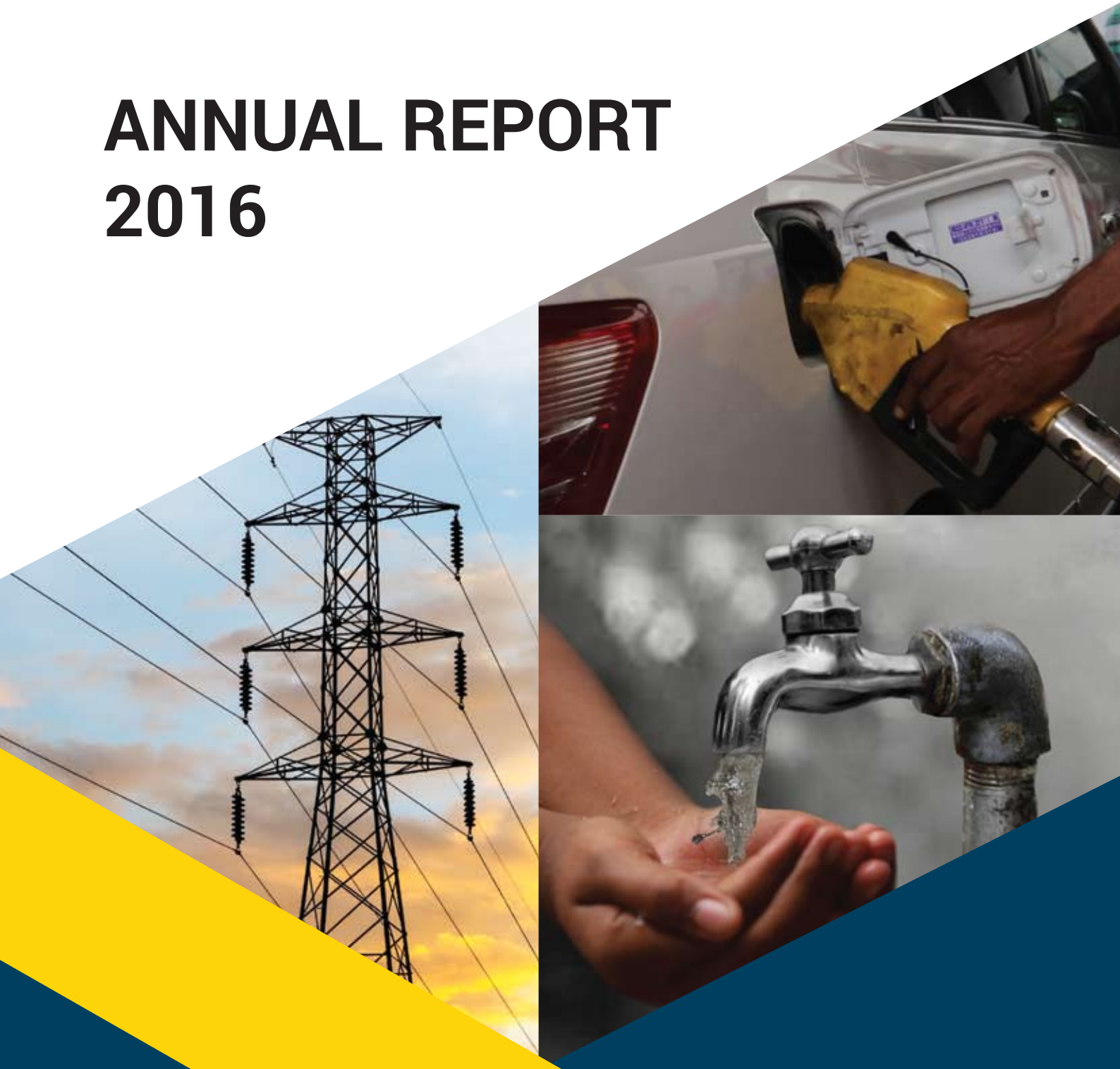
ANNUAL REPORT 2016



PUBLIC UTILITIES COMMISSION OF SRI LANKA

Public Utilities Commission of Sri Lanka

Annual Report 2016

Contents

Public Utilities Commission of Sri Lanka

The Public Utilities Commission of Sri Lanka (the Commission) plays a pivotal role in the national economy as the watchdog for the economic, safety and technical regulatory affairs of the Electricity industry and acts as the shadow regulator of the lubricant market.

We regulate the generation, transmission, distribution, supply and use of Electricity.

Among the many important services we provide, the Commission ensures that the electricity sector in Sri Lanka has adequate investments, greater availability, efficient supply, and improved quality of services for electricity consumers.

Established by The Public Utilities Commission of Sri Lanka Act No.35 of 2009 by the Parliament of Sri Lanka, the Public Utilities Commission of Sri Lanka (PUCSL) was designated to regulate the electricity sector.

The Commission's objectives, functions and the legal framework have been defined under the Public Utilities Commission of Sri Lanka Act No 35 of 2002, the Sri Lankan Electricity Act No.20 of 2009 and the Sri Lanka Electricity (Amendment) Act No. 31 of 2013.

The PUCSL came into operation in 2003 when the first group of Commissioners and its Director General were appointed. The five member Commission is appointed by the Minister in charge of Policy Development in agreement with the Constitutional Council.

The Commission has also been given authority to regulate water service industry and petroleum industry through the PUCSL Act. However the respective acts to regulate those two industries are yet to pass through the Parliament.

Our Vision

To create an environment for all inhabitants of Sri Lanka, and the contributors to its development, to have access to essential infrastructure and utility services in the most economical manner, within the boundaries of the sustainable development agenda of the country.

Our Mission

To regulate all utilities within the purview of the Public Utilities Commission of Sri Lanka to ensure safe, reliable and reasonably-priced infrastructure services for existing as well as future consumers in the most equitable and sustainable manner.

CORPORATE INFORMATION

Name of the Commission	Public Utilities Commission of Sri Lanka
Legal Status	Established by the Public Utilities Commission of Sri Lanka Act, No 35 of 2002
Commission Members	Mr. Saliya Mathew – Chairman Mr. Sanjaya Gamage- Deputy Chairman Prof. Rahula Attalage- Member Mr. Prasad Galhena - Member
Director General	Mr. Damitha Kumarasinghe
Secretary to the Commission	Mrs. Janaki M Vithanagama
Registered Office	6th Floor, BOC Merchant Tower St. Michael's Road, Colombo 3, Sri Lanka.
E-mail:	info@pucsl.gov.lk
Telephone:	+9411 239 2607/8
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Website:	www.pucsl.gov.lk
Auditors	Auditor General's Department,306/72, Polduwa road, Battaramulla.
Banker	Bank of Ceylon 1st & 2nd Floor, BOC Merchant Tower, No. 28, St. Michaels's Road, Colombo.

The Commission

The commission consists of five members appointed by the Minister with the concurrence of the Constitutional Council. The members shall be persons with ability and intergrity and have shown capacity in addressing problems relating to engineering,law,economics, business management, accountancy or administration. The commission's decision making responsibilities as set out in the energy legislation and rules, sets strategic direction, approves major policy submissions and guides staff.

Mr. Saliya Mathew
Chairman

Prof. Rahula Attalage
Member

Mr. Prasad Galhena
Member

Mr. Sanjaya Gamage
Deputy Chairman

Member's of the Commission

Saliya Mathew is the Chairman of the Public Utilities Commission. Having taken oaths as an Attorney-at law in 1975, he has practiced in the District Court, Court of Appeal and Supreme Court. He served as the Governor of Sabaragamuwa Province for over a decade as well as Executive Director of the Sri Lanka Insurance Corporation, Chairman of the Employees' Trust Fund Board and Co- Chairman of the Salaries and Cadres Commission. Mr.Mathew has also served on the Presidential Committee on Compensating Persons Affected by Political Violence at the General Elections, in 2001 and 2004, and on the Presidential Committee on Ex-gratia Payment to Persons Affected by Political Violence at the Presidential Election, in 2005.He also serves as a member of the national delimitation committee to amend the wards of the local government authorities

Sanjaya Gamage is the Deputy Chairman of the Public Utilities Commission of Sri Lanka. An Attorney at law by profession, he has been practicing as a criminal lawyer for over 25 years and is also an unofficial magistrate of the Chief Magistrate Courts ,Colombo. He was also the former Secretary of the Bar Association of Sri Lanka and at present is a member of the EXco- Committee of the Association. Mr. Gamage has previously served as both Secretary and President of the Magistrate Court Lawyers' Association. He also was a member of the Building Materials Corporation's board of directors. He serves the Commission as an expert member in the field of law. He is also the chairman of lawyers' and police relations committee.

Prof. Rahula Attalage is a member of the Public Utilities Commission. He is a Director of the Postgraduate Institute of the Faculty of Engineering at the University of Moratuwa as well as the Deputy Vice Chancellor of the same. He has previously functioned as a Senior Lecturer in Mechanical Engineering and Visiting Faculty Member of the Energy Programme at the Asian Institute of Technology in Thailand and Visiting Professor at the International Corporation Centre for Education Department at Toyohashi University of Technology in Japan.He also served as a Director of the Sri Lanka Transport Board.An (honours) graduate in mechanical engineering from University of Moratuwa,Prof. Attalage obtained his Masters degree in engineering from the Asian Institute of Technology in Thailand and a PhD from Ecoles des Mines de Paris in France.He also has a degree in Profound Studies obtained from the latter university. Prof Attalage serves and advises the Commission in the field of engineering.

Prasad Galhena is a member of the Public Utilities Commission. He previously served as Chairman of the Sri Lanka Handicrafts Board and Ceylon Shipping Corporation. A graduate of the University of Colombo, he also holds an MBA from the same university and CIM (UK), and is a Fellow of the Chartered Institute of Management Accountants. Mr Galhena serves the Commission as an expert member in the field of business management and Finance.

Commission meetings

Board meetings in year 2016	12 meetings
All members present	12 meetings

Chairman's Message

"The Year 2016 was a challenging year and we were able to facilitate change and strengthen PUCSL to face future chalenges which we entwined and we place great value in listening to our consumers."

Change is dominating today's energy market and the landscape of global energy sources. As regulators we have seen Sri Lanka's energy landscape changing from decades and keep evolving day by day with the increasing demand for quality electricity supply. We, the Public Utilities Commission of Sri Lanka (PUCSL) has sought to anticipate and respond to the changes and accelerate the elements that support the change.

