



Our Vision:	energising our nation	
Our Mission:	To provide a safe, reliable, affordable and accessible supply of electricity to the Solomon Islands.	
Our Values:	<ul> <li>Respect for our customers and our people</li> <li>Improvement through change and innovate</li> <li>Meeting our service quality commitments</li> <li>Care for the environment</li> <li>Individual responsibility for our actions</li> <li>Honesty and Trust</li> <li>Teamwork</li> </ul>	tion
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### Letter to the Ministers

31st March 2017

The Honourable David Day Pacha MP Minister of Mines, Energy and Rural Electrification P O Box G37, Honiara,

Solomon Islands

&

The Honourable Snyder Rini MP

Minister of Finance and Treasury PO Box G26, Honiara, Solomon Islands

Dear Honourable Ministers,

#### SOLOMON ISLANDS ELECTRICITY AUTHORITY (Trading as Solomon Power) ANNUAL REPORT 2016

On behalf of the Board of Directors of Solomon Power, I have the honour to submit to you both the Authority's Annual Report, in accordance with section 25 (I) of the Electricity Act, Cap 128, and section 14 (1) (a) (b) of the State Owned Enterprises Act 2007.

The report incorporates audited Statement of Accounts and the major developments, activities and achievements of the Authority for the financial period.

On behalf of Solomon Power, I thank you both for your on-going understanding and cooperation and look forward to your continuing support.

Yours faithfully,

David K.C. Quan MBE

Chairman







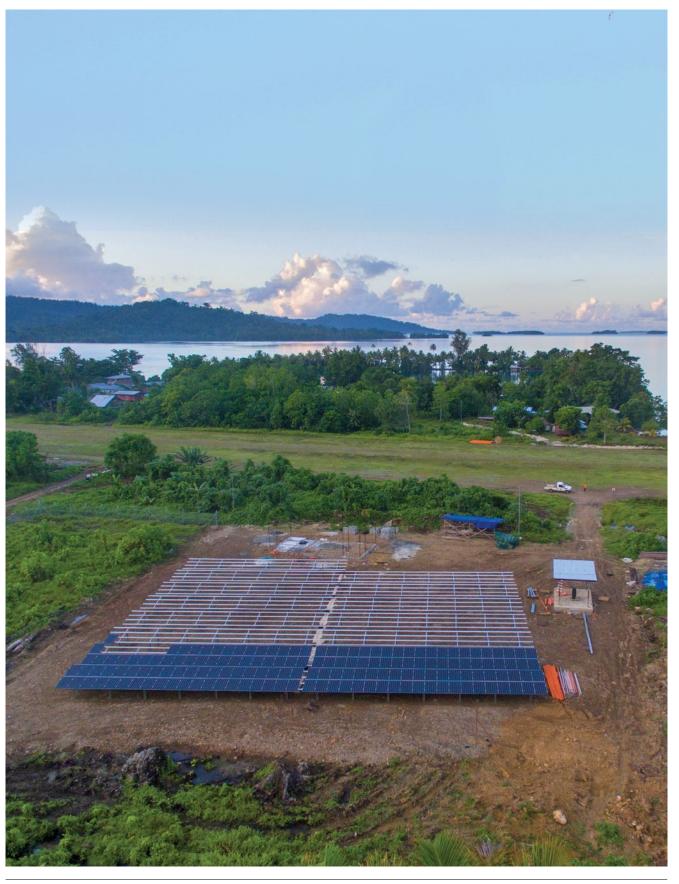
### 2016 Highlights

- Electricity Tariff (Base Tariff and Tariff Adjustments)
   Regulations 2016 gazetted
- Commenced the Output Based Aid (OBA) programme
- Sustained the reliability of electricity supply
- G-1 operation in Honiara implemented successfully
- The four new generators were brought on line at Lungga
- Commissioned the 1 MW Solar Farm at Henderson
- Commissioned black start facility on the two generators H1 and H2 at Honiara Power Station
- Commissioned three new 11 kV and 415 V network extensions in Honiara
- Progressed the project to design, procure and construct hybrid stations at Seghe and Taro
- Commissioned the new power house at Gizo
- Refurbishment of the existing power house at Noro completed
- Commissioned two new generators at Tulagi and one generator each at Auki and Gizo
- Commissioned the 150 kW Mini Hydro at Buala
- Streetlights in Honiara and Outstations repaired and replaced
- Completed the external works associated with Phase 2 upgrade at Ranadi Head Office
- Project to improve communications to Lata completed
- Extension of mezzanine floor in the Ranadi Head Office commenced
- Awarded the contracts for the Ranadi Substation upgrade,
   Feeder 12 relocation and Kola'a Ridge Substation projects
- Commenced a project to convert the existing outstations at Kirakira, Lata, Malu'u, Munda and Tulagi to hybrid generation systems
- Under the World Bank funded SISEP tenders called for the third 11/33 kV power transformer at Lungga Power Station
- Commenced a project to install Smart Meters
- Disaster Recovery project completed
- Increased our focus on the development of the Fiu River Hydro Project
- Increased our focus on the development of the Tina River Hydro Project
- Implemented an operations and maintenance plan for all our network and generation assets
- Increased focus on safety, training, nurturing and mentoring
- Implemented a permit outage system for generation and network assets
- Extended the exclusive development rights to Korea-water for Tina River Hydro Project
- Continued internal safety, lineman and operator training programmes

### Plans for 2017

- Further improvement in the reliability of electricity supply in Honiara and Outstations
- Progress the implementation of the Output Based Aid (OBA) programme
- Commission the new generators at Gizo, Munda and Noro
- Commission the Hybrid stations at Seghe and Taro
- Complete the mezzanine floor upgrade at Ranadi Head Office
- Continue implementation of the vegetation management plan
- Continue strategic planning and implementation of operations, maintenance and management of SP's assets
- Progress the Feeder 12 relocation, Ranadi Substation upgrade, Kola'a Ridge Substation and the Lungga Power Station third power transformer projects
- Progress the network extensions in Honiara and at the Outstations
- Sign a Power Purchase Agreement for Tina River Hydro Project
- Develop the project for the installation of more Hybrid Generation Systems in Solomon Islands
- Initiate the development of a Supervisory Control and Data Acquisition System (SCADA)
- Initiate and commence a project to upgrade the old Lungga Power Station
- Noise mitigation and other improvements at Honiara Power Station
- Install and commission Smart Meters
- 24/7 Customer Call Centre







#### Who we are

Solomon Islands Electricity Authority (SIEA) trading as Solomon Power (SP) is a State Owned Enterprise.

#### Our objectives

Under Section 4 of the State Owned Enterprises Act, the principal objective of the Company is to 'operate as a successful business', and to this end, be:

- As profitable and efficient as comparable businesses that are not owned by the Crown.
- A good employer.
- An organisation that exhibits a sense of social responsibility by having regard to the interests of the community in which it operates.

### To meet these objectives, SP strives to

# Be as profitable and efficient as comparable businesses by:

- Within the Electricity and State Owned Enterprises
  Acts, installing, operating and maintaining electricity
  supply systems that meet the needs of connected
  customers.
- Developing and implementing capital investment plans, to improve electricity system performance and increase the network coverage of agreed areas.
- Seeking to recover efficient costs of the service provision.
- Improving the efficiency of services, whilst improving asset reliability and availability.

#### Be a good employer by

- Maintaining a well-qualified and motivated staff.
- Adopting HR policies that treat employees fairly and properly in all aspects of recruitment, retention and employment.
- Promoting a high level of safety throughout the organisation.

#### Act in a socially responsible manner by

- Building effective relationships with landowners, customer groups and interest groups that are affected by our activities.
- Improving environmental reporting and performance on issues that are caused by our electricity supply activities.
- Incorporating sustainability into our business activities, and working to improve sustainable outcomes in terms of resource management.

#### Nature and scope of our activities

SP's principal commercial activities, as defined under the Electricity Act, are the

- Generation and distribution of electrical supply to connected customers in approved areas,
- Operation, maintenance and development of assets that are necessary to achieve these outcomes on a long term, sustainable basis,
- Approved expansion of services to increased areas of operation.

#### Other regulatory functions

The Company is also mandated by the Electricity Act to perform the following regulatory functions:

- Be responsible for the registration of Electrical Contractors.
- Ensure that industries and contractors comply with the Electricity Act and the AS/NZS Wiring Standards, by inspecting all electrical installations before connecting to SP mains.
- Be responsible for the licensing of standby generators, Independent Power Producers (IPPs) and Cogeneration of power.



### Members of the Board



David K.C. Quan Chairman



Harry Zoleveke
Director



Henry Kapu Director



John Bosco Houanihau *Director* 



Rovaly Sike Director



Sebastian Ilala Director



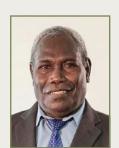
Yolande Yates Director



## Senior Management



Pradip Verma Chief Executive Officer



Martin Sam Chief Engineer



Delilah Kekea-Homelo Chief Financial Officer



**Jan Sanga** General Manager Customer Services



Arieta Cama General Manager Corporate Services



Mark Greenaway General Manager Capital Works



**Levan Respioh** *Manager Human Resources & Administration* 



**Hemant Kumar** *Planning Engineer* 



Janendra Prasad Electrical Engineer



Kitione Malugulevu Regulatory Manager



Robin Simpson Manager Health & Safety, Security and Environment



**Apollos Inasimae** *Manager Management Accounting* 



Atkinson Talvat Manager Generation and Outstations



Mathew Korinihona Manager Distribution



Gavin Gorazu Manager IT



Dalton Maesia Manager Property







### Chairman's Letter



Year 2016 has been another significant year for Solomon Power. For the first time we have declared a dividend to Solomon Islands Government. It is six years in a row that Solomon Power has made a profit. Furthermore, the last five year's statutory accounts have all been unqualified, and signed off by the Auditor General before the mandated date of 31st March each year.

The four new 2.5 MW generators were brought on line in the first half of 2016. This additional generation has placed Solomon Power in good stead with sufficient installed generation capacity in Honiara, and has provided sufficient capacity to meet electricity demand with up to two generators taken off line for repairs and maintenance.

To further enhance operational flexibility we have installed and commissioned black start facility on the two generators at Honiara Power Station.

In the outstations too we have commissioned new generators at Auki, Gizo and Tulagi. New generators at Munda and Noro will be commissioned in the first half of 2017 and this will complete the outstations generation upgrade project. The completion of this project will provide additional generation capacity at the outstations and enable Solomon Power to increase its customer base.

We have reduced our diesel consumption by 4% and were awarded the Green Business of the year 2016 for contributing towards the Solomon Islands Government's target of reduction of greenhouse gases. This was made possible by the commissioning of the Buala 150 kW Hydro plant and the 1 MW Solar Farm at Henderson and operation of the 4 more efficient new diesel generators at Lungga.

We have also commenced a project to convert the existing diesel based power stations at our outstations Kirakira, Lata, Malu'u, Munda and Tulagi to hybrid generation systems. Furthermore, substantial progress has been made in the project to install and commission hybrid generation systems and distribution network at our two new outstations; Seghe and Taro. Both these outstations will be commissioned in the first half of 2017.

I would like to congratulate the management team for initiating the Output Based Aid programme with the support of the World Bank and for connecting and livening up the first 12 households just before Christmas. This programme envisages grid connection to 2,500 new customers and augurs well for Solomon Power and is another enabler to meet our long term objective of doubling our customer numbers.

The new electricity tariff was gazetted just before Christmas and is effective 1 January 2017 and this would not have been possible without the support of our Shareholders. Well done to Team Solomon Power for bringing this to fruition. I am elated to recognise that for the first time since 2010 the tariff for certain consumption ranges is going to be below \$ 5.00 a kWh. A reduced tariff will increase economic activity and help all to build our Nation.

Solomon Power is committed to renewable energy opportunities such as Tina River Hydro Project (15MW) in Guadalcanal and Fiu River (500kW) in Malaita, and these two projects of national significance are getting our serious and urgent attention.

The continued support of the World Bank, Asian Development Bank, Japan International Cooperation Agency, New Zealand Government and United Arab Emirates Government and other donors to explore opportunities in renewable energy and to drive commercialisation in our operations, is very much appreciated.

I would like to take this opportunity to thank the Shareholders and my colleagues on the Board and Management Team for the continued support rendered throughout 2016.

David K.C. Quan MBE

Chairman



### Chief Executive Officer's Letter



The year in perspective has been another successful one for Solomon Power (SP) financially and operationally. For the first time in many years we have seen a good growth in electricity demand.

