



Annual Report  
**2015**

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## VISION

'Energising our Nation.'

## MISSION

'We aim to provide clean and affordable energy solutions to Fiji with at least 90% of the energy requirements through renewable sources by 2025.'

## VALUES

- Customer focus
- Honesty
- Courage to do what is right for FEA
- Team work
- Individual accountability
- Transparency
- Innovativeness

# CONSTITUTION & FUNCTIONS

The Fiji Electricity Authority was established, incorporated and constituted under the provisions of the Electricity Act of 1966 and began operating from 1st August of that year.

The Board Members of the Authority are appointed by the Government. The Chief Executive Officer is an ex-officio Member of the Board and is responsible to the Members for the Authority's management and for the execution of its policies. The powers, functions and duties of the Authority under the Electricity Act are for the basic purpose of providing and maintaining a power supply that is financially viable, economically sound and consistent with the required standards of safety, security and quality. A uniform tariff rate is charged for electricity used by each consumer group. The tariffs are determined according to government policy and are designed to meet specified targets while achieving a reasonable rate of return for the Shareholder.

The Authority is entrusted with enforcing the Electricity Act and regulations, setting standards, examining and registering electricians, and is empowered to approve and licence suppliers to serve certain areas. The Authority is also governed by the requirements under the Public Enterprises Act.



The front and the back cover images shows the Wainisavulevu Weir Raising Project which was commissioned by FEA in November 2015. The raising of the weir by an additional 8 metres will increase the energy output from the two existing hydros namely Wainikasou and Wailoa hydro-electric schemes. This project was completed at a cost of around \$43M.



30 May 2016

The Honourable Minister for Infrastructure and Transport  
Level 4, Nasilivata House  
Ratu Mara Road  
Samabula  
Suva.

Dear Minister,

### **Annual Report 2015**

I am pleased to present the Fiji Electricity Authority's Annual Report for 2015. The report provides a detailed summary of FEA's performance in accordance with Section 25 of the Electricity Act Cap 180.

FEA recorded a profit after tax of \$39.7M in 2015 which turned around the performance of 2014 where it recorded a profit after tax of \$0.9M despite the El-nino weather pattern of a prolonged spell of dry weather continuing in 2015. For the first time in FEA's history the El-nino weather pattern significantly affected FEA's operations for two consecutive years. The profit recorded by FEA in 2015 was attributed mainly due to:

- Good management of the Monasavu & Nadarivatu hydro schemes.
- Low fuel price recorded in 2015; and
- Cost control measures put in place by Management.

FEA commissioned the Wainisavulevu Weir Raising Project (WWRP) on 3rd of November 2015. The project increases the Weir level by an additional 8 metres to collect more water and will further improve the generation output from the existing Wainikasou and Monasavu Hydro Power schemes.

In addition to this, the Authority also commissioned the 35MW Heavy Fuel Oil (HFO) Power Plant at Kinoya Power Station on 14th November 2015. This new diesel power plant which is run on cheaper HFO will bring about substantial cost savings to the Authority and more importantly it contributes additional generating capacity to the Central region of Viti Levu to ensure reliability & security of power supply.

The Authority continued to meet all its obligations and fulfil all its responsibilities whilst also continuing with the efficient operation of the entire power system.

On behalf of the Members of the Authority, I take this opportunity to thank the Government for its continued support and look forward to the same in 2016 and beyond.

Sincerely,

**Nizam-ud-Dean**  
Chairman



The Honourable Prime Minister, Josaia Voreqe Bainimarama at the opening of the Wainisavulevu Weir Raising Project on 3rd November 2015. This Project will produce additional 10 million units of electricity per year. FEA invested around \$43M to increase the height of the existing Wainisavulevu Weir.

# Key Outcomes for 2015

- ❖ FEA achieved a financial profit of \$39.7M after tax in 2015 as compared to a profit after tax of \$0.97M in 2014. The increase in profit recorded in 2015 as compared to 2014 was due to good management of the Monasavu & Nadarivatu hydro schemes, the low fuel price recorded in 2015 and cost control measures put in place by Management. The thermal fuel cost decreased substantially by \$39M to \$141M in 2015 from the \$180M recorded in 2014.
- ❖ The shareholder value of FEA increased from \$601M as at the end of 2014 to \$647M at the end of 2015. The total loans & bonds as at 31st December 2015 was \$341M and have decreased by \$14M compared to 2014.
- ❖ FEA carried out Capex work totalling around \$80.6M in 2015, repaid matured bonds and loans aggregating to F\$56.8M and funded around \$14.3M of the Monasavu Hydro Scheme half-life repair & maintenance work.
- ❖ FEA achieved all of the Financial Covenants signed with the financial institutions namely ANZ Bank and FNPF despite 2015 being a tough financial year. This ensured that Government, being the sovereign Guarantor of the FEA loans, was not exposed.
- ❖ FEA successfully early redeemed two high interest bonds amounting to \$25.25M in 2015 which contributed to the reduction in debt level as well as the finance cost for 2015.
- ❖ FEA's total asset value exceeded F\$1Billion at the end of 2015. FEA has added significant shareholder value in the past few years.
- ❖ FEA's gearing ratio at the end of December 2015 was 29.50% (2014-32.15%) which is well within the international benchmark for power utilities of not more than 45%. The decrease in gearing level is a result of the profit recorded during the year and also due to the loan repayments of around \$56.8M that was done in 2015.
- ❖ Successfully renewed the Government Guarantee facility for all FEA borrowings with the Ministry of Finance till December 2016.
- ❖ FEA signed a Cooperation Agreement with European Investment Bank (EIB) to provide technical assistance towards the detailed feasibility study of the Lower Ba Hydro Schemes and a study on the development and augmentation of the transmission network to improve the security and reliability of power supply in Viti Levu. The total value of the technical assistance is around Euro 4.5M.
- ❖ FEA spent a total sum of \$28.7M on the construction of new rural electrification schemes, grid extension for commercial/industrial projects, power system reinforcement works and contract jobs. Of this amount \$5M was authorized for construction of fifty four (54) rural electrification projects, \$7.6M was authorized for seventy four (74) General Extension projects for commercial and industrial customers and \$5.7M was utilized for twenty seven (27) contract jobs. A total amount of \$10.4M was authorized for twelve (12) distribution power system reinforcement projects.
- ❖ FEA completed Stage 4 of the Electrical Protection Review Program of the entire FEA power system in 2015 to ensure safe and reliable system operations.
- ❖ Achieved a Controllable System Average Interruption Duration Index (SAIDI) for unplanned outages of 412 minutes against a target of 700 minutes.
- ❖ Achieved a Controllable System Average Interruption Frequency Index (SAIFI) for customer's power supply interruption of 5 times against a target of 15 times. The average time that a customer is without power per interruption is measured by the Customer Average Interruption Duration Index (CAIDI). This index was 82 minutes in 2015.
- ❖ Achieved a record high ICT up-time system performance of 99.89% against a target of 99.80%.
- ❖ Carried out a detailed electricity tariff study to establish tariffs that will enable the successful execution of FEA's 10 year Power Development Plan.
- ❖ Completed the SCADA audit in 2015 and rectified all defects to improve power system reliability.
- ❖ Completed a comprehensive review of the Organisation's Top Business Risks and implemented strategies to mitigate the risks. This reduced the ratings of our top 20 business risks by 20%.
- ❖ Completed the construction of the new 33kV/11kV substation off Knolly Street in Suva. Further, the work on the replacement of the ageing 12km 33kV underground cables that supply Suva City and the nearby suburbs commenced and is scheduled for completion in stages by 2016. The total cost of both these projects is around \$17M.
- ❖ Completed the construction and commissioning of the 35MW Heavy Fuel Oil (HFO) Generator Sets at Kinoya Power Station. These Heavy Fuel Oil generators will be operated to replace the more expensive Industrial Diesel Oil (IDO). Furthermore, these HFO Generators will serve as security for the Central Division in the event that power supply from the Hydro Power Stations located in the interior of Viti Levu is not available due to circumstances outside the control of FEA. FEA spent \$70.3M on this project.
- ❖ Completed the construction of a 11kV/33kV substation at Kinoya at a cost of around \$9.3M to enable the evacuation of power from the new 35MW HFO Power Plant in Kinoya.
- ❖ Commissioned the Wainisavulevu Weir Raising Project (WWRP) on 3rd of November 2015. The raising of the weir by an additional 8 metres will increase the energy output from the two existing hydros namely Wainikasou and Monasavu Hydro-electric Schemes and is expected to achieve a fuel savings of around \$4M per annum.
- ❖ Commenced with the construction of the new 33kV/11kV Zone substation at Volivoli (Rakiraki), the 33kV transmission line from Tavua to Volivoli and the distribution power line from Nayavu to Waimecia. The entire project will be completed at a cost of around \$19M which is being jointly funded by the Government of Fiji and the Fiji Electricity Authority.
- ❖ Completed installation and commissioning of the 33kV underground cables between Suva and Vatuwaqa zone substations. Installed 33kV underground cables between Vatuwaqa and Cunningham Road zone substations, Vatuwaqa and Kinoya zone substations and between Cunningham Road and Kinoya zone substations.
- ❖ Commenced with the construction of a new 33kV transmission line from Waqadra to Momi to supply the Momi Bay Resort. Also commenced the construction of a new 33kV switching station at Nawai and a 33kV/11kV zone substation at Momi. This project is scheduled for completion by the end of 2016.
- ❖ FEA commenced with the establishment of a Depot in Taveuni. The Government has approved a funding of \$7.2M which also includes the purchase and installation of two diesel generators.
- ❖ The FEA Team received the Gold Award in Organization Development & Leadership of the year at the 10th Fiji Human Resources Institute (FHRI) Awards Program in 2015.
- ❖ FEA's Team Kaizen - a 4 Member Team who won the GOLD Award at the 19th National Convention on Quality in 2014, attended the International Exposition on Team Excellence (IETEX) in Singapore and was Awarded a 2 STAR Plaque in 2015.
- ❖ The FEA Team further received the Gold Award for the most Model Quality Circles Organisation 2015 at the NTPC's 20th national Convention on Quality in 2015.

## Members Of The Authority



Nizam-ud-Dean  
Chairman



Gardiner Whiteside  
Deputy Chairman



Francis Kean  
Member



Isikeli Voceduadua  
Member



Alipate Naiorosui  
(Joined - May 2015)  
Member



Hasmukh Patel  
Chief Executive Officer  
Ex-Officio Member

# Executive Management Team



Hasmukh Patel  
Chief Executive Officer



Bobby Naimawi  
Chief Financial Officer/  
Board Secretary



Fatiaki Gibson  
General Manager  
Major Projects



Om Dutt Sharma  
General Manager System  
Planning & Control



Eparama Tawake  
General Manager  
Generation



Jitendra V. Kumar  
General Manager  
Network



Tuvitu Delairewa  
General Manager  
Commercial



Annabel Ducia  
General Manager  
Customer Services



Naveen Lakshmaiya  
General Manager  
Human Resources

# Corporate Governance

Corporate governance incorporates the creation and enhancing of long-term sustainability of the organisation value for the stakeholders through ethically driven business processes. FEA strives to embed a high level of corporate governance within the organisation. It is not sufficient for a company to be merely profitable; rather it also needs to demonstrate good corporate citizenship through environmental awareness, ethical behaviour and sound corporate governance practices.

At FEA, it is imperative that our company affairs are managed in a fair and transparent manner. FEA ensures that it evolves and follows the corporate governance guidelines and best practices. FEA considers its inherent responsibility to disclose timely and accurate information regarding our financials and performance as well as to comply with good governance practices.

The Board has adopted the FEA Guidelines on Board Effectiveness to help fulfil its corporate governance responsibility towards stakeholders. These guidelines ensure that the Board will have the necessary authority and processes in place to review and evaluate the Company's operations. Further, these guidelines allow the Board to make decisions that are independent of the Management.

## Board of Directors

The Board of Directors ('the Board') is at the core of our corporate governance practice and oversees how the Management serves and protects the long-term interests of all our stakeholders. An active, well-informed and independent Board is necessary to ensure the highest standards of corporate governance.

As at the 31st of December 2015, the Board composition was as follows:

Nizam-ud-Dean	Board Chairman
Gardiner Whiteside	Deputy Chairman
Francis Kean	Member - Permanent Secretary for Infrastructure and Transport
Isikeli Voceduadua	Member - Representative from the Ministry of Finance
Alipate Naiorosui	Member - Private Sector (Joined in May 2015)
Hasmukh Patel	Ex-Officio Member - Chief Executive Officer

In 2015, Board meetings were held 12 times and the attendance of each member was as follows:

Director	Number of Meetings Attended in 2015
Nizam-ud-Dean	12
Gardiner Whiteside	12
Francis Kean	12
Isikeli Voceduadua	11
Alipate Naiorosui	8
CEO/Acting CEO	12



The General Manager Major Projects, Mr Fatiaki Gibson updates the FEA Board on the progress of the new 35MW HFO Power Station at Kinoya, during a site visit by the Board in 2015.





FEA Chairman and CEO with the Attorney-General and Minister for Public Enterprises, Mr Aiyaz Sayed-Khaiyum before announcing the Performance Pay for the FEA Employees for the financial year 2014 at the FEA Head Office.



FEA Board Chairman Mr Nizam-ud-Dean handing over a signed Operations & Maintenance Agreement for the new 35MW HFO power plant to the General Manager of Pernix (Fiji) Ltd at the FEA Head Office in Suva.

# Chairman's Report



**FEA undertook a revision of its 10 year Power Development Plan (PDP) in 2014. It is essential that FEA continues to review its development plan in light of the increasing demand of electricity and the important role the electricity industry play in fostering the socio-economic objectives of Government. This PDP will be reviewed again in 2017.**

**The 10 year Power Development Plan will require a huge investment in the energy sector. FEA is focusing on the maintenance/upgrade of its ageing assets considered as its "strategic assets" which urgently need to be refurbished/replaced as they have been in service for more than 30 years.**

**FEA expects the Independent Power Producers (IPPs) to invest substantially in the power generation sector. With the new IPP fee of 33.08cents per unit (VEP) being offered by FEA, this should entice the private investors to invest and establish their power plant and sell the energy to FEA over a long term contract.**

**FEA is using the above model in light of the funding constraints it is facing due to the inadequate electricity tariff rate prevailing at present and the limitations with its existing government guarantee.**

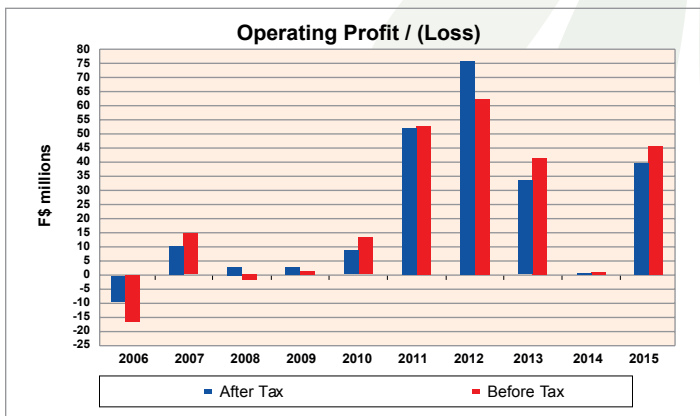
**Therefore, it is important that the review of the 10 year Power Development Plan also takes into account the appropriate electricity tariff rate that will ensure the successful implementation of this plan.**

## 2015 Profitability

FEA made a financial profit of \$39.69M after tax in 2015 as compared to a profit after tax of \$0.97M in 2014. This equates to a Return on Shareholder Funds (ROSF) of positive 6.13%. The increase in profit recorded in 2015 as compared to 2014 was due to the following:

- The lower fuel price recorded in 2015. The average fuel price was \$1,352.65 per Metric Tonne in 2015 compared to \$1,852.08 per Metric Tonne in 2014. The thermal fuel cost decreased substantially by \$39.3M in 2015 from \$180M recorded in 2014;
- The good management of the Hydro Schemes at Monasavu and Nadarivatu despite the prolonged spell of dry weather experienced in 2015; and
- The cost control measures implemented by Management throughout the year.

The profitability of FEA for the period 2006 to 2015 is illustrated in the graph shown below.

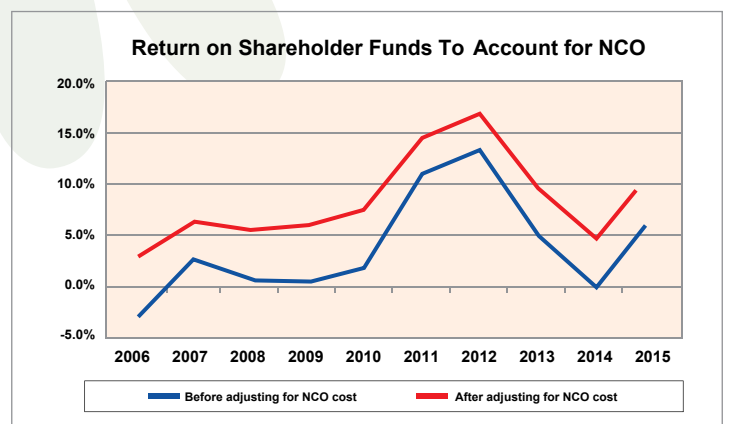
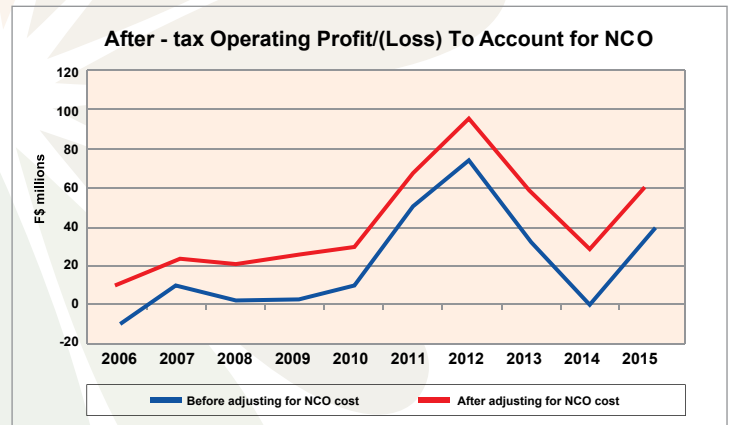


FEA incurs significant non-commercial obligation (NCO) cost each year when supplying subsidised electricity to rural Viti Levu and to the whole of Vanua Levu and Ovalau. FEA incurred around \$21.1M of NCO cost after tax when fulfilling its social obligations in 2015. Although the Public Enterprises Act requires the Government to reimburse the NCO cost to FEA, such cost is not refunded.

Instead, the Government has accepted, via Cabinet deci-

sion CR2002 18th Meeting dated 10th September 2002 that FEA's non-commercial contribution to social and community services through its electricity subsidies be recognised as its annual dividend to the Government. Therefore, the deemed dividend paid to the Government by FEA for 2015 is a notional adjustment to account for the NCO cost which would have resulted in an after tax financial profit of \$60.79M and a ROSF of positive 9.10% for the year.

The adjusted profitability numbers and ROSF are shown below for the period 2006 to 2015.



FEA appreciates the support provided by the Government through granting of duty concessions for its Renewable Energy Projects and guaranteeing FEA's borrowings. It is essential that the Government continues to support FEA to ensure the long term financial sustainability of the organisation and achievement of its long term Power Development Plan.

## Financial Strength

FEA's balance sheet continues to display a strong position. The Authority's financial gearing ratio has improved from 32.15% at the end of 2014 to 29.5% at the end of 2015, and is well within the industry benchmark of 45% maximum. The Authority spent nearly \$80.6M on new capital works and paid off \$56.8M in bonds and loans during the year, leaving a long-term debt portfolio of \$341M at the end of the year. All this was achieved without the Authority defaulting on any of its debt covenants signed with lenders.

I am pleased to report that the Authority's shareholder value rose from \$601M at the end of 2014 to \$647M at the end of 2015, while its total assets value rose from \$1.1B at the end of 2014 to \$1.2B at the end of last year, indicating a positive growth in terms of both its asset base as well as its shareholder value.

## FEA Restructure

The restructure process for the Initial Public Offering (IPO) of the Fiji Electricity Authority, with the intention to partially privatize the Company, continued in 2015.

## Progress on Renewable Energy Projects

The 40MW Nadarivatu Renewable Hydro Power Project was registered for carbon credits under the Clean Development Mechanism (CDM) with the United Nations Framework Convention on Climate Change (UNFCCC) in 2014 and FEA worked towards getting the UNFCCC to approve our request for issuance of CERs (Carbon Credits). In January 2015, the UNFCCC issued 44,048 units of CERs for the project which has been put on sale on the Carbon Credits Market to attract the best offer.

FEA signed Power Purchase Agreements with some renewable energy Independent Power Producers and has put out a tender for Expressions of Interest from developers who are able to supply renewable energy on a continuous basis into the grid. This includes hydro schemes, solar hybrids as well as biomass and waste to energy.

In addition, FEA received from the Department of Energy the JICA report on the work carried out on the feasibility studies on the potential hydropower developments in Vanua Levu and Viti Levu. The recommended scheme on the Waivaka River in Namosi was put through a Peer review by FEA prior to embarking on the next phase of investigations.

The Government also decided to handover to FEA the Somosomo Hydropower Scheme being constructed in Taveuni by the Chinese Government as part of its aid program to

Fiji. This scheme is nearing completion and will be handed over to FEA in 2016.

As part of FEA's establishment of a depot in Taveuni, the Government has approved a funding of \$7.2M which also includes the purchase and installation of two diesel generators and the Operations & Maintenance teams to manage the power system.

## Thermal Power Generation Expansion Plan

The New Kinoya 35MW Heavy Fuel Oil (HFO) Power Plant was commissioned on the 14th November 2015 and was operated in November and December respectively which assisted FEA during the prolonged dry spell as inflows to the hydro stations were minimal. The 35MW injection of capacity was timely as the fuel price was on a downward trend.

Furthermore, these HFO Generators will serve as security for the electricity supply to the Central Division in the event that power supply from the Hydro Stations located in the interior of Viti Levu was disrupted for some reasons and will further assist in catering for the future growth in the electricity demand.

## Acknowledgement

I wish to convey my sincere appreciation and thanks to the fellow Board Members for their continuous support and contribution throughout the year. Their commitment and direction was instrumental in ensuring that FEA remained focused and on-track to achieve its strategic goals and objectives.

I wish to thank the Cabinet, especially the Honourable Minister for Infrastructure and Transport and the Honourable Minister for Public Enterprises, for their invaluable support provided to FEA during the year.

