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# 1<sup>st</sup> Quarter Progress Report

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Period:-  
*January 01 – March 31,  
2017*

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**Mafalu Lotolua**  
General Manager

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## 1. CHIEF EXECUTIVE REPORT

1.1 The purpose of this report is to give an overview of the Tuvalu Electricity Corporation (TEC) for the period beginning January 01 – March 31, 2017. It contains a brief summary of the business purpose, an overview of performance, and analysis of the financial results for the period.

1.2 At the first meeting of the Board in January 2017, the Board unanimously agreed for Penielu P Teo to be the Chairman of the Board. The Board also agreed for Hilia Vavae to be the Deputy Chair.

During the period, Directors hold office were as follows:

- i. Penielu P Teo,
- ii. Hilia Vavae
- iii. Siose P Teo,
- iv. Luuni Tinilau
- v. Temukisa P Siale

1.3 TEC finance team continues to recoup arrears from delinquent customers and there are some progressing in the collections.

1.4 During the period last payments for tree compensation was paid out to landowner at Vaitupu and Niutao.

1.5 The Standalone Home Solar (SHS) System and PV Cooling Storage Facility for Niulakita/Funafala has been completed as of the end of March 2017. Arrangement for the commissioning of the project is underway and hopefully to be commissioned in early June 2017.

1.6 During the period two members of CBS Power Solution Pty Ltd were in the country to resolve some of the issues that were encountered by the generators at Nukulaelae, Nukufetau and Nui. The issue was partially fixed due to unbalance of the loading on the system. A Senior Staff from Foagale will be part of the CBS team to assist the outstation station in balancing the loading on each phase.

1.7 The tender for the project of Prepayment meters funded by the World Bank has been closed and only received two interested bidders. The evaluation committee has evaluated the two bids and seeking clarification from the two bidders.

1.8 Energy Send Out during the period total to 1,916,620kWh and 481,900kWh (~20%) energy generated comes from solar PV and the balance from diesel.

1.9 Energy consumed during the period total to 1,655,337kWh, as compared to 1,809,664kWh of the same period in 2016, approximately 25% decrease.

1.10 The Overall fuel consumption for the 3-months period (January to March) total to 412,300litres and has increased by approximately 10% as compared to fuel consumption of 371,694litres of the same period in 2016. The increase in fuel consumption from the generators turned on more frequently because of rainy days and for Fogafale is the increase in demand

## 2. PRODUCTION AND CONSUMPTION MATRIX

DESCRIPTION	1 <sup>st</sup> Quarter		2 <sup>nd</sup> Quarter		3 <sup>rd</sup> Quarter		4 <sup>th</sup> Quarter	
	Users	Unit (kWh)	User	Unit (kWh)	User	Unit (kWh)	User	Unit (kWh)
<b>ENERGY CONSUMED (kWh)</b>								
<b>Fogafale</b>								
Government	51	429,127						
Commercial	174	427,320						
Private	890	485,964						
<b>Sub-Total</b>	<b>1,115</b>	<b>1,342,411</b>						
<b>Outer Islands</b>								
Government	31	31,478						
Commercial	76	37,924						
Private	1,027	243,524						
<b>Sub-Total</b>	<b>1,134</b>	<b>312,926</b>						
<b>Total No of Users</b>	<b>2,249</b>							
<b>Total Consumption (kWh)</b>		<b>1,655,337</b>						
<b>ENERGY PRODUCED(kWh)</b>								
Fogafale		1,517,036						
<b>ENERGY SEND OUT (kWh)</b>								
<b>DIESEL</b>								
Fogafale		1,370,040						
Outstation		64,680						
<b>Sub-Total</b>		<b>1,434,720</b>						
Peak Load (kW)-Fogafale		1,372						
Average Load (kW)-Fogafale		772						
Station Aux. usage (kWh)-Fogafale		135,572						
TEC Office usage (kWh)-Fogafale		28,802						
<b>SOLAR PV</b>								
<b>Funafuti</b>								
40/(20) kWp-Sport Field								With solar at TEC
42kWp - Kavatoetoe			<b>Out of Service</b>					
66kWp-PWD			Incl. in UAE					
130kWp-Govt Building		50,079						
40kWp-Media Building		49,844						
350kWp-TEC Compound		51,123						
75kWp – PMH		35,719						
75kWp-Marine W/house		19,040						
<b>Sub-Total</b>		<b>205,805</b>						
<b>Outer-Islands</b>								
Nanumea - 195kWp		40,130						
Nanumaga - 205kWp		35,049						
Niutao – 232kWp		21,760						
Vaitupu (village) – 410kWp		124,343						
Vaitupu (school) – 40kWp		5,187						

