Independent

### **Objective/Purpose of the Assignment:**

The objectives of this Technical Assistance are to support the new management of Public Utility Board (PUB) in

- 1. Generating immediate and significant improvements in PUB performance and create the basis for achieving improved service levels for its customers.
- 2. Preparing an Urgent Recovery Strategy and Action Plan providing the basis for sound management and operations of PUB.

These objectives will be achieved by strengthening of the managerial capacity of PUB by providing advisory services to the Chief Executive Officer of PUB through the recruitment and appointment of an international utility management expert.

### Scope of Work:

The International Utility Management Expert will support and work closely with the National Chief Executive Officer (CEO) of PUB in a phased approach, aimed at achieving short term improvements and developing a strategic plan for PUB. The Expert will carry out a rapid situational analysis of PUB focusing on customer service levels, organizational, management, operational, and financial constraints and formulate a short-term recovery strategy that addresses the present operational crisis facing PUB.

#### **Detailed Tasks:**

The Utility Management Expert will be recruited through PIAC and will be stationed in South Tarawa, Kiribati. The Expert will be appointed for a period of 3 months duration and will report through the CEO to the Board of Directors of PUB. He/she will support and work closely with the CEO of and senior management of PUB in carrying out the following tasks:

A. Situational Analysis comprising of the following activities:

- 1. Assessment of Water and Sewerage Services review the current status of the W&S services in the PUB service area, how these are perceived by customers, key design and technical issues, and operational and investment implications for improving service levels.
- 2. Electricity analysis of policies and master plans for power supply and renewable energy for Kiribati and South Tarawa including any assessment of the potential of renewable energy sources and the future demand for electricity; assessing the status of the current infrastructure, assets, equipment and facilities including existing generation and distribution facilities, capacity and utilization, and current arrangements for operation and maintenance; review existing and planned projects and documentation to improve south Tarawa's power supply systems and any planned investments in renewable energy and the benefits to be achieved by such projects in terms of improved energy efficiency, reduced costs and improved level of services.
- 3. Financial and Operational Considerations thorough analysis of budgets and financial statements of the water and power sectors of PUB, separately, and determining the financial status of both sectors including any signs of cross-subsidization; assessment of the overall financial status of PUB based on key parameters/financial ratios and general financial performance, revenues of own activities versus state support and subsidy (both financial and non-financial) received; assess current financial management practices (planning, budgeting, accounting systems and auditing) to see how effectively they enable decision making; and identification of a range of short-term measures that can be quickly implemented to improve PUB's financial performance and place PUB on a more commercial basis, such as: improvements in billing and revenue collection; reducing water theft and leakages; and optimizing its pumping regime; and looking at functions/services that can be contracted out to the private sector, such as infrastructure maintenance services.

- 4. Institutional, Organizational and Legal Assessment review current institutional, organizational and legal arrangements and identify key issues that need to be addressed to meet future service requirements and enable putting in place the preferred options for: the roles, responsibilities, function and inter-relationships of all agencies involved in the Water, Sanitation and Electricity (WSE) sectors including both public and other stakeholders; the functions currently performed by PUB (such as planning, design and construction, operation and maintenance, and regulation) and the relationship between different function groups; the human resources aspects and managerial capability at all levels of the organization and the ability of PUB to manage its staff/operations in the most efficient manner and suggestions on how to generate performance based incentives; and the existing legal and regulatory framework governing the provision of WSE services by PUB including the review the current laws and regulations pertaining to the WSE sector and identify any impediments/constraints that could affect private sector participation, including potential land regulations and planning issues that may affect the implementation of planned projects or operations of PUB.
- B. Formulation of a Recovery Strategy and Action Plan for PUB with clear objectives, expected results, performance indicators, planned action, and resources needed, for consideration by the PUB Board. The focus will be on high priority remedial actions progressing towards longer-term strategic changes.

### **Output/Reporting Requirements:**

The International Utility Management Expert will report to and work in close collaboration with the National CEO in preparing a short-term recovery strategy and action plan for PUB focusing on achieving immediate improvements in PUB's operations and service delivery, to be submitted within 3 months of start of the assignment.

The draft report will be submitted in English language in hard copies and in digital format by mail to the CEO of PUB and the Board of Directors of PUB with a copy to PIAC.

# **Appendix 2: List of People Consulted**

Ms Kirita Aaron	HR Manager PUB
Mr Tebao Awerika	Deputy Chairman PUB, Secretary Ministry of
	Labour
Mr Antoine Barnaart	Principal Kiribati Institute of Technology
Ms Lydia Bezeruk	First Secretary, AusAID
Ms Meaua Betiota	Director PUB
Mr Kiriati Birita	Power Engineering Manager PUB
Mr David Collins	Tarawa Chamber of Commerce
Mr. Ross Craven,	Coordinator, Urban Development Program,
	New Zealand High Commission
Ms. Claire Cullen,	Program Officer, AusAID
Ms Bintonga Even	Chairlady PUB, Deputy Secretary MPWU
Mr David Hutton	ADB TA Public Financial Management
Mr. Kautuna Kaitara,)	Project Manager Kiribati Adaptation Project
	(KAP III)
Mr. Eita Metai,	Secretary Ministry of Public Works and Utilities
Mr Tekeraoi Nangka	Director PUB
Mr Tokaata Niata	Director PUB
Sister Marella Rebgetz,	Adviser MPWU
Mr Kevin Rouatu	CEO PUB
Mr Kietau Tabwebweiti,	National Consultant ADB TA Public Financial
	Management Project
Mr Rameka Takirua	Finance Manager PUB
Mr Teabi Tekeaa	Director PUB
Mr Tomwa Tehumu	Director PUB
Mr. Itienang Timona,	Water Engineering Manager PUB
Mr Michael Uption	First Secretary New Zealand High Commission