To our valued customers, we will continue to explore and implement ways in which we can further improve our services to meet or exceed their expectations.

To our Management Team and employees, I am highly appreciative of their efforts and contribution during the year. The level of dedication and commitment that they and our outsourced service providers showed throughout the year has enabled us to energise our nation under very challenging conditions.



**Nizam-ud-Dean**  
Chairman



FEA and the Department of Energy receiving the JICA report on the feasibility studies carried out for potential Renewable Energy developments in Vanua Levu and Viti Levu from the JICA consultant.



FEA Chairman Mr Nizam-ud-Dean and FEA Board Secretary Mr Bobby Naimawi signing the “Co-operation Agreement” with European Investment Bank (EIB) officials for the technical assistance valued at Euro \$4.5M for the detailed feasibility study of the Lower Ba Hydro Schemes and a study on the development and augmentation of the transmission network to improve the security and reliability of power supply in Viti Levu.



FEA commissioned the Wainisavulevu Weir Raising Project (WWRP) on 3rd of November 2015. The raising of the weir by an additional 8 metres will increase the energy output from the two existing hydros namely Wainikasou and Monasavu Hydro-electric Schemes and is expected to achieve a fuel savings of around \$4M per annum.

## Achievement of Board Key Performance Indicators

The FEA Board developed eight (8) Key Performance Indicators (KPIs) for 2015 to enable Government to measure the performance of the FEA Board. The KPIs were included as part of the FEA's Statement of Corporate Intent (SCI) for 2015. The actual achievement of the KPIs is detailed below:

Key Performance Indicators	Final Outcome
1. Ensure that FEA Comply with the debt covenants set by Lenders subject to the key assumptions for 2015 becoming a reality.	<b>ACHIEVED.</b> FEA recorded an audited financial profit after tax of \$39.7M in 2015. This profitability level has assisted in the achievement of all the Financial Covenants signed with lenders namely ANZ Bank and FNPF.
2. Fully comply with the following statutory requirements: <ul style="list-style-type: none"> <li>• Submission of 2016 to 2018 Corporate Plan, SCI and EIRP by 30th September 2015</li> <li>• Submission of half year report for 2015 financial year by 1st August 2015</li> <li>• Submission of draft un-audited financial accounts for 2014 by 31st January 2015</li> <li>• Submission of draft 2014 annual report by 31st March 2015</li> <li>• Submission of the annual report and audited financial accounts for 2014 by 31st May 2015</li> </ul>	<b>ACHIEVED.</b> Submitted on 30th September 2015.  <b>ACHIEVED.</b> Submitted on 31st July 2015.  <b>ACHIEVED.</b> Submitted on 31st January 2015.  <b>ACHIEVED.</b> Submitted on 27th March 2015.  <b>ACHIEVED.</b> Submitted on 30th May 2015.
3. Monitor the key project milestones of Pacific Renewable Energy Limited and Tropik Gimco who have signed PPAs with FEA and ensure that they are on track to achieve their commercial operations date as per the PPA.	<b>ACHIEVED.</b> Tropik Gimco has commenced construction at site and Pacific Renewable is finalizing its financial closure.
4. Implement all FEA Action Items as per the Agreed Timetable with MinterEllison and Ministry of Public Enterprise.	<b>ACHIEVED.</b> FEA provided all the information sought by the Ministry of Public Enterprises regarding the restructure of FEA in a timely manner.
5. Ensure that the construction of the 35MW HFO Generator Sets at Kinoya progresses according to the project schedule for the year 2015.	<b>ACHIEVED.</b> The Project was commissioned on 14th November 2015.
6. Ensure that the extension of the transmission line from Korovou to Tavua which is jointly funded by Government and FEA progresses according to the project schedule for the year 2015.	<b>ACHIEVED.</b> Project progressed according to the work schedule for 2015.
7. Ensure that the construction of the new 33kV Zone Substation off Knolly Street and installation of a new 33kV underground cable from Vatuwaqa to Suva progress according to the project schedule for the year 2015.	<b>ACHIEVED.</b> The Project was completed and commissioned on 23rd December 2015.
8. Make a firm recommendation on the way forward for the development of the Qaliwana / Upper Wailoa Diversion Hydro Scheme together with the associated transmission network development.	<b>IN PROGRESS.</b> FEA is still negotiating with International Finance Corporation (IFC) and Hawkins Infrastructure Ltd of New Zealand on an appropriate financial model that will be acceptable to FEA for the development of the project.

# Chief Executive Officer's Report



2015 was another challenging year for the Authority as for the first time in its history the El-Nino weather pattern affected its operations for two consecutive years in 2014 and 2015 respectively. FEA recorded below average rainfall for nine months in 2015 which affected the performance of the Monasavu and Nadarivatu Hydro Schemes. The Monasavu Hydro Scheme generated its second lowest energy output to date. It generated only 321M units of electricity in 2015 against a long term average of 400M units per annum. Furthermore the Nadarivatu Hydro Scheme generated 52M units of electricity in 2015 against a long term average generation output of 100M units. To make matters worse the FEA commenced the year with an operating cash balance of a merely \$0.5M and with the following important commitments to fulfill in 2015:

i) Honor the obligation of the loan moratorium agreed with ANZ Bank in 2014 where the deferred loan principal payment from July 2014 to December 2014 had to be strictly paid in the first half of 2015 together with the mandatory loan repayments for 2015. This arrangement was put in place in view of the financial hardship that FEA went through in 2014 as a result of the El-nino weather pattern. The deferred loan repayment from 2014 together with the mandatory loan repayment for 2015 aggregated to \$31.5M;

ii) Carry out critical capital expenditure works to the tune of around \$81M;

iii) Continue with the Monasavu half life major refurbishment work with an estimated cost of around \$14M and also replace/upgrade ageing assets considered critical that have been in service for more than 30 years;

iv) Ensure that the financial covenants signed with the lenders ANZ and FPNP are not breached which could expose Government being the sovereign guarantor of the FEA loans; and

v) Continue with the day-to-day diligent operations of FEA to ensure the security and reliability of power supply to customers.

**While it was a mammoth task for the Authority to overcome the above challenges, it is pleasing to note that FEA rose above these challenges in 2015 and turned around the financial performance of 2014 to record a profit after tax of \$39.7M in 2015.**

FEA recorded a profit after tax of \$39.7M in 2015 which turned around the performance of 2014 where it recorded a profit after tax of \$0.9M, despite the El-Nino weather pattern of a prolonged spell of dry weather continuing in 2015. For the first time in FEA's history the El-Nino weather pattern significantly affected FEA's operations for two consecutive years. The profit recorded by FEA in 2015 was attributed mainly due to:

- Good management of the Monasavu & Nadarivatu hydro schemes.
- Low fuel price recorded in 2015; and
- Cost control measures put in place by Management.

The increase in profit recorded in 2015 as compared to 2014 was due to the lower fuel price recorded in 2015. The average fuel price was \$1,352.65 per Metric Tonne in 2015 compared to \$1,852.08 per Metric Tonne in 2014. The thermal fuel cost decreased substantially by \$39M in 2015 from \$180M recorded in 2014.

FEA commissioned the Wainisavulevu Weir Raising Project (WWRP) on 3rd of November 2015. This project raises the existing weir by an additional 8 meters and will increase the generation output from the existing Wainikasou and Wailoa Hydro Power Stations. In addition to this, the Authority also commissioned the 35MW Heavy Fuel Oil (HFO) Power Plant at Kinoya on 14th November 2015. The new 35MW HFO Power Plant was operated by FEA in November and December respectively which contributed to the low fuel cost recorded for the year.

FEA's business will continue to be vulnerable to the changing weather pattern as a result of climate change as well as the volatility in the global fuel price. Despite having two uncontrollable factors directly influencing its day to day busi-

ness, FEA will continue to adopt a robust business model to ensure that the following key objectives are achieved in the short, medium and long term:

- Successful implementation of FEA's 10 years optimum power development plan involving substantial investment in the power network sector as well as the power generation sector to ensure security and reliability of power supply and also to meet the ever growing demand of electricity;
- Repayments of bonds and loans when they fall due without defaulting with the aim of reducing FEA's debt level as well as the Government Guarantee;
- FEA meeting its debt covenants signed with lenders to ensure that Government being the sovereign guarantor of the FEA borrowings is not exposed;
- Ensure the participation of genuine Independent Power Producers into the power generation sector, now that an attractive feed-in-tariff is being offered;
- Continue with the repairs and maintenance of aged assets particularly the generation and transmission/distribution network assets considered its "strategic assets" such as the Monasavu Half Life Refurbishment Work, upgrading of the 33kV underground cables in Suva city and the upgrading of the old 6.6kV ring main system in Suva to 11kV to ensure reliability and security of power supply to customers;
- Assist achieve Government's socio-economic objectives and economic growth; and
- Ensure that FEA remains financially sustainable in the short, medium and long term.

FEA invested around \$70.3M to purchase and install 35MW of Heavy Fuel Oil (HFO) generating plant at Kinoya Power Station together with the associated transmission network to successfully evacuate the power generated out of this new power station. This project was completed and commissioned on the 14th November 2015. FEA completed installation and commissioning of 33kV cables between Suva and Vatuwaqa zone substations, completed installation of 33kV cables between Vatuwaqa and Cunningham Road zone substations and completed installation of 33kV cables between Vatuwaqa and Kinoya zone substations. In addition to the above, FEA also commissioned the new 33kV/11kV Zone Substation off Knolly Street to improve reliability of power supply and meet the future demand of electricity in the Suva CBD and surrounding areas.

Work continued on the Power Supply to electrify the Korovou - Rakiraki corridor. Work is currently in progress on the construction of a new 33kV transmission line from Tavua to Volivoli. Construction of a new 33kV/11kV Zone substation at Volivoli commenced in 2015 and will be completed before the end of 2016. The overall project is expected to be delayed further as a result of Tropical Cyclone Winston which has caused a lot of damage to the power line infrastructures from Rakiraki to Ba. The entire Project will be completed at a cost of around \$19M and is jointly funded by the Government of Fiji and the Fiji Electricity Authority. Work also continued on the \$12.9M project to electrify the Momi Bay Resort that is currently being developed by FNPF. Construction of a new 33kV transmission line from Waqadra to Momi to supply the Momi Bay development is currently in progress. Work also commenced on the construction of a new 33kV switching station at Nawai and a 33kV/11kV zone substation at Momi. This project is scheduled for completion by the end of 2016.

Finally, I thank the Chairman and the Board Members for their valuable guidance and constructive support throughout the year. I wish to record my thanks and appreciation to my colleagues in the Executive Management team and to all the employees of our organisation and other external service providers for their continuing support, dedication and patience throughout 2015.

I also record my sincere thanks and appreciation to the Honourable Prime Minister and his Cabinet Ministers, Permanent Secretaries and Government officials, the Reserve Bank of Fiji, the Fiji Commerce Commission, the Fiji Revenue & Customs Authority and the executives of the FEA Bargaining Units for their kind assistance, support and co-operation rendered in 2015.

The invaluable contribution of one and all mentioned above made it easier for FEA to rise above the challenges it faced during the year and end the year with a profit.

I look forward to their continued support in delivering increased value to our Shareholder and Stakeholders in the coming year.

**Hasmukh Patel**  
Chief Executive Officer



A “Collective Agreement” was signed between FEA and the Fiji Electricity Workers Association (FEWA) in 2015. This Collective Agreement constitutes the terms of employment and conditions of service between the Fiji Electricity Authority and FEWA as the registered representative of the Bargaining Unit for the Staff Category.



FEA Contact Centre located at the Head Office in Suva continues to address the concerns of customers Fiji wide with urgency.



The FEA CEO, Mr Hasmukh Patel, shaking hands with FRCA CEO, Mr Jitoko Tikolevu, after signing the Memorandum of Understanding (MOU) on the information sharing between FEA and FRCA at the FEA Head Office in Suva.



# 2015 - Year in Review

## CUSTOMERS

### Customer Services

The number of customer accounts increased by 2.95% from 167,017 in December 2014 to 171,939 in December 2015. The customer accounts are made up of: 99 Industrial customers (0.06%); 16,749 Commercial (9.74%) and 155,091 Domestic and Institutional (90.20%). The increase in customer accounts was mostly in the Domestic Sector recording a growth of 2.55%, most of which were in the remote rural areas as a result of the Rural Electrification projects funded by the Government and FEA. There was an increase in demand for electricity by an overall 3.93% from 794.87 million units in 2014 to 826.11 million units in 2015. The electricity demand by domestic customers increased by 4.3% from 233.9 million units in 2014 to 244 million units in 2015. Demand also increased by 5.71% in the Commercial sector as well as in the Industrial (Maximum Demand) sector which increased by 0.40%. The increase in electricity consumption in the Domestic, Commercial and Industrial sectors is attributed to the growth in the economy. Furthermore, the power supply in the Central, Western and Northern divisions was not affected by any natural disasters in 2015.

### Contact Centre

The Contact Centre continued its good performance in 2015. The Grade of Service (GOS) achieved for the year was 92.2% with Calls Abandoned at 3.58%. This was a good result in a challenging year where the Contact Centre was required to manage information flow to customers on the revised regulatory fees and ancillary charges, new 2016 Government Electricity Subsidy, Vat reduction as announced by Government in 2015 to be implemented from 1st January 2016, continuous review of consumer security deposits, disconnection and reconnection of electricity accounts, prepay customer issues, and planned and unplanned power outages. Total calls received as at 31st December 2015 were 402,021, an average of 33,502 calls a month. This was an increase of around 6.5% from 2014 when a total of 377,445 calls were received. The increase in call volume was the result of customers enquiring about power restoration after unplanned outages, revised regulatory fees and ancillary charges, approved 2016 Government Subsidy and reduction in VAT. The focus continues to be on the quality of service delivered to the individual customers by Contact Centre staff when answering the calls. The Contact Centre continues to operate 24 hours, 7 days a week with the main Contact Centre in Suva closing at 9.00pm and the services then taken over by the Contact Centre staff at the National Control Centre in Vuda.

Usage of the emergency 913 number for non-emergency calls by customers continues to be a concern with a total of 15,719 calls received on this number of which only 2,570 were genuine emergency calls and 13,149 non-emergency calls.

For the 2015 Customer Services Survey, six survey questions were prepared and survey forms sent out to customers with their electricity bills in November 2015. Customer Service Survey forms were also available at all Customer Service Centres in Central, West and North and all Prepay Vendor locations. Customer Service Satisfaction Survey will close on 31st January, 2016 when all forms received will be analysed.

FEA was pleased with the improvement in its overall customer satisfaction level for both domestic (92%) and commercial/industrial customers (90%). However, FEA wishes to improve further on its level of service to all customers. Accordingly, it will put in place appropriate action plans to address the areas of improvement highlighted in the survey. In the meantime, FEA is also investigating on how it could improve on the overall customer response going forward into the future by obtaining views from a majority of its customers.

FEA Contact Centre located at the Head Office in Suva continued to address the concerns of customers with urgency Fiji wide.

### Prepay Customers

The On-Line Syntel prepayment vending system is now being used by all prepay vendors and there is a total of 33 such vendors located in the Central, Western and Northern divisions. Prepay customers can buy their tokens from any of these vendors. Through this online vending system, the Authority is able to manage its prepay customers better. There are a total of 23,534 rural customers on prepay meters as at 31st December 2015, an addition of 1,109 new prepay customers in 2015.

### Product Awareness

Awareness on energy savings and electrical safety tips were the main focus of FEA's communication activities to its customers. Presentations were carried out in schools and communities to create awareness on energy savings and electrical safety.

FEA made full use of its billing network to maximize the exposure of its safety messages by printing messages on the electricity bill itself and on bill inserts.

Visits were made to prospective rural customers in villages to complete customer documentation, provide information on energy conservation, electrical safety and training on how to use the prepay meter prior to connection. Television interviews and participation in radio talkback shows were carried out for creating public awareness and dissemination of information regarding the Authority's operations.

### Demand Side Management

FEA carried out energy meter re-calibration of its fourth batch of top 150 customers and upgraded 6 two-transformer fed installations to summation CT metering to ensure that the Customers' meters were functioning properly and recording correct consumption of electricity.

FEA also replaced 6,033 old energy meters installed at customers' premises and will continue with this replacement of old energy meters during the next year to ensure correct recording and billing of electricity consumption.

FEA continues to assist its customers to become more energy efficient by providing technical advice and billing data to those customers who request for such data. FEA's Reactive Energy Metering Policy was strictly enforced during 2015 with penalties imposed on those customers using excessive reactive energy and not complying with the power factor requirements as stipulated under the Electricity Act. Customers' excessive reactive energy usage increased by around 19% in 2015 when compared to 2014.

### Electricity Subsidy

Government as part of its 2015 National Budget approved the increase in the threshold for the residential customer's electricity subsidy from 75 kWh per month to 85 kWh per month. Customers that use 85 units or less in a month will qualify for this subsidy. The new electricity subsidy threshold of 85 kWh per month was implemented effective from 1st January 2015 for residential customers. The electricity consumed by residential customers in January 2015 will be considered for the subsidy in February 2015 at a rate of 15.90 cent per unit (VEP) which will be paid by Government as subsidy. The customers will pay 17.20 cents per unit (VEP). As a result of the increase in the threshold for residential customer's electricity subsidy, the total customers benefiting from this subsidy has increased from approximately 49,000 customers in 2014 to approximately 69,000 customers in 2015.

For Primary and Secondary Schools, the subsidy scheme remains the same. A step up subsidy model applies where the first 200 units consumed in a month will be subject to a subsidized tariff and units in excess of 200 units will be charged the full commercial tariff of 33.10 cents per unit (VEP). Government subsidy is 12.51 cents per unit (VEP) and the Schools will be charged a subsidized electricity tariff of 20.59 cents per unit (VEP) for the first 200 units consumed in a month. A total of 1,374 schools benefited from this subsidy.

### Consumer Security Deposit

The review of the consumer security deposit is ongoing, based on the consumption pattern changes. Customers have the option to pay the required consumer security deposit either in cash or by providing a Bank Guarantee.



**FEA Metering Technician carrying out metering system re-calibration work at Punjas Biscuit factory in Lautoka. This is to ensure that the customer's meters are functioning properly and recording correct consumption.**



The above pictures show the newly constructed 35MW HFO Power Plant that was commissioned on the 14th November 2015. FEA spent around \$70.3M on this project.



The Attorney-General and Minister for Public Enterprises, Mr Aiyaz Sayed-Khaiyum with FEA Head Office employees after the announcement of the performance pay for the financial year 2014 at the FEA Head Office in Suva.

## HUMAN RESOURCES

Best practice Human Resources initiatives are something that emerging Human Resource practitioners aspire to develop and implement. To explore this further, there is absolutely no doubt that 2015 saw some positive outcomes of our various initiatives and processes implemented which were attained successfully.

Some of the major achievements in 2015 are a reflection of the enormous effort put in by Management and Staff to ensure FEA is recognized as an exemplary organization with Human Resources policies designed to foster productivity and learning throughout the organization.

**Milestone achievements for FEA in 2015 are:**

### Inaugural Employee of the Year and most Safe Team of the Year Awards

On 12th March, 2015 FEA held its first Excellence Awards Night, where 40 champions were recognized and honoured. This was an exciting event that would broaden the focus on building a stronger Team FEA.

Ambitious projects were embarked upon such as identifying the Employee of the Quarter in each Strategic Business Unit (SBU), Employee of the Year, the Safety Team of the Year and Zero Sick Leave Award.

2015 can be summarized in a few words: In the face of significant challenges, tremendous progress was achieved.

- Employee of the Year Award - Tariq Bahadur of Network SBA, Navutu
- Safety Team Award - Substation Team West

### Human Resources Policies & Manual

On 27th of April, 2015 the Board endorsed the revised Human Resources Policies & Procedures Manual which is aligned to the Employment Relations Promulgation (ERP) Amended Act 2015 and the Employee Handbook.

### Inaugural In-House Quality Circles Convention

The inaugural in-house Quality Circles Convention 2015 was dubbed as one of the biggest productivity programs hosted in Fiji by a Statutory Commercial Authority. The application of the program was not only to look for process improvements via Quality Circles but also to have projects relating to revenue generation.

### International Exposition on Team Excellence (IETEX) - Singapore, 2015

FEA's Team Kaizen - a four (4) Member Team, the

competitive GOLD Award Winner of the 19th National Convention on Quality 2014, attended the International Exposition on Team Excellence (IETEX) in Singapore. Historically in the 20 years of the Quality Circle movement in Fiji, Team Kaizen was the first fully funded Quality Circle Team to take part in such a competition.

### Team KAIZEN - Awarded 2 STAR Plaque in Singapore



FEA Team KAIZEN receiving their award in Singapore

### 20th National Convention on Quality (NCQ), 2015

Top three (3) FEA Quality Circle Teams: Team Inspire, Team RHIZOME and Team Power Rangers were part of the ten (10) Quality Circle Teams that participated in the 20th National Convention on Quality. Team FEA was awarded the following prize:

- Model Quality Circles Organisation 2015
- Most Innovative Team for the Year 2015 -Team Inspire, Labasa
- Silver Award Winner - Competitive Category - Team Inspire, Labasa
- Outstanding Quality Circles Facilitator- Manoj Kumar

### 10th Fiji Human Resources Institute (FHRI) Awards

The Human Resources SBA for the second time entered in the 10th Fiji Human Resources Institute (FHRI) Awards Program and won two awards. The FEA had also won an award in the first year of participation while ensuring that our human resources processes are aligned to best practices.

- Outstanding Human Resource Organization of the Year 2015-Fiji Electricity Authority (Gold Award)
- Senior HR Practitioner of the Year Award-Ritesh Ronald Reddy (Gold Award)



**FEA CEO receiving the 2015 Model Quality Circles Organisation award from the Minister for Education, Heritage and Arts, Dr Mahendra Reddy.**

## PRODUCTIVITY IMPROVEMENTS

FEA has achieved significant productivity improvements since 2000. The number of employees has decreased by 24%, from 960 in 2000 to 725 in 2015, at a time when:

- Number of customers has increased by around 46%, from 117,315 in 2000 to 171,939 in 2015
- Electricity Generation output has increased by around 75%, from 523 gigawatt-hours (GWh) in 2000 to 914GWh in 2015;
- Route Length of power lines and underground cables has increased by around 37%, from 7,124 km in 2000 to 9,730 km in 2015;
- Total assets have increased by around 148% from \$473M in 2000 to \$1.17B in 2015;
- Total shareholder funds have increased by around 105% from \$316M in 2000 to \$647M in 2015.