Nui – 60kWp		11,395					
Nukufetau – 77kWp		21,875					
Nukulaelae – 45kWp		16,356					
<b>Sub-Total</b>		<b>276,095</b>					
<b>Total Energy Send Out by PV(kWh)</b>		<b>481,900</b>					
<b>Total Energy Send Out (kWhr)</b>		<b>1,916,620</b>					
<b>FUEL CONSUMED (ltrs)</b>							
Fogafale		395,600					
Outstations		16,700					
<b>Total Fuel Consumed (ltrs)</b>		<b>412,300</b>					

O/S – Out of Service

U/C – Under Construction

C/pleted - Completed

### 3. PLANNED PROJECTS

No	Project	Donor	Achieved	Not Achieved	REMARKS
1	Increase PV capacities for Nukulaelae, Nukufetau and Nui stations	EU- Phase II		✓	<ul style="list-style-type: none"> <li>▪ Nukulaelae <ul style="list-style-type: none"> <li>○ Fence completed</li> <li>○ Generator still have an issue with the charging of the generator battery</li> </ul> </li>   <li>▪ Nukufetau <ul style="list-style-type: none"> <li>○ Fence not completed and will be done in June 2017</li> <li>○ Additional PV capacity of 10kW not installed - Community did not allow to install PV on the rooftop of the community hall</li> <li>○ Generator still have an issue with the charging of the generator battery</li> </ul> </li>   <li>▪ Nui <ul style="list-style-type: none"> <li>○ Fence completed</li> <li>○ Additional PV capacity of 10kW installed</li> <li>○ Generator still have an issue with the charging of the generator battery.</li> </ul> </li> </ul> <p><b>Note</b> The issue with the charging of the generator issue will be</p>

					resolved by the contractor on their next visit tentatively scheduled for June 12 <sup>th</sup> , 2017.
2	Demonstration Fale	SIDS Dock through UNDP	✓		Commissioned by the 23 <sup>rd</sup> March 2017.
3	Energy Efficiency Subsidy Scheme	GEF		✓	The scheme has been launched by the DBT and information received the scheme is on-hold for further investigation.
4	Stand Alone Home (SHS) System with PV Cooling Storage Facility for Niulakita/Funafala.	Italian Govt	✓		<ul style="list-style-type: none"> <li>▪ The project was completed by March 2017.</li> <li>▪ Planning is underway for the commissioning of the project tentatively scheduled for the 1<sup>st</sup> available ferry in June 2017.</li> </ul>
5	Solar PV System for Amatuku	Finland Govt	✓		<ul style="list-style-type: none"> <li>▪ Completed installation and have an issue with the automatic charging/discharging of the battery.</li> </ul>
6	Tuvalu Energy Development Project (TEDP)	World Bank		✓	<ul style="list-style-type: none"> <li>▪ Received two bidders for the supply and set up of prepayment meters and the evaluation committee continue to evaluate the two bidders</li> </ul>
7	Renewable Energy Impact Study	GEF-5 – Low Carbon Island Project		✓	Received the Preliminary Report from KEMA and working on the comments.
8	Facilitation of the Achievement of Sustainable National Energy Target of Tuvalu (FASNETT)	GEF-6		✓	Continue working with UNDP Consultant to finalize the Project Pro-doc.
9	Upscaling Renewable Energy: Grid connected Solar Power and Battery Storage	Green Climate Fund (GCF)		✓	No Progress from ADB, Manila.