Over recent years, a significant improvement in the commercial sustainability of SP has been achieved. Prudent management

has resulted in a situation where SP has been able to commit to a \$1billion capital investment plan for the period 2013-2021. The capital spend in financial years 2014, 2015 and 2016 has been \$106m, \$133m and \$125m respectively. This capital injection will further increase our customer numbers in Honiara and at the outstations and see the development of new outstations.

The reliability in Honiara dipped in comparison with 2015. As a result of the successful testing and implementation of a seamless G-1 operation regime (no loss of load on loss of the largest generator in operation on the network) in Honiara in the latter part of the year improvements in SAIDI, SAIFI and CAIDI reliability indices in Honiara will be realised during 2017. I am also pleased to note that the black start facility installed on both generators at Honiara Power Station in 2016 will provide operational flexibility and contribute towards improvement in the three reliability indices.

SP is fundamentally different from what it was 9 years ago and is at the forefront of the commercialisation initiative of Solomon Islands Government (SIG). I am pleased to note that SP was rated as one of the best performing State Owned Enterprises in a recent benchmarking study conducted by the Asian Development Bank, which included 8 Pacific participating countries, Mauritius and Jamaica.

In 2016, we commenced a programme to extend the 11kV and 415 V networks and also started

implementing the Output Based Aid programme to subsidise the electricity connection to the grid for the low income customers. These projects are complementary and are in line with our long term objective to double our customer numbers and drive economic growth in Solomon Islands.

During the year we signed a contract for the relocation of feeder 12, the upgrade of the existing Ranadi Substation and to construct a new 33/11 kV substation at Kola'a Ridge. The works for these have commenced with commissioning anticipated in 2018. The works for the hybrid sites at Seghe and Taro under a contract have substantially progressed. In the early part of the year we brought on line the 4 new generators at Lungga Power Station, the 1 MW Solar Installation at Henderson and the 150 kW Hydro Station at Buala.

The new 2016 electricity tariff has reduced the rates and this will challenge us to be more efficient, productive and effective in the future.

It is also pleasing to see the mobile top-up facility increasingly being used by our customers.

To improve the efficiency and effectiveness of our operations this year we commissioned and improved the telecommunication connectivity to our outstations.

During 2016 we have continued our focus on safety and training. The safety record has been exemplary with no loss time injury during the year. Furthermore, we have experienced a reduction in motor vehicle accidents. The nurturing and mentoring of graduates and other staff is continuing and this will reap great benefits for SP's legacy into the future.

I wish to thank the Board for the excellent support they have provided to me and the SP Team during 2016.

Congratulations to Team SP and all our stakeholders for everything we achieved together in 2016.

Pradip Verma

Chief Executive Officer



### **Engineering Highlights for 2016**



#### Overview

For the first time after 24 months of impeccable performance, Honiara City went through a period of scheduled load shed for seven (7) days, during the period 15th January to 1st February 2016. This was due to the overhaul of one of the large generators (L7 Wartsila) at Lungga Power Station and the failure of the two Caterpillar generators (H1 and H2) at the Honiara Power Station.

Furthermore, the year started off with a series of outages due to network feeder faults and issues on our generators. During the months of January and February a total of eight (8) unplanned outages were experienced. Similar outages were also experienced during the months of May and June at mid-year and towards the end of the year during the months of November and December.

In Honiara, we added 10MW of power to our generation capacity following the successful commissioning of a new diesel power plant with 4x2.5

of power was added to the Honiara generation capacity from a new solar power plant at Henderson, east of Honiara; co-funded by the Governments of the United Arab Emirates and New Zealand. Honiara's available generation capacity has increased to 30.5MW compared to 20.5MW in 2015.

With the additional capacity, SP has achieved a G-2 generation criterion, which has been one of its targets.

Generation of power in Honiara is mainly from the four new MAN generators, which are more fuel efficient, and the balance of power requirement from the old generators at Lungga and Honiara power stations.

On the Distribution network, particular efforts have been on improving the reliability of the network. Improved vegetation management saw the drastic reduction of line faults compared to previous years. Despite a high demand for distribution work by infrastructure projects and other urgent repairs and limited resources, the Distribution team was able to address a number of constraints in the network by installing Ring Main Units (RMUs) and Air Break Switches (ABSs) on strategic parts of the network to enable back feeding from one feeder to another.





In addition, a number of over loaded distribution transformers were upgraded, in particular at Ports and Ministry of Infrastructure Development (MID) compounds; both were upgraded to 500kVA units.

At the Outstations, keeping the lights on has continued to be a challenge in 2016 due to the aging and deteriorating conditions of the power generation facilities at the stations. At Auki and Gizo, rotational load shedding had to be carried out whilst repairs were undertaken on the generators, and at Lata a total outage for 7 days was experienced due to the breakdown of its operational generator.

Under the Outstations Generation project the power situation at Auki and Tulagi has improved dramatically following the successful commissioning of 2x500kW new Kohler generators at Auki and 2x250kW generators at Tulagi. In order to stabilise the power situation at Gizo, one new 500kW Kohler generator was temporarily commissioned whilst permanent installation work was in progress. With the completion of the Outstations Generation project in 2017 the power situation at Auki, Gizo, Munda, Noro and Tulagi will improve substantially.

#### Generation:

The generation staff had the opportunity of working with the contractor during the installation, testing and commissioning of the 4x2.5MW new MAN diesel generators as part of their training in preparation of taking over the operation and maintenance of the new plant.

Scheduled major overhauls were carried out on L7 Wartsila and L9 Mitsubishi generators whilst the overhaul on L10 Niigata was delayed as technical issues continued to be experienced on the new MAN generators since commissioning and the prolonged outage of L8 Wartsila due to the faulty 11kV voltage transformer. L8 Wartsila was re-commissioned in November after the new voltage transformer was installed.

Other activities included monitoring of the power plants, attending to faults and breakdowns both in the mechanical and electrical systems; and the scheduled 1,000 hours service on the generators. Hastings Deering was engaged to provide weekly monitoring, scheduled maintenance and attending to faults and issues on H1 and H2 Caterpillar generators at Honiara Power Station.



#### Distribution:

The Distribution Department undertook a number of major activities in Honiara and at the Outstations. In Honiara, 11kV and 415 V line extensions were carried out in Titinge Village, Tinge and Green Valley areas. In addition, the team carried out urgent repairs on the 33kV overhead line from Lungga to Honiara in March due to corroded dead end terminations. The team also relocated the RMUs at Town Ground on feeder 3 and at the Ministry of Infrastructure Development compound on feeder 4. Furthermore, there were distribution transformer upgrades at various locations in Honiara.

The Department also supported works for the various projects in Honiara, in particular the Japan International Cooperation Agency road upgrade project, the Henderson 1 MW solar plant. The Department also carried out new 415 V line works in connection with the new hybrid systems being developed at Seghe and Taro.

Furthermore, the Department continued the much needed vegetation management programme in Honiara in an effort to improve the reliability of the network and reduction of line losses due to vegetation. Other activities were the construction of minor 415V extensions, new service connections, inspection and

condition monitoring of the network, implementation of planned maintenance activities and attending to network faults.

#### **Outstations:**

With the aging generation and network facilities at the Outstations, keeping the lights on was challenging during the year. Prolonged generator outages were experienced at Auki, Gizo, Lata, and Munda/Noro. The high voltage switchboards at Auki, Gizo and Noro also experienced problems. At Auki, one of the distribution feeder circuit breakers had to be bypassed in order to restore power supply to the township.

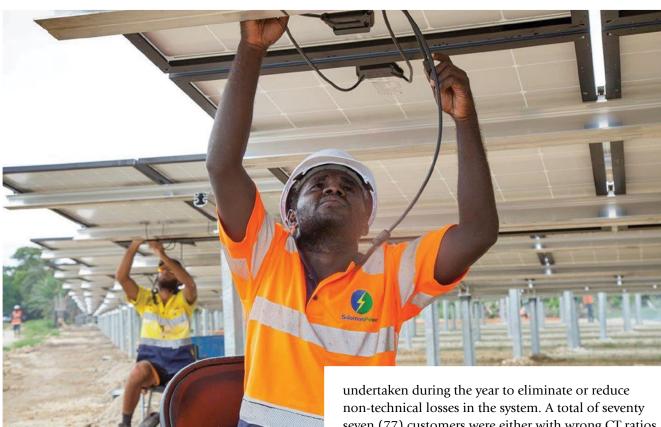
At Noro, maintaining N1 and N2 generators in an operational state was difficult due to their deteriorating conditions and difficulties in sourcing of both the mechanical and electrical parts. The 11kV underground cable between Munda and Noro also experienced faults that often took longer to restore.

At Auki and Tulagi, however, the situation has improved since the commissioning of the new Kohler generators under the Outstations Generation project. Gizo power situation was stabilised by temporarily connecting one of the new 500kW Kohler machines.

Lata in the Temotu Province experienced total outage for seven (7) days when the only operational generator had voltage regulation problem whilst the other generator's alternator was undergoing repairs in Honiara. A new 80kW Kipor generator was purchased and installed at Lata to stabilise the power situation.







#### Regulatory:

The Authority started discussions with relevant stakeholders both locally and overseas to enable electricians and local contractors to sit for their licensing examinations. By the end of 2016, participants from both Solomon Power and external parties were put through gap assessment tests to identify training needs prior to sitting for the Australian set examination for licensing purposes.

The Regulatory Department provided technical support during the testing and commissioning phases of the 1.0MW solar farm at Henderson. The Regulatory team also assisted in the testing and commissioning of the 30kW solar plant at the Helena Goldie Hospital at Munda in the Western Province.

The Regulatory and Customer Services team carried out investigations on the current transformer (CT) metered customers to see if the ratios and multiplying factors were correct and the meters are giving correct readings. This is amongst other activities which were

undertaken during the year to eliminate or reduce non-technical losses in the system. A total of seventy seven (77) customers were either with wrong CT ratios or with defective CTs which were replaced as part of the exercise. Six (6) customers were with wrong multiplying factors and these were corrected. The remaining twenty six (26) customers will be addressed when new CTs are received in 2017.

A total of 719 new connections were done for Honiara and the Outstations in 2016 compared to 785 connections in 2015.

#### **Planning:**

The Planning Department managed the feasibility and line route studies for the proposed 66 kV transmission line and also undertook the Least Cost Generation Study and the Due Diligence Study associated with the proposed Tina River Hydro project in Guadalcanal.

In addition, the Department assisted the Asian Development Bank (ADB) to carry out the feasibility studies on the project to convert the existing diesel operated Outstations at Kirakira, Lata, Malu'u, Munda and Tulagi to Hybrid Generation systems.

The Department also carried out detailed survey on seven (7) of the twenty one (21) proposed sites in Honiara for the extension of the 11kV and 415V networks. The other major activity carried out was high



level consultations on nine (9) of the first fifteen (15) sites identified for Hybrid mini-grid developments for 2016. The nine (9) sites completed were Batuna, Vonunu, Ringgi, Sasamunga, Pangoe, Arariki, Kilusakwalo, Lambi and Visale.

#### **Electrical:**

The Electrical team provided support to the contractor on the 1 MW Solar Farm project at Henderson on the installing of the new switchboard at the Lungga Power Station end and also on the testing and monitoring of the operation of the solar installation.

The other activities carried out by the Department included maintenance works on all electrical auxiliaries, the main alternators and other electrical equipment on the L7 Wartsila and L9 Mitsubishi generators at Lungga Power Station during their major overhauls. The team also supported the protection specialist to carry out primary injection tests on the relays and energy meters associated with these generators.

In addition, the Department attended to repairs and maintenance works both in Honiara and at the Outstations, investigation of faults and outages in the Honiara Generation system and network.

#### **Renewable Energy:**

Two proposed Hydro Projects, the 750kW at Fiu River, Malaita Province and the 15MW at Tina River in Guadalcanal Province were being progressed through various stages during the year and will be further developed in 2017.

A 1.0MW grid-connect solar project jointly funded by the United Arab Emirates (UAE) and the New Zealand Governments was commissioned in June 2016. The plant recorded outputs of up to 850kW on sunny days and was supporting power generation through the Lungga Power Station 11kV system.

We completed the feasibility studies and assessments on an ADB funded 2MW project to convert the existing diesel operated outstations at Kirakira, Lata, Malu'u, Munda and Tulagi to hybrid generation systems. SP has been providing assistance with the acquisition of the land at these sites which are mainly government owned.

SP funded hybrid mini-grids at Seghe and Taro were progressed to final design stages, procurement and delivery of the equipment. The projects are expected to be completed by mid-2017. Land for these projects has been secured and lease agreements signed.





Initial consultations and feasibility studies were carried out on nine new sites for the development of new hybrid mini-grids. Detailed studies and land acquisition have progressed very well for Hauhui on Malaita. Detailed studies for Vonunu, Ringgi, Kilusakwalo, Sasamunga, Pagoe and Arariki have been completed and will progress on to land negotiations; whilst detailed studies for Lambi and Visale on Guadalcanal will be carried out in 2017.