The PUCSL hassaved 156 billion rupees from the expenditure proposed by the Ceylon Electricity Board, the state electricity utility, during past tariff revisions since 2011 with the aim of delivering highly performed state utility. At the same time we ensure the utility will not lack funding to enhance and explore.

We also introduced a range of sustainable initiative to the electricity industry, such as one standard for plugs and socket outlets in Sri Lanka, regulatory accounting guidelines, legal framework to promote household based rooftop solar generation, regulations in the areas of customer satisfaction in service, quality well as electrical safety and energy conservation and many more to support and strengthen the electricity industry in Sri Lanka.

Last year was not just looking into policy formulation, but also seeking to get better processes for future consumers. We reduced the legal barriers for domestic rooftop solar to allow more consumers to get the advantage of Solar energy generation and also asked the licensees to pay compensation for the for the damages of equipment due to abnormal voltages and phase reversals in the distribution systems.

Likewise, we were able to introduce many regulations, policies, methodologies and rules to the licensee while re-crafting rights and obligations of the Consumer to adopt the changes of the electricity industry in Sri Lanka.

The Year 2016 was a challenging year and we were able to facilitate change and strengthen PUCSL to face future challenges which we entwined and we place great value in listening to our consumers.

PUCSL will continue to place great emphasis on informing all consumers not only about what we do, but also about how they can learn about the issues related to energy that affects and interest them.

Saliya Mathew
Chairman

Director General's Message

> **"Energy markets around the world are becoming more dynamic and decentralised as consumers look for new products and services to meet their needs."**

The Year 2016 was another successful year for PUCSL: We grew ourselves as a regulator, increased our regulatory involvement in the electricity industry and advanced key strategic initiatives which helped us to improve our role as a regulator and create value for shareholders.

Led by our long-term vision, and guided by our values, we continued to implement our strategy to establish a best quality, best service and an efficient electricity industry in Sri Lanka.

Energy markets around the world are becoming more dynamic and decentralised as consumers look for new products and services to meet their needs. New technologies such as PV solar installations, battery storage and electric vehicles plays an important role in this. Consumers are keen in services and technologies which enable them to better manage their electricity.

Accordingly, as the regulator of the electricity we are continuously reviewing our regulatory framework to ensure that it serves the purpose. We believe regulatory frameworks should remove barriers to innovation and help consumers benefit from new energy technologies.

In 2016, the government announced that Renewable will be its focus for the next decade as the world is moving towards clean energy.

Renewable has an important role in any developing country's energy mix as a part of the national energy supply and energy security. It will also help to reduce the dependence on other energy sources.

We are proud to announce that were able to remove legal barriers for consumers who would like to move for domestic solar PV's and were able to make guidelines to fast track the connection of domestic solar power panels to the national grid.

Optimise the use of existing energy networks and avoid the need for inefficient new investment is the other area we made decisions in the year of 2016. This report will give you a comprehensive outlook on our work in achieving it. At the same time I would like to stress that we will be in great danger if the licensees do not comply with the plans that they prepared. Also in 2016, we were deprived of water in rivers due to lack of rain and the ground water. Therefore, we have to look at our energy mix in the point of energy security and implementation of the plans of licensees is very important for us to sail through difficult periods where continued supply of power is challenged.

Ensuring consumer rights and obligations is the other area we succeeded at last year. We launched the first ever consumer rights forum where we gave the platform for consumers, consumer rights orgarnizations, experts and the media to have a fruitful discussion which helped us to identify the issues of the stakeholders and to act fast on it. At the same time, 2016 was a year we played a pivotal role in promoting electricity safety among consumers using a variety of communication campaigns.

We work in a challenging market and regulatory environment, but our focus on delivering outcomes in the long term interests of consumers remains consistent and clear. In this environment, we will continue to work closely with energy utilities, other market institutions and all of our stakeholders to help ensure Sri Lanka's energy market and regulatory arrangements are sufficiently agile to meet the needs of consumers and industry.

Damruna Kumarasinghe
Director General

READY, SET, GOAL

Power Quality	Goal 1: The electricity supplies to consumers are in compliance with the statutory quality levels, 230 V ± 6% for voltage and 50 Hz ± 0.5% for frequency and harmonics
Supply Quality	Goal 2: The system average interruption duration index is below 24 hours per consumer per year
	Goal 3: The total number of electricity interruptions experienced by a consumer within a year is below 30 (on average basis)
	Goal 4: The average restoration time for consumer service line faults is below 2 hours per consumer
Service Quality	Goal 5: Information on consumer Rights and Obligations is made available to consumers in advance and when such information is required by them
	Goal 6: The average time taken by an electricity service provider to serve consumer inquiries/requests/complaints is below 30 days
	Goal 7: The average time taken by PUCSL to serve consumers is below 30 days
Electricity Tariff and Service Charges	Goal 8: The total cost incurred in the supply of electricity in 2013 is reduced by 10 %. (Total cost is subject to adjustment for the generation mix and fuel prices, in real terms)
	Goal 9: Charges levied by service provider on services in 2013 is reduced by 10% in real terms
Electricity Safety	Goal 10: Number of fatal electrical accidents is below 20 per annum
Electricity Demand	Goal 11: Minimum 10 percent reserve margin is maintained at all times by 2020 to ensure the electricity demands in the country are met all the time
Efficient use and conservation	Goal 12: At least 250 GWh of energy and 30 MW of capacity are saved by year 2020 through utility driven energy efficiency and conservationprograms

Facts in Short –Year 2016

The Public Utilities Commission of Sri Lanka as the Economic, Technical and Safety regulator of the electricity industry and the shadow regulator of the Lubricants has completed the following activities during the year 2016.

The Commission had implemented 60 activities for the year 2016 and these activities had been planned to achieve 12 goals that have been set for Sri Lanka's electricity sector.

Table 1 – Activities to achive targeted goals

Area	Number of Activities
Power Quality	05
Supply Quality	08
Service Quality	15
Cost of Supply and Services	14
Electricity Safety	10
Electricity Demand	06
Efficient use and conservation	02

Outcome expected from above referred activities are as follows;

- Improved productivity and convenience through improved quality of electricity
- Reduced electricity tariff (in real terms) to make electricity more affordable and competitive
- Improved safety for lives and properties of General public, licensees and operators
- Improved environmental/social conditions for humans, animals and plants

Physical and Financial Progress

Approximately 100% of all activities have been completed by the end of 2016 while 93% of the budget has been disbursed by the end of year 2016.

Table 2 – Financial Progress

	(LKR)
Total Budget for 2016	251,263,260
Total cash disbursement	232,788,384
Cash disbursement progress (%)	93%

Road map towards highest quality and best service

Powering Sri Lanka - Next Decade

Sri Lanka's electricity sector has a state utility, Ceylon Electricity Board, which has license for generation,transmission and distribution of electricity. Therefore, about 80 percent of the Sri Lanka's electricity is generated by the Ceylon Electricity Board (CEB). CEB also handles the entire transmission system and about 88 percent of the distribution. Lanka Electricity Company (LECO) accounts for about 12 percent of the electricity distribution. About 20 percent of the electricity, generated by the independent power producers.

In 2002, Sri Lanka enacted an act called electricity reforms act, but that act did not see the day of the light and in 2009, Sri Lanka introduced "Sri Lanka Electricity Act" through which the electricity generation, transmission and distribution is regulated.

The country has a system of about 3700 MW of installed capacity and peak demand of 2200 MW and also the country has about 13,000GWh of energy generation.

PUCSL was empowered to regulate the electricity sector in 2009, under the Sri Lanka's electricity act. The commission act as the economic, technical and safety regulator, and advises the government on all matters related to industry and exercise licensing, inspecting , standardizing the industry, the tariff regulation, efficiency promotion and information dissemination.

The current legal position on the generation of electricity is that the licensing is required for anyone to generate electricity and also the government shareholding is required for plants generating above 25 MW of electricity. The generation requirement needs to be identified in the long term generation expansion plan prepared by CEB. Competitive bidding is mandatory in this act for new generation plants or the expansion of existing generation plants. CEB is the transmission licensee by the act and therefore, no other transmission licenses can be issued.

In the distribution, four licenses were issued to CEB for four different regions and one license issued to LECO. The market risk for the generation business is minimum due to its single buyer model and the government of Sri Lanka guarantees most of the contracts.

Operator viability and rights are legally ensured for utility operators as it is required to allow recovery of all the reasonable costs of licensees whether it is the generation, transmission or distribution.Sri Lanka also has stringent procedures to issue enforcement orders and the criteria for revocation of licensees are clearly laid down in the Act, providing certainty for utility operators.

However, introduction of legal provisions are required in the areas of open access, electricity trading, partnership of cross border generation expansion, operation of cross boarder transmission licensees etc.

Energy Security

Energy Security has described by International Energy Agency (IEA) as the uninterrupted availability of the energy sources at an affordable price.

This has many aspects to look at. One is the availability of resources. The second one is the affordability - how expensive are these resources. Third one is the acceptability-whether it is acceptable to the people of Sri Lanka. The forth one is the accessibility – geo political, geo graphical, technological, economic and financial accessibility. The last in the list is human resources which is an important aspect,in developing and adopting new technologies. Ex. Nuclear Power

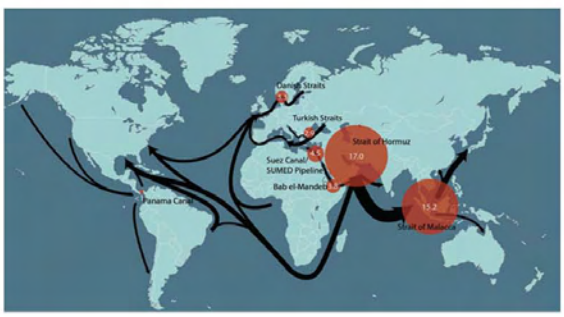
Sri Lanka was quite unfortunate to experience two blackouts in the year 2016 and a low hydro situation in the latter part of the year. So the question arises whether Sri Lanka should rely on the traditional ways of powering the nation or move towards renewable energy sources where the most developing and developed countries are relying on for a better mix of energy to power the nation.