As a result, the following productivity improvements have been achieved between 2000 and 2015:

- Customers per employee have increased by 94%;
- Electricity Generation output per employee has increased by 131%;
- Route Length of power lines and underground cables per employee has increased by 81%; and
- Asset value per employee has increased by 229%.

## EMPLOYMENT RELATIONS

FEA reached an agreement with the Fiji Electricity Workers Association (FEWA) on their 2014 Log of Claims and signed the Collective Agreements for their Staff and Tradesperson. The FEA also awarded a 4% increase in their wages and allowances as from the 1st January, 2015.

In 2015, those employees, who were eligible to become members of a Bargaining Unit, joined the Fiji Electricity Workers Association (FEWA), who had registered two Bargaining Units for the Staff and Tradesperson categories respectively.

## HEALTH, SAFETY & ENVIRONMENT (HSE)

There were three (3) fatalities recorded due to workplace accidents and these contributed to an unprecedented number of 660 days lost due to workplace injuries. The number of vehicle accidents also escalated resulting in an unprecedented driver initiated motor vehicle accident cost of \$295k in 2015.

The HSE department carried out quarterly roadshows for all FEA employees to emphasise and stress the importance of taking personal responsibility for their health and safety actions. Furthermore, the HSE Department embarked on the development of FEA's Top 10 Life Saving Rules and ensured that the employees comply with these rules to the best of their abilities.

To curb the problem of increase in motor vehicle accidents, the Authority installed Vehicle Tracker Systems (VTS) in all FEA vehicles. The VTS also incorporated a beeper that activated should the vehicle exceed the national highway speed limit of 80km per hour. The Land Transport Authority and the Fiji Police Traffic Officers were part of the Fleet, Health and Safety roadshows around all FEA locations driving home the important safety messages to all employees.

To empower the employees in taking personal responsibility for their actions, a training called 'Managing Rule Breaking' was conducted, where 370 operational staff were trained.

The Health and Safety Department spent 352 hours carrying out field visits and interacting with the field Teams to identify improvement opportunities. A total of 422 corrective actions were completed which were reported through various hazard reporting mechanisms. The Health and Safety Department was also reinforced with a new officer based in Labasa to look after the Northern region.

## TRAINING & DEVELOPMENT

The Fiji Electricity Authority Training Centre endeavors to build partnerships with various institutions engaged in human resources development and support development programs. We always prioritize to treat the workforce of our growing economy in a remarkable and unique way.

Our distinctive training programs always thrive to provide exceptional experiences to both our customers and our Staff.

FEA under the Method “A” grants scheme achieved a score of 99.71% for the 2014 assessment period. This represented the highest level of grants assessment score received by the Authority and it is also the highest score in Fiji.

Outlined below are the results of the Grants schemes for four (4) consecutive years:

2011	2012	2013	2014
82.34%	91.52%	94.16%	99.71%

FEA is also engaged in providing external Training in collaboration with Pacific Power Association (PPA), Japan International Cooperation Association (JICA) and Public Service Commission, not only to organizations in Fiji but to other Pacific Island countries. Twenty six (26) sessions of various technical training programs were conducted for external organizations and the total revenue derived from these training programs was \$89k in 2015.

FEA has been providing work attachment and training to the neighbouring Pacific Island Electricity Utilities in Technical and Non-Technical areas. In 2015, FEA provided work attachment and training for the Nauru Electricity Utility and the Solomon Islands Electricity Authority.

Furthermore, the Authority embarked on a series of Leadership training programs for their Executive Management Team and the Senior Management Team to improve and develop their leadership skills.

A total of 237 Training Courses were conducted in 2015 with a total number of 35,467 training hours as compared to 2014 during which some 293 Training Courses were conducted with a total number of 41,315 training hours.

**Partnership with the University of the South Pacific (USP) for the Bachelor of Engineering programme**

FEA and USP signed a Memorandum of Understanding (MOU) that allows USP Bachelor of Engineering students to gain valuable work experience in FEA to fulfill their program work attachment requirements and after completion of their program of study are eligible to be recruited by FEA as Graduate Engineers.

FEA recruited fifteen (15) Graduate Engineers: twelve (12) Electrical and three (3) Mechanical Engineers pursuant to the MOU with USP.

FEA further sponsored two (2) GOLD Medals for USP’s - Faculty of Science, Technology & Environment School of Engineering for Outstanding Student in the Mechanical and Electrical Engineering disciplines.



**FEA graduate engineer, Mr Jowesh Goundar, receiving gold medal from the Acting CEO, Mr Bobby Naimawi for the Outstanding Student in the Mechanical Engineering discipline.**

The Authority continues to engage practical attaches from the Fiji National University (FNU), University of the South Pacific (USP) and University of Fiji (UoF) as part of their program requirement so that they are able to graduate. This is an opportunity for the Authority to ensure that these practical attaches receive the relevant practical training and development in-house in preparation for employment opportunities that may arise. There were forty-one (41) USP Engineering students attached during USP semester breaks and eight (8) students from FNU on industrial attachment to gain valuable work experience and also to fulfill their program requirements.

The 2015 employee turnover rate was 3.72% compared to 5.55% in 2014. Out of this, 1.38% came from the technical area due to employment opportunities abroad compared to 2.99% in 2014. The Authority accepts the fact that the staff turnover in the technical areas will continue due to employment opportunities abroad. The Authority also finds it difficult to compete with overseas employers in the terms and conditions of employment offered to the Authority’s employees.



Course Instructor, Mr. Mayur Kalbag conducting Leadership Training Programme at the FEA Training Centre in Suva for the FEA Team Leaders on the topic "Creating Successful New Managers". This is part of the succession planning program for FEA.

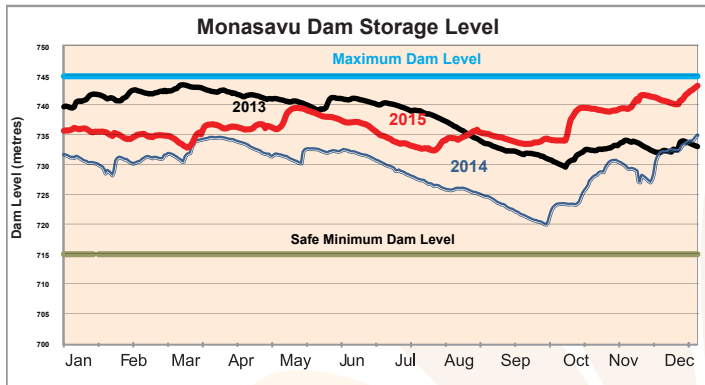


Course Instructor, Mr Roger La Salle conducting a training programme on Corporate Governance for FEA Executives and Senior Managers at the FNU Training Centre in Suva. This is also part of the succession planning program for FEA.

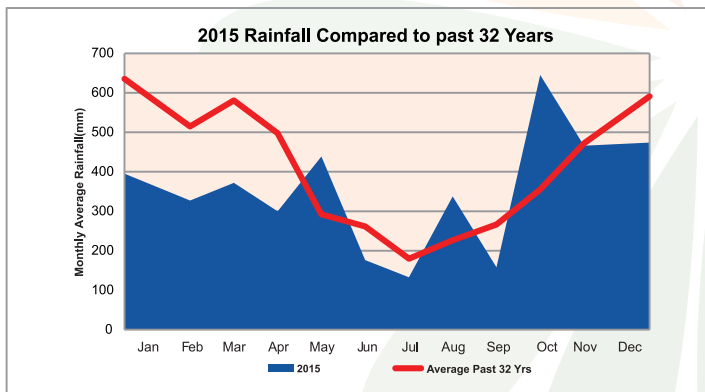
## PRODUCTION OF ELECTRICITY

### Hydro Generation

The water level at the Monasavu Dam at the beginning of January 2015 was 736.18 metres above mean sea level (AMSL), which was 21.18 metres above the minimum safe operating level of 715 metres. At the end of December 2015, the water level was 742.05 which was 27.05 metres above the minimum safe operating level.



Typically, some 400 million units of electricity generation is expected annually from the Wailoa Power Station. Total rainfall received at Monasavu in 2015 was 4,223 mm compared with 4,137 mm in 2014. The lowest ever rainfall recorded was 3,540 mm in 2004.



The months of January, February, March, April, June, July, September, November and December received below long term average rainfall while May, August and October received long term average rainfall. The below average rainfall for nine (9) months in 2015 resulted in the third lowest ever power production from the Wailoa Power Station in thirty-two (32) years generating only 320.88 million units of electricity.

Nadarivatu Power Station was commissioned in May 2012. It produced some 52.9 million units of energy in 2015 and 67.5 million units of energy in 2014 respectively against a long term average generation output of 100 million units.

The performance of the Monasavu and Nadarivatu Hydro Schemes were severely affected due to the extended drought season throughout 2014 and 2015.

### Thermal Generation

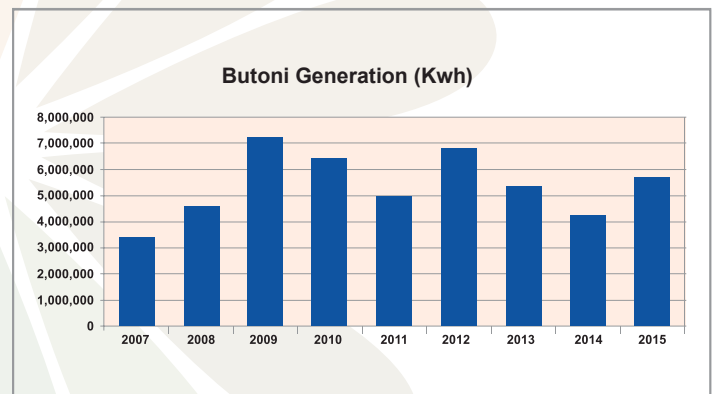
FEA generated 52% of its energy from the thermal power stations in 2015 to meet the ever growing demand of electricity

in Fiji since the customer demand has been growing at an average of around 4% per annum over the last three years. The major Power Stations namely Kinoya, Vuda and Labasa performed admirably and contributed significantly towards meeting the growth in customer demand. Furthermore, these thermal power stations also complimented the reduction in the hydro power generations which were affected by the prolonged spell of dry weather experienced throughout 2015. The total energy generated from the Industrial Diesel Oil (IDO) and Heavy Fuel Oil (HFO) power stations for 2015 was 480,422 MWh against 454,039 MWh in 2014.

Furthermore, FEA commissioned a new 35MW Heavy Fuel Oil (HFO) power plant at its Kinoya Power Station on 14th November, 2015. This new diesel power plant which is run on cheaper HFO will bring about substantial cost savings to the Authority and more importantly it contributes additional generating capacity to the Central Region of Viti Levu to ensure reliability and security of power supply to customers.

### Butoni Wind Farm

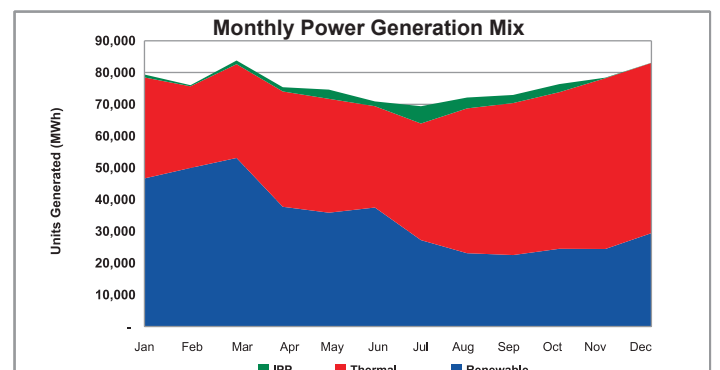
Butoni wind farm generated 5.674 million units of electricity in 2015. This is equivalent to a fuel cost saving of around \$1.94M in 2015. Graphically depicted below is the energy output from Butoni Wind Farm since commissioning in 2007:



Statistics for the wind farm from the commencement of its operations in June 2007 are given below:

- Total Generation Output = 48.70 million units of electricity
- Total Diesel Fuel Cost Savings = F\$18.14M
- Total Foreign Exchange Savings = USD\$10.60M
- Total Diesel Fuel Saved = 10,232 tonnes of diesel
- Total Green House Gas Emission Reduction = 31,781 tonnes of Carbon Dioxide.

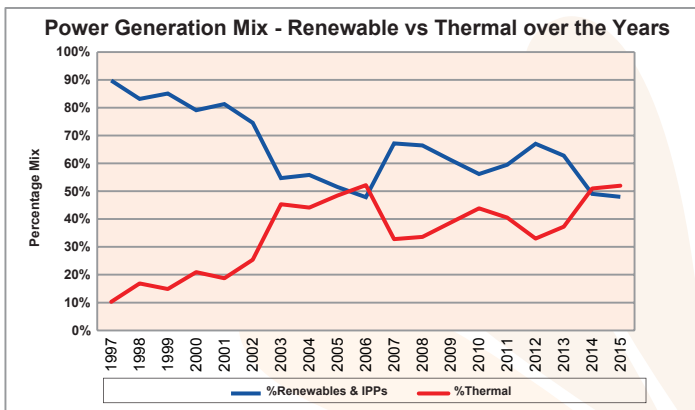
### Generation Mix





The power generation mix for 2015 was 44.90% hydro, 52% diesel and heavy fuel oil, 0.63% wind with the remaining 2.47% provided by the Independent Power Producers (IPPs), namely Tropik Wood Industries Limited (TWIL) and Fiji Sugar Corporation (FSC). In comparison, 44.96% was generated from hydro in 2014, 50.91% from diesel and heavy fuel oil, 0.48% from wind with the remaining 3.65% from TWIL and FSC.

In 2015, the FEA renewable power stations generated 411.70 million units of electricity (45.53%), thermal power stations generated 470.25 million units of electricity (52%) and Independent Power Producers (IPPs) generated 22.35 million units of electricity (2.47%).



### Power System Reliability

Three (3) internationally accepted performance indicators are used each year to measure FEA's power system reliability:

- The average total length of time that a customer is without power over a year is measured by the System Average Interruption Duration Index (SAIDI). Against a target of maximum 700 minutes, the Authority achieved a SAIDI of 412 minutes in 2015.
- The average number of times that a customer's power supply is interrupted in a year is measured by the System Average Interruption Frequency Index (SAIFI). Against a target of 15 times, the Authority achieved a SAIFI of 5 times in 2015.

- The average time that a customer is without power per interruption is measured by the Customer Average Interruption Duration Index (CAIDI). This index was 82 minutes in 2015.

The main reasons for the power interruptions that occurred in 2015 were:

- Major extension works on power grid required planned power shutdowns for connectivity purposes
- Planned maintenance works on the Power System requiring planned power outages
- Heavy rain, lightning and storms
- Faults on power line hardware
- Overgrown vegetation or trees clashing with power lines
- Transient faults
- Third party damaging FEA underground cables
- Motor vehicles colliding with power poles
- Bushfires
- Vandalism on FEA overhead power network

FEA continues to spend a substantial amount of money to reinforce its power system in order to improve the reliability and security of power supply to be in line with international benchmarks for power utilities of similar size and nature. Furthermore, as the power network ages (most of the FEA power distribution systems have been in service for more than 30 years) they urgently require upgrading or refurbishment. FEA has incorporated these upgrades and repair works in its development plan.

The initiatives FEA are currently pursuing include:

- Live-line maintenance of its power lines at all voltage levels;
- Effective vegetation management program;
- Use of appropriate technology to detect defects that can be fixed on time and equipment that can assist in restoring power supply quickly;
- Ensuring that adequate supply capacity is available to meet the demand for electricity at all times; and
- On-going program to replace ageing assets.



FEA Chief Executive Officer presenting on the topic "Fiji's Energy Sector-A Strategic Component to Growth & Development" to the Honourable Minister for Infrastructure & Transport, Mr. Parveen Kumar Bala, at the FEA Head Office in Suva in the presence of the FEA Board Members.

### Profitability

FEA made a financial profit of \$39.7M after tax in 2015. The profit recorded for 2015 was attributed by the:

- low fuel price recorded in 2015 which has never been at this level since 2009. The average fuel price was \$1,352.65 per Tonne in 2015 compared to \$1,852.08 per Tonne in 2014;
- good management of the Monasavu and Nadarivatu Hydros in 2015;
- exploring other revenue initiatives; and
- stringent cost control measures put in place by Management.

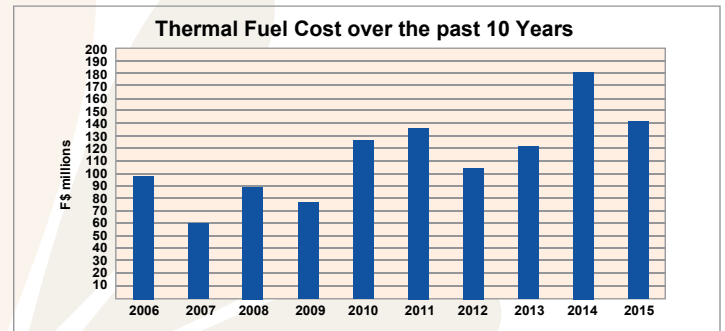
FEA incurred \$21.1M of Non-Commercial Obligation Cost (NCO) after tax when fulfilling its social obligation in 2015. Taking into account the NCO cost above, the Return on Shareholder Funds (ROSF) for 2015 is positive 9.10%.

Earning before interest, tax, depreciation and amortization (EBITDA) for 2015 was \$93.8M. This provided a net interest coverage ratio of 10.57 times.

Revenue from electricity sales for 2015 was \$311.9M compared to \$300.3M in 2014, an increase of \$11.6M. This was a result of the increase in electricity demand for domestic, commercial and industrial customers recorded in 2015.

Other Operating revenue of \$9.9M in 2015 was more by \$2.8M compared to the \$7.1M earned in 2014 due to the increase in the contract income and realized exchange gains made via special foreign exchange rates obtained from commercial banks.

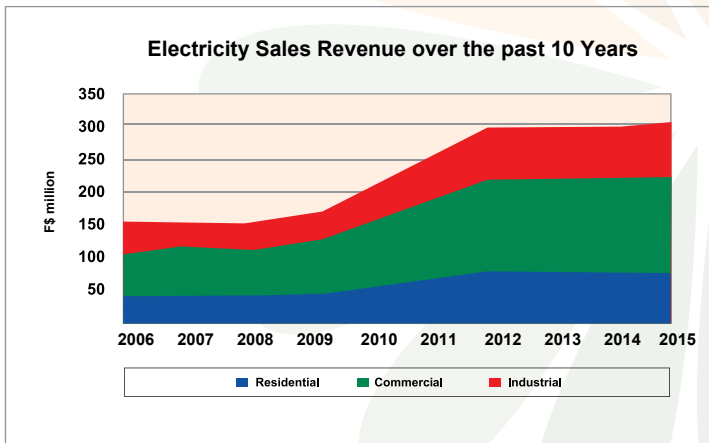
The total operating expense of FEA excluding fuel costs, depreciation and amortization was \$87.4M. This increased by \$9.7M when compared with the \$77.7M recorded in 2014. Depreciation and amortisation expense increased by \$1.3M in 2015 due largely to the capitalization into the Fixed Asset Register of the new 35MW HFO diesel gensets at Kinoya, establishment of a new 33kV/11kV Zone Substation off Knolly Street in Suva and the commissioning of the Wainisavulevu Weir Raising Project.



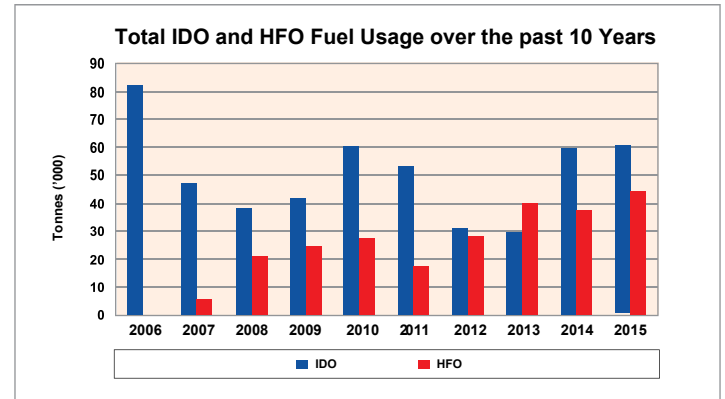
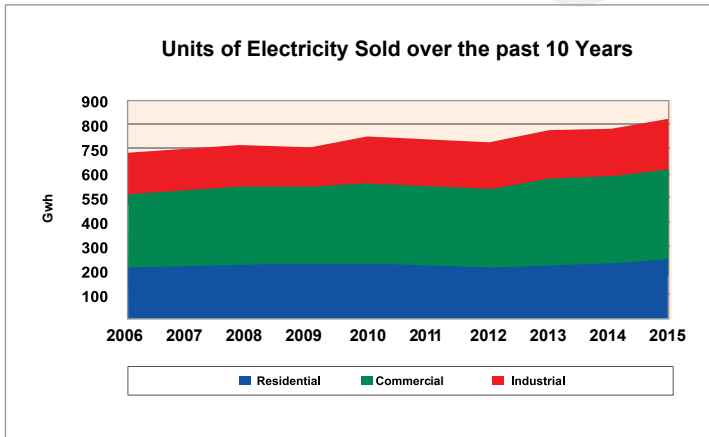
The thermal fuel cost decreased substantially by around \$39M in 2015, from \$180M in 2014 to \$141M in 2015. This was due to the low fuel price recorded in 2015 for both HFO and IDO despite FEA burning more quantities of fossil fuel to generate electricity in 2015 as compared to 2014. The fuel quantities increased from 97,205 tonnes in 2014 to 104,021 tonnes in 2015. The thermal fuel cost accounted for around 53% of FEA's total operating expense of \$266M in 2015 compared with 61% in 2014.

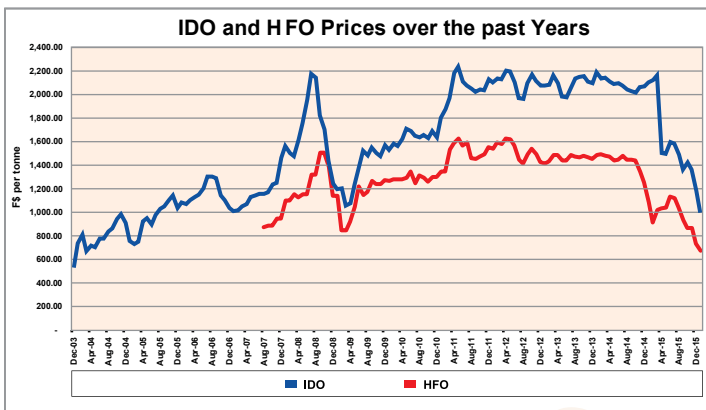
Electricity generated from the thermal power stations increased by 26.3GWh in 2015 in comparison to 2014.