#### **Power System Reliability:**

SP's System Reliability in Honiara is measured using the internationally accepted performance indicators as follows:

# The System Average Interruption Duration Index (SAIDI)

SAIDI defines the average interruption duration per customer served per year.

SAIDI = (Sum of Customer Interruption Durations/ Total number of customers)

For Honiara, this was measured to be 381.9 minutes, compared to 217.7 minutes in 2015. This is an increase by 164.2 minutes over the 2015 figure.

# The System Average Interruption Frequency Index (SAIFI)

SAIFI defines the average number of times a customer's service is interrupted during a year for longer than 2 seconds. A customer interruption is defined as one interruption to a customer.

SAIFI= (Total number of customer interruptions/ Total number of customers served)

For Honiara this was measured to be 3.8 times compared to 3.2 times in 2015.

# The Customer Average Interruption Duration Index (CAIDI)

This is a measure of the average time (minutes) that a customer is without power per interruption. For Honiara, this was measured to be 103.1 minutes per interruption compared to 74.2 minutes in 2015.

#### Reliability and Efficiency

To maintain the efficiency of the generators at Lungga; an improved cooling water treatment and quality control has continued to be maintained and as a result the large generators except L8 Wartsila were able to

be loaded to 90% of their rated output capacity. This has enabled the generators to maintain the growing demand for power during the year.

The implementation of the G-1 operation criteria, the under frequency load shedding scheme on a number of the 11kV Honiara feeders and the revised delayed time setting on the existing under voltage system protection on the 33kV feeders at Honiara will prevent a wider network outage due to faults in the 11kV feeders, and this should contribute to an improvement in the performance and reliability of the network in Honiara.

#### **Energy Produced**

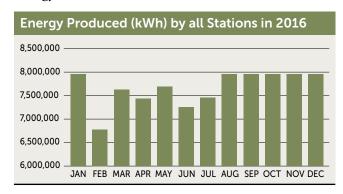
Energy produced in 2016 is shown in the table below. Lungga and Honiara operations produced a total of 82.16Gwh (90.6%) whilst the Outstations, Solomon Tropical Products (IPP) and the Ranadi and the Henderson solar plants produced 8.48Gwh (9.4%).

Station	Gwh (2015)	Gwh (2016)
Lungga	71.91	76.86
Honiara	6.00	5.30
Outstations	7.48	6.75
Henderson Solar	0	0.63
Ranadi Solar	0.073	0.005
Solomon Tropical Products (IPP)	1.36	1.10
Total	86.823	90.64

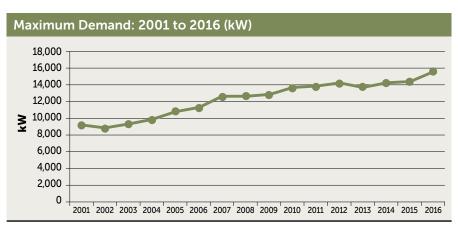
#### **Maximum Demand**

The demand for electricity in Honiara in 2016 peaked at 15,470 kilowatts compared with a figure of 14,425 kilowatts in 2015, an increase of about 1,045 kilowatts over the 2015 demand.

#### **Generation Statistics Energy Produced**

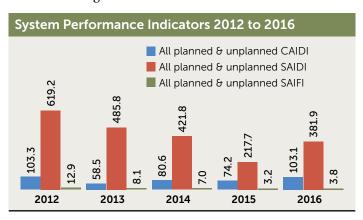






Honiara Demand Growth from year 2001 to 2016.

System Performance Indicators for Honiara for 2012 to 2016 are in the histogram below.















### Capital Works Division

During 2016, there were 23 capital infrastructure projects being progressed to the value of \$426m. Of these, the following were completed and commissioned during the year.

- The new power station at Lungga with 4 new 2.5 MW generators;
- The 1 MW Solar generation plant at Fighter 1, Henderson;
- The upgrade of the Ranadi Head Office complex car park area;
- The construction of the new Power Station at Gizo;
- The replacement of diesel engines and switch gear at Auki and Tulagi

Key projects which started during 2015 and were progressed during 2016 include:

- The development of the smart meter project;
- The development of Hybrid Generation systems at Seghe and Taro;
- The development of the Fiu River Hydro Project;
- The development of the Tina River Hydro Project including the associated Transmission Line;
- Relocation of SP assets around Mataniko Bridge and the Honiara City Council Roundabout to facilitate the Kukum Highway upgrade project

Projects that commenced during 2015 and will conclude during 2017 include:

- The development of Hybrid Generation systems at Seghe and Taro;
- The replacement of diesel engines and switch gear at Gizo, Munda and Noro

Projects that commenced during 2015 and will continue during 2017 include:

- Relocation of feeder 12 at Henderson;
- The redevelopment of the Ranadi Substation;
- The development of the Kola'a Ridge Substation

Projects commencing during 2016 and will continue in 2017 include:

- The development of the East Honiara Substation site as an industrial park;
- The installation of a second transformer at Lungga;
- The Honiara Power Station Redevelopment;

- The development of 5 Hybrid replacement generation systems for the existing Outstations at Kirakira, Lata, Malu'u, Munda and Tulagi;
- The extension of the mezzanine floor at the Ranadi HQ location;
- The development of 11kV and 415V network extensions

SP has continued to develop its Project Management Office during 2016. The team has continued to develop systems to monitor projects as they advance and go through the different stages of their life cycle. This system development has included progressing document management of projects at SP, which has continued to improve particularly since the appointment of a dedicated Document Management staff. In early 2016, a Contract Coordinator was appointed to support the various contract requirements SP is exposed to in its capital works programme. There has been significant use of external resources to undertake projects where they are not available from within SP.

The development of staff is particularly important with the young project engineers undertaking projects within SP. Mentoring opportunities with experienced expat project personnel to capacity build the SP Capital Works team have been provided to guide the project engineers on the job as they execute their allocated projects. Staff training of a Friday afternoon exposes the project engineers to the various aspects of Project Management and discusses the various skills required by a project engineer or project manager when undertaking a project.

The year of 2017 will bring further opportunities for SP to increase its project management capacity. The proposed training of staff will progress with a proposed Construction Supervisor certification and further project management skills training. This will ensure SP has the resources at its disposal to undertake the projects required to build the capital electricity infrastructure for the Solomon Islands.



### Customer Services Division



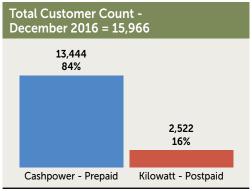
With a total number of 52 permanent staff, the Customer Services division is responsible for customer enquiries, cashiering, Kilowatt billing (post-pay), Cashpower administration (pre-pay), metering and public relations.

In terms of customer count, by the end of 2016, SP had a total of 15,966 customers connected to its Honiara and outstations' network. Honiara, the

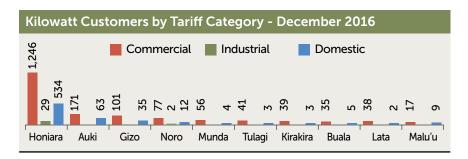
capital city, is situated on the island of Guadalcanal. There are 9 other outstations on the island provinces outside of Guadalcanal, namely Auki, Gizo, and Noro being the bigger outstations, with the smaller stations being Buala, Kirakira, Lata, Malu'u, Munda, and Tulagi. Two new Hybrid Stations are being developed in Taro, Choiseul Province and Seghe in Marovo, which are planned to be commissioned in 2017.

84% of the customers are registered on the pre-pay system (Cashpower) called Suprima, and the other 16% on the post-pay billing (Kilowatt) system called USP or Utility Star Platform. The Suprima system has been in place since 2000 while the USP was introduced in June 2014.

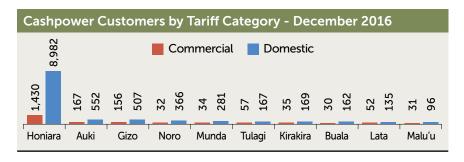
Customers are categorised into commercial, industrial and domestic installations and charged according to their respective electricity tariff rates. The post-pay system registers commercial, industrial and domestic customers, while the prepay system only registers commercial and domestic customers.



The graph below shows the number of post-pay (Kilowatt) customers by tariff category by location.

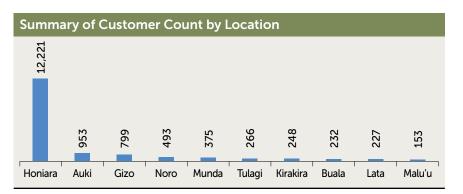


The graph below shows the number of prepaid (Cashpower) customers by tariff category by location.





In summary, total customer count by location is as shown on the graph below:



With scattered outstation locations, the V-SAT project provided by SATSOL and the Government has enabled ease of billing connectivity from the Head Office to these outstations.

SP currently uses two types of meters; cashpower meter on all pre-paid installations and the normal conventional kilowatt meter on post-pay installations. Following successful tests and integration into the billing system, work has progressed well into replacing all of Honiara's commercial and industrial kilowatt meters with EDMI Smart meters. Work has also progressed well into reducing non-technical losses through monthly analysis of no load meters and upgrading of all ratios on Revenue Metering Current Transformers.

The cost of service and tariff review was carried out by Quantum in 2015. An outcome of this review is the gazetting of the Electricity Tariff (Base Tariff and Tariff Adjustments) Regulations 2016 by the Government in December 2016, with implementation to be effective 1st January 2017. The new tariff has resulted in lower electricity rates for customers.

The division has taken the lead to run community awareness sessions under the Output Based Aid (OBA) programme. These sessions were conducted at eight sites with customer applications processed and approved. By the end of 2016, 12 homes at Titinge were connected under this programme.

A new-look website was developed in 2016, which can

be accessed on www.solomonpower. com.sb. The new site has updated contents with formats that are easier to browse and maintain unlike the previous site. The website's Enquiries Section provides a path for customers to raise issues and ask questions online. A new Facebook page is planned for 2017. The weekly Saturday morning one hour radio programme on the national radio is still gaining popular following amongst keen listeners, members of the public and our

valued customers, especially the end of the month talk back shows, which provide very good opportunities for our customers to raise issues and ask questions. The Cashpower Drive-Through and Walk-Through windows, extended Cashier opening hours to 8.30pm Mondays to Fridays and the 24 hours Cashpower mobile top-up service are still going very well and have been very helpful in reducing customer queues at the counters, especially with the growing number of Cashpower customers. With all these, we look forward to another Customer Survey in 2017 where we hope to see a marked improvement in our customer service.

In terms of training, the department is pleased to have four of its staff graduate and attain their APTC qualifications over the year. Two officers graduated with the APTC Certificate III in Electrotechnology Electrician and another two with APTC Certificates in Leadership and Management. Two other staff are doing full time studies both locally and overseas, while two Meter Technicians were sent to the Fiji Electricity Authority for work attachments on the area of meter testing and inspections. Training has also been carried out by the suppliers in both Suprima and USP. On the job training plans were put in place for the four newly recruited officers for the new Hybrid Stations in Seghe and Taro, to be carried out in January 2017. Training activities are ongoing for the division, to ensure that we are able to meet the challenges ahead. Apart from training, our policies and processes have continually been developed and updated, to ensure that our quality commitments to our valued customers are met.



### Finance Division

Sound financial management and governance has placed SP in good stead. Solomon Power is, financially, the best performing State Owned Enterprise in the Solomon Islands and is one of the best in the Pacific. During the year:

- SP has declared a dividend of \$4.4m,
- Net Profits have increased,
- Return on equity and return on assets has been 14.7% and 13.3% respectively,
- Generation cost per kWh has dropped to less than \$2 (less than US \$0.25)
- Fuel costs, being 45% of our costs, has dropped,
- Monthly kWh sales reached its highest ever, and
- Capital Infrastructure being funded using retained earnings (Such as Outstations Generation Project

   Replacement of Generators in Outstations; New Outstations, Seghe & Taro; and Network Extensions in Honiara)

# Information, Communications and Technology

The Information, Communications and Technology (ICT) department of Finance took substantial strides to protect our information, connect our key sites and modernise our hardware and software.

The Outstation at Lata was connected to corporate network through the Virtual Private Network (VPN) and it can access central

application services located in the Ranadi Head Office.

VPN has been successfully set up such that we can remotely access information from Lungga Power Station and from Buala Mini-Hydro Plant.

Implementation of smart metering for postpaid customers has now commenced. Continuous process improvements have also been supported by the Department, with commencement of automated timesheets and implementation of the asset management software.