Then the Security of Energy – This is very similar but little different to energy security. One is the Security of energy supply is the resilience of the energy system to unique and unforeseeable events that threaten the physical integrity of energy flows or that lead to discontinuous energy prices, independent of economic fundamentals.

Now for an example, the third blackout occurred in March 13th 2016 was a result of a transformer failure where the transformer was blown off. It is an issue of security of energy.

Sri Lanka has energy, but the question is to build a system to take it to the places where it is needed. So it is an issue of security of energy nor an energy security.

If the world scenario takes into accounts, most of the energy is either transported to Strait of Hormuz or Strait of Malacca. Indonesian coal comes from Strait of Malacca to Sri Lanka and oil is coming through Strait of Hormuz. So these are very narrow where any turbulence in that area will result in curtailing of this transportation of energy. So any turbulence happens in Hormuz or in Malacca will affect us or affect any other country. It need not be 100 percent disruption. But it can be a 10 percent disruption in the Hormuz Strait. But it will affect Sri Lanka. Same with Strait of Malacca. So, though we will feel like that we are getting oil or coal without an any issue, all these are transported through a very turbulent areas and the security forces cannot access this Strait very easily. These are very vulnerable points and effects energy security.



Energy Mix

"The horizon for monetary policy extends out to two to three years, for financial stability it is bit longer, but typically only to the outer boundaries of the credit cycle- about a decade. In other words, once climate change becomes a defining issue for financial stability, it may already be too late" -
Mark Carney, Governor of the Bank of England

Mark Carney warns that fossil fuel assets, such as coal, oil and Gas could be significantly devalued if a global deal to tackle climate change is reached.

In other words, investing in coal and other fossil fuel has its own risk facts.

But in our terms,Sri Lanka is looking at 20-30 years loans to finance these (Coal ,oil , gas) plants. In other words, once climate change becomes a defining issue for financial stability, it may be too late. In that context Sri Lanka will have an issue of financial accessibility. Therefore right energy mix should be well planned looking at the future and current trends.

"Sooner rather than later, financial regulation must address the systematic risk associated with the carbon intensive activities in their economies."

Jim Yong King, President- World Bank
(The Guardian, March 03, 2015 -
www.the guardian.com)

When the credit bubble burst in 2008, the damage was devastating. Millions suffered. We're making the same mistake today with climate change. We're staring down a climate bubble that poses enormous risks to both our environment and economy."

Henry Paulson, Former secretary of the Treasury, United States
(The New York Times, 21 June 2014 – www.nytimes.com)

Looking at these statements, Sri Lanka must think about the energy security, more and more at this point of time, because we are facing eminent risks in what is happening around the globe in energy generation as well as financing.

This is where the world is heading.Therefore long term generation planning plays a huge role in securing and continues energy supply in Sri Lanka.

Regulatory Role

Public Utilities Commission of Sri Lanka (PUCSL) continued to introduce regulations, rules and guidelines for the electricity industry in par with global regulatory players. The regulations were developed to ensure power quality, supply quality, service quality, electricity safety for both consumers and licensees and tariff.

Regulations

Regulations on electricity trading arrangements

In terms of Sub-section (1) (a) of Section 56 of the Sri Lanka Electricity Act, No. 20 of 2009 as amended, regulations may be made for the purpose of allowing and securing appropriate electricity trading arrangements between licensees.

Accordingly, PUCSL prepared two regulations, in consultation with the Ministry of Power & Renewable Energy, Ceylon Electricity Board and Lanka Electricity Company (Private) Limited.

■ Electricity (Power Purchase Agreement Transfer Price) Regulations

These regulations define the basis for determining whether new Power Purchase Agreements are least cost and the assessing the allowable costs to be passed through for any new generation capacity procured through non-competitive processes.

■ Electricity (Trading Arrange - ments) Regulations

These regulations govern electricity trading between the Generation Licensee (CEB) and the Transmission Licensee (CEB) as well as between the Transmission Licensee (CEB) and Distribution Licensees (CEB and LECO).

These regulations were forwarded to the Ministry of Power & Renewable Energy for necessary actions on November 2016.

Electricity (Distribution Performance Standards) Regulations

In terms of Section 40 (1) of the Sri Lanka Electricity Act, No. 20 of 2009, read together with Section 54 of the said Act, regulations may be made prescribing the standards of performance to be attained by Distribution Licensees in connection with the supply of electricity and the provision of electricity supply services to tariff customers. Further, in terms of Section 40 (4) of the said Act, No. 20 of 2009, where any person suffers any loss or damage of a prescribed description by reason of the failure of a Distribution Licensee to meet any standard prescribed by regulations, the Distribution Licensee shall pay to such person compensation of such amount or calculated in such manner, as specified in such regulations. Accordingly, the Electricity (Distribution Performance Standards) Regulations:

- Define the appropriate indices to be used for assessment of operational performance of the distribution system and commercial performance of the retail business of a Distribution Licensee;
- Specify the numerical values of such indices Distribution Licensees are required to achieve;
- Ensure that the quality of electricity supply is in accordance with the standards specified in the Regulations, thus guaranteeing that the distribution system is operated safely, efficiently and with a high degree of reliability;
- Specify the customer service standards Distribution Licensees are required to maintain in order to ensure that the end users are provided with an efficient service; and
- Define a methodology to compensate tariff customers and consumers for under performance by a Distribution Licensee and publish same.

These Regulations were published in the Extraordinary Gazette No. 1975/44 on 13th July 2016.

Electricity (Transmission) Performance Standards Regulations

In terms of Section 40 of the Sri Lanka Electricity Act, No. 20 of 2009 as amended, read together with Section 24 (2) of the said Act, regulations may be made prescribing the standards of performance to be attained by the Transmission Licensee in connection with bulk sales of electricity. Accordingly, the Electricity (Transmission Performance Standards) Regulations:

a. Defines the guaranteed minimum standards of service that the Transmission Licensee shall achieve and maintain in the discharge of its duties;

b. Ensures that the quality of electricity supply is in accordance with the standards specified in the regulations, thus guaranteeing that the Transmission System is operated safely, efficiently and with a high degree of reliability; and

Ensures that the Transmission System expansion and generation acquisition are on schedule.

These Regulations were published in the Extraordinary Gazette No. 1975/44 on 13th July 2016.

Electricity (Safety, Quality & Continuity) Regulations

In terms of Section 54 of the Sri Lanka Electricity Act, No. 20 of 2009, read together with Sections 24 (2) and 56 of the said Act, regulations may be made for the purpose of:

a. Protecting the public from dangers arising from the generation, transmission, distribution, supply or use of any electric line or electrical plant;

b. Eliminating or reducing the risk of personal injury or damage to property or interference with its use, arising from any of the activities referred to above; and

c. Making provision requiring notice to be given to the Commission in such cases as may be specified in the regulations, of accidents and of failures in the supply, transmission or distribution of electricity.

Accordingly, the Electricity (Safety, Quality & Continuity) Regulations impose requirements regarding the installation and use of electrical networks and equipment owned or operated by electricity Generation, Distribution and Transmission Licensees, including their sub-contractors and agents, as well as consumers.

These regulations include, provisions relating to electrical protection and earthing, substations (specifically requirements for enclosures, safety and other signs), underground cables and associated equipment, overhead lines, generation, provision of electricity to consumers' installations and other networks etc.

The regulations were published in the Extraordinary Gazette No. 1975/44 on 13th July 2016.

Utility-Driven Demand Side Management (DSM) Regulations

Demand Side Management (DSM) regulations are seen as one of the key tools to achieve the energy efficiency and energy conservation in the country. Hence, PUCSL plans to revive and strengthen the DSM activities within electricity utilities through notification and implementation of DSM regulations. These regulations are intended to create a necessary institutional framework and broad processes, by which many utility-driven demand side management programmes could be designed, implemented and monitored effectively.

Guidelines

Guidelines on Procedure for Testing Accuracy of Metering Equipment

Due to complaints received by the Commission, guidelines were prepared on the procedures for testing the accuracy of metering equipment, if and when requested by Consumers (Retail and Bulk) as well as on the Distribution Licensee's own motion.

■ Guidelines on Procedure for Testing Accuracy of Metering Equipment upon Request by Consumer

These guidelines stipulate:

a. Requirements to be fulfilled by the Applicant when requesting the Distribution Licensees to test the accuracy of the electricity meter(s), including the provision of requisite information and payment of fee.

b. Requirements to be fulfilled by the Distribution Licensees upon receipt of a request from the Applicant, including acknowledgement of the request, ascer taining whether the fee is required or not etc.

c. Steps to be followed by the Distribution Licensees and the Applicant, including scheduling a date/time for the test, conducting the test and associated time periods within which the tasks should be completed.

d. Formats for recording of readings and other respective details pertaining to the test, including acknowledgement of the Applicant.

e. Provision of test results to the Applicant, including the calculated error percentage and consequent action to be taken.

f. If applicable, refunding the meter testing fee as well as refunding or back-charging energy charges in accordance with the Methodology for Estimation of Energy Supplied approved by the Commission.

g. Submission of complaints and resolution of disputes in accordance with the Consumer Complaints Handling Procedure stipulated in the Supply Services Code and Electricity (Dispute Resolution Procedure) Rulesrespetively.

Guidelines on Procedure for Testing Accuracy of Metering Equipment Undertaken by Distribution Licensees on Own Motion

■ **These guidelines stipulate:**

a. Steps to be followed by the Distribution Licensees when testing electricity meters, including informing the Tariff Customer, scheduling a date/time for the test, conducting the test and associated time periods within which tasks should be completed.

b. Formats for recording of readings and other respective details pertaining to the test, including acknowledgement of the Applicant.

c. Provision of test results to the Applicant, including the calculated error percentage and consequent action to be taken.

d. If applicable, refunding the meter testing fee as well as refunding or back-charging energy charges in accordance with the Methodology for Estimation of Energy Supplied approved by the Commission.

e. Submission of complaints and resolution of disputes in accordance with the Consumer Complaints Handling Procedure stipulated in the Supply Services Code and Electricity (Dispute Resolution Procedure) Rules respectively.

These guidelines were prepared in consultation with the Ceylon Electricity Board, Lanka Electricity Company (Private) Limited, and the Consumer Consultative Committee.