The Wailoa hydro power station generated 321GWh of energy in 2015, higher than the 314GWh that was recorded in 2014. Total quantity of Industrial Diesel Oil (IDO) fuel burnt in 2015 was 60,504 tonnes and Heavy Fuel Oil (HFO) fuel burnt was 43,517 tonnes, aggregating to 104,021 tonnes. In comparison, the total quantity of IDO fuel burnt in 2014 was 59,538 tonnes and HFO was 37,667 tonnes, aggregating to 97,205 tonnes.



There was an increase in demand for electricity by an overall 3.93% from 794.87 million units in 2014 to 826.11 million units in 2015.

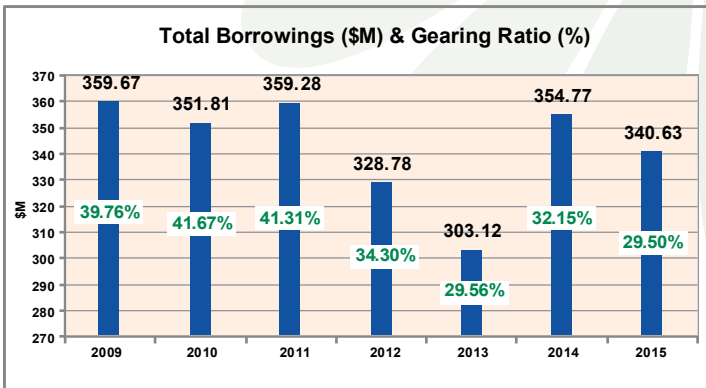




The average price of IDO fuel was \$1,628 VEP per Metric tonne in 2015 compared to an average price of \$2,088 VEP per Metric tonne in 2014. The IDO price peaked at \$2,165 VEP per Metric tonne in March 2015. The average price for HFO was \$988 VEP per Metric tonne in 2015 compared with an average price of \$1,494 VEP per Metric tonne in 2014.

The net financing costs decreased by around \$1.5M in 2015 from \$11.3M in 2014 to \$9.9M in 2015. This was due to FEA early redeeming two high interest bonds during the year.

FEA's gearing ratio, as measured by Debt to Debt plus Capital and Reserves excluding cash-in-hand, was 29.5% as at 31st December 2015 and has reduced from the 32.1% reported for 2014. This is well within the international benchmark for power utilities of about 45%, despite FEA spending around \$80.6M on Capital Expenditure projects in 2015. The positive gearing level provides opportunities for additional borrowing by FEA to fund its long term Power Development Plan. The decrease in gearing level is due to the good profit recorded during the year and FEA repaying bonds and loans aggregating to \$56.8M in 2015.



Furthermore, FEA's balance sheet will continue to show reasonably high borrowing cost due to the nature of the industry as it is highly capital intensive. The high borrowing cost recorded from 2009 to 2010 was due to the funding for the construction of the Nadarivatu Hydro Power Project. FEA commenced repayment of this loan from 2012 and reduced the borrowing cost to around \$303M in 2013. The net increase in debt level over the period 2014 to 2015 was due to the following funding for capital development works: \$35M to fund FEA's contingency Plan in 2014, \$60M to fund the purchase, installation and commissioning of the 35MW HFO plant at Kinoya in 2014/2015 and \$10M to fund the Taveuni Electrification Project in 2015.

The shareholder value of FEA was \$647M at the end of 2015 which has increased from \$601M at the end of 2014 and \$324.9M at the end of 2002. FEA's total assets are worth \$1.2B, an increase from \$1.1B in 2014 and \$456.7M in 2002. This shows that FEA has added significant shareholder value over the last 13 years since the implementation of organisational reforms.

### Capital Expenditure & Funding

FEA spent a total of around \$80.6M on capital projects in 2015. It had to defer a number of capital expenditures to 2016 due to the huge cost incurred in burning excessive volumes of fossil fuels to supplement the low generation output from the Monasavu and Nadarivatu Hydro Schemes due to below average rainfall recorded for most of the months in 2015. The Capex of around \$80.6M was made up of the 33kV/11kV Zone Substation off Knolly Street, Telecom & SCADA infrastructure upgrade, power system reinforcement projects, Wainisavulevu Weir Raising Project, 33kV Vuda/Waqadra double circuit transmission line, Switchgear upgrade project at various sub-stations, Rural Electrification Projects, new 35MW Kinoya HFO Project, Network Augmentation Projects, purchase of energy meters, test equipments and metering accessories and other assets acquired by FEA in 2015. FEA provided funding for these projects through borrowings and partially from its internal cashflows.

All the debt covenants imposed by the lenders namely, ANZ Bank and FNPF were satisfactorily met in 2015. A total of \$56.76M of Loans and Bonds repayment was done in 2015 which is really a great achievement for FEA taking into account that it started the year with an opening operating cash balance of \$0.5M only. Out of this amount, \$19.91M was for the 2015 mandatory loan repayments for ANZ Bank including \$11.6M as recovery of the principal repayments from July to December 2014 which was part of the moratorium approved by ANZ for FEA. In addition to these mandatory loan repayments, FEA also early redeemed two high interest bonds aggregating to \$25.25M in 2015. This was essential as it will reduce FEA's borrowing level, financing cost and the total bonds and loans covered under the government guarantee facility. FEA had a total debt portfolio of around \$341M as at 31st December 2015. This debt has to be serviced and repaid over the next 10-15 years.

The capital expenditure planned for the next 3 years are \$113M, \$100M and \$91M for 2016, 2017 and 2018 respectively, aggregating to \$304 million over the 3 years. The projected Capital expenditure for 2016 of \$113 million comprises of the 6.6kV ring main system upgrade to 11kV in Suva, Korovou-Tavua Grid Extension Project, Upgrade/extension of Tavua 33kV Substation, construction & commissioning of the new 33kV substation at Volivoli in Rakiraki, construction of the new 132kV and 33kV transmission lines and substation to evacuate power from FSC Rarawai, Construction of Momi Bay 33kV Zone Substation, Waqadra-Nawai-Momi 33kV Transmission Line Project, Construction of the Switching Station at Nawai, Vatuwaqa 33kV Substation Building and associated electrical equipment upgrade, 33kV/11kV Switchgear Upgrade projects, Land acquisitions, Taveuni power reticulation project, Rural Electrification Projects, Network Urban Reinforcement Projects, Purchase of Electricity Meters and Vehicle Replacements etc.

In view of FEA's huge capital expenditure plan, the Ministry of Finance has approved the extension of the Government guarantee facility of FJ\$404M and US\$50M till the end of December 2016. FEA has utilised around FJ\$335M of this government guarantee as at the end of 2015. Cabinet approved the extension of the Government Guarantee facility till the end of December 2016 to accommodate any new loans that FEA will borrow in 2016 to fund its 2016 capital expenditure plan. It is envisaged that FEA will continue to utilize the above Government Guarantee facility to meet its 10 Year Power Development Plan.

Therefore, FEA's financial performance over the next 3 years will be critical in determining how successful it can fund the above commitments. It will have to keep aside cash surplus of at least \$30M-40M a year and this means that FEA has to record reasonable levels of profits to generate the necessary cashflows required. It will be very difficult for FEA to achieve the required level of profitability given that there are two uncontrollable factors being the global fuel price and the weather pattern that largely influence its business. Therefore, it is imperative that FEA adopt a business model that is robust and will achieve the desired profitability level to ensure that it remains financially sustainable over this period to fund the above capital expenditure and loan commitments.

During the year, FEA obtained approval of the Government guarantee facility which enabled FEA to partially drawdown \$26M from FNPF to fund the purchase and installation of the 35MW HFO Generator Sets at Kinoya Power Station. Further, FEA has commenced the loan repayments of the FNPF \$60M loan of around \$5M per annum from November 2015 after the project was commissioned in October 2015. The new HFO generator sets at Kinoya will improve the security and reliability of power supply in the central region of Viti Levu. FEA further borrowed an additional \$10M from ANZ Bank in 2015 to complete the funding of the Wainisavulevu Weir Raising Project. FEA has also commenced the loan repayments of the \$10M FNPF loan which was fully drawn down in September 2015 to partially fund the Taveuni Electrification Project together with the replacement of 33kV underground cables from Suva to Vatuwaqa. FEA's average cost of borrowing was 3.4% per annum as at the end of 2015 compared to 4.2% per annum for 2014. FEA also early redeemed \$25.25M worth of high interest Bonds in July 2015 to improve its cash position and reduce its debt level.

FEA completed the review of its 10 year Power Development Plan (PDP) ending 2025 in September 2014. The ten (10) year power development plan contains the load forecasting, the power generation planning up to 2025 for Viti Levu, Vanua Levu and Ovalau power systems together with the associated network assets to be developed and the investment plan required for the development and augmentation of the 132kV and 33kV transmission networks. The total investment required in the transmission and distribution system is estimated to be around \$530M for both Viti Levu and Vanua Levu. These investments in reinforcing the transmission network are expected to be funded either by FEA or from external sources. The private sector is expected to invest substantially in the power generation sector as Independent Power Producers (IPPs) and sell the electricity to FEA via long term Power Purchase Agreements. It will be a huge task for FEA to successfully implement its PDP up to 2025 particularly investing heavily in reinforcing its transmission network infrastructures at the prevailing low electricity tariff rates.

The key enabler in achieving this plan is to have the right electricity tariff rate in place to ensure that FEA has the ca-

pability to borrow to fund its Optimum Power Development Plan and also ensure the financial sustainability of FEA in the medium and long term.

## Internal Audit

The internal audit function for the Fiji Electricity Authority provides a number of important services to the company and management. The department helps FEA accomplish its objectives by bringing a systematic, disciplined approach to evaluate and improve the effectiveness of risk management, internal controls and good corporate governance processes.

Thus the role and scope of the Internal Audit department in the year 2015 have been broadly-grouped into the following areas:

- Risks, internal controls, compliance, operational, capital projects and Information Technology (IT) auditing & assurance;
- General audits including stocktaking, inventory management/stock controls, surprise store/site visits & procedural audits;
- Policy/procedural documentation, reviews, monitoring and enforcement, reviewing violations, safeguarding Company assets/properties against misuse, fraud and management override of controls including applying discipline; and
- Regular and random review of cashier activities/anomalies, irregular transactions, adding value to improve/enhance the current business operations by analysing and suggesting ways/areas for improvement thus bringing in efficiencies within the current business processes, strengthening the key controls & ensuring/providing assurance and comfort that these are being effectively followed.

## Risk Management

FEA takes a proactive approach to risk management. Risk management is the culture, processes and structures that are directed towards realising potential opportunities whilst managing adverse effects. Risk management is the responsibility of all employees of FEA.

In order to meet our objectives, the Risk Management Framework is designed to apply systematic and consistent risk management methodologies across FEA in order to identify critical risk issues as well as to focus on improving capabilities for predicting and managing uncertainties. It enables us to:

- identify, assess, evaluate, prioritise and manage risks across the organisation;
- create value to the organisation through informed decision making and the effective allocation of resources; and
- build a risk awareness culture with risk embedded into the day to day activities.

A key requirement of effective risk management is the provision to the Board of a consistent and transparent view of material risks, enabling it to assess the adequacy of management's strategies and treatments relating to those risks. We at FEA, believe that a sound risk management system will not only provide regulatory compliance, but that the real return and value for FEA is gained by enhancing risk management capability, and integrating risk management into the business decision making activities. FEA's Risk Management Framework is based on the principles and guidelines set out in the International Standard for Risk Management - AS/NZS ISO 31000:2009.



The above picture shows the new 33kV Zone substation off Knolly Street in Suva. FEA spent \$9.3M on this project. This substation will improve the reliability and security of power supply in the Suva CBD areas.



FEA employee carrying out the testing of new cables before being commissioned by the FEA technicians.

## POWER DEVELOPMENT PROGRAMME

### Independent Power Producers (IPPs)

Fiji Sugar Corporation (FSC) and Tropik Wood Industries Limited (TWIL) are the only Independent Power Producers (IPPs) who at present generate electricity in Fiji and sell to FEA. They produce electricity for their own use through co-generation and sell the surplus to FEA.

#### Fiji Sugar Corporation (FSC)

FSC supplies electricity to the FEA grid during the crushing season from its mills in Lautoka, Ba and Penang. FEA and FSC signed a new Power Purchase Agreement (PPA) in 2013 with FEA for FSC Labasa to supply electricity to the FEA grid in Labasa throughout the year. However, their power plant went out of operation from November 2013 and could not supply thereafter. FSC Labasa has supplied to the FEA grid during the crushing season only in 2014 and 2015. FSC has advised FEA that they are in the process of installing their new 8MW plant which is expected to supply throughout the year as per the PPA from June 2016 onwards.

#### Tropik Wood Industries Limited (TWIL)

The 9.3MW Tropik Wood Industries Limited (TWIL) Co-generation plant stopped supplying to the FEA grid in August 2015 due to problems associated with their power plant. Repairs are underway and no commitment has been made by TWIL with regards to resumption of power supply to the FEA grid.

#### Tropik GIMCO (Fiji) Limited-PPA with FEA

Tropik Gimco (TG) signed a Power Purchase Agreement (PPA) with FEA on 8th December, 2014 to build a biomass project near Nabou between Nadi and Sigatoka with a capacity of 10MW with an annual deemed quantity of around 60 Giga-Watt-Hour. TG has commenced construction at site and the plant is expected to be operational in early 2017.

#### Solar Hybrid Power Plant

FEA advertised for Expressions of Interest (EOI) for solar hybrid powered plants with a capacity of 2MW-5MW in 2015. FEA had also communicated to prospective IPPs who had been in discussions with FEA for the supply of energy using Solar of the revised Expressions of Interest (EOI) for 2MW – 5MW solar hybrid systems and to provide fresh submissions. FEA received a total of 20 EOIs for a 2MW – 5MW solar hybrid systems. FEA will complete evaluation of these EOIs and sign a PPA with the successful bidder in 2016.

### Augmentation of the Transmission Grid

An Electrical Protection Review Study of the entire FEA power system was carried out in 2011 to ensure safe and reliable system operation. The work scope was split into various phases. The last phase 4 of the recommendations was implemented in 2015, which included the detailed design of modern protection schemes for the Wailoa Power Station generators, Vuda – Waqadra 33kV sub-transmission 'B'

circuit, Sabeto – Waqadra 33kV sub-transmission circuit, and installation of modern protection relays for Wailoa Switching Station 132/33kV transformer (T5) and 11kV switchgear, Savusavu Power Station 11kV switchgear, and procurement of equipment for Cunningham Road 132/33kV transformers' protection upgrade. Seventy-one percent (71%) of the electrical protection relays in 11kV, 33kV and 132kV networks are modern numerical protection relays.

### Monasavu Hydro Scheme (MHS) Half-Life Repair & Maintenance Works

Work continued on the Monasavu Hydro Electric Scheme Half Life Refurbishment project that commenced in 2011. Below is a summary of work carried out in 2015 at a cost of around \$14.3M:

- Commenced manufacture of 132kV circuit breakers. Procured 110V DC control cables and 6 x control panels for this project.
- Prepared tender specifications and called for tenders for the Design, Build, Supply, Testing & Commissioning of the 132kV Mimic Panel, HMI System and Annunciation Panel for 132kV Cunningham Road substation.
- Prepared tender specifications and called for tenders for the design of the Tap Changer Controls for the 132kV/33kV transformers at Cunningham Road substation.
- Replaced 2 units of the Disconnect/Isolator/Earth Switch at Cunningham Road 132kV zone substation.
- Replaced a total of 15 x 132kV insulators at Cunningham Road zone substation.
- Completed Factory Acceptance Testing of the 33kV switch gear for Cunningham Road zone substation.
- Rust refurbishment work commenced on the 132kV transmission towers along the Wailoa – Cunningham Road transmission line. Access road work is also in progress for all transmission towers.
- Prepared specifications, called for tenders and awarded tender for the manufacture and supply of 132kV suspension and strain insulators.

### Other Zone Substations

- Commissioned the new 33kV/11kV Zone Substation off Knolly Street, in Suva, to cater for the future electricity growth in Suva City and nearby suburbs.
- Completed the upgrading of 33kV switchgear at the Hibiscus Park 33kV/11kV substation in Suva.
- Completed Factory Acceptance Testing for the replacement of 33kV switchgear at Suva zone substation.
- Prepared specifications, called for tenders and awarded tender for the manufacture, supply, installation and commissioning of 2 x 20/25MVA 11kV/33kV transformers for Kinoya.
- Design review was completed for replacement of 33kV switchgear for Vatuwaqa zone substation.
- Prepared tender specifications and called for tenders for the replacement of fire affected 11kV switchgear at Rarawai substation.
- Prepared tender specifications and called for tenders for the replacement of flood affected 11kV switchgear at Natadola substation.

### 33kV Underground Cabling Works in Suva

- Completed installation and commissioning of 33kV cables between Suva and Vatuwaqa zone substations.
- Completed installation of 33kV cables between Vatuwaqa and Cunningham Road zone substations.
- Completed installation of 33kV cables between Vatuwaqa and Kinoya zone substations.
- Completed installation of 33kV cables between Cunningham Road and Kinoya zone substations.

### Power Reticulation along the Korovou to Rakiraki Corridor in Viti Levu

Work continued on the project to electrify the Korovou - Rakiraki corridor. Work is currently in progress on the construction of a new 33kV transmission line from Tavua to Volivoli. Construction of a new 33kV/11kV Zone substation at Volivoli commenced in 2015 and is on schedule. This project will be completed at a cost of around \$19M and has been deferred to 2017 as a result of Tropical Cyclone Winston. The Project is jointly funded by the Government of Fiji and the Fiji Electricity Authority.

### Power Reticulation for Momi Bay Resort

Work continued on the \$12.9M project to electrify the Momi Bay Resort that is currently being developed by FNPF. Construction of a new 33kV transmission line from Waqadra to Momi to supply the Momi Bay development is currently in progress. Work also commenced on the construction of a new 33kV switching station at Nawai and a 33kV/11kV zone substation at Momi. This project is scheduled for completion by the end of 2016 as a result of Tropical Cyclone Winston.

### Rural, Urban and Contract Projects

FEA spent a total sum of \$28.7M on the construction of new rural electrification schemes, grid extension for commercial/industrial projects, power system reinforcement works and contract jobs. Of this amount \$5M was authorized for construction of fifty four (54) rural electrification projects, \$7.6M was authorized for seventy four (74) General Extension projects for commercial and industrial customers and \$5.7M was utilized for twenty seven (27) contract jobs. A total amount of \$10.4M was authorized for twelve (12) distribution power system reinforcement projects.



The residents of Viwa Island celebrating after the Honourable Prime Minister, Josaia Voreqe Bainimarama officially opened the Rural Electrification Scheme to supply electricity to Viwa Island.

## INFORMATION & COMMUNICATION TECHNOLOGY

The ICT System uptime recorded for 2015 was 99.89%, exceeding the Board mandated target of 99.80%.

The Authority embarked on some major projects highlighted within this report and was able to successfully deliver on all fronts. The year also saw the execution of the ICT strategy to implement ICT technologies/solutions that are relevant and can be leveraged to improve business efficiency, reduce operating costs and reduce the business risks.

Some of the projects that were commissioned in 2015 to improve customer service delivery were:

- a. The implementation of a Document Management System;
- b. The upgrade of the Contact Centre Management Server; and
- c. The upgrade of the Telephony PBX Server.

Through the study and research undertaken in 2015, the business cases for the following projects were approved and are in progress and scheduled to be completed in 2016:

- a. Upgrade of the Customer Information & Billing System;
- b. Replacement of the Data Centre Server Infrastructure;
- c. Upgrade of the Video Conferencing System; and
- d. Improvement of the Disaster Recovery capabilities.

ICT played a key role in enabling the Authority to ensure not only the success of the above projects but also the primary obligation of providing reliable electricity supply to customers.

## COMMERCIAL

The Fiji Electricity Authority's Commercial division comprises of two major operational units namely Supply Chain and Regulatory Units which have a combined total of over eighty team members. Both teams are distributed over the main FEA Depots in Kinoya, Navutu and Labasa.

### 1) Supply Chain Unit

In 2015, the Supply Chain Unit has maintained its ongoing focus on optimizing its performance in the critical result areas of procurement of goods & services, inventory management, as well as Fleet & Property Services.

Performance optimization of the division was achieved through implementing the following simple but key objectives:

- Increase Speed of delivery of goods & services rendered to internal & external customers
- Improve Quality of goods & services rendered to internal & external customers
- Reduce Costs of providing goods & services rendered to internal & external customers

### Supply Chain Unit 2015 Performance Outcomes

Given the Corporate Plan objectives and related divisional key performance Indicators, the following main outcomes were achieved as at 31st December 2015:

### In terms of procurement of goods & services:

- the actual average tender turnaround time of 4.64 weeks was accomplished for the year (for tenders valued at > = \$10k and < = \$100k) against a target of 6 weeks.
- In addition, corporate savings of around \$1M was achieved via procurement /tender negotiations and other supply chain efficiency cost initiatives.

### In terms of sound Inventory management, vigilance, and best practices:

- FEA achieved the normal operational inventory stockholding level KPI (not including fuel & engine spares) of \$10.56M against a corporate target of \$11M.
- Stock-turns KPI (Improvement of rate of stock Utilization) was achieved at 8.2% against a target of greater than 6%. This achievement indicates that FEA's stock items were been managed efficiently and that stock was turned over regularly.
- The number of stock takes achieved was 4 out of 4 with a variance percentage of 0.000627% against a target of 0.001%.



**FEA Unit Leader Substations, Mr Ravin Narayan explains the specialized inventory that FEA imports to the FRCA customs officials during their Audit visit at Kinoya Depot in 2015.**



### In terms of Fleet & Property Services:

- Although the Corporate Fleet Accidents KPI target was not achieved as desired, our Fleet teams worked together with the Health & Safety team (HSE) to mitigate and reduce driving risks through specific driver attitude training including specialist vehicle training programmes. Additionally, at the end of last year, a Vehicle Tracking system was installed in all FEA vehicles to specifically assist in maintaining safe speeds and highlighting over speeding breaches as well as abuse of vehicle usage and management of fuel efficiency.
- Facilitating the process in acquiring the relevant civil contractors for foundational preparation for the new 35MW generating station complex at the Kinoya property.
- Ensured that all FEA properties & building services were maintained in a timely manner.



FEA installed Vehicle Tracking System in 2015 in all the FEA vehicles to specifically assist in maintaining safe speeds and highlighting over speeding breaches as well as abuse of vehicle usage and management of fuel efficiency.