During 2016, SP generated a monthly average income of approximately \$2.0m via its mobile top-up facility with an average of 25,600 top-ups done each month.

#### Renewable Energy and the Tariff Review

The 1 MW Solar Plant at Henderson and the Buala Mini-Hydro plant have both contributed to the reduction of diesel fuel consumption during 2016.

The cost of service and tariff review was completed during the year, the outcome of which is the new Tariff Regulation 2016 effective 1 January 2017. The new reduced tariff is tiered and has a fuel and non-fuel component. The reduction in tariff is challenging us to be more efficient and effective.

# Community Service Obligations (CSO) and Non-Profitable Services

The Solomon Islands Government has approved and paid \$4.4m for Provincial Electricity Service and streetlights. We have improved the performance of outstations as a whole to the point where they are breaking even excluding depreciation and head office overheads. We have invested in new generators to improve efficiency and are partnering with the Asian Development Bank to install hybrid farms to further reduce costs. Automation, mobile top-up and shared services will reduce operational costs further.





### Corporate Services Division

The Corporate Services Division provides support services to other divisions in Solomon Power through its human resources & administration; training & development; health, safety, security and compliance; fleet and land & buildings and legal services teams.

#### **Human Resources**

At the end of December 2016, there were 239 permanent employees, compared to 245 at the end of 2015, a slight reduction by 2% in permanent employees, but complimented by the engagement of 8 graduate trainees with engineering, finance, economics and management degrees.

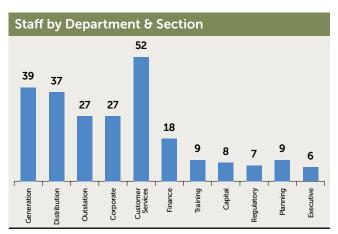


Figure 1: Employee numbers



#### **Employees by location**

148 employees, the majority of the workforce, are based at the Ranadi Complex where the Head Office for SP is located. The Executive Office and the Finance, Corporate Services, Customer Services, Capital Works and Distribution & Transmission teams are located at the Head Office. Lungga site has the second highest number of employees at 37.

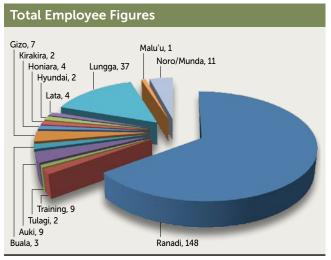


Figure 2: Number of employees by location

Highlights in 2016 included:

- Review of key human resources policies and frameworks
- Recruitment into key vacant positions including that of 2 engineers and localisation of a senior executive management position in the appointment of the first local and first female Chief Financial Officer
- Broadening of the Graduate Programme to include other disciplines apart from the core areas of electrical, mechanical and civil engineering

#### Training and Development

SP considers workforce development as a strategic organisational objective and the appropriate activities, initiatives, planning and resourcing to achieve this continues to be a focus area for the Corporate Services Division. Programmes included a blend of classroom and practical training, attendance at workshops, seminars and conferences; and support for full time studies at tertiary institutes.





3 employees were awarded Solomon Islands Government scholarships in 2016 for tertiary qualification studies in Fiji; 4 were granted full SP scholarships to do full time studies in SINU and USP; and 6 attended formal full-time studies in APTC Papua New Guinea and Fiji respectively, also fully funded by SP. During 2016 four employees graduated, of these, three were sponsored by SP and one by the Solomon Islands Government.

To further enhance our drive for workforce development, SP continued with its Graduate Development Programme with the engagement of 6 graduates in 2016 and provided workplace attachment opportunities for 23 tertiary students from SINU and USP.

#### Occupational Health & Safety

SP is committed to an effective and robust OHS management framework as the basis of its commitment to a safe environment for its employees and customers and the community at large. In 2016, the team underwent the review of two key policies which were then prepared for execution and monitoring. The Safety Manual and the Drivers Handbook were reviewed and ready for roll out.

Highlights in 2016 included:

- Nil (0) Lost Time due to Injury (LTI) was recorded in 2016 compared to three (3) Lost Days in 2015. The Lost Time Injury Frequency rate for 2016 closed at 0 whereas it was 4.28 at the end of 2015,
- Carried out OHS awareness programmes for employees and electrical safety awareness programmes in communities,
- Continuation of First Aid Training and provision of First Aid Kits and Basic Fire Fighting Training for Power Station Operators,
- Continuation of Power Station Operator Training and Electric Power Lineman Training,
- Developed, implemented and trained Contractors on site safety inspection process,
- Developed and implemented security services engagement process,
- Reviewed Fleet Policy Manual and Driver Handbook,
- Reviewed Solomon Power Safety Manual





#### Solomon Power Fleet of Vehicles

As at 31st December 2016, SP had 89 vehicles in its fleet. During 2016, we continued with the review of our Fleet Policy, conducted "Hands on Wheel" defensive driving programme in conjunction with our Telekom participants and increased the focus on safety, behaviour and professionalism.

#### **Land & Buildings**

#### Land

2 Land Consultants were engaged in December 2016 to assist with current land issues SP is facing with its current and future project developments, for new land acquisitions and proper registration of all SP properties.

#### **Buildings**

Apart from our commercial properties in Honiara, Ranadi, Lungga and the Outstations, SP provides housing for employees. There are 90 staff houses and



the Land and Buildings unit had a major annual repair and maintenance work programme in 2016.

A valuation exercise of all our properties was carried out in 2016, with the last being executed in 2013.

#### **Legal Services**

Legal Services is responsible for ensuring that legislation relating to the operation of the organisation is complied with. These pieces of legislations include the Electricity Act (Cap 128), the State Owned Enterprises Act 2007, the Labour Act, the Employment Act, the Safety At Work Act and other relevant pieces of legislation.

#### **Bypass Customers**

There is a concerted effort to recover monies owed to SP by "Bypass" and defaulting customers, the efforts can be most challenging with various dimensions of each case including prosecuting of "Bypass" customers.

SP is proceeding with recovery from these customers with several good outcomes by the end of 2016.

#### **Workmen Compensation**

One case of Workmen Compensation was reported to the Department of Labour and is being facilitated by external Counsel.

#### **Trade Dispute Panel**

One case for unfair dismissal lodged by a former employee was amicably settled during the year.

#### **Outstanding claims**

The claim over the strip of land at the rear entrance to SP Headquarters is still pending in the High Court.





### Corporate Governance Practices

#### Role of the Board

As required by Section 6 (4) of the State Owned Enterprises Act 2007, the Board is responsible for charting the Company's strategic direction, for the setting of objectives, policy guidelines, goals management, and for monitoring the achievement of these matters.

The Board is also responsible for reviewing the Business Plan, Corporate Plan and Statement of Corporate Objectives, and approves the Operating and Capital Budgets each year. The Board also reviews matters of a major or unusual nature, which are not in the ordinary course of business.

#### Composition of the Board as at 31 December 2016

The Board Directors, appointed under the State Owned Enterprises Regulation 2010, (Part 2, Prescribed Process of Appointment of Directors) are as follows:

Name	Position	Appointment	Term
Mr David K.C. Quan	Chairman	February 2016	3 years
Mr Adrian Wickham	Chairman	August 2011	Ended on 18 February 2016
Mr David Laurie	Overseas Director	February 2015	Ended on 1 September 2016
Mr Henry Kapu	Director	June 2012	3 years
Mr Harry Zoleveke	Director	June 2012	3 years
Mr Sebastian Ilala	Director	June 2012	3 years
Ms Yolande Yates	Director	September 2014	2 years
Mr Rovaly Sike	Director	September 2014	2 years
Mr John Bosco Houanihau	Director	September 2014	3 years

Mr Adrian Wickham's term of appointment as Chairman of the Board was terminated effective 18 February 2016. Mr David K.C. Quan was appointed the Chairman of the Board of Directors effective 19 February 2016.



#### Directors' Duties

The role and duties of the Directors are defined in regulations 17 to 27 of the SOE Regulations, 2010. A key responsibility of the Directors is to achieve the principal objective of the Authority, as stated in Section 5 of the SOE Act:

The principal objective of every State Owned Enterprise shall be to operate as a successful business and to this end, to be

- a) As profitable and efficient as comparable businesses that are not owned by the Crown or established as statutory bodies by an Act of Parliament,
- b) A good employer, and
- c) An organisation that exhibits a sense of social responsibility by having regard to the interests of the community in which it operates.



#### Statutory Duties of the Board

In addition to the above duties, the Board of Directors of SP collectively and individually have agreed on the fulfilment of the following duties toward the company:

- When exercising powers or performing duties,
  Directors must act in good faith and in what the
  Director believes to the best interests of the State
  Owned Enterprise.
- A Director of a State Owned Enterprise, when exercising a power as Director, must exercise that power for a proper purpose.
- A Director of a SOE must not:
  - a) Agree to the business of the SOE being carried out on or in a manner likely to create a substantial risk of serious loss to the SOE creditors or.
  - b) Cause or allow the business of a SOE to be carried out on or in a manner likely to create substantial risk of loss to the SOE creditors.
- A Director must not agree to the SOE incurring an obligation unless the Director believes at the time, on reasonable grounds, that the SOE will be able to perform the obligation when it is required to do so.
- A Director of a SOE, when exercising powers or performing duties, must exercise the care, diligence, and skills that a reasonable Director would exercise in the same circumstances.
- Another controlling measure imposed on Directors is the requirement to enter any conflict of interest in an interests register.

#### **Fiduciary Duties of Directors**

The Directors of SP also owe the following duties to the company. These fiduciary duties form the code of ethics of SP. A fiduciary relation imposes an obligation of utmost good faith on Directors by putting the interests of the Company first, and the SP Directors have pledged to uphold this principle at all times. The Fiduciary Duties of the Directors include the following:

- To act in good faith in the best interest of the company,
- To exercise powers for a proper purpose,
- To retain discretion
- To avoid conflicts of interest.

#### **Board Meetings**

The Board held 12 meetings during the financial year, which ended 31st December 2016. Of these 6 were scheduled meetings and the rest extra-ordinary meetings. The regular business of the Board covers corporate governance, financial performance and risk management, business investment and strategic matters.

#### **Board Committees**

There are three Board Sub-Committees; Audit and Finance, Technical, and Human Resources, that are responsible for deliberating detailed issues and making suitable recommendations to the Board. The Sub-Committees meet as and when required.

#### **Board Secretary**

Mrs Natalie Kairi

#### **Audit & Finance Sub-Committee**

Membership:

- 1. Henry Kapu Chairman
- 2. David K.C. Quan Member from 19 February 2016
- 3. David Laurie Member up to 1 September 2016
- 4. Sebastian Ilala Member
- 5. Yolande Yates Member Number of meetings: 4

#### **HR Sub-Committee**

Membership:

- 1. John Bosco Houanihau (Chairman)
- 2. David K.C. Quan Member from 19 February 2016
- 3. Yolande Yates Member
- 4. David Laurie Member up to 1 September 2016 Number of meetings: 4

#### **Technical Sub-Committee**

Membership:

- 1. David Laurie Chairman up to 1 September 2016
- 2. Rovaly Sike Chairman from 1 September 2016
- 3. David K.C. Quan Member from 19 February 2016
- 4. Henry Kapu Member
- 5. Harry Zoleveke Member

Number of meetings: 4



# Solomon Islands Electricity Authority trading as **SOLOMON POWER**

# Financial Statements

for the year ended 31 December 2016

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# **Directors' Report**

In accordance with a resolution of the Board of Directors, the Directors herewith submit the statement of financial position of Solomon Islands Electricity Authority (SIEA), trading as Solomon Power, as at 31 December 2016 and the related statement of comprehensive income, statement of changes in equity and statement of cash flows for the year ended on that date and report as follows:

#### Directors

The Directors in office at the date of this report and at any time during the financial year and up until the date the financial statements were authorised for issue are as follows:

#### Name

David K.C. Quan - chairman (appointed 19 February 2016)

Adrian Wickham - chairman (retired 18 February 2016)

David Laurie - (retired August 2016)

Harry Zoleveke - (appointed June 2012)

Henry Kapu - (appointed June 2012)

John B Houanihau - (appointed September 2014)

Rovaly Sike - (appointed September 2014)

Sebastian Ilala - (appointed June 2012)

Yolande Yates - (appointed September 2014)

#### State of affairs

In complying with the Electricity Act (Cap 128) and the State Owned Enterprises Act of 2007, the Directors hereby submit the financial statements of SIEA consisting of the statement of financial position as at 31 December 2016, statement of comprehensive income, statement of changes in equity and statement of cash flows of SIEA for the year then ended.

#### Principal activity

The principal activity of SIEA during the year was the generation and distribution of electricity to the Solomon Islands.