Guidelines on Regulatory Accounting

In terms of the Methodology for Cost Reflective Tariffs (Tariff Methodology) approved by the Commission, the tariff determination process requires information at generation unit level in the case of Generation Business and sub-function levels in the case of Transmission and Distribution i.e. Transmission Business and Bulk Supply & Operations Businesses, Distribution Business and Retail Supply Business respectively.

However, the existing accounting system of the Ceylon Electricity Board (CEB) is structured under nine divisions and there is no accounting segregation for regulated and non-regulated business activities.

In the case of Lanka Electricity Company (Private) Limited (LECO), the accounting system is structured under seven branches and twenty three Customer Services Centres. However, there is no segregated accounting system of the regulated business at the sub functional level i.e. Distribution and Retail Supply.

Therefore, a regulatory accounting system is required to bridge the gap between the existing available accounting information and that required by the Commission. Towards this end, guidelines on preparation of regulatory accounts were issued in May 2016.

In order to facilitate the preparation of regulatory accounts, training was provided to the relevant staff of CEB and LECO during the period 26th July to 4th August 2016

Rules

Electricity Rules on identification of prospective domestic consumers who cannot afford to pay the new connection charges at once

In terms of Section 27 of the Sri Lanka Electricity Act, No. 20 of 2009 as amended, any person who requires a supply of electricity, but does not have sufficient means to pay in total at once the expenses incurred by a distribution licensee in providing a supply of electricity, may request the distribution licensee to recover such expenses in reasonable monthly instalments along with the tariff.

If the distribution licensee is satisfied that the person does not have sufficient means to pay in total at once the expenses incurred by the distribution licensee in providing a supply of electricity, prior to the supply of electricity, such person shall be required to enter into an agreement with the distribution licensee relating to the manner in which the expenses would be paid to the distribution licensee.

In this connection, the information required by the distribution licensee for the purpose of being satisfied that the person does not have sufficient means to pay in total at once the expenses incurred by the distribution licensee in providing a supply of electricity is to be based on guidelines to be prescribed by the Commission as Rules under the said Act, No. 20 of 2009 (as amended).

These rules were prepared by the Secretariat and approved by the Commission. The same was published in Gazette No. 1998/38 of Friday, December 23, 2016.

Electricity Rules on new generation procurement

In terms of Section 43 (4) of the Sri Lanka Electricity Act, No. 20 of 2009 as amended and Condition 34 of the Electricity Transmission & Bulk Supply License, the Transmission Licensee (Ceylon Electricity Board) is required to call for tenders to develop a new generation plant or to expand the generation capacity of an existing generation plant in compliance with any rules that may be made by the Commission.

The rules on procurement of new generation plant or extension of any existing generation plant were prepared by the Secretariat in consultation with the Ceylon Electricity Board (CEB) and Lanka Electricity Company (Private) Limited. The rules were published in Gazette No. 1972/10 - Tuesday, June 21, 2016

Electricity Rules on tariff review procedure

In terms of Section 30(3) of the Sri Lanka Electricity Act, No. 20 of 2009 as amended, where a transmission licence or a distribution licence, as the case may be, contains provision for transmission and bulk sale tariffs or distribution and supply tariffs, as the case may be, to be subject to review, which shall include:

a. A timetable for review of tariffs by the Commission; and

b. Provision for consumers and other interested parties to participate in the procedure for review.

In view of the above, rules on procedure for review and adjustment of tariffs we prepared by the Secretariat in consultation with the Ceylon Electricity Board, Lanka Electricity Company, Ministry of Power & Renewable Energy and Ministry of Finance and re-drafted by Legal Draftsman. The Rules were published in Gazette No. 1978/21 - Tuesday, August 02, 2016.

Building Bridges with Consumers

COMPLAINT RESOLUTION 2009 – 2016	10, 000

Ensuring electricity consumer protection through the establishment of their rights and obligations is one of the main functions vested upon PUCSL as the regulator of the electricity industry. Its' role includes ensuring consumer rights and protection, advising and assisting consumers in resolving their grievances while empowering electricity consumers on their rights and obligations with regard to electricity. It also assures that the objectives of licensees and other stakeholders are met, while adhering to Government rules and regulations.

PUCSL refers to alternate the means of resolving disputes outside of a hearing or a courtroom. It's an umbrella term which includes listening, negotiation, mediation and facilitation, arbitration and conciliation. PUCSL brings all the parties together to communicate, understand the issues behind a dispute and work together towards a mutually acceptable resolution.

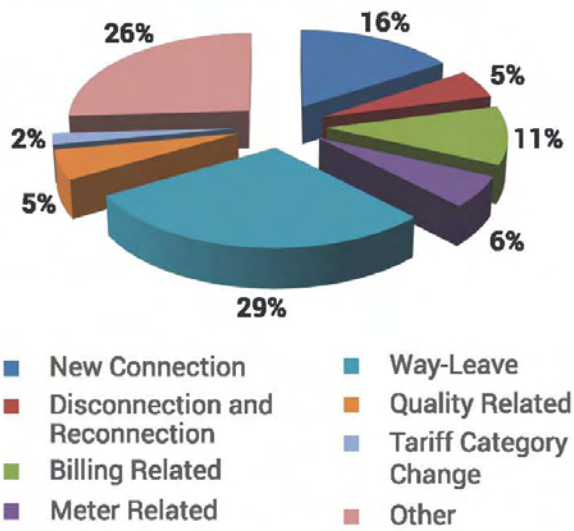
In terms of Section 28 of PUCSL Act, the PUCSL shall protect the rights of the electricity consumers. Among the rights ensured in the PUCSL Act are, the consumer to be heard and to be assured that their interests will receive due consideration and consumer education. PUCSL published a statement in 2015 outlining the Consumer rights and obligations of the electricity consumers under Section 3 (1) (e) of Sri Lanka Electricity Act 2009.

Electricity Consumer Complaints

Electricity consumers are entitled to receive a fair and reasonable response from the electricity service provider (CEB / LECO), refer their issues arise with regard Electricity Bills, Calculation of electricity consumption, Electricity tariff category,Electricity meter, Power lines going over consumer's land, Damage to consumer's electrical equipment due to power fluctuations, etc. However, if the initial step failed or in the event that the consumer is unable to get a satisfactory response, the consumer can make a complaint to PUCSL.

The Commission has received 1661 of complaints from electricity consumers in the year 2016 up from 1140 complaints in the year 2015 and all these complaints have been facilitated.

Chart 01
Consumer Complaints Facilitated - 2016



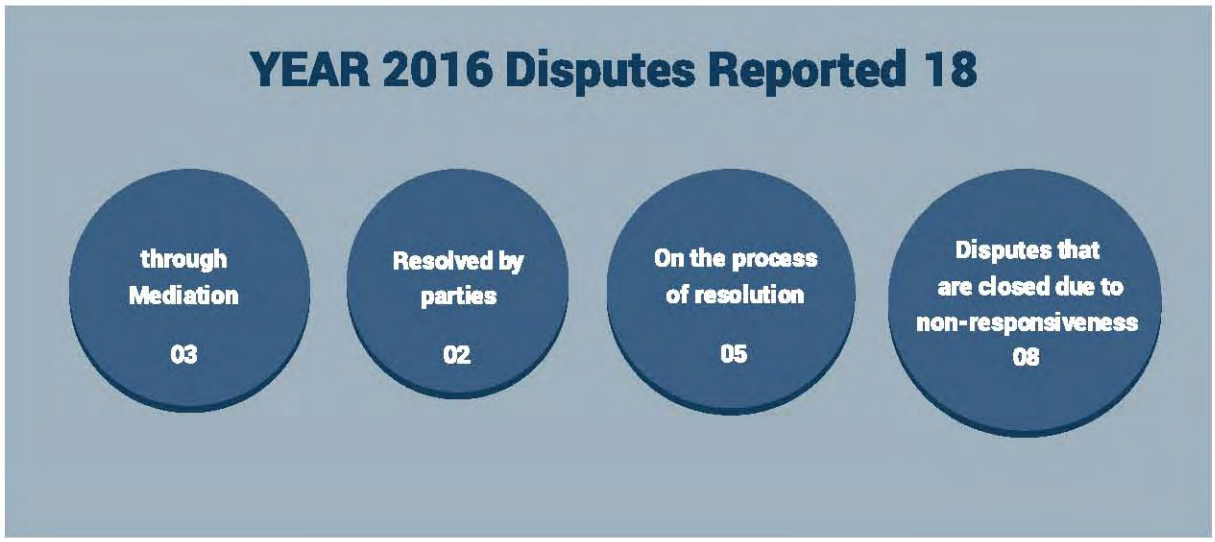
Dispute Resolution

Rules on Dispute Resolution Procedure is a set of written and gazetted rules which describe the procedure adopted by the Commission in resolving disputesof the elelctricity consumer with regard to the electricity supply.

Disputes arise between a licensee and a consumer or another licensee; or any other affected party can refer to the Commission, to get the dispute resolved under the Electricity (Dispute Resolution) Rules prescribed by the Commission.

The PUCSL identified that there were 18 disputes in the year 2016.

Figure 01
Dispute Resolution



"PUCSL is an Independent Organization who helped me to solve my issue with regard to the electricity and I'm thankful for the Orgernization,"

Electricity Consumer, – Consumer Satisfation Survey 2016

Tariff and Economic Affairs

Overview

Sri Lanka consumed 12.6 million megawatt-hours (MWh) of electricity in 2016, with a total sales value of 211.5 billion rupees. 38 percent was consumed by households, 33 percent by industrial users, 02 percent by the hotel category and 26 percent by the general purpose category.

The regulator was tasked with allowing cost-reflective tariffs, so that the utilities would be viable, but the customers also had to see the prices as fair.

PUCSL has cut down 156 billion rupees from the expenditure proposed by the Ceylon Electricity Board (CEB) during past tariff revisions since 2011, by cross examine with the PUCSL's tariff methodology which PUCSL spent the last few years in developing that uses the principle of fair costing. The ground realities of Sri Lanka were studied carefully and took into account in developing the methodology.

In the past, in spite of subsidies, the electricity consumer was unjustly loaded with a lot of costs due to inefficiencies on the part of the provider and generator an was not aware of the specifics of what he/she is paying for.