## 2) Regulatory Unit

The Fiji Electricity Authority Regulatory Unit is tasked with its major core function of regulation and compliance enforcement of the Electricity Act for all stakeholders in the Electricity sector. Its other functions include (but are not limited) to the following:

- Registration and licensing of electricians & electrical contractors.
- Licensing of electrical generation equipment and retailers including licensing of new Independent Power Producers (IPPs).
- Ensuring industry compliance in accordance with the Electricity Act and AS/NZS Wiring standards.
- Electrical testing of imported electrical appliances and fittings used in Fiji upon request.

- Investigation and submission of Independent reports on electrocution incidents to resident Magistrates.
- Testing of electricity meters to ensure compliance (within plus or minus 2.5%).

The following major achievements of this Unit as at 31st December 2015 were:

### Customer focus and Efficiency

A new Inspection Regulatory team was established at Tavua Depot to cater for the increasing number of customers located at Ba, Tavua and Rakiraki districts.

A new energy meter test bench was installed at Kinoya whilst the old meter test bench at Kinoya was relocated and installed at Navutu Depot in Lautoka to bring about efficiencies in the testing of meters and eliminate the transportation of energy meters from Suva to Lautoka.

### Maintenance of Registers for Electricians & Electrical Contractors

- Total number of registered licensed electricians in 2015 was 1,895 whilst 1,442 had their licenses validated after the required renewal fees were paid up.
- Total number of registered electrical contractors in 2015 were 277 and 43 had their licenses validated after the required renewal fees were paid up.
- The public were regularly advised of the importance of engaging only licenced electrical contractors via direct customer contact, publication on FEA Website and through advertisements every six months in the daily newspaper.

### Number of new installations inspected and approved for connections:

- A total of 5,793 new connections were made in 2015 against a target of 4,500. The new connections comprised of 4,566 domestic connections and 1,227 commercial connections.

### Number of energy meters tested in FEA meter test bench

- A total of 15,289 energy meters were tested by FEA in 2015 of which 12,705 were single phase meters, 2,009 were prepay meters and 575 were three phase meters.

### Target of fixing 90 per cent of the power line faults in urban areas within 3 hours and for rural areas within 4 hours.

- Exceeded target for both rural customers and urban customers by achieving 95% and 93% respectively.

### Ongoing and proactive Public Safety Awareness campaign

- Achieved a target of 4 safety awareness presentations to various communities, villages & schools in Central and Westerns division to ensure life and property are protected and safe.

In 2015, FEA continued its support for the proposed transfer of the Regulatory functions by collaborating and providing relevant policy & operational information to the Ministry of Public Enterprises and its Consultant.



Because of the inherent danger in dealing with electricity, extensive education and training is essential to ensure the safety of FEA workers. Here pole top rescue is being carried out as part of the safety training.

The FEA liveline team maintaining the overhead transmission line to ensure reliability and security of power supply to customers.



The FEA Team as part of their corporate social responsibility hosted a morning tea to raise funds and support cancer awareness in Fiji.

# FINANCIAL STATEMENTS

## for the year ended 31 December 2015

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**Statement By Members of the Authority for the year ended 31 December 2015**

In accordance with a resolution of the Members of the Fiji Electricity Authority (“the Authority”) in the opinion of the Members:

1. the financial statements and accompanying notes show a true and fair view of the financial position, results of operations, changes in capital and reserves and cash flows of the Fiji Electricity Authority as at and for the year ended 31 December 2015;
2. the statements have been prepared in accordance with the provisions of the Electricity Act 1966 (Cap 180) and International Financial Reporting Standards;
3. the basis of preparation of the financial statements and the classification and carrying amounts of assets and liabilities as stated in these financial statements are appropriate;
4. at the date of this statement there are reasonable grounds to believe that the Authority will be able to pay its debts as and when they fall due; and
5. all related party transactions have been adequately recorded in the books of the Authority.

21 April 2016, Suva



.....  
**Nizam-ud-Dean**  
CHAIRMAN



.....  
**Gardiner Whiteside**  
DEPUTY CHAIRMAN

## Independent Auditor's Report

### To the Members of Fiji Electricity Authority

### Report on the Financial Statements

I have audited the accompanying financial statements of Fiji Electricity Authority ("the Authority") which comprise the statement of comprehensive income, the statement of financial position as at 31 December 2015, the statement of cash flows for the year then ended and the statement of changes in capital and reserves and the summary of significant accounting policies and other explanatory information as set out on Note 1 to 24.

#### Directors' and Management's Responsibility for the Financial Statements

The Directors' and Management are responsible for the preparation and fair presentation of these financial statements in accordance with International Financial Reporting Standards and the requirements of the Electricity Act 1966 (Cap 180). This responsibility includes: designing, implementing and maintaining internal control relevant to the preparation and fair presentation of financial statements that are free from material misstatement, whether due to fraud or error; selecting and applying appropriate accounting policies; and making accounting estimates that are reasonable in the circumstances.

#### Auditor's Responsibility

My responsibility is to express an opinion on these financial statements based on my audit. I have conducted the audit in accordance with International Standards on Auditing. Those standards require that I comply with ethical requirements and plan and perform the audit to obtain reasonable assurance about whether the financial statements are free from material misstatement.

An audit involves performing procedures to obtain audit evidence about the amounts and disclosures in the financial statements. The procedures selected depend on the auditor's judgement, including the assessment of the risks of material misstatement of the financial statements, whether due to fraud or error. In making those risk assessments, the auditor considers internal control relevant to the entity's preparation and fair presentation of the financial statements in order to design audit procedures that are appropriate in the circumstances, but not for the purpose of expressing an opinion on the effectiveness of the entity's internal control. An audit also includes evaluating the appropriateness of accounting policies used and the reasonableness of accounting estimates made by management, as well as evaluating the overall presentation of the financial statements.

I believe that the audit evidence that I have obtained is sufficient and appropriate to provide a basis for my audit opinion.

#### Audit Opinion

In my opinion:

- a) proper books of account have been kept by the Fiji Electricity Authority, so far as it appears from my examination of those books, and
- b) the accompanying financial statements which have been prepared in accordance with International Financial Reporting Standards:
  - (i) are in agreement with the books of accounts; and
  - (ii) to the best of my information and according to the explanations given to me:
    - a) give a true and fair view of the state of affairs of the Fiji Electricity Authority as at 31 December 2015 and of the results, movement in reserves and cash flows of the Authority for the year ended on that date; and
    - b) give the information required by the Electricity Act 1966 (Cap 180) in the manner so required.

I have obtained all the information and explanations which, to the best of my knowledge and belief, were necessary for the purposes of my audit.

Suva, Fiji  
29 April, 2016

  
.....  
Atunaisa Nadakuitavuki  
for AUDITOR GENERAL

## Statement Of Comprehensive Income

### For The Year Ended 31 December 2015

	Notes	2015 \$'000	2014 \$'000
Revenue - electricity sales	5	311,989	300,337
Other operating revenue	5	9,877	7,154
<b>Total revenue</b>		<b>321,866</b>	<b>307,491</b>
Personnel costs		(19,975)	(17,628)
Fuel costs		(140,704)	(180,032)
Electricity purchases		(16,894)	(19,672)
Lease and rent expenses		(1,567)	(1,353)
Depreciation on property, plant and equipment		(37,714)	(36,178)
Amortisation of intangible assets		(180)	(390)
Losses due to flooding		-	(169)
Other operating expenses		(48,924)	(38,861)
<b>Total expenses</b>		<b>(265,958)</b>	<b>(294,283)</b>
<b>Profit before finance costs and income tax</b>		<b>55,908</b>	<b>13,208</b>
<b>Finance Cost:</b>			
Finance cost		(9,885)	(11,382)
Interest income		1,004	313
Unrealised foreign exchange loss, net		(1,673)	(1,026)
<b>Profit before income tax</b>	6	<b>45,354</b>	<b>1,113</b>
Income tax expense	7(a)	(5,664)	(141)
<b>Profit after income tax</b>		<b>39,690</b>	<b>972</b>
Other comprehensive income		-	-
<b>Total comprehensive income for the year</b>		<b>39,690</b>	<b>972</b>

The above statement of comprehensive income has been prepared in accordance with the International Financial Reporting Standards (IFRS) and should be read in conjunction with the accompanying notes.

## Statement Of Financial Position

As at 31 December 2015

	Notes	2015 \$'000	2014 \$'000
<b>CAPITAL AND RESERVES</b>			
Retained profits		551,999	512,309
Capital contribution		95,175	88,340
		<b>647,174</b>	<b>600,649</b>
Represented by:			
<b>CURRENT ASSETS</b>			
Cash on hand and at bank		37,343	38,523
Short term deposits	8(a)	20,000	20,000
Held to maturity financial assets	12	12,468	11,642
Receivables and prepayments	9	39,587	34,425
Inventories	10	29,566	29,041
Tax refund due		308	114
		<b>139,272</b>	<b>133,745</b>
<b>NON-CURRENT ASSETS</b>			
Property, plant and equipment	11	1,029,748	978,867
Intangible assets	13	782	962
Deferred tax assets	7(b)	2,009	6,953
		<b>1,032,539</b>	<b>986,782</b>
		<b>1,171,811</b>	<b>1,120,527</b>
<b>TOTAL ASSETS</b>			
<b>CURRENT LIABILITIES</b>			
Trade and other payables	14	49,288	34,573
Employee benefit liability	15	2,465	2,328
Interest bearing borrowings	16	23,975	18,097
		<b>75,728</b>	<b>54,998</b>
<b>NON-CURRENT LIABILITIES</b>			
Trade and other payables	14	84,257	80,077
Interest bearing borrowings	16	316,654	336,668
Deferred income	17	7,280	8,137
Deferred tax liabilities	7(c)	40,718	39,998
		<b>448,909</b>	<b>464,880</b>
		<b>524,637</b>	<b>519,878</b>
		<b>647,174</b>	<b>600,649</b>
<b>TOTAL LIABILITIES</b>			
<b>NET ASSETS</b>			

The above statement of financial position has been prepared in accordance with the International Financial Reporting Standards (IFRS) and should be read in conjunction with the accompanying notes.

## Statement Of Cash Flows

### For The Year Ended 31 December 2015

Note	2015 \$'000	2014 \$'000
<b>Cash flows from operating activities</b>		
Receipts from customers	321,111	304,199
Payments to suppliers and employees	(226,731)	(258,725)
Interest received	977	311
Interest paid	(12,449)	(11,577)
Insurance proceeds for business interruption	2	1
Net income tax and withholding taxes received/(paid)	(2,385)	8,218
<b>Net cash flows provided by operating activities</b>	<b>80,525</b>	<b>42,427</b>
<b>Cash flows from investing activities</b>		
Acquisition of property, plant, and equipment	(80,633)	(114,089)
Proceeds from capital contribution for rural electrification, net	6,835	13,497
Proceeds/(repayments) from refundable contribution for general extension, net	7,279	19,680
Proceeds from disposal of property, plant and equipment	211	470
<b>Net cash flows used in investing activities</b>	<b>(66,308)</b>	<b>(80,442)</b>
<b>Cash flows from financing activities</b>		
Repayment of bonds and loans	(56,764)	(25,165)
Proceeds from loans - local	40,668	75,921
<b>Net cash flows provided by/(used in) financing activities</b>	<b>(16,096)</b>	<b>50,756</b>
<b>Net increase in cash and cash equivalents</b>	<b>(1,879)</b>	<b>12,741</b>
Effect of exchange rate movement on cash and cash equivalents	699	474
Cash and cash equivalents - at the beginning of the year	58,523	45,308
<b>Cash and cash equivalents - at the end of the year</b>	<b>8</b> <b>57,343</b>	<b>58,523</b>

The above statement of cash flows has been prepared in accordance with the International Financial Reporting Standards (IFRS) and should be read in conjunction with the accompanying notes.



## Statement Of Changes In Capital And Reserves

### For The Year Ended 31 December 2015

	Capital Contributions \$'000	Retained Profits \$'000	Total \$'000
<b>Balance as at 31 December 2013</b>	<b>76,604</b>	<b>511,337</b>	<b>587,941</b>
Capital contribution during the year	11,736	-	11,736
Total comprehensive income for the year ended 31 December 2014	-	972	972
<b>Balance as at 31 December 2014</b>	<b>88,340</b>	<b>512,309</b>	<b>600,649</b>
Capital contribution during the year	6,835	-	6,835
Total comprehensive income for the year ended 31 December 2015	-	39,690	39,690
<b>Balance as at 31 December 2015</b>	<b>95,175</b>	<b>551,999</b>	<b>647,174</b>

The above statement of changes in capital and reserves has been prepared in accordance with the International Financial Reporting Standards (IFRS) and should be read in conjunction with the accompanying notes.

## Notes To And Forming Part Of The Financial Statements For The Year Ended 31 December 2015

### 1. STATEMENT OF SIGNIFICANT ACCOUNTING POLICIES

#### Statement of Compliance

The financial statements have been prepared in accordance with the Electricity Act 1966 (Cap 180) and International Financial Reporting Standards ('IFRS') as issued by the International Accounting Standards Board (IASB).

#### Issue of Financial Statements

The financial statements were approved for issue by the Authority's Board of Directors at its meeting held on 28th April 2016.

#### Basis of Preparation

The financial statements have been prepared on the basis of historical cost, except for the revaluation of certain non-current assets and financial instruments. Cost is based on the fair values of the consideration given in exchange for assets.

In the application of IFRS, management is required to make judgements, estimates and assumptions about carrying values of assets and liabilities that are not readily apparent from other sources. The estimates and associated assumptions are based on historical experience and various other factors that are believed to be reasonable under the circumstance, the results of which form the basis of making the judgements. Actual results may differ from these estimates.

The estimates and underlying assumptions are reviewed on an ongoing basis. Revisions to accounting estimates are recognised in the period in which the estimate is revised if the revision affects only that period, or in the period of the revision and future periods if the revision affects both current and future periods. Judgements made by management in the application of IFRS that have significant effects on the financial statements and estimates with a significant risk of material adjustments in the next year are disclosed, where applicable, in the relevant notes to the financial statements.

Accounting policies are selected and applied in a manner which ensures that the resulting financial information satisfies the concepts of relevance and reliability, thereby ensuring that the substance of the underlying transactions or other events is reported.

#### New standards, interpretations and amendments effective from 1 January 2015

A number of amendments are effective for the first time for annual periods beginning on (or after) 1 January 2015. None of the amendments have a material effect on the Authority's annual financial statements.

Amendment which are relevant to the entity are presented below.

#### IAS 24 Related Party Disclosures

The amendment is applied retrospectively and clarifies that a management entity (an entity that provides key management personnel services) is a related party subject to the related party disclosures. In addition, an entity that uses a management entity is required to disclose the expenses incurred for management services. This amendment is not relevant to the Authority as it does not receive any management services from other entities.

#### IAS 19 Defined Benefit Plans: Employee Contributions

IAS 19 requires an entity to consider contributions from employees or third parties when accounting for defined benefit plans. Where the contributions are linked to service, they should be attributed to periods of service as a negative benefit. These amendments clarify that, if the amount of the contributions is independent of the number of years of service, an entity is permitted to recognise such contributions as a reduction in the service cost in the period in which the service is rendered, instead of allocating the contributions to the periods of service. This amendment is effective for annual periods beginning on or after 1 July 2014. This amendment to IAS 19 has no impact on the Authority's financial statements.

#### IAS 16 Property, Plant and Equipment and IAS 38 Intangible Assets

The amendment is applied retrospectively and clarifies in IAS 16 and IAS 38 that the asset may be revalued by reference to observable data by either adjusting the gross carrying amount of the asset to market value or by determining the market value of the carrying value and adjusting the gross carrying amount proportionately so that the resulting carrying amount equals the market value. In addition, the accumulated depreciation or amortisation is the difference between the gross and carrying amounts of the asset. This amendment to IAS 16 has no impact on the Authority's financial statement.

## Notes To And Forming Part Of The Financial Statements For The Year Ended 31 December 2015

### 1. STATEMENT OF SIGNIFICANT ACCOUNTING POLICIES (CONT'D)

#### New standards, interpretations and amendments effective from 1 January 2015 (cont'd)

##### IFRS 13 Fair Value Measurement

The amendment is applied prospectively and clarifies that the portfolio exception in IFRS 13 can be applied not only to financial assets and financial liabilities, but also to other contracts within the scope of IAS 39. This amendment to IFRS 13 has no impact on the Authority's financial statement.

#### New standards, interpretations and amendments that have been issued but are not mandatorily effective as at 31 December 2015

The following new standards, interpretations and amendments, which are not yet mandatorily effective and have not been adopted early in these financial statements, will or may have an effect on the Authority's future financial statements. The Authority intends to adopt these standards, interpretations and amendments, if applicable, when they become effective.

##### IFRS 9 - Financial Instruments

In July 2014, the IASB issued the final version of IFRS 9 Financial Instruments which reflects all phases of the financial instruments project and replaces IAS 39 Financial Instruments: Recognition and Measurement and all previous versions of IFRS 9. The standard introduces new requirements for classification and measurement, impairment, and hedge accounting. IFRS 9 is effective for annual periods beginning on or after 1 January 2018, with early application permitted. Retrospective application is required, but comparative information is not compulsory. Early application of previous versions of IFRS 9 (2009, 2010 and 2013) is permitted if the date of initial application is before 1 February 2015.

##### IFRS 15 - Revenue from Contracts with Customers

IFRS 15 was issued in May 2014 and establishes a new five-step model that will apply to revenue arising from contracts with customers. Under IFRS 15 revenue is recognised at an amount that reflects the consideration to which an entity expects to be entitled in exchange for transferring goods or services to a customer. The principles in IFRS 15 provide a more structured approach to measuring and recognising revenue.

The new revenue standard is applicable to all entities and will supersede all current revenue recognition requirements under IFRS. Either a full or modified retrospective application is required for annual periods beginning on or after 1 January 2018 with early adoption permitted. The Authority is currently assessing the impact of IFRS 15 and plans to adopt the new standard on the required effective date.

##### IFRS 16 - Leases

On 13 January 2016, the IASB issued IFRS 16 Leases, which supersedes IAS 17 Leases, IFRIC 4 Determining whether an arrangement contains a Lease, SIC 15 Operating Leases-Incentives and SIC 27 Evaluating the Substance of Transactions Involving the Legal Form of a Lease.

IFRS 16 eliminates the classification by a lessee of leases as either operating or finance. Instead all leases are treated in a similar way to finance leases in accordance with IAS 17. Under IFRS 16, leases are recorded on the balance sheet by recognising a liability for the present value of its obligation to make future lease payments with an asset (comprised of the amount of the lease liability plus certain other amounts) either being disclosed separately in the statement of financial position (within right-of-use assets) or together with property, plant and equipment. The most significant effect of the new requirements will be an increase in recognised lease assets and financial liabilities.

IFRS 16 applies to annual periods commencing on or after 1 January 2019. Earlier adoption is permitted, but only IFRS 15 Revenue from Contracts with Customers is also adopted. The Authority is currently assessing the impact of IFRS 16 and plans to adopt the new standard on the required effective date.

#### Amendments to IAS 16 and IAS 38 - Clarification of Acceptable Methods of Depreciation and Amortization

The amendments clarify the principle in IAS 16 and IAS 38 that revenue reflects a pattern of economic benefits that are generated from operating a business (of which the asset is part) rather than the economic benefits that are consumed through use of the asset. As a result, a revenue-based method cannot be used to depreciate property, plant and equipment and may only be used in very limited circumstances to amortise intangible assets. The amendments are effective prospectively for annual periods beginning on or after 1 January 2016, with early adoption permitted. These amendments are not expected to have any impact to the Authority given that the Authority has not used a revenue-based method to depreciate its non-current assets.

#### Amendments to IAS 1 – Disclosure Initiative

The amendments clarify guidance in IAS 1 on materiality and aggregation, the presentation of subtotals, the structure of financial statements and the disclosure of accounting policies.

Although the amendments do not require specific changes, they clarify a number of presentation issues and highlight that prepares are permitted to tailor the format and presentation of financial statements to their circumstances and the needs of users.

The amendments are effective for annual periods beginning on or after 1 January 2016, with early adoption permitted. The Authority is currently assessing the disclosure requirements of amendments and plans to adopt the amendments on the required effective date.

## Notes To And Forming Part Of The Financial Statements

### For The Year Ended 31 December 2015

#### 1. STATEMENT OF SIGNIFICANT ACCOUNTING POLICIES (CONT'D)

The following significant accounting policies have been adopted in the preparation and presentation of the financial statements:

##### (a) Allowance for doubtful debts

The Authority establishes an allowance for any doubtful debts based on a review of all outstanding amounts at year-end. Bad debts are written off during the period in which they are identified.

##### (b) Bond instruments

Bonds issued are recorded at cost which reflects the face value of these instruments. Transaction costs on the issue of bond instruments are capitalised and amortised to the statement of comprehensive income over the currency life of the bond instruments. Transaction costs are the costs that are incurred directly in connection with the issue of those bond instruments and which would not have been incurred had those instruments not been issued.

##### (c) Borrowings

Borrowings are recognized initially at fair value, net of transaction costs incurred. Borrowings are subsequently stated at amortised cost; any difference between the proceeds (net of transaction costs) and the redemption value is recognised in the statement of comprehensive income over the period of the borrowings using the effective interest method.

Borrowings are classified as current liabilities unless the Authority has an unconditional right to defer settlement of the liability for at least 12 months after the balance date.

##### (d) Borrowing costs

The borrowing costs that are directly attributable to major capital expenditures and projects under construction are capitalized as part of the cost of these assets. Other borrowing costs are recognized as an expense in the year in which they are incurred.

The government guarantee fees on loans drawdown specifically for capital projects are capitalised. Other guarantee fees paid are expensed.

##### (e) Capital contribution

A 100% refundable capital contribution represents the cost of the extension, received from the developer or a prospective consumer. The cost of the extension is the estimated cost incurred from the Authority's nearest mains supply point capable of providing the assessed load required. The developer or a prospective consumer applying for a general extension provides a 100% refundable capital contribution in relation to the cost of the extension which is credited to trade and other payables and is refunded to the customer over a period of 5 and 8 years. This is in accordance with the determination by the Fiji Commerce Commission.

##### (f) Cash and cash equivalents

For the purposes of the statement of cash flows, cash and cash equivalents comprise of cash on hand, cash in banks short term deposits held with banks and bank overdrafts. Bank overdrafts are shown within borrowings under current liabilities in the statement of financial position.

##### (g) Comparative figures

Where necessary, amounts relating to prior years have been reclassified to facilitate comparison and achieve consistency in disclosure with current year amounts.