#### Results

The comprehensive income for the year was SBD 205,463,841 (2015: comprehensive income of SBD 106,687,296).

#### Dividends

Director

The Directors have delared but not yet paid a dividend of SBD 4,400,400 for the year (2015: SBD \$nil).

#### Significant events

There has not arisen in the interval between the end of the year and the date of this report any other item, transaction or event of a material and unusual nature that is likely, in the opinion of the Directors, to significantly affect the operations of SIEA, the results of those operations or the state of affairs of SIEA in subsequent financial years.

Dated at Honiara this 27th day of March 2017.

Signed in accordance with a resolution of the Directors.

# **Independent Auditor's Report**

# Solomon Islands Office of the Auditor-General



#### INDEPENDENT AUDITOR'S REPORT

To the Board of the Solomon Islands Electricity Authority

#### **Report on the Financial Statements**

Scope

I have audited the accompanying financial statements of Solomon Islands Electricity Authority, which comprise the statement of financial position as at 31 December 2016, the statement of comprehensive income, the statement of changes in equity, the statement of cash flows for the year then ended and a summary of significant accounting policies and other explanatory notes.

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

The directors and management are responsible for the preparation and fair presentation of the Financial Statements in accordance with International Financial Reporting Standards and the requirements of the State Owned Enterprises Act, 2007. This responsibility includes: designing, implementing and maintaining internal control relevant to the preparation and fair presentation of the financial statements that are free from material misstatement, whether due to fraud or error; selecting and applying appropriate accounting policies; and making estimates that are reasonable in the circumstances.

#### Auditor's Responsibility

My responsibility is to express an opinion on the Financial Statements based on my audit. I conducted my 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 judgment, 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 authority'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 authority'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 I have obtained is sufficient and appropriate to provide a basis for my opinion.

#### Opinion

In my opinion, the financial statements of the Solomon Power give a true and fair view of the financial position of the authority as at 31 December 2016 and of its financial performance and cash flows for the year then ended, in accordance with International Financial Reporting Standards.

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Peter Lokay Auditor-General 30 March, 2017

Office of the Auditor-General Honiara, Solomon Islands

# **Statement of Comprehensive Income**

for the year ended 31 December 2016

	Note	2016 SBD	2015 SBD
Operating income			
Electricity sales		437,528,391	439,887,311
Grant income		6,436,883	4,425,527
Other operating income	7	6,437,901	2,819,563
Total operating income		450,403,175	447,132,402
Expenses			
Generation and distribution	8	187,348,883	205,913,348
Administration	9	61,343,934	65,350,110
Operating	10	30,807,434	31,836,151
Depreciation and amortisation	11	46,006,826	40,549,658
Allowance for uncollectability	14	(861,604)	(3,997,994)
Inventory & asset write-off		1,134,219	1,850,967
Revaluation decrement - property, plant & equipment	11	158,334	-
Total expenses		325,938,025	341,502,239
Gain from operations		124,465,150	105,630,162
Foreign exchange gain / (loss)		(4,416,280)	1,057,134
Net profit for the year		120,048,870	106,687,296
Other comprehensive income			
Revaluation increment - property, plant & equipment	11	85,414,971	-
Total comprehensive income for the year		205,463,841	106,687,296

# **Statement of Financial Position**

as at 31 December 2016

	Note	2016 SBD	2015 SBD
Assets			
Current assets			
Cash and cash equivalents	12	201,187,479	150,836,397
Held to maturity investment		92,847,409	67,440,738
Inventories	13	15,458,291	10,946,653
Receivables	14	50,846,761	48,534,905
Prepayments		1,066,037	1,291,835
Total current assets		361,405,978	279,050,528
Non-current assets			
Property, plant and equipment	11	714,037,972	550,989,546
Receivables	14	3,234,185	4,710,577
Total non-current assets		717,272,157	555,700,123
Total assets		1,078,678,135	834,750,651
Liabilities			
Current liabilities			
Deferred income	16	6,392,961	3,143,547
Trade and other payables	17	46,136,620	32,049,557
Employee benefits		391,109	966,806
Total current liabilities		52,920,690	36,159,910
Non-current liabilities			
Deferred income	16	55,422,959	29,319,696
Total non-current liabilities		55,422,959	29,319,696
Total liabilities		108,343,649	65,479,606
Equity			
Contributed capital	15	246,933,170	246,933,170
Asset revaluation reserve		384,889,703	299,474,732
Accumulated profit		338,511,612	222,863,143
Total equity		970,334,486	769,271,045
Total equity and liabilities		1,078,678,135	834,750,651

Signed for and on behalf of the Board of Directors

Director

# **Statement of Changes in Equity**

for the year ended 31 December 2016

	Contributed capital	Asset revaluation reserves	Accumulated retained earnings	Total	
Note	SBD	SBD	SBD	SBD	
Balance at 1 January 2015	246,933,170	299,474,732	116,175,846	662,583,749	
Total comprehensive loss for the year					
Net profit for the year	-	-	106,687,296	106,687,296	
Balance at 31 December 2015	246,933,170	299,474,732	222,863,143	769,271,045	
Balance at 1 January 2016	246,933,170	299,474,732	222,863,143	769,271,045	
Total comprehensive income for the year					
Net profit for the year	-	-	120,048,870	120,048,870	
Revaluation of property, plant and equipment 11	-	85,414,971	-	85,414,971	
Transactions with owners of SIEA directly recognised in equity					
Dividend declared during the year	-	-	(4,400,400)	(4,400,400)	
Balance at 31 December 2016	246,933,170	384,889,703	338,511,612	970,334,486	

# **Statement of Cash Flows**

for the year ended 31 December 2016

	Note	2016 SBD	2015 SBD
Operating activities			
Cash receipts from customers		440,076,358	470,666,646
Cash payments to suppliers and employees		(275,135,484)	(298,058,066)
Net cash provided by operating activities		164,940,874	172,608,580
Investing activities			
(Payment) / withdrawal for held to maturity investments		(25,406,671)	31,688,069
Net payments for property, plant and equipment	11	(124,972,680)	(133,079,293)
Net cash used in investing activities		(150,379,351)	(101,391,224)
Financing activities			
Cash receipts from donor grants		35,789,560	4,207,606
Net cash provided by financing activities		35,789,560	4,207,606
Net increase in cash and cash equivalents		50,351,082	75,424,961
Cash and cash equivalents at 1 January		150,836,397	75,411,436
Cash and cash equivalents at 31 December	12	201,187,479	150,836,397

# **Notes to the Financial Statements**

for the year ended 31 December 2016

#### 1 Reporting entity

Solomon Islands Electricity Authority (SIEA) is a state owned enterprise established under the Solomon Islands Electricity Authority Act 2007. SIEA's registered office and principal place of business is at the Ranadi Complex, East Honiara, Solomon Islands.

There are no subsidiary companies.

#### 2 Nature of operations

The principal activity of SIEA is the generation and distribution of electricity to the Solomon Islands. SIEA is the owner and operator of the Solomon Islands' Government owned electricity supply systems.

#### 3 Basis of preparation

The financial statements have been presented in accordance with the State-Owned Enterprise Act 2007, and in accordance with accepted reporting principles. The financial statements comply with International Financial Reporting Standards (IFRS) and other applicable Financial Reporting Standards.

#### a) Presentation of currency

The financial statements are presented in Solomon Island Dollars ("SBD"), which is SIEA's functional and presentation currency. All financial information is presented in Solomon Island Dollars and has been rounded to the nearest dollar, except when otherwise indicated.

#### 4 Measurement basis

The measurement basis adopted in the preparation of these financial statements is historical cost except as modified for certain investments, held for sale assets, investment property, financial assets and financial liabilities as identified in specific accounting policies below.

# 5 Specific accounting policies

#### a) Basis of consolidation

There are no subsidiaries in existence, or proposed, so no consolidation is required.

## b) Goodwill

SIEA does not recognise any goodwill.

#### c) Revenue

SIEA recognises revenue as it provides services or delivers products to customers and the consideration becomes recoverable. Revenue is measured at the fair value of the consideration received or receivable.

# Notes to the Financial Statements (Continued)

for the year ended 31 December 2016

#### 5 Specific accounting policies continued

#### d) Financial instruments

#### i. Non-derivative financial assets

SIEA initially recognises loans and receivables on the date that they are originated. All other financial assets are recognised initially on the trade date, which is the date that SIEA becomes a party to the contractual provisions of the instruments.

SIEA derecognises a financial asset when the contractual rights to the cash flows from the asset expire, or it transfers the rights to receive the contractual cash flows on the financial asset in a transaction in which substantially all the risks and rewards of ownership of the financial asset are transferred. Any interest in transferred financial assets that is created or retained by SIEA is recognised as a separate asset or liability.

Financial assets and liabilities are offset and the net amount presented in the statement of financial position when, and only when, SIEA has a legal right to offset the amounts and intends either to settle on a net basis or realise the asset and settle the liability simultaneously.

SIEA classifies non-derivative financial assets into loans and receivables.

#### Loans and receivables

Loans and receivables are financial assets with fixed or determinable payments that are not quoted in an active market. Such assets are recognised initially at fair value plus any directly attributable transaction costs. Subsequent to initial recognition, loans and receivables are measured at amortised cost using the effective interest method, less any impairment losses.

#### Cash and cash equivalents

Cash and cash equivalents comprise cash on hand and cash at bank balance.

#### Accounts receivable

Accounts receivable are recorded initially at fair value and subsequently measured at amortised cost using the effective interest rate method, less any provision for doubtful debts.

Subsequently, appropriate allowances for estimated irrecoverable amounts are recognised in the profit or loss when there is objective evidence that the asset is impaired.

#### Other financial assets at fair value through profit or loss

SIEA has no other financial assets such as derivatives or hedging instruments. These may be developed in the future to provide better management of electricity price fluctuations. If they are used in the future, the realised and unrealised gains and losses arising from changes in the fair values will be included in the profit or loss in the period in which they arise.

#### Available for sale financial assets

Available for sale financial assets are non-derivatives that are either designated as available for sale by management or not designated in any of the other categories.

These investments are carried at fair value with any unrealised gains and losses arising from changes in fair value recognised directly in equity. On sale or on impairment, the accumulated fair value adjustments are included in the profit or loss.

# Notes to the Financial Statements (Continued)

for the year ended 31 December 2016

#### 5 Specific accounting policies continued

#### d) Financial instruments continued

#### ii. Non-derivative financial liabilities

All financial liabilities are recognised initially on the trade date, which is the date that SIEA becomes a party to the contractual provisions of the instrument. SIEA derecognises a financial liability when its contractual obligations are discharged, cancelled or expire.

Financial assets and liabilities are offset and the net amount presented in the statement of financial position when, and only when, SIEA has a legal right to offset the amounts and intends either to settle on a net basis or to realise the asset and settle the liability simultaneously.

SIEA classifies non-derivative financial liabilities into the other financial liabilities category. Such financial liabilities are recognised initially at fair value plus any directly attributable transaction costs. Subsequent to initial recognition, these financial liabilities are measured at amortised cost using the effective interest method.

Other financial liabilities comprise provisions, trade and other payables.

Trade and other payables are carried at amortised cost. They represent liabilities for goods and services provided to the company prior to the end of the financial year that are unpaid.

Provisions are liabilities of uncertain timing or amount. They are measured at the amounts expected to be paid when the liabilities are settled.

#### iii. Contributed capital

Contributed capital represents funds contributed by the Government to establish SIEA as a statutory enterprise and any other subsequent contributions by Government.

#### e) Impairment

#### i. Non-derivative financial assets

A financial asset not carried at fair value through profit or loss is assessed at each reporting date to determine whether there is objective evidence that it is impaired. A financial asset is impaired if objective evidence indicates that a loss event has occurred after the initial recognition of the asset, and that the loss event has a negative effect on the estimated future cash flows of that asset that can be estimated reliably.

Objective evidence that financial assets are impaired can include default or delinquency by a debtor, restructuring of an amount due to SIEA on terms that SIEA will not consider otherwise, indications that a debtor or issuer will enter bankruptcy, adverse changes in the payment status of borrowers, economic conditions that correlate with defaults or the disappearance of an active market for a security.

# Notes to the Financial Statements (Continued)

for the year ended 31 December 2016

#### 5 Specific accounting policies continued

#### e) Impairment continued

#### ii. Loans and receivables

SIEA considers evidence of impairment for loans and receivables at both a specific asset and collective level. All individually significant receivables are assessed for specific impairment. All individually significant loans and receivables found not to be specifically impaired are then collectively assessed for any impairment that has been incurred but not yet identified.

In assessing collective impairment SIEA uses historical trends of the probability of default, the timing of recoveries and the amount of loss incurred, adjusted for management's judgment as to whether current economic conditions and credit conditions are such that the actual losses are likely to be greater or less than suggested by historical trends.