The PUCSL's task was to determine the most prudent cost of providing theservice with the new tariff methodology being introduced, the inefficiencies inthe previous pricing mechanism were removed. Since 2010, PUCSL has been setting tariffs and charges based on the approved methodologies.

Ceylon Electricity Board filed its revenue requirement for the period of October 2016 to March 2017. Considering all the measures and after intensive studies with approved tariff methodology, an LKR 15 billion was blue-pencilled from the revenue requirement by PUCSL.

Allowed Charges

Allowed Charges include the charges that a Transmission or a Distribution licensee is allowed to charge from a consumer for services such as, supplying a new electricity connection, energy meter testing, installation testing, pole shifting, and any other services which the Licensees are required to provide at the request of an electricity consumer.

The Licensee has to bear a certain cost in the provision of such services and the consumer is, therefore, expected to pay for them.

The PUCSL, as an independent third party and the regulatory body, approves the Allowed Charges (for the other services) suggest by the Licensees, to ensure that what the consumers pay the Licensees for these services is fair and impartial and that the procedure is transparent. The Licensees prepared the allowed chargers according to the methodology introduced by the Commission in September 2010.

The methodology introduced by the Commission has improved the transparency of setting allowed charges by the licensees and these charges are revised annually to reflect the changes in the cost.

In 2016, a new charge structure proposed by CEB for Underground Bulk Supply service connections had also been reviewed and approved for the year 2017.

Amendment of Allowed Charges Methodology

The Cost Reflective Methodology for Tariffs and Charges was prepared under ADB - TA No. 7265 Sri Lanka, and has been in effect since 2010.

Studies conducted by PUCSL about the operational experience of licensees in last six years, and new developments in the sector suggested that certain timely changes will enable the methodology to serve its original purpose, more effectively.

Accordingly, discussions were held with distribution licensees on the subject where a number of such appropriate amendments have been identified and agreed upon.

Change/ Amendment	Reason
Providing the service of "Changing an account name and/or the tariff category", free of charge, for which a common charge was applicable before.	The licensees have agreed to provide this service free of charge
Providing the service of replacing an existing Energy/Demand meter by a Smart Meter by paying relevant charges.	Given the increased prevalence of Smart meters, customers should be afforded the right of choice in this regard.
Documenting that CEB construction standards are applicable in an event where customer builds his service line within his premises.	As at now, standards applicable for such a scenario are not mentioned in rules or regulations that are in effect.
Providing the service of issuing a detailed account statement free of charge or at a cost based fee.	There exist a significant consumer demand for this service and the licensees are willing to provide the service.
Providing consumers access to the load profile and other data recorded in their smart meters, free of charge. (Applicable for customers who are equipped with smart meters)	Given that a customer is already equipped with smart meter, it is only fair that he should have access to data related to his electricity consumption without additional cost.
To document the decision to use the latest available Average Weighted Lending Rates (AWLR) as at 31st October of previous year published by the Central Bank, as the interest rate applicable for delayed payments in each year.	This directive has been issued to CEB along with annual approval of allowed charges, for last four submissions. (since 2013)
To explicitly prohibit double recovery of asset cost by stating that no customer shall be charged for any existing network asset, unless the first customer is reimbursed the due amount as per this methodology.	The licensees are yet to implement the reimbursement mechanism stipulated in the methodology, and there had been reported instances where two consumers being fully charged, for the same asset.

PUCSL recommended and incorporate these changes into the existing "Cost Reflective Methodology for Tariffs & Charges",and informed the licensees in the year 2016.

Small Distributor Tariff Review

Small Distributors are the once who have obtained a licensee exemption from PUCSL to distribute and supply the electricity. Therefore, small distributors which include condominiums, industrial parks, etc. have to submit their tariffs and get the approval from PUCSL for the tariffs.

Accordingly, a total of 8 new small distributor tariff decisions have been made in the year 2016 while two tariff reviews of existing small distributors have been carried out in the year 2016. There are three new small distributor tariff reviews in the pipeline.

Electricity Tariff Review 2016

As per the Tariff Methodology used to review industry costs and resulting end user tariffs, two (2) end user tariff reviews are planned per year (1st April and 1st October) to avoid large tariff changes.

Accordingly PUCSL reviewed the generation cost and sales forecasts submitted by the CEB and approved Rs. 112,524 million (Includes transmission, distribution and financing costs) cost for the period 1st October 2016 to 1st April 2017. However, estimated revenue at the current tariff would be Rs. 106,734 million. Hence estimated shortfall for the six month period would be Rs. 5,790 million (5% deficit) that needs to be recovered through an end-user tariff increase or via government funding/ borrowings.

As per Section of the Sri Lanka Electricity Act, No. 20 of 2009, PUCSL asked the Government policy guidelines in relation to this tariff review and the Government decision were to not to increase the electricity tariff for the year 2016.

Tariff for CEB'S electrical vehicles charging stations

UCSL also gave the nod to the proposed tariff to be charged at the CEB's electric vehicles charging stations as a measure to support the Government's initiative to promote electrical vehicles (EVs) in Sri Lanka.

EVs have been identified as a key demand side management strategy by CEB to manage demand side load profile better while, government too had identified shifting towards Electric transportation as a key strategy to reduce body level atmospheric pollution and relieve the country on the dependency of liquid petroleum based fuels used for transportation (Diesel and Petrol).

One of the major constraint in promoting EVs is the limitation on the distance that can be travelled from a single charge. It is identified that installation of EV charging stations at convenient locations to "fast charge" using direct current (DC) or slow charge using alternative current (AC), will help to boost the EV population. The approved tariff for CEB's EV charging stations is given below,

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Table 03
Approved tariff for CEB's EV charging stations.

Tariff Category	TOU Time Period	Proposed Tariff (Rs. /kWh)
DC Fast Charging	Day Peak Off Peak	50.00 70.00 30.00
Level 2 AC Charging	Day Peak Off Peak	30.00 55.00 20.00

Dispatch Audit and Training

Upon issuing the dispatch Audit Guidelines in 2015, PUCSL embarked on the first audit of System Operations functions of the Transmission Licensee. This technical audit was completed with the assistance of the consultants who prepared the audit guidelines; and the PUCSL staff and Ceylon Electricity Board staff were given a comprehensive training on the subject, so that they are able to conduct the audit on their own. The findings of the audit are expected to continuously improve efficiency and transparency of the System Operations function in CEB.

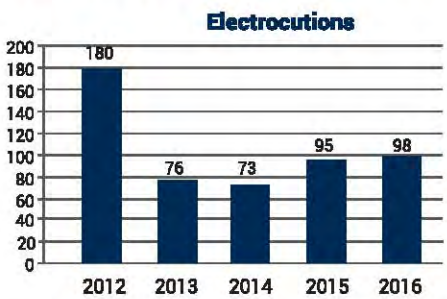
Electricity Safety

As an Independent regulator of Sri Lanka's electricity industry and under the authority bestowed on it by the Sri Lankan Electricity Act, No. 20 of 2009, ensuring the safety of the public is a major objective of the PUCSL. Hence the commission is implementing various programs to reduce and mitigate electrocutions in the country.

It was revealed that the number of electrocutions reporting per year in Sri Lanka is very high compared to the international benchmarks associated with electrocution, the Electrocution Analysis in Sri Lanka (report) by Public Utilities Commission of Sri Lanka (PUCSL) revealed. PUCSL has taken various actions to address above disastrous condition of the country with a goal of reducing the number of fatal electrical accidents to below 20 per annum by the year 2020.

About 180 deaths have been recorded in 2012 due to Electrocution and the same reduced to 73 in 2014, data showed. The number of deaths has been increased to 97 in 2016 from 95 in 2015.

Chart 02
Number of Electrocutions (Yearly Basis)



Standardization Single Socket Outlets and Plugs – Policy Recommendation

On 16th August 2016, the Government decided that the Type G plug and socket outlet, widely known as the 13 ampere plug and socket outlet, and commonly referred to as the "square pin" plug and socket, would be the only national standard in Sri Lanka, and to allow the use of non-standard plugs and socket outlets which are sold and installed within the next two years, to the be used until the end of their lifetime, but not beyond 16th August 2038.This single standard, proposed by Hon. Prime Minister Ranil Wickremesinghe in his capacity as the Minister of National Policies and Economic Affairs.

Accordingly, PUCSL announced the implementation of a single national standard for plugs and socket outlets in Sri Lanka for non-industrial applications, with the aim of uplifting the safety of electricity customers.

However, the transition to the type G standard plug and socket would not require any premises to be re-wired purely for the purpose of compliance with the new standard, and the existing wiring, according to one of the three standard sockets now in use, may remain until the end of its useful life or 16th August 2038, whichever is earlier.

Similarly, adapters with multiple sockets, universal sockets, as well as extension cords with universal sockets will not be allowed to be imported and manufactured beyond 16th August 2017. Sale of such devices will be prohibited from 16th August 2018.

Effective from 16th August 2016, wiring of new buildings, addition of circuits to existing electrical installations or complete re-wiring of existing buildings, should be done with wiring compatible with the requirements of type G socket outlets, as approved for Sri Lanka.

Sri Lanka, prior to this decision on standardisation, used numerous types of plugs and sockets. The plug on an appliance does not often fit the wall socket. Thus, electricity users adopt a variety of methods and devices such as universal wall sockets, adaptors with multiple sockets, and extension cords with universal sockets, many of which are unsafe, and cause the connection to be unreliable.

Sri Lanka reported about 95 electrocutions in 2015, up from 76 in 2013 and 73 in 2014. Use of various substandard plugs, sockets, electrical accessories, adapters, and extension cords, are one of the many causes of electrocution and fire. The standard was finalised through a wide public consultation process conducted over a period of one year, through which the general public, industrialists, manufacturers, appliance

retailers, energy sector experts, state regulatory and standards institutions, and other stakeholders significantly contributed to the decision making process.

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Time Frame

PUCSL has issued the following time table for the standardisation of a single plug and socket outlet in Sri Lanka:

- The National Standard for plugs and socket outlets is effective from 16th August 2016.
- The grace period for manufacture, import and sale of non-standard plugs and socket outlets will be as follows:
- Manufacture and import of non-standard plugs, socket outlets, adaptors, and extension cords with universal sockets, may continue, but will be banned from 16th August 2017.
- The sale of appliances carrying non-standard plugs may continue, but will be prohibited from August 16, 2018. Any remaining stocks thereafter, may be sold after being replaced with a Type G plug.
- The sale of non-standard sockets, adaptors with multiple sockets, and extension cords with universal sockets will be banned from August 16, 2018.
- Through this systematic transition process, the Government expects the country will totally transform to the use of "Type G" plugs and socket outlets by year 2038.