##### (h) Deferred income

Government grant in aid and assets acquired at no cost to the Authority are capitalised and systematically recognised as other income on the basis of the expected lives of the assets to which the grants relate.

## Notes To And Forming Part Of The Financial Statements For The Year Ended 31 December 2015

### 1. STATEMENT OF SIGNIFICANT ACCOUNTING POLICIES (CONT'D)

#### (i) Employee benefits

##### i) Annual leave

Provision for annual leave represents the amount which the Authority has a present obligation to pay for employees' services provided up to the balance date. The provision has been calculated on the current wage and salary rate.

##### ii) Performance pay

The Authority maintains a Performance Management System which is used to remunerate employees based on the achievement of certain Key Performance Indicators (KPIs). These KPIs are established based on predetermined objectives of the Authority. The liability is measured at the wage or salary rates prevailing during the year.

#### (j) Foreign currency translation

Transactions denominated in a foreign currency are translated to Fiji currency at the exchange rate at the date of the transaction.

Foreign currency receivables and payables at balance date are translated to Fiji currency at exchange rates prevailing at balance date.

All gains and losses arising there from (realised and unrealised) are brought to account in determining the profit or loss for the year.

#### (k) Inventories

Inventories are stated at the lower of cost and net realisable value. Cost is based on the weighted average cost principle and includes expenditure incurred in acquiring the stock and bringing it to its existing condition and location. Consumables are valued at cost plus the associated delivery charges.

#### (l) Impairment of non-financial assets

The Authority assesses at each reporting date whether there is an indication that an asset may be impaired. If any such indication exists, or when annual impairment testing for an asset is required, the Authority estimates the asset's recoverable amount. An asset's recoverable amount is the higher of an asset's or cash-generating unit's fair value less costs to sell and its value in use and is determined for an individual asset, unless the asset does not generate cash inflows that are largely independent of those from other assets or group of assets. When the carrying amount of an asset exceeds its recoverable amount, the asset is considered impaired and is written down to its recoverable amount.

In assessing value in use, the estimated future cash flows are discounted to their present value using a pre-tax discount rate that reflects current market assessments of the time value of money and the risks specific to the asset. In determining fair value less costs to sell, an appropriate value model is used.

An assessment is made at each reporting date for non-financial assets as to whether there is any indication that previously recognised impairment losses may no longer exist or may have decreased. If such indication exists, the Authority makes an estimate of the recoverable amount. A previously recognised impairment loss is reversed only if there has been a change in the estimates used to determine the asset's recoverable amount since the last impairment loss was recognised. If that is the case the carrying amount of the asset is increased to its recoverable amount. The increased amount cannot exceed the carrying amount that would have been determined, net of depreciation, had no impairment loss been recognised for the asset in prior years. Such reversal is recognised in the statement of comprehensive income.

## Notes To And Forming Part Of The Financial Statements

### For The Year Ended 31 December 2015

#### 1. STATEMENT OF SIGNIFICANT ACCOUNTING POLICIES (CONT'D)

##### (m) Financial instruments initial recognition and subsequent measurement

###### i) Financial assets

###### Initial recognition and measurement

Financial assets are classified, at initial recognition, as financial assets at fair value through profit or loss, loans and receivables, held-to-maturity investments, AFS financial assets, or as derivatives designated as hedging instruments in an effective hedge, as appropriate. All financial assets are recognised initially at fair value plus, in the case of financial assets not recorded at fair value through profit or loss, transaction costs that are attributable to the acquisition of the financial asset.

Purchases or sales of financial assets that require delivery of assets within a time frame established by regulation or convention in the market place (regular way trades) are recognised on the trade date, i.e., the date that the Authority commits to purchase or sell the asset.

###### Subsequent measurement

For purposes of subsequent measurement financial assets are classified in four categories:

- Financial assets at value through profit and loss
- Loans and receivables
- Held-to-maturity investments
- AFS financial assets

###### Financial assets at value through profit and loss

Financial assets at fair value through profit or loss include financial assets held for trading and financial assets designated upon initial recognition at fair value through profit or loss. Financial assets are classified as held for trading if they are acquired for the purpose of selling or repurchasing in the near term. The Authority has not designated any financial assets at fair value through profit or loss.

###### Loans and receivables

This category is the most relevant to the Authority. Loans and receivables are non-derivative financial assets with fixed or determinable payments that are not quoted in an active market. After initial measurement, such financial assets are subsequently measured at amortised cost using the effective interest rate (EIR) method, less impairment. Amortised cost is calculated by taking into account any discount or premium on acquisition and fees or costs that are an integral part of the EIR. The EIR amortisation is included in finance income in the statement of profit or loss. The losses arising from impairment are recognised in the statement of profit or loss in finance costs for loans and in cost of sales or other operating expenses for receivables.

This category generally applies to trade and other receivables. For more, information on receivables, refer to Note 9.

###### Held-to-maturity investments

Non-derivative financial assets with fixed or determinable payments and fixed maturities are classified as held to maturity when the Authority has the positive intention and ability to hold them to maturity. After initial measurement, held to maturity investments are measured at amortised cost using the EIR, less impairment. Amortised cost is calculated by taking into account any discount or premium on acquisition and fees or costs that are an integral part of the EIR. The EIR amortisation is included as finance income in the statement of profit or loss. The losses arising from impairment are recognised in the statement of profit or loss as finance costs.

###### AFS financial assets

AFS financial assets include equity investments and debt securities. Equity investments classified as AFS are those that are neither classified as held for trading nor designated at fair value through profit or loss. Debt securities in this category are those that are intended to be held for an indefinite period of time and that may be sold in response to needs for liquidity or in response to changes in the market conditions. The Authority holds no AFS financial assets at reporting date.

## Notes To And Forming Part Of The Financial Statements For The Year Ended 31 December 2015

### 1. STATEMENT OF SIGNIFICANT ACCOUNTING POLICIES (CONT'D)

#### (m) Financial instruments initial recognition and subsequent measurement (Cont'd)

##### i) Financial assets (cont'd)

#### Derecognition

A financial asset (or, where applicable, a part of a financial asset or part of a group of similar financial assets) is primarily derecognised (i.e., removed from the Authority's statement of financial position) when:

- The rights to receive cash flows from assets have expired
- The Authority has transferred its rights to receive cash flows from the asset or has assumed an obligation to pay the received cash flows in full without material delay to a third party under a 'pass-through' arrangement; and either (a) the Authority has transferred substantially all the risks and rewards of the asset, or (b) the Authority has neither transferred nor retained substantially all the risks and rewards of the asset, but has transferred control of the asset.

#### Impairment of financial assets

The Authority assesses, at each reporting date, whether there is objective evidence that a financial asset or a group of financial assets is impaired. An impairment exists, if one or more events that has occurred since the initial recognition of the asset (an incurred 'loss event'), has an impact on the estimated future cash flows of the financial asset or the group of financial assets that can be reliably estimated. Evidence of impairment may include indications that the debtors or a group of debtors is experiencing significant financial difficulty, default or delinquency in interest or principal payments, the probability that they will enter bankruptcy or other financial re-organisation and observable data indicating that there is a measurable decrease in the estimated future cash flows, such as changes in arrears or economic conditions that correlate with defaults.

##### ii) Financial liabilities

#### Initial recognition and measurement

Financial liabilities are classified, at initial recognition, as financial liabilities at fair value through profit or loss, loans and borrowings, payables, or as derivatives designated as hedging instruments in an effective hedge, as appropriate.

All financial liabilities are recognised initially at fair value and, in the case of loans and borrowings and payables, net of directly attributable transaction costs.

The Authority's financial liabilities include trade and other payables, loans and borrowings including bank overdrafts, financial guarantee contracts and derivative financial instruments.

#### Subsequent measurement

The measurement of financial liabilities depends on their classification, as described below:

#### Financial liabilities at fair value through profit or loss

Financial liabilities at fair value through profit or loss include financial liabilities held for trading and financial liabilities designated upon initial recognition as at fair value through profit or loss.

Financial liabilities are classified as held for trading if they are incurred for the purpose of repurchasing in the near term. This category also includes derivative financial instruments entered into by the Authority that are not designated as hedging instruments in hedge relationships as defined by IAS 39. Separated embedded derivatives are also classified as held for trading unless they are designated as effective hedging instruments.

Gains or losses on liabilities held for trading are recognised in the statement of profit and loss.

Financial liabilities designated upon initial recognition at fair value through profit or loss are designated at the initial date of recognition, and only if the criteria in IAS 39 are satisfied. The Authority has not designated any financial liability at fair value through profit or loss.

## Notes To And Forming Part Of The Financial Statements For The Year Ended 31 December 2015

### 1. STATEMENT OF SIGNIFICANT ACCOUNTING POLICIES (CONT'D)

#### (m) Financial instruments initial recognition and subsequent measurement (Cont'd)

##### ii) Financial liabilities (cont'd)

#### Loans and borrowings

This is the category most relevant to the Authority. After initial recognition, interest-bearing loans and borrowings are subsequently measured at amortised cost using the EIR method. Gains and losses are recognised in profit or loss when the liabilities are derecognised as well as through the EIR amortisation process.

Amortised cost is calculated by taking into account any discount or premium on acquisition and fees or costs that are an integral part of the EIR. The EIR amortisation is included as finance costs in the statement of profit or loss.

This category generally applies to the interest-bearing loans and borrowings.

#### Financial guarantee contracts

Financial guarantee contracts issued by the Authority are those contracts that require a payment to be made to reimburse the holder for a loss it incurs because the specified debtor fails to make a payment when due in accordance with the terms of a debt instrument. Financial guarantee contracts are recognised initially as a liability at fair value, adjusted for transaction costs that are directly attributable to the issuance of the guarantee. Subsequently, the liability is measured at the higher of the best estimate of the expenditure required to settle the present obligation at the reporting date and the amount recognised less cumulative amortisation.

#### Derecognition

A financial liability is derecognised when the obligation under the liability is discharged or cancelled or expired. When an existing financial liability is replaced by another from the same lender on substantially different terms, or the terms of an existing liability are substantially modified, such exchange or modification is treated as the derecognition of the original liability and the recognition of a new liability. The difference in the respective carrying amounts is recognised in the statement of profit or loss.

#### n) Intangible assets

Acquired computer software licenses are capitalised on the basis of the costs incurred to acquire and bring to use the specific software.

Costs associated with developing or maintaining computer software programmes are recognised as an expense as incurred. Costs that are directly associated with the development of identifiable and unique software products controlled by the Authority, and that will probably generate economic benefits exceeding costs beyond one year, are recognised as intangible assets.

#### (o) Leased assets

The Authority, the Monasavu landowners and the iTaukei Land Trust Board (iTLTB) in 2005 signed an agreement to lease approximately 23,000 acres of the Monasavu catchment area for a period of 99 years in return for specified payments. These lease commitments are disclosed in Note 19.

#### (p) Payables

Trade payables and other accounts payable are recognised when the Authority becomes obliged to make future payments resulting from the purchase of goods and services.



## Notes To And Forming Part Of The Financial Statements For The Year Ended 31 December 2015

### 1. STATEMENT OF SIGNIFICANT ACCOUNTING POLICIES (CONT'D)

#### (q) Property, plant and equipment

Property, plant and equipment are measured at cost less accumulated depreciation and impairment loss. Cost includes expenditure that is directly attributable to the acquisition of the item. Cost of leasehold land includes initial premium payment or price paid to acquire leasehold land including acquisition costs.

#### Additions

While expenditure on assets with a value of less than \$300 is generally not capitalised, physical control is maintained over all items regardless of cost.

#### Depreciation rates

Depreciation is calculated using the straight line method to write off the cost of each asset over their estimated useful lives as follows:

	<b>Rates</b>
Leasehold land	0.50% - 1.25%
Buildings - concrete	1.25%
Buildings - others	1.25%
Hydro Assets - dams	1.33% - 2.50%
Hydro Assets - tunnels	1.33% - 2.44%
Hydro Assets - plant and machinery	2.50% - 3.00%
Thermal assets	4.00% - 7.00%
Transmission	2.50%
Communication system and control	2.86%
Reticulation	4.00%
Wind mill	5.00%
Furniture and fittings	7.00% - 24.00%
Motor vehicles	20.00%
Computers	33.30%

Other fixed assets except for capital spares, are depreciated when they are brought into service.

Freehold land is not depreciated. Leasehold land is amortised over the remaining lease period.

#### Capital spares

Capital spares represent items held primarily for use in thermal stations in the event of a breakdown. In recognition of the increased risk of obsolescence over a protracted period, capital spares are amortised in line with the depreciation rates applicable to the related plant and machinery. Capital spares are reported as part of Authority's fixed assets.

#### Disposals

Gains and losses on disposals are determined by comparing proceeds with carrying amounts and are included in the statement of comprehensive income.

#### Repairs and maintenance

Repairs and maintenance is charged to the statement of comprehensive income during the financial period in which it is incurred. The cost of major renovations are included in the carrying amount of the asset when it is probable that future economic benefits in excess of the originally assessed standard of performance of the existing asset will flow to the Authority. Major renovations are depreciated over the remaining useful life of the related asset.

## Notes To And Forming Part Of The Financial Statements For The Year Ended 31 December 2015

### 1. STATEMENT OF SIGNIFICANT ACCOUNTING POLICIES (CONT'D)

#### (r) Provisions

Provisions are recognised:

- When the Authority has a present legal or constructive obligation as a result of past events;
- It is probable that an outflow of resources will be required to settle the obligation; and
- The amount can be reliably estimated.

Where there are a number of similar obligations, the likelihood that an outflow will be required in settlement is determined by considering the class of obligations as a whole. A provision is recognised even if the likelihood of an outflow with respect to any one item included in the same class of obligations may be small.

Provisions are measured at the present value of the expenditures expected to be required to settle the obligation using a pre-tax rate that reflects current market assessments of the time value of money and the risks specific to the obligation.

#### (s) Reporting currency

All figures are reported in Fiji currency.

#### (t) Revenue recognition

##### Electricity income

Electricity income is recorded in the statement of comprehensive income on an accrual basis by estimating the usage for customers till balance date.

##### Other income

Rental income earned from leasing FEA properties is recorded in the statement of comprehensive income on an accrual basis.

Interest income is recognised on a time proportionate basis that takes into account the effective yield on the financial asset.

#### (u) Rounding off amounts

Amounts in the financial statements have been rounded off to the nearest thousand dollars unless specifically stated to be otherwise.

#### (v) Taxation

##### Current tax:

Current tax is calculated by reference to the amount of income taxes payable or recoverable in respect of the taxable profit or tax loss for the year. It is calculated using tax rates and tax laws that have been enacted or substantively enacted at the reporting date. Current tax for the current and prior years is recognised as a liability or asset to the extent that it is unpaid or refundable.

## Notes To And Forming Part Of The Financial Statements For The Year Ended 31 December 2015

### 1. STATEMENT OF SIGNIFICANT ACCOUNTING POLICIES (CONT'D)

#### (v) Taxation (cont'd)

##### Deferred tax:

Deferred tax is accounted for using the liability method on temporary differences between the carrying amount of assets and liabilities in the financial statements and the corresponding tax base of those items.

In principle, deferred tax liabilities are recognised for all taxable temporary differences. Deferred tax assets are recognised to the extent that it is probable that sufficient taxable amounts will be available against which deductible temporary differences or unused tax losses and tax offsets can be utilised. However, deferred tax assets and liabilities are not recognised if the temporary differences giving rise to them arise from the initial recognition of assets and liabilities (other than as a result of a business combination) which affects neither taxable income nor accounting profit.

Deferred tax assets and liabilities are measured at the tax rates that are expected to apply to the periods when the asset and liability giving rise to them are realised or settled, based on tax rates and tax laws that have been enacted or substantively enacted at the reporting date. The measurement of deferred tax liabilities and assets reflects the tax consequences that would follow from the manner in which the Authority expects, at the reporting date, to recover or settle the carrying amount of its assets and liabilities.

Deferred tax assets and liabilities are offset when they relate to income taxes levied by the same taxation authority and the Authority intends to settle its current tax assets and liabilities on a net basis.

##### Current and deferred tax for the period:

Current and deferred tax is recognised as an expense or income in the statement of comprehensive income, except when it relates to items credited or debited directly to equity, in which case the deferred tax is also recognised directly in equity, or where it arises from the initial accounting for a business combination, in which case it is taken into account in the determination of goodwill or excess.

#### (w) Segment information

The Authority is not required to report segment information as it is not applicable to the nature of the Authority's operations. Whilst electricity revenue is distinguished by key operating segments, this is done purely for information purposes. The Authority has only one product in electricity, and costs associated with this product are totally common to all operating segments, and it is not possible nor practical to attempt to allocate costs across the operating segments. The Authority's power generating and distribution systems are operated on a fully integrated basis.

#### (x) Value Added Tax (VAT)

Revenues, expenses, assets and liabilities are recognised net of the amount of Value Added Tax (VAT), except:

- i) Where the amount of VAT incurred is not recoverable from the taxation authority, it is recognised as part of the cost of acquisition of an asset or as part of an item of expense; or
- ii) for trade receivables and trade payables which are recognised inclusive of VAT.

The net amount of VAT recoverable from, or payable to, the taxation authority is included as part of receivables or payables.

The VAT component of cash flows arising from operating and investing activities which are recoverable from or payable to the taxation authority is classified as operating cash flows.

## Notes To And Forming Part Of The Financial Statements

### For The Year Ended 31 December 2015

#### 2. FINANCIAL RISK MANAGEMENT

##### 2.1 Financial risk factors

The Authority's activities expose it to a variety of financial risks: market risk (including currency risk, interest rate risk and price risk), credit risk and liquidity risk. The Authority's overall risk management programme focuses on the unpredictability of financial markets and seeks to minimise potential adverse effects on the Authority's financial performance. The Authority does not enter into or trade financial instruments, including derivative financial instruments, for speculative purposes. The Authority's activities expose it primarily to the financial risks of changes in foreign currency exchange rates and interest rates.

##### (a) Market risk

##### (i) Foreign exchange risk

The Authority undertakes various transactions denominated in foreign currencies, hence exposures to exchange rate fluctuations arise. Exchange rate exposures are closely managed within approved policy parameters.

As at year end, USD \$7.24M assets are denominated in USD. Hence, changes in the USD by 10% (increase or decrease) is expected to have significant impact on the net profit and equity balances currently reflected in the Authority's financial statements.

	Financial assets (US\$'000)	Average exchange rate (USD)	Financial assets (F\$'000)
31 December 2015 (Actual)	US\$ 7,238	0.4701	15,397
Exchange rates - USD weakens by 10%	US\$ 7,238	0.5171	13,997
Exchange rates - USD strengthens by 10%	US\$ 7,238	0.4231	17,107

Based on the above, if USD weakens by 10%, the Authority's investments in financial assets would decrease by \$1.4 million and if the USD strengthens by 10%, the Authority's investments in financial assets would increase by \$1.71 million.

However, a risk also arises on the Authority's obligation with respect to the foreign currency loan of USD \$12.11 million (2014: USD\$13.6 million) which remains outstanding as at year end. For the year ended 31 December 2015, the restatement of the Authority's foreign currency loans has resulted in an unrealised foreign currency loss of \$1.96 million. Further sensitivities are provided to establish the impact to the profit before tax if foreign currency exchange rate differs by 10% (increase or decrease) from that used at balance date:

	Foreign currency borrowings (US\$'000)	Average exchange rate (USD)	Foreign currency borrowings (F\$000)
31 December 2015 (Actual)	US\$ 12,107	0.4701	25,754
Exchange rates - USD weakens by 10%	US\$ 12,107	0.5171	23,413
Exchange rates - USD strengthens by 10%	US\$ 12,107	0.4231	28,615

Based on the above, if USD weakens by 10%, the Authority's foreign currency borrowings would decrease by \$2.34 million and if the USD strengthens by 10%, the Authority's foreign currency borrowings would increase by \$2.86 million.

The Authority enters into forward foreign exchange contracts on a selective basis to manage its exposure to foreign exchange rate risk. Forward exchange contracts are initially recognised at fair value on the date a derivative contract is entered into and are subsequently restated to their fair value at each reporting date. There were no outstanding forward foreign exchange contracts as at 31 December 2015.

##### (ii) Price risk

The Authority does not have investments in equity securities and hence is not exposed to equity securities price risk. However, the Authority is exposed to commodity price risk as it purchases fuel through a local agent from offshore. The volatility on international fuel prices and its impact on the Authority's profitability is given below considering two scenarios based on price, quantity mix, demand growth and hydro availability.

## Notes To And Forming Part Of The Financial Statements For The Year Ended 31 December 2015

### 2. FINANCIAL RISK MANAGEMENT (CONT'D)

#### 2.1 Financial risk factors (Cont'd) | (ii) Price risk (cont'd)

	Average Fuel Price (F\$/Metric Tonne)	Consumption (Metric Tonne)	Fuel costs \$'000
31 December 2015 (Actual)	1,352.65	104,021	140,704
Fuel price-increase by 10%	1,487.91	104,021	154,774
Fuel price-decrease by 10%	1,217.38	104,021	126,633

Based on the above, if fuel price increase or decrease by 10%, the fuel costs to the Authority would increase or decrease by \$14 million annually. The above sensitivity calculation is based on the 2015 fuel consumption levels which is typically on the high side as compared to a normal year due to the prolonged spell of dry weather that impacted the Authorities operations in 2015

#### (iii) Interest rate risk

The Authority has significant interest-bearing assets in the form of short-term cash deposits. These are at fixed interest rates hence there are no interest rate risks during the period of investment. For re-investment of short and long term cash deposits, the Authority negotiates an appropriate interest rate with the banks and invests with the bank which offers the highest interest return.

Given the fixed nature of interest rates described above, the Authority has a high level of certainty over the impact on cash flows arising from interest income. Accordingly, the Authority does not require simulations to be performed over the impact on net profits arising from changes in interest rates.

All debts of the Authority raised through bond issues bear fixed interest rates. Therefore, the Authority is not exposed to interest rate risk.

The Authority is not exposed to interest rate risk from its borrowings from Suva City Council, as it borrows funds at fixed interest rates.

In relation to the borrowings from other commercial banks, the Authority to a certain extent is not exposed to interest rate risk as these borrowed funds are at fixed interest rates, for the agreed term. Thereafter, the interest rates are re-negotiated and new interest rates are agreed upon. The risk is managed closely within the approved policy parameters.

The Authority did not enter into any interest swap contracts during the year.