An impairment loss in respect of a financial asset measured at amortised cost is calculated as the difference between its carrying amount and the present value of the estimated future cash flows discounted at the asset's original effective interest rate. Losses are recognised in profit or loss and reflected in an allowance account against loans and receivables. When a subsequent event causes the amount of impairment loss to decrease, the decrease is reversed through profit or loss.

#### iii. Non-financial assets

The carrying amounts of SIEA's non-financial assets, other than inventories, are reviewed at each reporting date to determine whether there is an indication of impairment. If any such indication exists, then the assets recoverable amount is estimated.

The recoverable amount of an asset or cash generating unit is the greater of its value in use and its fair value less costs to sell. 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 or cash generating unit. For the purpose of impairment testing, assets that cannot be tested individually are grouped together into the smallest group of assets that generates cash inflows from continuing use that are largely independent of the cash inflows of other assets or cash generating units.

An impairment loss is recognised if the carrying amount of an asset or its cash generating unit exceeds its estimated recoverable amount. Impairment losses are recognised in profit or loss.

#### f) Inventories

Stocks of materials are recorded at the lower of cost and net realisable value after due consideration for excess and obsolete items. The cost of inventories is based on a weighted average basis and includes expenditure incurred in acquiring the inventories and other costs incurred in bringing them to their existing location and condition.

## g) Investments

SIEA has "held to maturity" investments that are measured initially at cost. These investments are held to provide security for Letter of Credit given to suppliers for various capital project being constructed for SIEA. The length of time to maturity is matched to the key milestones of these capital projects and are usually less than a year. A nominal interest rate of 0.1% per annum is earned on these investments.

# Notes to the Financial Statements (Continued)

for the year ended 31 December 2016

#### 5 Specific accounting policies continued

#### h) Property, plant and equipment

Property, plant and equipment are initially recognised at cost less accumulated depreciation and impairment losses. Cost is determined by including all costs directly associated with bringing the assets to their location and condition for their intended use. The recognition threshold is \$5,000.

Purchased items including software that is integral to the functionality of the related equipment is capitalised as part of that equipment. When parts of an item of property, plant and equipment have materially different useful lives, they are accounted for as separate items (major components) of property, plant and equipment.

The gains and losses on disposal of an item of property, plant and equipment are determined by comparing the proceeds from disposal with the carrying amount of property, plant and equipment and is recognised net within other income/other expenses in profit or loss. When revalued assets are sold, any related amount included in the revaluation reserve is transferred to retained earnings.

#### i. Subsequent expenditure

The cost of replacing part of an item of property, plant and equipment is recognised in the carrying amount of the item if it is probable that the future economic benefits embodied within the component will flow to SIEA and its cost can be measured reliably. The costs of the day-to-day servicing and maintenance of property, plant and equipment are recognised in the profit or loss as incurred.

#### ii. Depreciation

Depreciation is based on either the cost or revalued amount of an asset less its residual value. Significant components of individual assets are assessed and if a component has a useful life that is different from the remainder of that asset, that component is depreciated separately.

Depreciation of property, plant and equipment is calculated using the straight line method to write down the cost of property, plant and equipment to its estimated residual value over its estimated useful life.

The standard estimated useful lives and depreciation rates for SIEA asset classes are as follows:

Land - Freehold - unlimited

Land - Leasehold - 50 or 75 years as per the lease agreements

Buildings - Operational including power stations - 20 to 30 years (5% to 3.3% depreciation p.a.)

Buildings - Non-operational - 15 to 50 years (6.7% to 2% depreciation p.a.)

Generators - 10 to 40 years (10% to 2.5% depreciation p.a.)

Plant & equipment - 10 to 25 years (10% to 4% depreciation p.a.)

Distribution network - 20 to 60 years (5% to 1.7% depreciation p.a.)

Furniture & equipment - 5 years (20% depreciation p.a.)

Furniture & equipment - Information technology - 3 to 5 years (33.3% 20% depreciation p.a.)

Motor vehicles - 5 years (20% depreciation p.a.)

Tools - 3 to 5 years (33% to 20% depreciation p.a.)

The useful lives and residual values of assets may vary from this standard and are reviewed annually.

# Notes to the Financial Statements (Continued)

for the year ended 31 December 2016

#### 5 Specific accounting policies continued

#### h) Property, plant and equipment continued

#### iii. Revaluation of property, plant and equipment

Land, property, plant and buildings are shown at fair value, based on periodic, valuations by external independent valuers, less subsequent depreciation of assets. The fair values are recognised in the financial statements of SIEA, and are reviewed at the end of each reporting period to ensure that the carrying value of assets is not materially different to their fair values.

The primary valuation methodologies used in valuing land and buildings were the direct comparison and income capitalisation approaches crossed check with cost approach. These methodologies use market derived assumptions, including rents, capitalization and terminal rates, and discount rates obtained from analysed transactions. The adopted methodologies are considered to provide the best estimate of value.

Electricity infrastructure assets were valued on an optimised depreciated replacement cost (ODRC) approach. The ODRC valuation of electricity assets is generally considered to represent the minimum cost of replacing or replicating the service potential embodied in the network with modern equivalent assets in the most efficient way possible from an engineering perspective, given the service requirements, the age and condition of the existing assets and replacement in the normal course of business.

Any revaluation increase arising on the revaluation of assets is credited to the asset revaluation reserve, except to the extent that it reverses a revaluation decrease for the same asset previously recognised as an expense in profit or loss, in which case the increase is credited to the statement of comprehensive income to the extent of the decrease previously charged. A decrease in carrying amount arising on the revaluation of assets is charged as an expense in profit or loss to the extent that it exceeds the balance, if any, held in the asset revaluation reserve relating to a previous revaluation of that asset.

Depreciation on revalued buildings is charged to profit or loss. On the subsequent sale or retirement of a revalued asset, the attributable revaluation surplus remaining in the asset revaluation reserve, is transferred directly to retained earnings.

#### iv. Impairment of assets

At each reporting date, SIEA reviews the carrying amounts of its tangible and intangible assets to determine whether there is any indication that those assets have suffered an impairment loss. If any such indication exists, the recoverable amount of the asset is estimated in order to determine the extent of the impairment loss (if any). Where the asset does not generate cash flows that are largely independent from other assets, the company estimates the recoverable amount of the cash generating unit to which the asset belongs.

Intangible assets with indefinite useful lives and intangible assets not yet available for use are tested for impairment annually and whenever there is an indication that the asset may be impaired.

Recoverable amount is the higher of fair value less costs to sell and value in use. 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 for which the estimates of future cash flows have not been adjusted.

If the recoverable amount of an asset (or cash generating unit) is estimated to be less than its carrying amount, the carrying amount of the asset (or cash generating unit) is reduced to its recoverable amount. An impairment loss is recognised in the profit or loss immediately, unless the relevant asset is carried at fair value, in which case the impairment loss is treated as a revaluation decrease.

# Notes to the Financial Statements (Continued)

for the year ended 31 December 2016

#### 5 Specific accounting policies continued

#### h) Property, plant and equipment continued

#### iv. Impairment of assets continued

Where an impairment loss subsequently reverses, the carrying amount of the asset (or cash generating unit) is increased to the revised estimate of its recoverable amount, but only to the extent that the increased carrying amount does not exceed the carrying amount that would have been determined had no impairment loss been recognised for the asset (or cash generating unit) in prior years. A reversal of an impairment loss is recognised in the profit or loss immediately, unless the relevant asset is carried at fair value, in which case the reversal of the impairment loss is treated as a revaluation increase.

#### v. Intangible assets

The cost of acquiring an intangible asset is amortised from the date the underlying asset is held ready for use on a straight line basis over the period of its expected benefit, which is as follows:

Software - 3 to 7 years Easements - indefinite

Easements are deemed to have an indefinite useful life, as the contracts do not have a maturity date and SIEA expects to use the easements indefinitely. Therefore, easements are not amortised. Their value is assessed annually for impairment, and their carrying value is written down if found impaired. SIEA capitalises the direct costs associated with putting the easements in place. These costs include registration and associated legal costs and also any injurious affection payments. Where SIEA buys land and then establishes an easement, a valuation is obtained for the easement. This valuation is used as deemed easement cost and capitalised, with a corresponding reduction in the land valuation.

Certain easements may have been donated by the Crown. These are recognised at cost (\$nil) plus any direct cost associated with putting the easement in place.

For intangibles with a finite life, where the periods of expected benefit or recoverable values have diminished due to technological change or market conditions, amortisation is accelerated or the carrying value is written down.

#### i) Capital work in progress

Capital work in progress is recorded at cost. Cost is determined by including all costs directly associated with bringing the assets to their location and condition. Finance costs incurred during the period of time that is required to complete and prepare the asset for its intended use are capitalised as part of the total cost for capital work in progress. The finance costs capitalised are based on the company's weighted average cost of borrowing. Assets are transferred from capital work in progress to property, plant and equipment as they become operational and available for it's intended use.

#### j Non-current assets held for sale

Non-current assets classified as held for sale are measured at the lower of carrying amount and fair value less costs to sell. Non-current assets are classified as held for sale if their carrying amount will be recovered through a sale transaction rather than through continuing use. This condition is regarded as met only when the sale is highly probable and the asset is available for immediate sale in its present condition and is expected to be completed within one year from the date of classification.

# Notes to the Financial Statements (Continued)

for the year ended 31 December 2016

#### 5 Specific accounting policies continued

#### k) Employee benefits

Provision is made for benefits accruing to employees when it is probable that settlement will be required and they are capable of being measured reliably.

Provisions made in respect of employee benefits expected to be settled within 12 months, are measured at their nominal values using the rate expected to apply at the time of settlement.

Provisions made in respect of employee benefits that are not expected to be settled within 12 months are measured at the present value of the estimated cash flows to be made by SIEA in respect of services provided by employees up to reporting date.

Contributions to defined contribution plans are expensed when incurred.

SIEA deducts and pays 5 per cent of the employee's gross salaries and contributes 7.5 per cent of employee's gross salaries to the Solomon Islands National Provident Fund. Obligations for contributions to defined contribution pension plans are recognised as an employee benefit expense in profit or loss in the periods during which services are rendered by employees.

#### 1) Taxation

Under the Electricity Act, SIEA is exempt from income tax.

#### m) Foreign currency transactions

Transactions denominated in a foreign currency that are not hedged are converted at the Solomon Islands exchange rate at the date of the transaction. Foreign currency receivables and payables at balance date are translated at exchange rates current at balance date. Exchange differences arising on the translation or settlement of accounts payable and receivable in foreign currencies are recognised in the profit or loss.

Certain purchase commitments denominated in a foreign currency are hedged against foreign currency risk and designated as hedge items in fair value hedges under IAS 39. The cumulative change in the fair value of the purchase commitments attributable to the hedged foreign currency risk is recorded as an asset or liability using forward rate based measurement with the corresponding gains or losses recognised in the profit or loss. The gains or losses in the associated derivative are also recognised in the profit or loss.

#### n) Cash flow statement

For the purposes of the cash flow statement, cash is considered to be cash held in bank accounts (net of bank overdrafts) plus highly liquid investments that are readily convertible to known amounts of cash, which are subject to an insignificant risk of changes in value. Cash flows from certain items are disclosed net, due to the short term maturities and volume of transactions involved.

#### o) Grants

An unconditional grant related to an asset is recognised in profit or loss as other income when the grant becomes receivable

Other grants are recognised initially as deferred income at fair value when there is reasonable assurance that they will be received and SIEA will comply with the conditions associated with the grant and are then recognised in profit or loss as other income on a systematic basis over the useful life of the asset. Grants that compensate SIEA for expenses incurred are recognised in profit or loss on a systematic basis in the same periods in which the expenses are recognised.

## p) Dividends

Beginning in 2016 SIEA adopted a policy determining that the dividend payable to Solomon Islands government each year would be equal to the amount of the community service obligation receipts, received in the same year.

# Notes to the Financial Statements (Continued)

for the year ended 31 December 2016

#### 6 Financial risk management

#### Overview

SIEA has exposure to the following risks from its use of financial instruments:

- i) Credit risk
- ii) Liquidity risk
- iii) Market risk
- iv) Interest rate risk

This note presents information about SIEA's exposure to each of the above risks and SIEA's objectives, policies and processes for measuring and managing risk. Further quantitative disclosures are included throughout these financial statements.

#### Risk management framework

The Board of Directors has overall responsibility for the establishment and oversight of SIEA's risk management framework. SIEA's risk management policies are established to identify and analyse the risks faced by SIEA, to set appropriate risk limits and controls, and to monitor risks and adherence to limits. Risk management policies and systems are reviewed regularly to reflect changes in market conditions and SIEA's activities. SIEA, through its training and management standards and procedures, aims to develop a disciplined and constructive control environment in which all employees understand their roles and obligations.