#### 4. PLANNED/UNPLANNED OUTAGES

Date	Areas Affected	Type of Fault	Planned/Unplanned	Duration (minutes)
17/03/17	Whole of Fogafale	Burnt out of the "Auto Control Resistance Capacitance Absorber"	Unplanned	180

The main function of Auto Control Resistance Capacitance Absorber is to smooth out any transient voltages and current within the 11kV busbars. The failure of this part, it is expected that there is a high transient voltage and current at that particular time and it is above the capability of the Auto Control Resistance Capacitance Absorber thus caused the effect.

## **5. ISSUES ENCOUNTERED**

### **I. Financial Difficulties**

The billing team continued with power disconnection of delinquent customers and yet still need to improve the debtors days to achieve the Pacific Best indicator of <50days. At present, the debtors days is 165 days and required a more aggressive power disconnection in the coming months.

### **II. Internet Connectivity**

With poor internet connectivity at the outer islands made it difficult for TEC to monitor the systems remotely. This pose a great concerned to TEC because sustaining these systems need good internet connection so real time information can be seen remotely.

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**Mafalu Lotolua**

General Manager

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# 7. FINANCIAL STATEMENTS

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## Tuvalu Electricity Corporation

### 7.1 EXECUTIVE SUMMARY

for Period Ending: 31 March 2017

#### **STATEMENT OF FINANCIAL PERFORMANCE (PROFIT & LOSS)**

- The profit for Q1 is \$21k. This is \$83 favourable on budget.
- Q1 Power revenue favourable \$30k on budget. The most recent two quarters have seen a rise in revenues particularly from the government sector. The prior year Q1 result was boosted by Japanese fuel grants, and these grants are hoped to resume in Q4 of 2017.
- Wages and Salaries were \$26k favourable to budget. This is due to: no training being undertaken in Q1 (saving on budget \$6k); reduced travelling (saving on budget \$9k); vacant positions, mostly Outer Island supervisors still vacant but budgeted (saving \$11k).
- Diesel fuel \$15k unfavourable to budget. The unit price per liter rose in Q1 but the budget anticipated this. However, Funafuti diesel consumption was up on budget by 4%.
- Generation and Distribution had reduced repairs and parts expenditure during Q1.
- Tree compensation unfavourable \$7k. The \$7k tree compensation payment to Niutao was not anticipated by the budget.

#### **STATEMENT OF FINANCIAL POSITION (BALANCE SHEET)**

- At 31 Mar 2017 the overdraft was \$304k, being a small reduction on the 31 Dec 2017 balance.
- Debtors collections. Debtors days - average days it takes to collect a debt = 165 days, a slight improvement but still a very poor collect rate. The statistic is a little bit muddied by the awkward collection recording of Outer Islands.
- A large amount of historic payroll tax and TCT continues to remain overdue and outstanding. However payroll tax and TCT for the last 3 quarters have been filed and paid as they fell due.