#### (b) Credit risk

Credit risk arises from deposits with banks, as well as credit exposures to customers, including outstanding receivables. For deposits with banks, only reputable parties with known sound financial standing are accepted. Trade accounts receivable consist of a large number of customers, residential, industrial and commercial. The Authority does not have any significant credit risk exposure to any single counterparty or any group of counterparties having similar characteristics. The carrying amount of financial assets recorded in the financial statements, net of any allowances for losses, represents the Authority's maximum exposure to credit risk.

#### (c) Liquidity risk

Prudent liquidity risk management implies maintaining sufficient cash to ensure availability of funding. The Authority monitors liquidity through rolling forecasts of the Authority's cash flow position on daily basis. Overall, the Authority does not see liquidity risk as high given that a reasonable portion of revenues are billed and collected.

The table below analyses the Authority's financial assets and liabilities into relevant maturity groupings based on the remaining period at the balance date to the contractual maturity date. The amounts disclosed in the table are based on the contractual undiscounted cash flows.

#### Fair value estimation

The carrying value less impairment provision of trade receivables and payables are assumed to approximate their fair values. The carrying values of financial liabilities and financial assets and provisions are estimated to approximate their fair values.

Financial Assets	Less than one year \$'000	2 to 5 years \$'000	More than 5 years \$'000	Total \$'000
Short term deposits (Note 8(a))	20,000	-	-	20,000
Held to maturity financial assets (Note 12)	12,468	-	-	12,468
Receivables and prepayments (Note 9)	39,587	-	-	39,587
<b>Total</b>	<b>72,055</b>	<b>-</b>	<b>-</b>	<b>72,055</b>

Financial liabilities:	Less than one year \$'000	2 to 5 years \$'000	More than 5 years \$'000	Total \$'000
Trade and other payables	49,288	31,495	52,762	133,545
Bonds payable	-	-	37,250	37,250
Interest bearing borrowings	23,975	95,887	183,517	303,379
<b>Total</b>	<b>73,263</b>	<b>127,382</b>	<b>273,529</b>	<b>474,174</b>

## Notes To And Forming Part Of The Financial Statements

### For The Year Ended 31 December 2015

#### 2. FINANCIAL RISK MANAGEMENT

##### 2.1 Financial risk factors (Cont'd)

###### (d) Other risk | (i) Regulatory risk

The Authority's profitability can be significantly impacted by regulatory agencies established which govern and control the electricity sector in Fiji. Specifically, fuel surcharges, regulatory fees and electricity tariffs are regulated by the Fiji Commerce Commission.

###### (ii) Operational Risk

Operational risk is the risk of loss arising from systems failure, human error, and fraud to external events. When controls fail to perform, operational risks can cause damage to reputation, have legal or regulatory implications, or lead to financial crisis. The Authority cannot eliminate all operational risk, but through a control framework and by monitoring and responding to potential risks, the Authority is able to manage risks. Controls include effective segregation of duties, access, authorisation and reconciliation procedures, staff education and assessment procedures.

#### 3. CRITICAL ACCOUNTING ESTIMATES, JUDGEMENTS AND ASSUMPTIONS

Estimates and assumptions are continually evaluated and are based on historical experience and other factors, including expectations of future events that are believed to be reasonable under the circumstances.

##### 3.1 Critical accounting estimates, judgements and assumptions

The Authority makes estimates and assumptions concerning the future. The resulting accounting estimates will, by definition, seldom equal the related actual results. The estimates and assumptions that have a significant risk of causing a material adjustment to the carrying amounts of assets and liabilities within the next financial year are discussed below.

###### (a) Impairment of property, plant and equipment

The Authority assesses whether there are any indicators of impairment for all property, plant and equipment at each reporting date. Property, plant and equipment are tested for impairment and when there are indicators that the carrying amount may not be recoverable, reasonable provision for impairment are created. As at balance date, no provision for impairment has been made as the Authority reasonably believes that no indicators for impairment exist.

###### (b) Impairment of accounts receivable

Impairment of accounts receivable balances is assessed at an individual level and impairment tests are performed on a more specific basis. All receivable balances relating to the closed customer accounts are estimated to have been impaired and are accordingly provided for.

###### (c) Deferred tax assets

Deferred tax assets are recognized for all unused tax losses to the extent that taxable profits will be available against which the losses can be utilized. Significant management judgement is required to determine the amount of deferred tax assets that can be recognized, based upon the likely level of future taxable profits together with future planning strategies.

###### (d) Provision for stock obsolescence

Provision for stock obsolescence is assessed and raised on a specific basis based on a review of inventories. Inventories considered obsolete or un-serviceable are written off in the year in which they are identified.

###### (e) Customer Security Deposit

The Customer Security Deposits are classified as Current and Non Current liability based on the customer's average of 2 months electricity consumption. The customer security deposit is reviewed on a regular basis by the Authority.

#### 4. CAPITAL RISK MANAGEMENT

The Authority's objectives when managing capital are to safeguard the Authority's ability to continue as a going concern in order to provide returns and benefits for stakeholders and to maintain an optimal capital structure to reduce the cost of capital.

The Authority monitors capital on the basis of the gearing ratio. This ratio is calculated as net debt divided by total capital. Net debt is calculated as total borrowings (including 'current and non-current borrowings' as shown in the statement of financial position) less cash and cash equivalents and short term deposits. Total capital is calculated as 'equity' as shown in the statement of financial position plus net debt.

The gearing ratios at 31 December 2015 and 2014 were as follows:

	31-Dec-15 \$'000	31-Dec-14 \$'000
Total borrowings (Note 16)	340,629	354,765
Less: Held to maturity financial assets (Note 12)	(12,468)	(11,642)
Less: Cash and cash equivalents (Note 8)	(57,343)	(58,523)
Net debt	270,818	284,600
Total capital and reserves	647,174	600,649
Total capital (total capital and reserves plus net debt)	917,992	885,249
Gearing ratio (net debt / total capital and reserves x 100)	29.50%	32.15%

The decrease in the gearing ratio during the year resulted from the repayment of bonds worth \$25.25M and repayments of loans amounting to \$31.51M in 2015.

## Notes To And Forming Part Of The Financial Statements

### For The Year Ended 31 December 2015

#### 5. OPERATING REVENUE

	2015 \$'000	2014 \$'000
<b>ELECTRICITY SALES</b>		
Commercial	152,263	144,605
Industrial	78,940	78,133
Domestic	76,546	73,608
Others	4,240	3,991
<b>Total electricity sales</b>	<b>311,989</b>	<b>300,337</b>
<b>OTHER OPERATING REVENUE</b>		
Bad debts recovered	16	22
Business interruption insurance claims received	2	2
Contract sales	3,935	1,555
Deferred income	856	856
Gain on disposal of plant and equipment	8	409
Lease rental - fibre optic	488	317
Power pole rentals	621	620
Rentals	17	16
Realised exchange gain, net	1,437	1,864
Sales and commissions	1,515	691
Service and licence fees	905	697
Training revenue	77	105
<b>Total other operating revenue</b>	<b>9,877</b>	<b>7,154</b>
<b>Total revenue</b>	<b>321,866</b>	<b>307,491</b>

#### 6. PROFIT BEFORE INCOME TAX

##### Profit before income tax

has been determined after charging the following expenses:

Allowance for doubtful debts	(130)	197
Auditors' remuneration for auditing services	34	22
Bad debts written off	-	33
Professional fees for other services	488	701
Directors' fees	51	50
Depreciation on property, plant and equipment	37,714	36,178
Amortisation of intangible assets	180	390
Insurance	7,264	7,609
Personnel costs	19,975	17,628
Unrealized foreign exchange loss, net	1,673	1,026

## Notes To And Forming Part Of The Financial Statements For The Year Ended 31 December 2015

	2015 \$'000	2014 \$'000
<b>7. a) INCOME TAX EXPENSE</b>		
The prima facie income tax on the pre-tax profit reconciles to the income tax expense as follows:		
Profit before income tax	45,354	1,113
Prima facie income tax payable at 20%	9,070	223
Tax effect of amounts which are not taxable in calculating taxable income:		
- Employee taxation scheme	(24)	(9)
- Deferred income	(171)	(171)
- Fuel Economy Investment Allowance	(3,459)	-
- Tax effect of non - deductible items	264	165
- Over provision in prior year	(16)	(67)
Income tax expense attributable to profit	<b>5,664</b>	<b>141</b>
<b>b) DEFERRED TAX ASSET</b>		
The deferred tax assets consist of the following at future tax rates:		
Tax losses	1,064	6,211
Provision for doubtful debts	96	122
Unrealized exchange losses	849	620
	<b>2,009</b>	<b>6,953</b>
<b>c) DEFERRED TAX LIABILITY</b>		
The deferred tax liabilities consist of the following taxable temporary differences at future tax rates:		
Property, plant and equipment	40,111	39,490
Unrealized exchange gain	607	508
	<b>40,718</b>	<b>39,998</b>
Income tax expense comprises movements in:		
Deferred tax assets	4,944	3,207
Deferred tax liabilities	720	(3,066)
	<b>5,664</b>	<b>141</b>
<b>8. CASH AND CASH EQUIVALENTS</b>		
Short term deposits (a)	20,000	20,000
Cash at bank and on hand - FEA operation	2,350	538
USD project bank account - off-shore (b)	2,930	8,812
Project bank account - on-shore (b)	32,063	21,835
Cash Security Letter of Credit	-	7,338
<b>Total cash and cash equivalents</b>	<b>57,343</b>	<b>58,523</b>

(a) The short term deposit amounting to \$20M with Westpac Banking Corporation (WBC) matures in three months. Accordingly, this deposit has been considered as cash and cash equivalents for the purpose of the statement of cash flows.

(b) The off-shore and on-shore project bank accounts are in respect to funds committed to projects that are still Work-in-Progress (WIP) at year end.



## Notes To And Forming Part Of The Financial Statements

### For The Year Ended 31 December 2015

#### 9. RECEIVABLES AND PREPAYMENTS

	2015 \$'000	2014 \$'000
Electricity debtors (a)	32,785	31,165
Other debtors	3,199	881
Prepayments and deposits	4,081	2,987
	<b>40,065</b>	<b>35,033</b>
Allowance for doubtful debts		
- Electricity debtors	(478)	(608)
<b>Total receivables and prepayments (net)</b>	<b>39,587</b>	<b>34,425</b>

(a) Electricity debtors include receivable from Government of Fiji amounting to \$3.32M (2014: \$3.46M).

(b) The terms of trade for electricity debtors are 14 days from the date of billing.

(c) Electricity debtors that are less than 3 months past due are not considered impaired. As at 31 December 2015, electricity debtors of \$31.74M (2014: \$30.05M) were not considered impaired.

As of 31 December 2015, the amount of electricity debtors impaired was \$477,590 (2014: \$607,829) net off deposits held. The individual receivables are mainly customers, who have defaulted in payments. It was assessed that a portion of the receivables are expected to be recovered.

Movements in the provision for impairment of electricity debtors and other debtors are as follows:

Balance as at 1 January	608	411
Amounts allowed/(recovered) during the year, net	(130)	197
<b>Balance as at 31 December</b>	<b>478</b>	<b>608</b>

The creation and releasing of provision for impaired receivables has been included in "Other operating expenses" in the statement of comprehensive income. Amounts charged to the allowance account are generally written off, when there is no expectation of recovering the debt.

The other classes within receivables and prepayments do not contain impaired assets.

As at 31 December, the ageing analysis of trade receivables is as follows:

	Current (F\$'000)	< 15-30 Days (F\$'000)	30-45 Days (F\$'000)	45-60 Days (F\$'000)	60-90 Days (F\$'000)	over 90 Days (F\$'000)	Total (F\$'000)
<b>2015</b>	26,020	4,019	744	790	171	1,041	<b>32,785</b>
<b>2014</b>	24,212	3,863	597	520	856	1,117	<b>31,165</b>

The maximum exposure to credit risk at the reporting date is the fair value of each classes of receivables mentioned above less electricity deposits. The Authority generally obtains security deposits in the form of bank guarantees and cash deposits from all electricity customers which is estimated based on two months electricity consumptions. The total carrying amount of security deposits in relation to the above trade receivables carried by the Authority is \$40,051,166 (2014: \$36,876,963). The rest are secured through bank guarantees maintained by the Authority. A portion of this security deposit is refunded to customers on a daily basis.

#### 10. INVENTORIES

Consumables - at cost	28,777	27,982
Goods in transit	789	1,059
<b>Total inventories</b>	<b>29,566</b>	<b>29,041</b>

## Notes To And Forming Part Of The Financial Statements For The Year Ended 31 December 2015

### 11. PROPERTY, PLANT AND EQUIPMENT

#### Freehold land

At cost

28,943

28,952

#### Leasehold land

At cost

13,960

13,910

Accumulated depreciation

(1,907)

(1,761)

12,053

12,149

#### Buildings and improvements

At cost

82,267

82,159

Accumulated depreciation

(18,292)

(17,234)

63,975

64,925

#### Dam, tunnels, water conductor

At cost

537,265

494,024

Accumulated depreciation

(65,342)

(56,022)

471,923

438,002

#### Plant, equipment and transmission assets

At cost

587,096

491,031

Accumulated depreciation

(214,747)

(192,059)

372,349

298,972

#### Furniture and fittings

At cost

28,315

25,593

Accumulated depreciation

(17,118)

(15,879)

11,197

9,714

#### Wind mill

At cost

34,393

34,393

Accumulated depreciation

(14,573)

(12,837)

19,820

21,556

#### Motor vehicles

At cost

17,017

16,763

Accumulated depreciation

(15,075)

(13,757)

1,942

3,006

#### Capital spares

At cost

4,430

3,970

#### Capital works in progress

- Wainisavulevu Weir Raising Project

-

37,790

- Vuda Waqadra 33kV Double Circuit Line

-

5,497

- 35MW Kinoya HFO Project

-

33,635

- Rural and Urban Reticulation Projects

8,496

3,197

- Switchgear Upgrade (Suva, Labasa and Hibiscus Park)

8,135

-

- Momi Bay Project

3,057

-

- Tavua Volivoli Grid Extension Project

4,854

-

- Underground Cabling Project

6,287

-

- Others

12,287

17,502

43,116

97,621

#### Total

- At cost

1,376,802

1,288,416

- Accumulated depreciation

(347,054)

(309,549)

1,029,748

978,867

Closing net book value

**Notes To And Forming Part Of The Financial Statements**  
**For The Year Ended 31 December 2015**

**11. PROPERTY, PLANT AND EQUIPMENT (CONT'D)**

Reconciliation of the carrying amounts of each class of property, plant and equipment at the beginning and end of the current financial year is set out as follows:

	Freehold land \$'000	Leasehold land \$'000	Buildings & improvements \$'000	Dam, tunnels and water conductor \$'000	Plant, equipment & transmission assets \$'000	Furniture & fittings \$'000	Wind mill \$'000	Motor vehicles \$'000	Capital spares \$'000	Capital work in progress \$'000	Total \$'000
Balance as at 31 December 2013	28,635	12,296	65,947	447,281	274,857	9,253	23,295	4,183	4,740	45,895	916,382
Additions	-	-	-	-	-	-	-	-	-	99,222	99,222
Disposals	(17)	-	-	-	-	-	-	-	-	-	(17)
Transfers	334	-	37	-	45,130	1,660	-	338	(545)	(47,496)	(542)
Depreciation charge	-	(147)	(1,059)	(9,279)	(21,015)	(1,199)	(1,739)	(1,515)	(225)	-	(36,178)
Balance as at 31 December 2014	28,952	12,149	64,925	438,002	298,972	9,714	21,556	3,006	3,970	97,621	978,867
Additions	-	-	-	-	-	-	-	-	824	-	88,144
Disposals	(9)	-	-	-	(135)	-	-	(73)	-	-	(217)
Transfers	-	51	108	43,241	96,200	2,722	-	327	(156)	(142,649)	(156)
Depreciation charge	-	(147)	(1,058)	(9,320)	(22,688)	(1,239)	(1,736)	(1,318)	(208)	-	(37,714)
Balance as at 31 December 2015	28,943	12,053	63,975	471,923	372,349	11,197	19,820	1,942	4,430	43,116	1,029,748

During the year, the total borrowing costs of 1,928,506 were capitalised as follows: (Wainisavulevu Weir raising project-\$670,188, Knolly Street-\$26,621, KHFO \$1,163,243 and establishment of the FEA Depot at Tavuni \$68,454.

Certain property, plant and equipment of the Authority are not insured for various risks including risk of losses arising from fire, cyclone, flooding, business interruption and others as the cost of insurance cover is significant.

## Notes To And Forming Part Of The Financial Statements For The Year Ended 31 December 2015

	2015 \$'000	2014 \$'000
<b>12. HELD-TO-MATURITY FINANCIAL ASSETS</b>		
Term deposits with banks	12,468	11,642
<p>During the year, the Authority reinvested USD\$5.86M as term deposits with ANZ bank at an interest rate of 0.20% per annum. This term deposit will be used to repay the balance of the Sinohydro Corporation offshore contract project retention in US dollars for the construction of the Nadarivatu Renewable Hydro Power Project. This amount will be fully paid in 2016.</p>		
<b>13. INTANGIBLE ASSETS</b>		
<b>Software License</b>		
<b>Gross carrying amount:</b>		
Balance as at 1 January	6,490	6,490
Additions	-	-
<b>Balance as at 31 December</b>	<b>6,490</b>	<b>6,490</b>
<b>Accumulated amortisation:</b>		
Balance as at 1 January	(5,528)	(5,138)
Amortisation for the year	(180)	(390)
<b>Balance as at 31 December</b>	<b>(5,708)</b>	<b>(5,528)</b>
<b>Net book amount</b>	<b>782</b>	<b>962</b>
<p>Software license are made up of the Authority's Financial Management Information System, Payroll System, Billing System and other specialized Energy Monitoring Information System. The software license has been valued at cost and amortised by an impairment charge over its remaining life to arrive at the carrying amounts.</p>		
<b>14. TRADE AND OTHER PAYABLES</b>		
<b>Current</b>		
Trade creditors	4,857	1,658
Other creditors and accruals	40,313	28,330
VAT payable	1,224	956
Accrued interest	679	1,314
Customer security deposits	1,896	1,896
General extension refundable deposits	319	419
<b>Total current trade and other payables</b>	<b>49,288</b>	<b>34,573</b>
<b>Non-Current</b>		
Other creditors and accruals	6,988	13,360
Customer security deposits	38,155	34,981
General extension refundable deposits	39,114	31,736
<b>Total non-current trade and other payables</b>	<b>84,257</b>	<b>80,077</b>

The fair value of trade and other payables equals their carrying amount, as the impact of discounting is not significant. The customer security deposits relates to the mandatory cash deposit which is equivalent to two months electricity consumptions in accordance with the Electricity Act. This is refunded to the customer when the electricity account is permanently closed. The general extension refundable deposits are the capital contribution from prospective customers or developer for the supply of electricity from the Authority's newest grid in accordance with the General Extension Policy. The amount is refunded to the customer over a period of 5 and 8 years.

## Notes To And Forming Part Of The Financial Statements

### For The Year Ended 31 December 2015

	2015 \$'000	2014 \$'000
<b>15. EMPLOYEE BENEFIT LIABILITY</b>		
Annual leave	899	851
Performance pay	1,566	1,477
<b>Total employee benefit liability</b>	<b>2,465</b>	<b>2,328</b>
Balance as at 1 January	2,328	2,302
Additional provisions provided during the year, net	137	26
<b>Carrying Amount as at 31 December</b>	<b>2,465</b>	<b>2,328</b>

#### Employee numbers

	2015	2014
Number of full-time equivalent employees as at 31st December	725	703

## 16. INTEREST BEARING BORROWINGS

#### Current

Term Loans - ANZ Bank (b)	20,176	18,054
Term Loan - Suva City Council (c)	46	43
Term Loans - FNPF (d)	3,753	-

#### Total current interest bearing borrowings

<b>23,975</b>	<b>18,097</b>
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#### Non-Current

Bonds (a)	37,250	62,500
Term Loans - ANZ Bank (b)	212,845	238,514
Term Loan - Suva City Council (c)	5,100	5,147
Term Loans - FNPF (d)	61,459	30,507

#### Total non-current interest bearing borrowings

<b>316,654</b>	<b>336,668</b>
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#### Total interest bearing borrowings

<b>340,629</b>	<b>354,765</b>
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#### (a) Bonds

The Reserve Bank of Fiji offers, manages and carries out registry services on behalf of the Authority. The Authority's bonds are issued in competitive tenders. The bonds are recorded at cost which reflects the face value of the bonds. Bonds worth \$25.25 million were early redeemed during the year.

The maturing terms of the bonds range from 5 to 8 years, whilst the interest rates vary from 6.80% to 7.19% per annum. The bonds are guaranteed by the Government of Fiji.

#### (b) Term loans - ANZ Bank

The interest bearing borrowings from ANZ Bank are at an agreed interest rate ranging from 2.65% to 2.70% per annum and are repayable on monthly instalments. The term loans from ANZ Bank are secured by the guarantee given by the Government of Fiji.

#### (c) Term loan - Suva City Council

The term loan from Suva City Council (SCC) is subject to interest at the rate of 3% per annum and is unsecured. The loan is repayable over a period of 86 years in equal instalments of \$200,000 on 25th July each year until July 2065.

#### (d) Term loan - FNPF

The interest bearing borrowings from FNPF are at an agreed interest rate ranging from 3.25% to 3.85% per annum and are repayable on monthly instalments. During the year the Authority borrowed FJ\$10 million from FNPF to partially fund the establishment of the FEA Depot at Tavueni and the construction of a 33kV substation, off Knolly Street in Suva. The term loans from FNPF are secured by the guarantee given by the Government of Fiji.