SIEA's Board oversees how management monitors compliance with SIEA's risk management policies and procedures and reviews the adequacy of the risk management framework in relation to the risks faced by SIEA.

The above risks are limited by SIEA's financial management policies and procedures as described below:

## i) Credit risk

Credit risk is the risk of financial loss to SIEA if a customer or counterparty to a financial instrument fails to meet its contractual obligations and arises principally from SIEA's receivables from customers.

SIEA's exposure to credit risk is influenced mainly by the individual characteristics of each customer. However, management also considers the demographics of SIEA's customer base, including the default risk of the industry as these factors may have an influence on credit risk.

SIEA establishes an allowance for impairment that represents its estimate of incurred losses in respect of trade and other receivables. The main components of this allowance are a specific loss component established for groups of similar assets in respect of losses that have been incurred but not yet identified, and a collective component in respect of estimated losses incurred but not yet identified.

SIEA's maximum exposure to credit risk is as follows:

	2016 SBD	2015 SBD
Cash at bank	201,144,479	150,793,397
Receivables - current	37,330,659	34,458,529
- non-current	3,234,185	4,710,577
	241,709,323	189,962,503
Receivables are determined impaired as follows:		
Trade and other receivables		
Gross receivables	69,907,659	67,016,697
Provision for impairment	(29,342,815)	(27,847,591)
	40,564,844	39,169,106

# Notes to the Financial Statements (Continued)

for the year ended 31 December 2016

#### 6 Financial risk management continued

#### ii) Liquidity risk

Liquidity risk is the risk that SIEA will encounter difficulty in meeting the obligations associated with its financial liabilities that are settled by delivering cash or another financial asset. SIEA's approach to managing liquidity is to ensure, as far as possible, that it will always have sufficient liquidity to meet its liabilities when due, under both normal and stressed conditions, without incurring unacceptable losses or risking damage to SIEA's reputation.

Typically SIEA ensures that is has sufficient cash on hand to meet operational expenses including the servicing of financial obligations but this excludes the potential impact of extreme circumstances that cannot reasonably be predicted, such as natural disasters.

The following are the contractual maturities of financial liabilities:

#### 31 December 2016

	Carrying amount SBD	6 months or less SBD	6-12 months SBD	Greater than 1 year SBD
Financial liabilities				
Trade and other payables	46,136,620	46,136,620	-	-
Employee benefits	391,109	391,109	-	-
	46,527,729	46,527,729	-	-
31 December 2015	Carrying amount SBD	6 months or less SBD	6-12 months	Greater than 1 year SBD
Financial liabilities				
Trade and other payables	32,049,557	32,049,557	-	-
Employee benefits	966,806	966,806	-	-
	33,016,363	33,016,363	-	-

# Notes to the Financial Statements (Continued)

for the year ended 31 December 2016

#### 6 Financial risk management continued

#### iii) Market risk

Market risk is the risk that changes in market prices, such as fuel prices, foreign exchange rates and interest rates will affect SIEA's income or the value of its holdings of financial instruments. The objective of market risk management is to manage and control market risk exposures within acceptable parameters, while optimising the return.

SIEA is subject to a quarterly tariff review. The tariff is based upon the 2005 Tariff Price Regulation which is adjusted for the Honiara Consumer Price Index and fuel price movements. Fuel at \$129,661,000 (\$149,930,000 in 2015) comprises about 40% of the expenditure of SIEA, so movements in fuel prices are critical to the profitability of SIEA. Fortunately, the quarterly tariff review considers the fuel price movements, therefore there is a natural hedge against fuel price movements. Taking 2016 as the base, the following percentage movements in fuel prices will have the following effect on revenue, expenditure and profit.

#### Percentage Change In Fuel Price

	-10%	-5%	0%	5%	10%
	\$000	\$000	\$000	\$000	\$000
Revenue	420,400	429,000	437,500	446,000	454,600
Expenditure	304,500	311,000	317,500	324,000	330,500
Net Profit	115,900	118,000	120,000	122,000	124,100

#### iv) Interest rate risk

Interest rate risk is the risk that a change in interest rates will impact net interest costs and borrowings. SIEA has no borrowings and therefore the interest rate risk is minimal.

		2016 SBD	2015 SBD
7	Other operating income		
	Community service obligation	4,400,400	-
	Other	2,029,371	2,303,163
	Reconnections	8,130	516,400
		6,437,901	2,819,563
8	Generation and distribution		
	Bought in electricity	5,557,395	6,160,216
	Fuel	129,691,478	149,930,357
	Lubricating oil	3,748,438	4,876,902
	Other	1,992,000	2,047,725
	Personnel	25,293,211	18,922,237
	Repairs and maintenance	21,066,362	23,975,911
		187,348,883	205,913,348

# Notes to the Financial Statements (Continued)

for the year ended 31 December 2016

		2016 SBD	2015 SBD
9	Administration		
	Advertising	2,100,749	1,634,351
	Bank fees	1,130,589	626,005
	Computer bureau charges	1,744,076	1,287,256
	Consultancy fees	13,301,915	13,646,402
	Directors fees and expenses	394,623	382,816
	Electricity	3,816,113	1,782,474
	Electricity rebate	1,001,382	1,076,404
	Freight	213,246	363,978
	Insurance	1,596,240	1,529,051
	Personnel	19,153,639	20,680,535
	Printing and stationery	2,410,953	2,715,237
	Professional fees	1,743,848	892,004
	Property expenses	4,017,097	6,488,127
	Tax Penalties	206,579	2,322,733
	Telecommunications	4,478,374	5,232,115
	Travel and accommodation	4,034,508	4,690,621
		61,343,934	65,350,110
10	Operating expenses		
10	Customs handling charges	3,392,858	5,259,541
	Other	-	897,544
	Personnel	17,953,848	16,887,379
	Repairs and maintenance	5,650,408	5,298,689
	Vehicle costs	3,810,321	3,492,996
		30,807,434	31,836,151

# Notes to the Financial Statements (Continued)

for the year ended 31 December 2016

ΔΝΝ	11 Property, plant and equipment	7	Duilding	3,000	7 200	D. 54 mil. 14.15.5	7	***************************************	i E	W.c	E-
ΙΙΔΙ		rana	sgiiiniing	Generators	equipment	network	equipment	vehicles	10018	WOLK III Drogress	IOIAI
RFPO		SBD	SBD	SBD	SBD	SBD	SBD	SBD	SBD	SBD	SBD
ORT	Cost / Revaluation										
2016	Balance as 1 January 2015	26,751,937	27,753,708	127,901,281	30,484,937	163,998,045	12,880,105	18,675,943	3,665,026	88,599,400	500,710,383
<b>5</b> SOI	Reclassifications		1	1 00		- 000 00	1 00	1 0	1 00		- 00
ON	Additions	1	1 2	1,186,943	1,/86,/34	1,496,088	2,283,790	4,724,184	1,524,994	120,0/6,561	135,079,293
MON	Disposals	•	(2,016,180)	•		1 ,	1	1	•		(2,016,180)
ואו	Work in progress capitalised	1	8,348,820	1	22,497,226	14,503,011	1	1	1	(45,349,056)	1
AND	Balance at 31 December 2015	26,751,937	34,086,348	129,088,224	54,768,897	179,997,144	15,163,894	23,400,127	5,190,020	163,326,905	631,773,496
S FI	Off set of accumulated depreciation										
FCTF	as a result of a revaluation	1	(6,721,350)	(25,239,620)	(5,078,656)	(11,947,817)	1	•	•	1	(48,987,442)
RICIT	Adjustment to asset revaluation										
ΤΥ Δ	reserve resulting from a revaluation 23,601,405	23,601,405	31,814,293	574,422	168,041	29,256,811	1	1	1	1	85,414,971
UTL	Additions	1	7,153,024	47,938,778	21,059	965,075	5,587,640	1,181,180	1,297,215	60,828,708	124,972,680
1OR	Disposals	(38,000)	(1,096,800)	(10,877,536)	(59,064)	(20,303)	1	(185,712)	1	1	(12,277,416)
ITY	Work in progress capitalised	3,515,837	92,470,938	48,682,500	178,557	2,059,662	369,294			(147,276,789)	1
	Revaluation decrement	•	(158,334)	•	•	•	1	1	•	•	(158,334)
	Balance at 31 December 2016	53,831,179	157,548,120	190,166,769	49,998,834	200,310,571	21,120,828	24,395,595	6,487,235	76,878,824	780,737,955
	Breakdown of cost/revaluation										
	2011 Valuation	•	1	1	1	1	1	1,172,968	249,941	1	1,422,910
	2013 Valuation	564,117	6,658,552	171,550	17,130,540	25,668,207	1			1	50,192,966
	2016 Valuation	49,751,225	61,916,918	93,373,939	30,899,771	168,190,283	1	1	1		404,132,137
	Cost	3,515,837	88,972,649	96,621,279	1,968,523	6,452,082	21,120,828	23,222,626	6,237,294	76,878,824	324,989,943
	Balance at 31 December 2016	53,831,179	157,548,120	190,166,768	49,998,834	200,310,571	21,120,828	24,395,595	6,487,235	76,878,824	780,737,955
	Denreciation and impairment loss										
	Balance as 1 January 2015	1,234,665	1,368,204	18,128,765	2,961,925	6,085,286	2,986,421	7,135,505	535,029	•	40,435,800
	Depreciation		1,694,016	17,712,639	3,944,702	6,571,745	3,807,496	4,143,651	1,440,744	•	39,314,993
	Amortisation of leasehold land	1,234,665	1	•	1	•	1	1	1	1	1,234,665
	Depreciation on disposed assets	1	(201,509)	1	1	1	1	1	,	1	(201,509)
	Balance at 31 December 2015	2,469,330	2,860,711	35,841,404	6,906,627	12,657,031	6,793,916	11,279,157	1,975,774		80,783,950
	Depreciation	•	5,138,502	17,103,251	3,742,824	7,831,258	4,237,140	4,511,654	2,207,531	•	44,772,161
	Amortisation of leasehold land	1,234,665	•	•	•	1	•	•	•	•	1,234,665
	Off set of accumulated depreciation										
	as a result of a revaluation	•	(6,721,350)	(25,239,620)	(5,078,656)	(11,947,817)	1	1	1	1	(48,987,442)
	Depreciation on disposed assets	•	(240,775)	(10,597,496)	(59,064)	(20,303)	1	(185,712)		1	(11,103,350)
	Balance at 31 December 2016	3,703,995	1,037,089	17,107,540	5,511,731	8,520,169	11,031,057	15,605,099	4,183,305	1	66,699,983
	Carrying amounts										
	At 31 December 2014	25,517,272	26,385,504	109,772,516	27,523,012	157,912,759	9,893,684	11,540,438	3,129,997	88,599,400	460,274,583
	At 31 December 2015	24,282,607	31,225,637	93,246,820	47,862,270	167,340,113	8,369,978	12,120,970	3,214,246	163,326,905	550,989,546
47	At 31 December 2016	50,127,184	156,511,031	173,059,229	44,487,104	191,790,402	10,089,772	8,790,496	2,303,930	76,878,824	714,037,972

# Notes to the Financial Statements (Continued)

for the year ended 31 December 2016

#### 11 Property, plant and equipment continued

SIEA has a policy to revalue infrastructure and property assets every 3 to 5 years.

During 2016 SIEA engaged Sinclair Knights Merz (SKM) to carry out an independent valuation of the following classes of assets:

Generators

Distribution network

Plant and equipment

The valuation methodology utilised by SKM was the optimised depreciated replacement cost (ODRC) approach which is generally considered to represent the minimum cost of replacing the service potential embodied in the network with modern equivalent assets in the most efficient manner from an engineering perspective given the service requirements, the age and condition of the existing assets.

During 2016 SIEA also engaged Value Solutions Appraisal (VSA) to carry out an independent valuation of all land and buildings. They were valued at fair value, based on market based evidence using Discounted Cash Flows upon the appraisal of a professionally qualified valuer.

The combined results of this valuation process was an increase in fixed assets and the asset revaluation reserve of \$85,256,638 as detailed in the table above. However, this increase in value was partially offset by an impairment loss of \$158,334, also as detailed in the table above and expensed in the profit or loss.

These valuations were completed in January and December 2016 by SKM and VSA respectively and booked into the accounts from those dates and are accordingly reflected in the financial statements as at 31 December 2016.

SIEA holds both Perpetual Estate Land and Leasehold Land. In 2014, it was agreed with the Auditor General that leasehold land should be amortised, as shown below.