## Tuvalu Electricity Corporation

### 7.2 PROFIT/LOSS STATEMENT

for Period Ending : 31 March 2017

	ACTUAL Q1 2017 A\$	ACTUAL YTD A\$	BUDGET YTD A\$	Variance Fav/(unfav) A\$	%	ACTUAL Last Year YTD A\$
<b>Income</b>						
Electricity Sales	840,534	840,534	807,501	33,034	4%	808,615
Other operating income	54,312	54,312	67,453	(13,141)	(19%)	517,277
	894,846	894,846	874,953	19,893	2%	1,325,891
<b>Less Expenses</b>						
Fuel costs	585,643	585,643	570,896	(14,747)	(3%)	516,982
Personnel expenses	199,259	199,259	224,425	25,166	11%	194,806
Doubtful debts	-	-	-	-		-
Depreciation	42,119	42,119	67,825	25,706	38%	60,856
Other operating expenses	39,978	39,978	65,113	25,134	39%	105,227
	866,998	866,998	928,258	61,260	7%	877,871
<b>Profit/(Loss) before financing expenses</b>	27,848	27,848	(53,305)	81,153	152%	448,021
<b>Finance (income) / expenses</b>						
Interest (Income)	(265)	(265)	(122)	143	117%	(838)
Interest expense	6,617	6,617	9,230	2,613	28%	17,026
<b>Net finance expenses</b>	6,351	6,351	9,108	2,756	30%	16,187
<b>Operating Profit/(Loss) after financing expenses</b>	21,497	21,497	(62,413)	83,910	134%	431,833
Asset Impairment	-	-	-	-		-
<b>Net Profit/(Loss) before taxation</b>	21,497	21,497	(62,413)	83,910	134%	431,833
Taxation	-	-	-	-		-
<b>Profit/(Loss) after Taxation</b>	21,497	21,497	(62,413)	83,910	134%	431,833

## Tuvalu Electricity Corporation

### 7.3 BALANCE SHEET STATEMENT

for Period Ending: 31 March 2017

	ACTUAL 31 Mar 2017 A\$	ACTUAL 31 Mar 2016 A\$
<b>Current Assets</b>		
Cash and cash Equivalents	91,489	353,692
Trade Receivables	1,007,272	729,690
Inventories	254,040	359,893
Tax Provision	-	-
<b>Total Current Assets</b>	<u>1,352,801</u>	<u>1,443,275</u>
<b>Non-Current Assets</b>		
Property, plant and equipment	1,192,884	2,251,577
Non-current Receivables	-	-
<b>Total Non-Current Assets</b>	<u>1,192,884</u>	<u>2,251,577</u>
<b>Total Assets</b>	<u>2,545,685</u>	<u>3,694,852</u>
<b>Current Liabilities</b>		
Bank Overdraft	304,544	412,609
Creditors and accruals	759,440	843,231
Employee entitlements	90,684	78,800
<b>Total Current Liabilities</b>	<u>1,154,668</u>	<u>1,334,640</u>
<b>Non-Current Liabilities</b>		
Deferred Income	240,863	372,488
Employee Entitlements	140,089	101,373
<b>Total Non-Current Liabilities</b>	<u>380,952</u>	<u>473,861</u>
<b>Total Liabilities</b>	<u>1,535,620</u>	<u>1,808,501</u>
<b>Net Assets/(Deficiency)</b>	<u>1,010,065</u>	<u>1,886,351</u>
<b>Shareholders' Equity</b>		
Capital	2,335,016	2,335,016
Other Contributed Equity	22,602,302	21,521,603
Retain Earnings/(Deficit)	(23,948,750)	(22,402,101)
Current Year Profit/(Loss)	21,497	431,833
<b>Total Shareholders' Equity</b>	<u>1,010,065</u>	<u>1,886,351</u>

## Tuvalu Electricity Corporation

### 7.4 STATEMENT OF CHANGES IN EQUITY

for Period Ending: 31 March 2017

	<b>ACTUAL</b> <b>31 Mar 2017</b> <b>A\$</b>	<b>ACTUAL</b> <b>31 Mar 2016</b> <b>A\$</b>
<b>Share Capital 1 January</b>	2,335,016	2,335,016
Plus additional Capital	-	-
<b>Share Capital 31 Mar</b>	<u>2,335,016</u>	<u>2,335,016</u>
<b>Other Contributed Equity 1 January</b>	22,602,302	21,521,603
Plus additional Other Contributed Equity	-	-
<b>Other Contributed Equity 31 Mar</b>	<u>22,602,302</u>	<u>21,521,603</u>
<b>Retained Earnings/(Deficit) 1 January</b>	(23,948,750)	(22,402,101)
Plus Net Profit/(Loss) after tax	21,497	431,833
Less Dividends Paid	-	-
<b>Retained Earnings/(Deficit) 31 Mar</b>	<u>(23,927,253)</u>	<u>(21,970,268)</u>