Pilot survey to measure the impact of introducing capacitors for motors used in cottage industries

The consumers who obtain electricity under "Industrial 1" tariff category do not get charged for their maximum demand (KVA charge). Therefore, they don't put up an effect to improve their power factor since they don't get benefitted through that. The objective of conducting this survey was to identify the possibility of improving the voltage level and stability of the distribution system by improving the power factor of industrial consumers under "Industrial 1" tariff category.

Accordingly, the survey was conducted through a sample of wood workshops under "Industrial 1" tariff category in LECO Moratuwa Branch Area. Accordingly, it was identified that the average power factor is within 0.5 -0.6 range and there is a possibility of improving the voltage level and stability of the distribution system by introducing capacitors to improve the power factors of the industrial consumers under "Industrial 1" tariff category.

Survey to identify the average duration of power outages experienced by a consumer (System Average Interruption Duration Index –SAIDI)

The distribution system performance in respect to the supply quality of a distribution system which is owned and operated by a distribution licensee was evaluated using a uniform set of system performance indexes. System Average Interruption Duration Index (SAIDI) is the index of those highest priorities, which reflect the reliability of electricity being served to the consumers. In which the 'Duration' of the electricity disruptions are measured and made sure would not go beyond the stipulated and accepted margin, which are 24hours per annum.

A survey was carried out by PUCSL to identify the present situations of the System Average Interruptions Duration Index (SAIDI) in Ceylon Electricity Board (CEB) and Lanka Electricity Company (Private) Limited (LECO).

PUCSL collected electricity breakdown data of Consumer Service Centers (CSC) of Ceylon Electricity Board (CEB) belong to Nuwara Eliya, Ratnapura and Galle areas, which are having five, four and six Consumer Service Centers (CSC) respectively. Each CSC maintain a log book which records all the calls come from consumers related to electricity breakdown in

1. The ratio of the actual electrical power dissipated by an AC circuit to the product of the r.m.s. values of current and voltage. The difference between the two is caused by reactance in the circuit and represents power that does no useful work..

the areas under CSC. LECO has recorded the relevant data electronically and has extracted those data from their breakdown database which is computerized.

In this calculation all the interruptions due to Transmission failures, Distribution System faults, Distribution planned maintenance program and Customer Service Main break-downs have been accounted for the year 2015

Table 04
Average duration of power outages experienced by a consumer in selected areas

Distribution Licensee	Area	Consumer Service Center	Total Number of Consumer Accounts	Sum of Customer Minutes of Interruptions	SAIDI (Hours per Year per Consumer)
				All	Total
CEB R2	Nuwara Eliya	Rikillagaskada	29,100	24,096,995	13.8
		Walapane	24,239	75,424,854	51.9
		Nuwara Eliya	25,683	96,450,458	62.6
		Lindula	25,020	89,308,745	59.5
		Thawalanthenna	22,408	51,771,607	38.5
CEB R3	Rathnapura	Malwala	24,131	383,086,748	264.6
		Rathnapura	19,679	24,360,638	20.6
		Nivithigala	23,270	139,404,247	99.8
		Kalawana	12,486	25,086,819	33.5
CEB R4	Galle	Habaraduwa	21,098	27,954,907	22.1
		Galle	27,402	4,218,599	2.6
		Imaduwa	8,275	14,959,201	30.1
		Bataduwa	26,331	7,335,288	4.6
		Yakkalamulla	7,237	7,508,294	17.3
		Thawalama	21,470	42,064,599	32.7
All CEB areas above			317,829	1,013,031,999	53.1
Including CEB system outages					
LECO	Galle	Ambalangoda	24,129	74,976,306	51.8
		Galle	31,198	141,338,737	75.5
		Hikkaduwa	18,371	60,195,685	54.6
All LECO areas above			73,698	276,510,728	62.5
Excluding CEB system outages					
LECO	Galle	Ambalangoda	24,129	39,833,734	27.5
		Galle	31,198	68,023,940	36.3
		Hikkaduwa	18,371	36,671,935	33.3
All LECO areas above			73,698	144,529,608	32.7

Survey to identify average frequency of power outages experienced by a consumer (System Average Interruption Frequency Index –SAIFI)

The distribution system performance in respect to the supply quality of a distribution system which is owned and operated by a distribution licensee was evaluated using a uniform set of system performance indexes. System Average Interruption Frequency Index (SAIFI) is the index of those highest priorities, which reflect the reliability of electricity being served to the consumers. In which the 'Frequency' of the electricity disruptions are measured and made sure would not go beyond the stipulated and accepted margin, which is 30 occurrences per annum.

A survey was carried out by PUCSL to identify the present situations of the System Average Interruptions Frequency Index (SAIFI) in Ceylon Electricity Board (CEB) and Lanka Electricity Company (Private) Limited (LECO).Accordingly, PUCSL collected electricity breakdown data of Consumer Service Centers (CSC) of the Ceylon Electricity Board (CEB) belong to Nuwara Eliya, Ratnapura and Galle areas, which are having

five, four and six Consumer Service Centers (CSC) respectively.

The following findings were obtained from the above study carried out in relevant CEB and LECO distribution areas and calculated SAIFI is given in the table 5 below for the year 2015. In this calculation all the interruptions due to Transmission failures, Distribution System faults, Distribution planned maintenance program and Customer Service Main break-downs have been accounted.

Table 05
Average frequency of power outages experienced by a consumer in selected areas

Distribution Licensee	Area	Consumer Service Center	Total Number of Consumer Accounts	Sum of Number of Consumers Interrupted	SAIFI (interruptions per Consumer per year)
				All	Total
CEB R2	Nuwara Eliya	Rikillagaskada	29,100	72,525	2.5
		Walapane	24,239	132,967	5.5
		Nuwara Eliya	25,683	142,098	5.5
		Undula	25,020	129,525	5.2
		Thawalanthenna	22,408	108,629	4.8
CEB R3	Rathnapura	Malwala	24,131	1,844,206	76.4
		Rathnapura	19,679	333,893	17.0
		Nivithigala	23,270	616,558	26.5
		Kalawana	12,486	58,046	4.6
CEB R4	Galle	Habaraduwa	21,098	107,245	5.1
		Galle	27,402	22,718	0.8
		Imaduwa	8,275	61,186	7.4
		Bataduwa	26,331	44,107	1.7
		Yakkalamulla	7,237	47,091	6.5
		Thawalama	21,470	110,726	5.2
All CEB areas above			317,829	3,831,520	12.1
Including CEB system outages					
LECO	Galle	Ambalangoda	24,129	2,677,184	111.0
		Galle	31,198	5,356,752	171.7
		Hikkaduwa	18,371	1,096,426	59.7
All LECO areas above			73,698	9,130,362	123.9
Excluding CEB system outages					
LECO	Galle	Ambalangoda	24,129	391,556	16.2
		Galle	31,198	1,322,878	42.4
		Hikkaduwa	18,371	705,876	38.4
All LECO areas above			73,698	2,420,310	32.8

Investigation of harmonic content of electrical distribution system in commercial buildings which could affect the power quality

Presence of harmonics can cause damages to the equipment of the system users and will also affect the performance of the equipment connected to the power distribution system. With the introduction of equipment such as CFL, Air conditioning systems, Computers and Variable speed drives that use power electronic systems the electrical installations that are subjected to power quality issues cause by harmonics.

The typical definition for a harmonic is "a sinusoidal component of a periodic wave or quantity having a frequency that is an integral multiple of the fundamental frequency." In the power system of Sri Lanka the fundamental frequency is 50 Hz. Therefore harmonic frequencies of voltage and current signals are multiples of 50 Hz fundamental signals and for example the harmonic frequencies can be in 150Hz 350Hz, etc.

According to the section 6(2) of Sri Lanka Electricity Act No.20 of 2009, It is the duty of electrical inspectors to inspect, test and

examine the electric lines and electrical plants belonging to persons authorized by a licence or exempted from the requirement of obtaining a licence to distribute or supply electricity. Accordingly, the PUCSL electrical inspectors have measured harmonic contents of several commercial entities that have been granted distribution exemptions. Aforementioned exempted parties purchase electricity in bulk and redistribute within the commercial premises concerned, and the selected installations are comprised of shops and offices equipped with high-efficiency lighting with electronic ballasts, adjustable-speed drives for the heating, ventilation, and air conditioning (HVAC) loads, elevator drives, and electronic equipment, which can be considered as non-linear loads.

The measurements obtained, used to evaluate the extent of distortion caused by harmonics, against the international standard IEEE 519 2014. This revealed the harmonic levels exposed by retail consumers connected and supplied by the respective commercial installations. A report was produced indicating the prevailing harmonic contents and migratory measures.

Facility managers of each commercial entities subjected in this survey were informed about the prevailing situation of their installations and the necessity of adhering to standards in order to prevent power quality issues originated by the presence of harmonics in there distribution systems with the view of protecting the consumers from power quality issues. Results from this activity will be used for preparing a guideline on harmonic mitigation in Commercial Installation such as office complexes and shopping complexes.

Safety and Technical Management Plan (STMP)

Since the electrocution across the country has increased in an unprecedented level, thus alarmed the objective of reducing them to at least 20 by 2020 which then be shouldered by Public Utilities Commission of Sri Lanka. Safety and Technical Management Plan is thus a system which tells the "Licensee" about what are the safe practices and measures to be undertaken by them across the disciplines of Generation, Transmission and Distribution for the Safe Electrical System.To assure the safety starting off from the point of generation until it is served at the end user, PUCSL engages in setting up STMP, a culture which integrates and enables the Electricity Safety with Quality and Continuity of each and every licensee in providing Safe Electricity Services and Supply.Development of the Safety and Technical Management Plan Template was completed and the process continued to the year 2017.