SBD
8,740
3,197
,330)
2,607
3,000
3,397
6,397
6,653
6,653
(1)

Fuel and lubricants are paid for on consumption from supplies held on site and on consignment from the supplier, South Pacific Oil Ltd, through a contract signed in 2012. Therefore no fuel and lubricants inventory is held by SIEA.

#### 14 Receivables

Current		
Trade receivables - kilowatt (Kwh)	48,733,228	43,685,466
Allowance for impairment - kilowatt (Kwh)	(14,208,187)	(12,020,126)
Trade receivables - CashPower	15,602,230	16,561,419
Allowance for impairment - CashPower	(15, 105, 642)	(15,779,688)
Related party - Solomon Islands Water Authority	937,500	937,500
Related party - Solomon Islands Broadcasting Corporation	891,426	600,000
Staff advances	289,858	449,431
Allowance for impairment- staff advances	(28,986)	(47,778)
Unread meters	13,516,102	14,076,376
Other debtors	219,233	72,304
	50,846,761	48,534,905
Non-current		
Related party - Solomon Islands Water Authority	2,890,625	3,750,000
Deferred income - Solomon Islands Water Authority	(447,595)	(660,442)
Related party - Solomon Islands Broadcasting Corporation	829,955	1,721,381
Deferred income - Solomon Islands Broadcasting Corporation	(38,800)	(100,361)
	3,234,185	4,710,577

# Notes to the Financial Statements (Continued)

for the year ended 31 December 2016

#### 14 Receivables continued

On 31 May 2012 an agreement was signed between the Solomon Islands Government (SIG), Solomon Islands Water Authority (SIWA) and SIEA whereby the debt owed by SIWA of \$7,500,000 was converted into a loan with a 0% interest rate for a term of 8 years commencing on 1 January 2013. The deferred income relates to the notional interest expense on this debt using the amortised cost method and is based upon discounted future cash flows.

On 8 May 2013 an agreement was signed between the Solomon Islands Broadcasting Corporation (SIBC) and SIEA whereby the debt owed by SIBC of \$3,661,381 was converted into a loan with 0% interest rate for a term of 5 years commencing on 31 May 2013. The deferred income relates to the notional interest expense on this debt using the amortised cost method and is based upon discounted future cash flows.

	2016 SBD	2015 SBD
Allowance for impairment		
Balance at 1 January	27,847,591	38,529,107
Impairment recognised	(861,604)	(3,997,994)
Bad debts written off during the year	2,356,828	(6,683,521)
Balance at 31 December	29,342,815	27,847,591
15 Contributed capital		
Contributed capital	246,933,170	246,933,170

Capital represents the Government's contribution to the establishment of SIEA. This is not in the form of shares.

16	Deferred income		
	Balance at 1 January	32,463,243	32,681,165
	Additional deferred income	34,120,931	2,647,397
	Deferred income recognised during the year	(4,768,254)	(2,865,319)
	Balance at 31 December	61,815,920	32,463,243
	The deferred income is shown on the statement of financial position as follows:-		
	Current	6,392,961	3,143,547
	Non-current	55,422,959	29,319,696
		61,815,920	32,463,243

In 2007 the Government of Japan entered into an agreement with Solomon Islands Government to fund the construction of the Lungga Generator and Power Station on behalf of SIEA. The funding of these capital works is a non-reciprocal grant. The value of the capital works was approximately \$48 million and has been accounted for by SIEA as a non-current asset with a corresponding amount taken to deferred income. The deferred income is being amortised to the profit or loss over the life of the power station.

In 2014 a grant of approximately \$3.2 million was received from the Japanese International Corporation Agency (JICA) to fund a 50 KW solar grid at the Ranadi Headquarters in Honiara. The value of the capital works has been accounted for by SIEA as a non-current asset with a corresponding amount taken to deferred income. The deferred income is being amortised to the profit or loss over the life of the solar grid.

In 2013 a grant of approximately \$3,058,000 was received from the World Bank through the Solomon Islands Sustainable Energy Project (SISEP) to fund the installation of a 33kv cable in Honiara. This project was completed in May 2015 and the value of the capital works has been accounted for by SIEA as a non-current asset with a corresponding amount taken to deferred income. The deferred income is being amortised to the profit or loss over the life of the cabling.

In 2013 a grant of approximately \$1,493,000 was received from the World Bank through the Solomon Islands Sustainable Energy Project (SISEP) to fund the installation of 11kv switchgear in Honiara. This project was completed in January 2015 and the value of the capital works has been accounted for by SIEA as a non-current asset with a corresponding amount taken to deferred income. The deferred income is being amortised to the profit or loss over the life of the equipment.

# Notes to the Financial Statements (Continued)

for the year ended 31 December 2016

#### 16 Deferred income continued

In 2013 a grant of approximately \$839,000 was received from the World Bank through the Solomon Islands Sustainable Energy Project (SISEP) to fund the installation of cooling radiators at the Lungga Power Station. This project was completed in June 2015 and the value of the capital works has been accounted for by SIEA as a non-current asset with a corresponding amount taken to deferred income. The deferred income is being amortised to the profit or loss over the life of the radiators.

In 2015 a grant of approximately \$765,000 was received from the Asian Development Bank to fund the construction of a Coconut Oil Conditioning Unit on Auki. The value of the capital works has been accounted for by SIEA as a non-current asset with a corresponding amount taken to deferred income. The deferred income is being amortised to the profit or loss over the life of the unit.

In 2015 a grant of approximately \$1,015,000 was received from the Asian Development Bank to fund the procurement of a Generator Set on Auki. The value of the capital works has been accounted for by SIEA as a non-current asset with a corresponding amount taken to deferred income. The deferred income is being amortised to the profit or loss over the life of the generator.

In 2015 a grant of approximately \$867,000 was received from the Asian Development Bank to fund the procurement of 11kV and 415v Distribution Equipment for the Auki Power Generation and Distribution Pilot Project. The value of the capital works has been accounted for by SIEA as a non-current asset with a corresponding amount taken to deferred income. The deferred income is being amortised to the profit or loss over the life of the equipment.

In 2016 a grant of approximately \$32,500,000 was received from the United Arab Emirates Pacific Partnership Fund to fund a 50 KW solar grid at Henderson in Honiara. The value of the capital works has been accounted for by SIEA as a non-current asset with a corresponding amount taken to deferred income. The deferred income is being amortised to the profit or loss over the life of the solar grid.

In 2016 a grant of approximately \$1,627,000 was received from the Italian Ministry for the Environment, Land and Sea to fund simulation software to enable SIEA to carry out electricity network planning together with the necessary training and consulting services. The deferred income will be amortised to profit and loss over the life of the project commencing in 2017.

		2016 SBD		015 BD
17	Trade and other payables Current			
	Trade creditors	1,757,259	11,476,3	362
	Other payables and accruals	41,016,269	17,742,5	508
	Consumer deposits	3,363,092	2,830,6	587
		46,136,620	32,049,5	557

#### 18 Related parties

#### a) Directors

The Directors in office during the financial year were as follows:

#### Name

David K.C. Quan - chairman (appointed 19 February 2016)

Adrian Wickham - chairman (retired 18 February 2016)

David Laurie - (retired August 2016)

Harry Zoleveke - (appointed June 2012)

Henry Kapu - (appointed June 2012)

John B Houanihau - (appointed September 2014)

Rovaly Sike - (appointed September 2014)

Sebastian Ilala - (appointed June 2012)

Yolande Yates - (appointed September 2014)

Directors' fees and expenses are disclosed in Note 9.

SIEA's transactions with Directors were at arms length.

#### b) Identity of related parties

As SIEA is the sole provider of electricity in the Solomon Islands all government and government related entities are its related parties. Other related parties include directors and employees of SIEA.

# Notes to the Financial Statements (Continued)

for the year ended 31 December 2016

#### 18 Related parties continued

#### c) Amounts receivable from related parties

Included in trade receivables are the following amounts receivable from related entities:

		2016 SBD	2015 SBD
(	Central Bank of Solomon Islands	315,764	248,735
(	Central Provincial Government	8,048	100,198
(	Commodity Export Marketing Authority	1,207	-
I	Home Finance Corporation	(213,585)	50,458
I	Honiara City Council	533,399	381,005
1	Makira/Ulawa Provincial Government	12,881	63,291
1	Malaita Provincial Government	(5,038)	109,984
1	Ministry of Fisheries and Marine Resources	7,237,938	-
I	Provincial Hospital	83,958	1,953,352
9	Solomon Airlines Limited	115,240	147,471
5	Solomon Islands Broadcasting Corporation	2,066,723	2,479,309
5	Solomon Islands College Of Higher Education	-	214,736
9	Solomon Islands Government	3,076,627	9,712,885
9	Solomon Islands National University	453,654	126,176
9	Solomon Islands Ports Authority	513,271	36,230
9	Solomon Islands Postal Corporation	118,372	94,728
9	Solomon Islands Tourist Authority	17,463	-
9	Solomon Islands Water Authority	4,135,438	5,133,572
7	Temotu Provincial Government	3,958	78,812
7	Western Provincial Government	8,315	456,176
I	Sabel Provincial Government	(693)	180,358
		18,482,938	21,567,476

Receivables for Solomon Islands Water Authority and Solomon Islands Broadcasting Corporation includes the Trade Receivables - kilowatt that relates to each of these organisations.

## d) Transactions with key management personnel

Key management personnel comprises of the Chief Executive Officer, Chief Financial Officer, General Manager Capital Works, Chief Engineer, General Manager Corporate Services, General Manager Customer Services, Planning Engineer, Manager Finance, Regulatory Manager, Property Manager, Health, Safety, Security & Environment Manager, Manager Generation and Outstations, Distribution Manager, Chief Accountant and the directors as listed in note 18 (a).

In addition to their salaries, SIEA also provides non-cash benefits to key management personnel and their total compensation comprised of the following:

compensation comprised of the following.	2016 SBD	2015 SBD
Short-term employee benefits	15,177,340 15,177,340	14,078,027 14,078,027

Transactions with key management personnel are no more favourable than those available, or which might be reasonably be expected to be available on similar transactions to third parties at arms length.

# Notes to the Financial Statements (Continued)

for the year ended 31 December 2016

#### 19 Commitments and contingencies

#### Capital commitments

SIEA undertakes capital works and purchases assets according to an approved budget when management consider that sufficient funds are available. Capital commitments as at 31 December 2016 amounted to \$771,000,000 (2015: \$655,000,000). These commitments are in relation to property, plant and equipment.

Less Than 1 Year	158,000,000	195,000,000
Between 1 year and 5 years	613,000,000	460,000,000
	771,000,000	655,000,000

#### Contingent liabilities

As at the end of the year SIEA was not party to any unsatisfied judgements and did not have any contingent liabilities under contracts or guarantees other than those arising in the normal course of business.

#### 20 Capital management

SIEA's policy is to maintain a strong capital base so as to maintain investor, creditor and market confidence and to sustain future development of the business. The Board seeks to maintain a balance between the higher returns that might be possible with higher levels of borrowings and the advantages and security afforded by a sound capital position.

In order to maintain or adjust the capital structure, SIEA may adjust the amount of dividends paid to shareholders, return capital to shareholders, issue new shares or sell assets to reduce debt.

SIEA is subject to the requirements of the loan facility agreement with Westpac and NPF that does impose some restrictions and reporting requirements for capital.

#### 21 Subsequent events

There has not arisen in the interval between the end of the year and the date of this report any other item, transaction or event of a material and unusual nature that is likely, in the opinion of the Directors, to significantly affect the operations of SIEA, the results of those operations or the state of affairs of SIEA in subsequent financial years.

#### 22 World Bank Financing

#### a) Financial Support Received

Solomon Power received financial support from the World Bank IDA credit 5379-SB and IDA credits H415-SB and H913-SB dated 31/12/2015 to support the implementation of consulting services expended under the Solomon Islands Sustainable Energy Project (SISEP).

#### b) Amounts Received

The total amount received from the World Bank IDA for grant numbers H415-SB and H913-SB since their commencement was US\$4,380,873 as at 31 December 2016.

#### c) Use of the Proceeds

The proceeds of the World Bank grants and credits have been expended in accordance with the intended purposes as specified in the Legal Agreement.

#### d) Credit Funds

The credit funds are required to be repaid and are shown in the current and non-current liabilities as the loans are drawn down.

A summary of the transactions that took place during the year is as follows:

	2016 SBD	2015 SBD
Receipts		
H415-SB	63,411	120,313
H913-SB	148,122	99,990
Credit Funds		
5379-SB	551,383	-
Expenses	226,905	120,338

1000 kW)
ır (= 1 million kWh)



2016

# **Solomon Islands Electricity Authority**

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