## Tuvalu Electricity Corporation

### 7.5 STATEMENT OF CASH FLOW

for Period Ending: 31 March 2017

	ACTUAL 31 Mar 2017 A\$	BUDGET 31 Mar 2017 A\$	ACTUAL 31 Mar 2016 A\$
<b>Cash flows from operating activities</b>			
Cash receipts in the ordinary course of operation	965,501	795,788	562,888
Cash payments in the ordinary course of operation	(942,742)	(856,955)	(333,585)
Interest paid	(6,617)	(9,230)	(17,026)
Interest received	265	-	838
<b>Cash flow (used in) operating activities</b>	<u>16,407</u>	<u>(70,397)</u>	<u>213,115</u>
<b>Cash flows from investing activity</b>			
Acquisition of property, plant and equipment	-	(26,700)	-
<b>Cash flow (used in) investing activity</b>	<u>-</u>	<u>(26,700)</u>	<u>-</u>
<b>Financing activity</b>			
(Payments to) / Proceeds from borrowings, net	-	-	-
Proceeds from other contributed equity	-	-	-
<b>Cash flow from financing activity</b>	<u>-</u>	<u>-</u>	<u>-</u>
<b>Net increase / (decrease) in cash held</b>	16,407	(97,097)	213,115
<b>Bank overdraft at 1 January</b>	<u>(320,950)</u>	<u>(320,950)</u>	<u>(637,634)</u>
<b>Bank overdraft at 31 Mar</b>	<u>(304,543)</u>	<u>(418,047)</u>	<u>(424,519)</u>

## Tuvalu Electricity Corporation

### 7.6 KEY PERFORMANCE INDICATORS

for Period Ending: 31 March 2017

	ACTUAL Q1 2016 A\$	ACTUAL Q2 2016 A\$	ACTUAL Q3 2016 A\$	ACTUAL Q4 2016 A\$	ACTUAL Q1 2017 A\$	ACTUAL YTD A\$	BUDGET YTD A\$
NPBT % (before tax and asset impairment)	33 %	4 %	6 %	-15 %	2 %	2 %	-7 %
Current Ratio	1.5	1.1	1.2	1.1	1.2	1.2	
Debt/Equity	0.9	0.8	0.8	1.6	1.5	1.5	
Return on Equity % (annualised, before impairment)	380 %	7 %	9 %	-65 %	9 %	9 %	
Debtors Days	117	153	185	173	165	165	
No. employees opening	58	51	48	48	48	48	64
movement	(7)	(3)	-	-	(1)	(1)	-
No. employees closing	51	48	48	48	47	47	64
<b>Non-Financial measures</b>							
<b>Output kWh</b>							
Fongafale Diesel kWh output	1,220,535	1,297,600	1,281,510	1,389,490	tba		
Fongafale Solar PV kWh output	263,579	173,214	194,998	196,076	tba		
Fongafale Renewable %	18%	12%	13%	12%	tba		
Outer Islands Diesel kWh output	47,255	51,927	66,027	65,426	tba		
Outer Islands Solar PV kWh output	309,227	292,765	269,348	314,113	tba		
Outer Island Renewable %	87%	85%	80%	83%	tba		
Total Diesel kWh output	1,267,790	1,349,527	1,347,537	1,454,916	tba		
Total Solar PV kWh output	572,806	465,979	464,346	510,189	tba		
Total Renewable %	31%	26%	26%	26%	tba		30%