## Notes To And Forming Part Of The Financial Statements For The Year Ended 31 December 2015

	2015 \$'000	2014 \$'000
<b>17. DEFERRED INCOME</b>		
<b>EEC Grant In Aid</b>		
EEC Grant in Aid	12,330	12,330
Less: accumulated amortisation	(8,226)	(7,743)
<b>Closing balance - 31 December</b>	<b>4,104</b>	<b>4,587</b>
<b>Government Grant For Rural Electrification</b>		
Government Grant for Rural Electrification	9,342	9,342
Less: accumulated amortisation	(6,166)	(5,792)
<b>Closing balance - 31 December</b>	<b>3,176</b>	<b>3,550</b>
<b>Total deferred income (net)</b>	<b>7,280</b>	<b>8,137</b>
<b>18. CONTINGENT LIABILITIES</b>		
<b>(a) Miscellaneous claims</b>		
No provision has been recorded in the accounts for unsecured contingent liabilities mainly in respect of sundry court actions against the Authority. The Authority estimates such liability, if any, to be immaterial.		
<b>(b) Contingent liabilities exist with respect to the following:</b>		
Letter of credit	1,836	1,367
Immigration bond	-	25
Litigation claims - others	419	804
	<b>2,255</b>	<b>2,196</b>
<b>19. COMMITMENTS</b>		
Estimated amounts of lease expenditure committed at balance date but not provided for in the financial statements:		
<b>(a) Operating lease expenditure commitments</b>		
<b>Native and Crown leasehold land and other premises</b>		
Later than one year	1,580	1,274
Later than one year but not later than five years	5,861	4,721
Later than five years	111,442	89,839
<b>Total operating lease expenditure commitments</b>	<b>118,883</b>	<b>95,834</b>
The Native and Crown leasehold land includes the lease obtained for the Monasavu land. The settlement signed with Monasavu land owners and the iTaukei Land Trust Board commits FEA to the following future payments:		
Later than one year	840	620
Later than one year but not later than five years	2,700	2,480
Later than five years	49,780	50,400
<b>(b) Operating lease revenue commitments</b>		
Operating leases contracted for the rental of fibre optic and power poles by the Authority with the lessees are receivable as follows:		
Later than one year	967	956
Later than one year but not later than five years	1,261	966
<b>Total operating lease revenue commitments</b>	<b>2,228</b>	<b>1,922</b>

## Notes To And Forming Part Of The Financial Statements For The Year Ended 31 December 2015

### 20. CAPITAL EXPENDITURE COMMITMENTS

	2015 \$'000	2014 \$'000
Capital expenditure contracted for at balance date but not otherwise provided for in the financial statements.	8,573	40,836
<b>Projects approved by the Board but not contracted for at balance date</b>	<b>112,519</b>	<b>108,177</b>

Capital expenditure contracted for at balance date but not otherwise provided for in the financial statements.

#### Projects approved by the Board but not contracted for at balance date

The projected Capital expenditure for 2016 of around \$113 million comprises of the 6.6kV ring main system upgrade to 11kV in Suva, Korovou-Tavua Grid Extension Project, Construction of Tavua 33kV Substation, construction & commissioning of the new 33kV substation at Volivoli in Rakiraki, construction of the new 132kV and 33kV transmission lines and substation to evacuate power from FSC Rarawai, Construction of Momi Bay 33kV Zonal Substation, Waqadra-Nawai-Momi 33kV Transmission Line Project, Construction of 11kv/33kV Switching Station at Nawai, Vatuwaqa 33kV Substation Building and associated electrical equipment upgrade, 33kV/11kV Switchgear Upgrade projects, Land acquisitions, development of the Qaliwana Hydro Project, Taveuni power reticulation, development of Lower Ba Hydro, Rural Electrification Projects, Network Urban Reinforcement Projects, Purchase of Electricity Meters and Vehicle Replacements.

### 21. EVENTS OCCURRING AFTER BALANCE DATE

a) During the 2016 National Budget announcement, the Government of Fiji announced an increase in the electricity subsidy threshold from 85kWh to 95kWh per month for domestic customers. This will be tested and confined to households with a combined income of \$30,000 per annum or less. There will be no financial implication of the increase in the electricity subsidy to the Authority.

b) The Ministry of Finance and FEA signed the Government Guarantee Agreement on 23rd December 2015 that effective from 2016 onwards the Government Guarantee fee will be 0.75% per annum based on the guaranteed amount and this will be paid semi-annually.

c) A sum of \$7.2M will be provided by the Government of Fiji towards the establishment of the FEA depot in Tavueni and the purchase and installation of two 1MW generators. This is to assist power reticulation for Stage 1 in Tavueni.

d) Tropical Cyclone Winston struck Fiji on 20th February 2016 and caused extensive damages to the FEA Power System infrastructures. The estimated total cost of repairs and to restore power supply to the affected areas in Fiji is estimated to be around \$20M. This cost will be incurred in 2016.

There were no other matters or circumstances have arisen since the end of the financial year which significantly affected or may significantly affect the operations of the Authority, the results of those operations, or the state of affairs of the Authority in future financial years.

### 22. SIGNIFICANT EVENTS DURING THE YEAR

#### During the year:

a) FEA officially opened the Wainisavulevu Weir raising project in November 2015. This project will increase the height of the existing weir by an additional 8 meters to store more water. This project is expected to increase the energy output from the two existing hydros namely Wainikasou and Monasavu Hydro Schemes.

b) FEA completed the installation and commissioned the new 35MW Heavy Fuel Oil (HFO) Power Station at Kinoya at a total cost of \$70.3M.

c) The Fiji Commerce Commission (FCC) approved revision to the Regulatory Fees and Charges which was implemented effective from 10th August 2015.

d) FEA signed a Cooperation Agreement with the European Investment Bank (EIB) for a grant funding towards the detailed feasibility study for the lower Ba hydro development. The total value of the grant funding is around Euro 4.5M. This work is expected to commence in early 2016.

### 23. PRINCIPAL ACTIVITIES AND PRINCIPAL PLACE OF BUSINESS

The principal activities of the Authority are the generation, transmission, distribution and sale of electricity on Viti Levu, Vanua Levu and Ovalau as governed by the Electricity Act and Regulations. The address of Fiji Electricity Authority's registered office and principal place of business is 2 Marlow Street, Suva, Fiji Islands.

## Notes To And Forming Part Of The Financial Statements For The Year Ended 31 December 2015

### 24. RELATED PARTY TRANSACTIONS

a) The Authority is a statutory body constituted by an Act of Parliament and the transactions with the Government of Fiji during the year are as follows:

	2015 \$'000	2014 \$'000
Government guarantee fee capitalized during the year	150	263

The Government of Fiji also provides guarantees on the bonds and loans issued by the Authority. As at balance date, the Authority had borrowed funds amounting to \$335.5 million under this guarantee.

#### b) Directors

The names of persons who were directors of the Authority during the year 2015 are as follows:

Nizam-ud-Dean (Chairman)  
 Gardiner Henry Whiteside (Deputy Chairman)  
 Alipate Naiorosui (Appointed, 8th May 2015)  
 Francis Kean  
 Isikeli Voiceduadua  
 Hasmukh Patel (Ex-officio Member)

The directors fees paid during the year were \$51,542.

#### (c) Key Management Compensation

The aggregate remuneration and compensation paid to key management personnel were:

	2015 \$'000	2014 \$'000
Salary, performance pay and allowances	1,383	1,386
Superannuation	138	111
Other benefits	21	21
<b>Total</b>	<b>1,542</b>	<b>1,518</b>

(d) During the year, the Authority supplied electricity to the Government of Fiji, other Government owned entities, directors, related entities and executives at normal commercial rates, terms and conditions.

(e) Receivable/payable to related parties have been disclosed in respective notes to the financial statements.



## Statistics 2015

TRANSMISSION & SUB-TRANSMISSION CENTRAL										
DISTRICT	132kV O/H Line (km)		33kV O/H Line (km)		33kV U/G Cable (km)		Substations		Transformer MVA	
	2014	2015	2014	2015	2014	2015	2014	2015	2014	2015
Wailoa - Cunningham	62	62					1	1	120	120
Cunningham - Kinoya 'A'					3	3				
Cunningham - Kinoya 'B'					3	3	1	1	54	54
Cunningham - Vatuwaqa					4	4	1	1	19	19
Cunningham - Hibiscus Park 'A'					7	7	1	1	26.6	26.6
Cunningham - Rokobili					4.5	4.5				
Rokobili - Hibiscus Park					0.5	0.5				
Cunningham - Sawani			10	10	1	1	1	1	15	15
Vatuwaqa - Suva					5	5	1	1	69	69
Vatuwaqa - Knolly						4.5		1		30
Knolly - Suva						1.3				
Kinoya - Vatuwaqa					4	4				
Kinoya - Nausori			12	12	2	2	1	1	15	15
Nausori - Sawani			6	6	2	2				
Hibiscus Park - Wailekutu					6	6	1	1	6.25	6.25
Hibiscus Park - Suva					3	3				
Wailekutu - Deuba			38	38			1	1	6.25	6.25
Cunningham - Komo					6	6	1	1	30	30
Komo - Hibiscus Park					3	3				
<b>TOTAL</b>	<b>62</b>	<b>62</b>	<b>66</b>	<b>66</b>	<b>54</b>	<b>59.8</b>	<b>10</b>	<b>11</b>	<b>361.1</b>	<b>391.1</b>

TRANSMISSION & SUB-TRANSMISSION NORTHERN										
DISTRICT	132kV O/H Line (km)		33kV O/H Line (km)		33kV U/G Cable (km)		Substations		Transformer MVA	
	2014	2015	2014	2015	2014	2015	2014	2015	2014	2015
Labasa							1	1	8.5	8.5
Labasa - Seaqaqa			33.78	33.78			1	1	2.5	2.5
Seaqaqa - Dreketi			34.33	34.33			1	1	6.25	6.25
<b>TOTAL</b>	<b>0</b>	<b>0</b>	<b>68.11</b>	<b>68.11</b>	<b>0</b>	<b>0</b>	<b>3</b>	<b>3</b>	<b>17.25</b>	<b>17.25</b>

TRANSMISSION & SUB-TRANSMISSION WESTERN										
DISTRICT	132kV O/H Line (km)		33kV O/H Line (km)		33kV U/G Cable (km)		Substations		Transformer MVA	
	2014	2015	2014	2015	2014	2015	2014	2015	2014	2015
Wailoa							3	3	108	108
Wailoa - Nadarivatu	23.4	23.4					1	1	56	56
Nadarivatu - Vuda	56.6	56.6					2	2	97.5	97.5
Nadarivatu SS to PS	5.2	5.2								
Vuda - Pineapple Corner A			8	8	1	1	1	1	30	30
Vuda - Rarawai			32	32			1	1	12.5	12.5
Rarawai - Vatukoula			19	19			1	1	10	10
Vatukoula - Tavua			4	4	2	2	1	1	6.25	6.25
Vuda - Waqadra A			16	16			1	1	40	40
Vuda - Waqadra B			11	11	2	2				
Vuda - Waqadra C			10.1	10.1	4.15	4.15				
Vuda - Waqadra D			10.1	10.1	4.15	4.15				
Waqadra - Sigabka			59	59			1	1	5	5
Qeleloa					1	1	1	1	15	15
Maro							1	1	2	2
Sigabka - Nococolevu			29	29			1	1		
Nococolevu-Korolevu							1	1	6.25	6.25
Vuda - Rarawai Tee-off to Pineapple Corner			2	2	1	1				
Wailoa - Wainikasou			29	29			1	1	10	10
Nagado - Sabeto			10	10			1	1	3	3
Maro-Natadola					5	5	1	1	10	10
<b>TOTAL</b>	<b>85.2</b>	<b>85.2</b>	<b>239.2</b>	<b>239.2</b>	<b>20.3</b>	<b>20.3</b>	<b>19</b>	<b>19</b>	<b>411.5</b>	<b>411.5</b>

# Statistics 2015

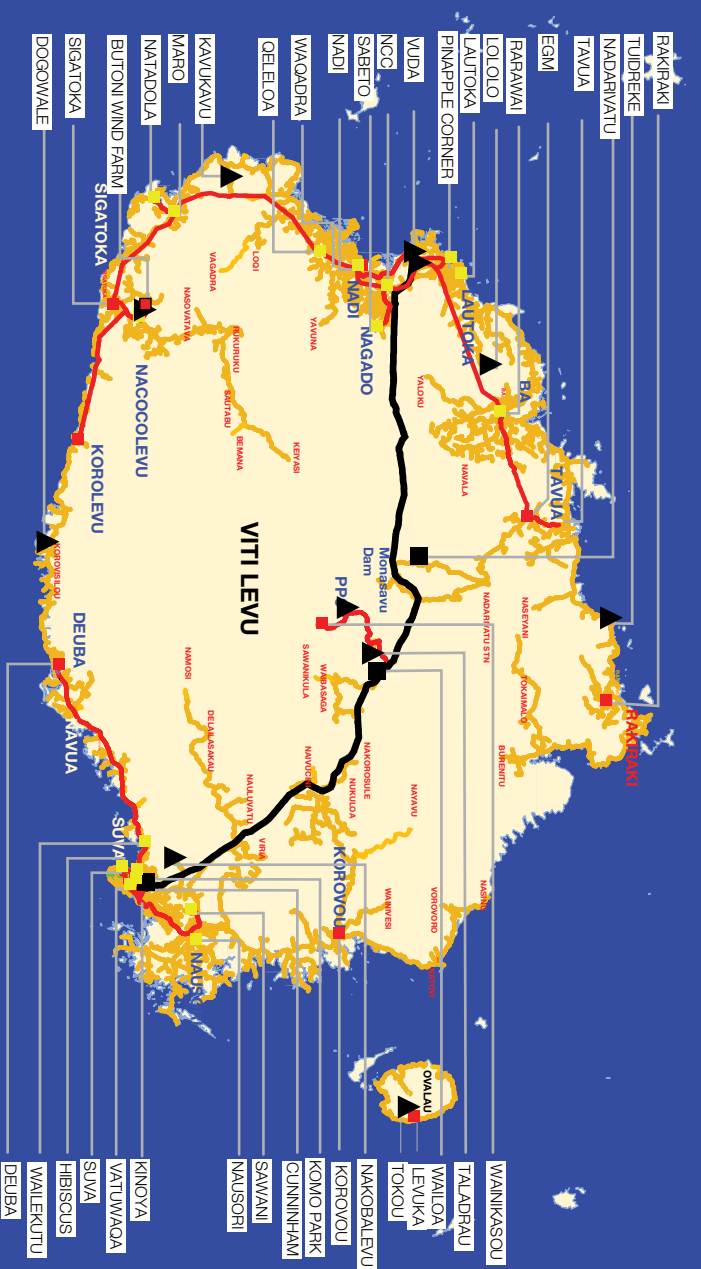
DISTRIBUTION NETWORK CENTRAL												
DISTRICT	OVERHEAD LINES (km)				UNDERGROUND CABLES (km)				SUBSTATIONS		INSTALLED KVA	
	High Voltage		Low Voltage		High Voltage		Low Voltage					
	2014	2015	2014	2015	2014	2015	2014	2015	2014	2015	2014	2015
Deuba	172.896	172.896	129.004	129.011	18.075	18.125	41.309	41.309	216	217	22588	23338
Lami	79.0489	79.0789	70.3277	70.3277	45.56	45.607	4.003	4.003	178	179	48860	49915
Suva	17.005	17.005	147.03	147.1	218.94	219.565	43.06	43.11	204	206	113132	115832
Kinoya	134.819	136.543	198.174	202.688	60.128	64.453	33.33	33.485	306	315	86706	90736
Nausori	289.804	292.709	336.005	340.657	19.885	22.35	1.523	2.722	492	502	45883	47971
Korovou	321.321	324.135	269.725	272.004	2.758	2.758	0.08	0.08	329	331	5852	5919
Levuka	60.2	60.2	44.522	44.522	1.18	1.18	0	0	61	61	5777	5777
Wailoa	11	11	6	6	0	0	0	0	12	12	206	206
Navua	0.741	1.501	0.636	1.475	0	0	0	0	5	9	730	1315
<b>TOTAL</b>	<b>1086.835</b>	<b>1095.068</b>	<b>1201.424</b>	<b>1213.785</b>	<b>366.526</b>	<b>374.038</b>	<b>123.305</b>	<b>124.709</b>	<b>1803.000</b>	<b>1832.000</b>	<b>329734.000</b>	<b>341009.000</b>
Increase	8.233		12.361		7.512		1.404		29		11275	
% Increase	1%		1%		2.0%		1.14%		2%		3%	

DISTRIBUTION NETWORK - NORTHERN												
DISTRICT	OVERHEAD LINES (km)				UNDERGROUND CABLES (km)				SUBSTATION		INSTALLED kVA	
	High Voltage		Low Voltage		High Voltage		Low Voltage					
	2014	2015	2014	2015	2014	2015	2014	2015	2014	2015	2014	2015
Labasa	411.592	414.637	743.882	752.575	12	12	4	4	405	410	22986	23066
Seaqqa	2.25	6.667	0.771	6.502	0.05	0.05	0.025	0.025	2	6	46	99
Drekefi	37.558	44.822	9.75	21.449	0.05	0.05	0.025	0.025	9	24	568	884
Savusavu	119.503	119.793	94.554	94.852	7.416	7.416	1.474	1.474	130	133	8449	8866
<b>TOTAL</b>	<b>570.903</b>	<b>585.919</b>	<b>848.957</b>	<b>875.378</b>	<b>19.516</b>	<b>19.516</b>	<b>5.524</b>	<b>5.524</b>	<b>546</b>	<b>573</b>	<b>32,049</b>	<b>32,915</b>
Increase	15.016		26.421		0		0		27		866	
% Increase	3%		3%		0%		0%		5%		3%	

DISTRIBUTION NETWORK - WESTERN												
DISTRICT	OVERHEAD LINES (km)				UNDERGROUND CABLES (km)				SUBSTATION		INSTALLED kVA	
	High Voltage		Low Voltage		High Voltage		Low Voltage					
	2014	2015	2014	2015	2014	2015	2014	2015	2014	2015	2014	2015
Sigabka	366.279	368.157	527.21	530.515	6.38	6.41	10.083	10.113	454	457	28581	29663
Nadi - Tavua	1352.694	1358.631	1850.306	1857.583	164.882	172.328	76.685	76.855	1957	1988	169801	177239
Rakiraki	220.862	229.171	220.238	220.238	4	4	1	1	201	205	8211	8248
<b>TOTAL</b>	<b>1939.835</b>	<b>1955.959</b>	<b>2597.754</b>	<b>2608.336</b>	<b>175.262</b>	<b>182.738</b>	<b>87.768</b>	<b>87.968</b>	<b>2612</b>	<b>2650</b>	<b>206593</b>	<b>215150</b>
Increase	16.124		10.582		7.476		0.2		38		8557	
% Increase	0.8%		0.4%		4.3%		0.2%		1.5%		4.1%	

GENERATION STATISTICS ( EXCLUDING INDEPENDENT POWER PRODUCERS)										
Years	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015
Units Generated Wailoa Hydro Mwh	315,569	481,098	462,986	436,081	382,963	424,818	466,765	420,195	314,341	320,875
Units Generated Wainiqueu Hydro Mwh	1,329	1,387	688	63	898	1,968	1,027	2,056	983	834
Units Generated Wainikasou Hydro Mwh	18,272	21,079	18,420	16,058	19,238	19,404	18,721	5,935	15,027	19,895
Units Generated Nagado Hydro Mwh	6,085	4,922	12,996	7,990	10,520	10,279	8,856	611	3,080	11,357
Units Generated Nadarivatu Hydro Mwh							29,892	98,600	67,537	52,988
<b>Total Generated Hydro MWh</b>	<b>341,255</b>	<b>508,486</b>	<b>495,090</b>	<b>460,192</b>	<b>413,619</b>	<b>456,469</b>	<b>525,261</b>	<b>527,397</b>	<b>400,968</b>	<b>405,949</b>
Units Generated in VLIS Diesels MWh	354,174	183,329	162,760	153,990	236,356	211,767	94,215	94,425	230,957	227,042
Units Generated Diesel Others MWh	40,189	41,740	46,178	43,670	52,537	44,453	48,187	46,971	49,605	47,258
Units Generated HFO Kinoya & Vuda		30,920	60,807	112,264	126,237	83,540	128,881	183,359	173,477	206,122
<b>Total Generated Thermal MWh</b>	<b>394,363</b>	<b>255,989</b>	<b>269,745</b>	<b>309,924</b>	<b>415,130</b>	<b>339,760</b>	<b>271,283</b>	<b>324,755</b>	<b>454,039</b>	<b>480,422</b>
Unit Generated from Butoni Wind Farm		3,351	4,604	7,211	6,420	4,977	6,809	5,348	4,269	5,674
Units Generated from Solar panel Mwh	4	1								
<b>Total Generated Wind &amp; Solar MWh</b>	<b>4</b>	<b>3,352</b>	<b>4,604</b>	<b>7,211</b>	<b>6,420</b>	<b>4,977</b>	<b>6,809</b>	<b>5,348</b>	<b>4,269</b>	<b>5,674</b>
<b>Total FEA Generation (MWh)</b>	<b>735,622</b>	<b>767,827</b>	<b>769,439</b>	<b>777,327</b>	<b>835,169</b>	<b>801,206</b>	<b>803,353</b>	<b>857,500</b>	<b>859,276</b>	<b>892,045</b>
Made up of										
Total VLIS Generation ( MWh)	694,104	724,700	722,573	733,594	781,734	754,785	754,139	808,473	808,687	843,953
Total Other Generation (MWh)	41,518	43,127	46,866	43,733	53,435	46,421	49,214	49,027	50,589	48,092
Station Auxilliary usage MWh	6,375	7,865	9,139	9,050	9,268	8,952	8,343	9,196	10,130	8,106
Auxiliaries as % of Generation	0.87%	1.02%	1.19%	1.16%	1.11%	1.12%	1.04%	1.07%	1.18%	0.91%
% contribution from Hydro	46.39%	66.22%	64.34%	59.20%	49.53%	56.97%	65.38%	61.50%	46.66%	45.51%
% contribution from Thermal	53.61%	33.34%	35.06%	39.87%	49.71%	42.41%	33.77%	37.87%	52.84%	53.85%
% contribution from Wind & Solar	0.00%	0.44%	0.60%	0.93%	0.77%	0.62%	0.85%	0.62%	0.50%	0.64%
% increase / (decrease) in Hydro Generation	0.74%	49.00%	-2.63%	-7.05%	-10.12%	10.36%	15.07%	0.41%	-23.97%	1.24%
% increase / (decrease) in Thermal VLIS Generation	16.17%	-39.51%	4.35%	19.09%	36.18%	-18.56%	-24.45%	24.51%	45.59%	7.10%
% increase / (decrease) in Total Thermal Generation	13.97%	-35.09%	5.37%	14.90%	33.95%	-18.16%	-20.15%	19.71%	39.81%	5.81%
% increase / (decrease) in Total Generation	7.43%	4.38%	0.21%	1.03%	7.44%	-4.07%	0.27%	6.74%	0.21%	3.81%
Maximum Dam Level ( AMSL)	735	746	746	742	739	743	747	743	736	742
Minimum Dam level ( AMSL)	721	728	728	723	727	735	731	730	724	734

# FIJI ISLANDS POWER INFRASTRUCTURE



**FEA POWER SYSTEM**

**LEGEND**

- 132kV Line
- 33kV Line
- 11kV Line Coverage
- 6.6kV Line Coverage
- Diesel Power Station
- Hydro Power Station
- 132kV Substation
- 33kV Substation
- Butoni Wind Farm
- FEA Repeater Station



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