Implementation of Health and safety indices (licensees to compile health and safety statistics)

This task was undertaken to devise a methodology to measure the parameters or the indices incorporated into the Safety and Technical Management Plan to assure the "Safe Practices" exercised by the licensee are within secured levels. These indices are extracted from the British Standard and of best practiced levels. The indices will be used to measure and monitor after the STMP is setup and be a guideline for the independent auditors to keep all the licensees under check.A template was endorsed, so that it becomes the standard followed by everyone who audits electrical safety.

Preliminary study on Independent Safety Audits

After the implementation of Safety Indices, the licensees must be verified by a body of Independent Auditors and assured that the practice undertaken by them is within the norm. Body of Independent Safety Auditors are to be established, but the initial discussions were undertaken with the licensees and final report is been drafted.

Expanding the database for notification of safety related incidents

Establishment of the database for the electrical related accidents is paramount importance to understand the most vulnerable root causes which cause havoc. This helps to take measures to mitigate them and advise both consumers and licensee about what are the

Expanding the database for notification of safety related incidents

Establishment of the database for the electrical related accidents is paramount importance to understand the most vulnerable root causes which cause havoc. This helps to take measures to mitigate them and advise both consumers and licensee about what are the unsafe practices they mostly tend to do. Incident Reporting System is the application which enables the licensee to convey information and to maintain a risk registry on findings coming under electricity related incidents and accidents. Using the system, electrocution mitigation measures will be applied upon the most significant root causes. Later this system will be expanded to the reach of Police and Hospitals, so that electricity related accidents and incidents which come about in the vicinity of the public also will be registered. A trial run of the application was taken place and PUCSL is in the process of providing assistance to implement the system.

Licensing of Electricians

Licensing of electrical technology workers is a formal and legal way of defining their professions and authorizing only those who meet predetermined standards deemed to be necessary, to practice such professions

Licenses that issued are generally subject to renewal after a given period, liable for penalties, could be revoked or suspended, based on the professional/moral ehavior, continuity in engagement of the profession, competence demonstrated, etc. by the License holder, thus requiring Licensees to discharge their duties in accordance with the applicable rules, regulations and ethics.

Sri Lanka's technical education has a long history. However, one of the drawbacks of the technical and vocational education system that existed in the pre-1990 era was the absence of any uniformity in the levels of the courses conducted. This caused confusion among the persons who intended to join the training institutions as well as the prospective employers alike. In order to overcome this flaw, Government of Sri Lanka (GOSL) established the Tertiary and Vocational Education Commission (TVEC).

Therefore, PUCSL prepared the consultation paper to license the electricians in accordance to their grades.

Table 06
Grading Electricians torlicensing purposes.

Category	Voltage level	Abbreviation
Electrician Low voltage Grade A	Low voltage 0-1000 Volts	Electrician - LGA
Electrician Low voltage Grade B	Low voltage 0-1000 Volts	Electrician - LGB
Electrician Low voltage Grade C	Low voltage 0-1000 Volts	Electrician - LGC
Electrician Low voltage - Provisional	Low voltage 0-1000 Volts	Electrician Provisional

Monitoring of Electrocution mitigation program

With the objective of achieving global benchmark set on electrocutions and improving beyond, PUCSL has devised many electrical accident mitigation measures to contain unfortunate electrocutions, electricity related injuries and electrical shocks, under the Electrocution mitigation program. To ascertain the optimal progress of the said program through timely, important controls inputs, the Monitoring of Electrocution mitigation program was established.

Monitoring of Electrocution mitigation program designed to derive indices by analyzing the monthly electrocution reports published by the Sri Lanka police department and give required inputs to introduce strategical changes to the ongoing electrocution mitigation program. Analysis will be done in three stages quarterly, bi- annually and annually to obtain indication and indices as trend analysis, prominent root causes, behaviour of root causes, seasonal effects, new trends if any etc.,

The analyses revealed that,

- Fatalities due to non-availability/proper functioning of trip switch has gone up from 40% to 58%.
- Fatalities related to electricity theft/illegal tapping has dropped from 35% to 20%.
- Fatalities due to lack of line clearance were up from 2% to 3%
- Fatalities due to poor wiring were up from 8% to 10%

Metering management plan

Metering management is much essential to ensure fairness for both consumer and the licensee. If meter accuracy not maintained within the stipulated limits that obviously affects either consumer or the licensee. Properly calibrated meter should maintain its maximum possible error within ± 2.5% error margin and anything beyond the defined limit treated as significant error and need to be replaced with an error free meter. If the meter is having positive error, consumer overpays for his consumption and on the other hand, if the meter error found negative, then under said circumstances consumer pays less for his consumption and licensee due revenue declines.

A survey was conducted in the areas of CEB Ampara, Siri Jayawardenapaura Anuradapura, Nuwaraeliya , Galle CEB and Galle LECO and only Data collected from Siri Jayawardenapura were comprehensive and a report on that data was compiled.

Only 135 out of 170 meters were accessible to carryout testing required for this survey. Out of the 135 meters tested, 22 were found to be defective and not within the allowed margin of 2.5%. This is way above the maximum tolerable limit obtained from the statistical standards and hence the meter population should be considered not suitable for use.Throughout the analysis, various types of meters were engaged. However, it is proven that the more the period of utilization the higher the chances of being not accepted. When the cumulative error is negative, it causes disadvantages to the utility.

Test results obtained from the survey - CEB

From the test results obtained from the survey, it was noticed that there are meters with an error as high as -76%. Meters with errors ranging from -29.70% to 7.03% was identified during the survey.

Number of meters having a Negative error : 70
Number of meters having a Positive error : 65

Average Meter Error	**-0.00268**	**%**
Number of Tested Meters	**1355**	
Average Metered Units Per Customer	**120**	kWh
Average Actual Units Per Customer	**120.25**	kWh
Average Unit Cost	**16.15**	**Rs**
Total Monthly Loss to CEB Per Customer	**4.04**	**Rs**
Total Monthly Loss to CEB in Sri Jayawardenapura	**113,313**	**Rs**

Suggestions for metering management plan

After evaluation of results, any brand of meters identified as non-confirming within 10 years of date of manufacture will be considered not suitable for future installations and existing meters should be replaced within an agreed time period.

Any brand of meters identified as non-confirming within 10 to 15 years of date of manufacture will be given a recertification period of 10 years which means meters of that brand should be statistically tested after 10 years from date of previous survey. Existing meters populations identified as non-confirming should be replaced within an agreed time period.

Any brand of meters that hasn't been identified as non-confirming within15 years or more from the date of manufacture will be given a recertification period of 15 years which means meters of that brand should be statistically tested after 15 years from date of previous survey to check for conformity. Existing meter populations identified as non-confirming should be replaced within an agreed time period.

Licensing

The PUCSL, in its role in granting licenses, is entrusted with the tasks of evaluating, selecting (in concurrence with the Ministry of Power and Energy) and granting electricity generation licenses to private power producers. It also regularly monitors the distribution activities of the two licensees (CEB and LECO) and requests monthly information on generation and selling costs from them.

Granting of generation licenses

The Sri Lanka Electricity Act, No. 20 of 2009 makes it mandatory for any party planning to establish or operate an electricity generation plant to obtain the approval of the Commission. This is also necessitated by the need to ensure the safety, quality and efficiency of electricity produced in the country and to regulate the required standards in electricity generation. Accordingly, generation licenses are issued by the PUCSL to all parties producing electricity in the country. The CEB remains the largest generation licensee.

During 2016, 20 applications were received by PUCSL. 19 applications were to obtain the generation licenses to generate electricity, while one applicant applied for distribution license. One application was rejected due to disqualification and Seven applicants were requested to submit minimum required information due to the lack of information submitted. One license was granted and another qualified applicant was recommended to the Minister for the concurrence.

Table 07
Applications for Licences

Type of Application	No.
Bio Gas	01
Dendro	02
Gas/LNG	01
Hydro	11
Municipal Solid Wastage	01
Solar PV	02
Thermal	01
Distribution	01

Exemption from licenses

The Commission, under the power vested on it by the Sri Lanka Electricity Act, No. 20 of 2009, may exempt certain parties from the requirement of obtaining licenses to generate electricity. Approvals for these exemptions were granted after the consideration how electricity is generated or distributed by that party. 27 applications were received and four exemptions were issued. Seven applicants have been requested to furnish the minimum required information to proceed. 16 applications were being processed.Apart to that number of studies and reports were carried out to improve the performance and the efficiency of licensees.

Performance of Distribution Licensees - 2016

This report produces comparative illustration of all five Distribution Licensees (DL) on their purchases, sales, revenue, consumer base and energy losses for the year 2016.

A total of 12.6 billion units was consumed by the 6.3 million consumer accounts connected to the distribution network. DLs have purchased electricity from Transmission licensee spending about 167.4 billion rupees, and distributed to consumers consist of five main categories namely domestic, religious, industrial, hotel and general purpose.

The Revenue obtained through the distribution business amounts to 215.6 billion rupees for the year 2016 up from 192.3 billion rupees in the year 2015.

Numbers of consumers belong to each consumer category and each distribution region is depicted in below,

Table 08
Number of Consumers (Category and Region Wise)

Distribution Region	Domestic	Religious	Industrial	Hotel	General Purpose	Total
DL1	1,415,509	9,288	26,621	124	178,272	1,629,813
DL2	1,746,271	12,073	14,371	193	209,736	1,982,644
DL3	1,037,997	6,325	8,283	51	114,666	1,167,321
DL4	878,777	5,030	6,153	127	93,997	984,082
DL5	453,968	2,529	3,436	58	82,296	542,287
Total	5,532,521	35,244	58,863	552	678,968	6,306,147

Chart 03
Number of Consumers (Category and Region Wise)

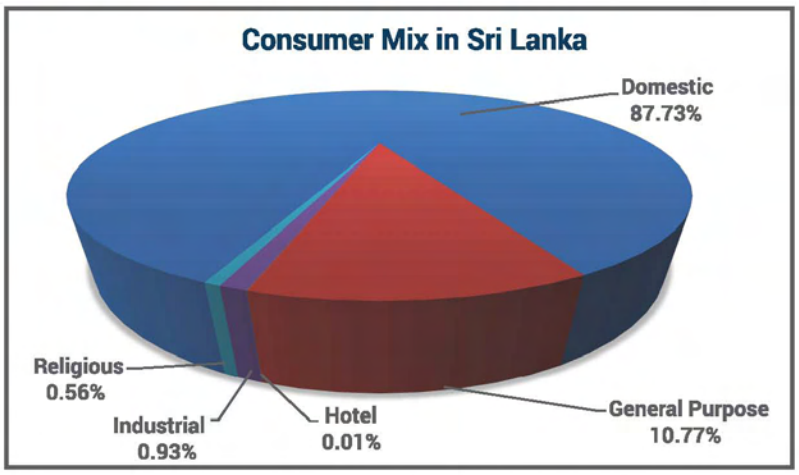


Figure : Consumer Mix in Sri Lanka

Performance of Distribution Licensees in Summery

- Total electricity consumption -12.6 billion units
- Total consumer base - 6.3 million
- Electricity purchased cost from Transmission Licensee(TL) - Rs 167.4 bn
- Energy purchased from TL –14.04 billionunits
- Total revenue by sales – Rs 215.6 bn
- Total distribution loss -1185 million units
- Total consumer growth 4% per year (based on data of year 2011 to 2016)
- Industrial consumer growth 0.17% in year 2016
- General Purpose consumer growth 4.7% in year 2016

* 1 Unit = 1 kWh

Voltage monitoring program of electricity distribution system and study report on power Harmonic

Under this activity five voltage loggers were developed and purchased from Arther C Cleark Center. Voltage levels of consumers were measured randomly inMatale, Bellantara, Morontota, Rathmalana, Ulapane, Dehiwala, Mount Lavnina, Ampara, Nuwara Eliya, Vavuniya, Trincomalee, Polonnaruwa, Kelaniya, Kiribathgoda, Kadwatha, Rajagiriya areas to identify voltage levels of those areas.

The survey in progress with the support of Consumer Consultative Committee to identify the location in the country where poor power quality is observed.

Review the discount rate value which is used in the development plans of licensees

PUCSL conducted the literature survey and it was observed that the appropriate discount rate to be used in cost benefit analyziz of power sector projects. Work in progress to check the behavior of energy mix with different discount rate based on the CEB LCLTGEP

Distribution Code Enforcement & Review Panel work

PUCSL decided to update the existing safety manuals of Licensees and review them. Accordingly LECO updated the safety manual and submitted for the Commission approval. CEB is yet to submit the manual. All the safety manuals will be reviewed by an external committee appointed by the Commission before the approval. The process was carried forward to year 2017

With the enactment of Distribution Performance Standards Regulation, PUCSL wished to enhance the knowledge of the officers of the utilities on power quality and supply reliability and therefore conducted a Power Quality workshop with the assistance of Pro. Sarath Perera. Around 100 engineers from all distribution utilities took part in the workshop.

Monitoring fuel supply and storage levels of Generation Plants

A template was prepared and issued to all Thermal Power plants in operation. Information on the fuel availability of each plant is obtained each month. Further to this PUCSL representative attends the weekly fuel stock review meetings conducted by the Ceylon Petroleum Corporation to identify any foreseen fuel shortages, to take required remedial actions. PUCSL, time to time provided recommendations to the relevant authorities to ensuring continuous fuel supply to power plants.

Least Cost Long Term Generation Expansion Plan (LCLTGEP)

The objective of Least-cost Generation Expansion Plan, planning is to aim at serving the demand at a specified level of reliability, at the lowest possible cost. Generation expansion planning shall be distinctly different from economic dispatch, which relates to existing and committed power plants.

The planning period for the expansion plan is twenty (20) years, commencing from the first year after the year the plan is published and the generation expansion will be updated at least once in two years.

The Transmission Licensee is asked to prepare the plan conducting studies covering more than twenty years, to smoothen out the "end effects", and to enable the development of robust recommendations for new generating plants, replacements, or upgrades to existing plants.

The Plan shall be submitted for review and approval by the Public Utilities Commission of Sri Lanka (the Commission) not later than 30th day of April, of the year in which an update to the Plan is due. However, the first such submission of the Plan will be due on 30th May 2011. The Commission shall review the Plan for compliance with the guidelines provided herein, request for clarifications and amendments, and approve the Plan.

Accordingly, Transmission Licensee (Ceylon Electricity Board) submitted the Long Term Generation Expansion Plan (LTGEP) 2015-2034 for the approval of the Commission on 06th August 2015 in terms of section 43 of Sri Lanka Electricity Act.PUCSL required CEB to resubmit the LCLTGEP 2015-2034 in December 2015. The revised LCLTGEP 2015-2034 was submitted in August 2016. The same was reviewed and the Commission approval was granted in September 2016.

ROAD MAP of LCLTGEP

The Transmission Licensee (Ceylon Electricity Board) submitted the Least Cost Long Term Generation Expansion Plan (LCLTGEP) 2015-2034 for the approval of the PUCSL on 06th August 2015 in terms of section 43 of Sri Lanka Electricity Act.

PUCSL Approval Process

- Public Consultation – 25th Sep 2015
- Clarification verification – PUCSL requested clarifications from the Transmission Licensee on 02nd October 2015, and the clarifications were submitted by Transmission Licensee on 30th October 2015
- Commission Decision - The Commission at its meeting held on 17th December 2015, expressed its inability to grant approval for the LTGEP 2015-2035.
  The Commission, via their letter dated 18th December 2015 advised the Transmission Licensee to revise and resubmit the LTGEP 2015-2034, while giving special attention to the following.
  - **i.** Demand forecasting methodology
  - **ii.** Demand Side Management and related investment program
  - **iii.** Absorbing more electricity from readily available Renewable Energy sources
  - **iv.** A scenario on locally available or imported Natural Gas fired plants as an alternative to coal fired plants, considering environmental concerns and fuel diversity
  - **v.** Updating/ internalizing the environmental, health and other externalities in the plan with latest available figures
  - **vi.** Minimization of transmission system development cost
  - **vii.** Alternatives in the event of delay in Sampur Coal Plant

Discussion were carried out by the Ceylon Electricity Board (CEB)

LCLTGEP Status Report By PUCSL

PUCSL issues a directive to CEB to submit the revised Least Cost Long Term Generation Expansion Plan
July 04th 2016

CEB submits a brief base case plan as a reply to PUCSL's directive on Long Term Generation expansion plan 2017-2036
27th July 2016

PUCSL writes to CEB explaining its inability to approve the brief base case plan of CEB and asked to send the comprehensive Long Term Generation Expansion plan
3rd August 2016

Public Utilities Commission of Sri Lanka (PUCSL), the electricity sector regulator, granted approval to Ceylon Electricity Board's (CEB) Least Cost Long Term Generation Expansion Plan (LCLTGEP) 2015- 2034, in order to address expected power shortages in the future.
15th September 2016

PUCSL ASKS POWER PLANT IMPLEMENTATION TIME LINE FROM CEB
28th September 2016

CEB submits the implantation of Least Cost Long Term Generation Expansion Plan 2015-34
11th November 2016

PUCSL issues a directive to CEB expressing grave concerns over further delaying of the construction of power plant(s) in LCLTGEP citing the time gap with the implementation plan submitted compared to the approved LCLTGEP.
18th November 2016

Empowering Consumers

" WE BELIEVE AWARENESS, EDUCATION AND PREPAREDNESS IS THE KEY TO MITIGATE ISSUES BETWEEN LICENSEES AND CONSUMERS"

Electrocution mitigation program

With the objective of reducing electrocutions to at least 20 by 2020 the Public Utilities Commission of Sri Lanka launched this electrocution mitigation program to ensure electrical safety in Sri Lanka. Under this campaign the Inspectorate division conducted awareness programs on "safe use of electricity" in year 2016 to educate the people about safe use of electricity covering all parts of the island as mentioned below.

- Conducted awareness programs at Airforce Bases at Ratmalana & Katunayaka, Military Police Camp at Kokavil, Police Training Centre at Maradana, NIE at Meepe, Vocational Training Authority at Inamaluwa, District Secretariat offices at Nuwaraeliya & Polonnaruwa and District Scout Rally in Embilipitiya

- Conducted awareness programs for Administrative Grama Niladharis at Dambulla & Badulla, Journalists at Matara and Sarvodaya Members at Tangalle
- Conducted awareness programs at 18 Schools in Kilinochchi, Galle, Kurunegala, Matale, Nuwara Eliya, Hatton, Bandarawela and Kataragama

- Conducted Stalls at Nivahana Exhibition, INCO Exhibition, Techno Exhibition and at an Exhibition held at D.S. Senanayaka Central College, Mirigama

- Conducted an awareness campaign on ITN FM during the month of December 2016

Also, as a part of this electrocution mitigation campaign, the Electrical Safety Day 2016 event was conducted in the month of December 2016 to aware the school students and parents about the importance of safe use of electricity. PUCSL targets to expand this initiative in future and declare a national electrical safety day.

Awareness Campaigns-Electricity Consumer Rights and Obligations

The PUCSL conducted 06 programmes in 09 provinces to educate 333 Administrative Grama Niladaris.This campaign was carried out with an objective of making aware 14200 Grama Niladaris in Island – Wide by the Administrative Grama Niladaries.

PUCSL also conducted 05 awareness programmes in Galle, Nuwaraeliya, Kandy, Matara and Polonnaruwa districts educating around 500 government officers and media personalities with the objective of passing the message on consumer rights and obligations to the ground level consumers through the trained officers.
Media channels were used highly in 2016 awareness campaign and supplement about Consumer Rights and Obligations were published in Daily News Papers targeting the Electriicty Consumers and Articles and supplement were also published in the month of May targeting a target consumer base who reads Buddhist papers.

Television interviews and Radio Interviews were carried through mainstream media and provincial channels, opening the dialogue of Consumer Rights and Obligations to consumers who are in every level from students to adults.

Consumer Rights Forum: 2016 Edition

Public Utilities Commission of Sri Lanka marked the occasion of 'World Consumer Rights Day 2016' with the first-ever 'THE CONSUMER RIGHTS FORUM: 2016 EDITION' forum on the 14th of March 2015 to discuss about Electricity Consumer Rights and Obligations with the objective of creating awarenessamongthe public and stakeholders about the electricity rights and obligation.

The forum featured Sri Lankan experts exploring Electricity Consumer Rights and Obligations as well as the prevailing situation in the country. The event was well attended by the who's who of the industry, including Director Generals, CEOs, Managing Directors, Managers of top industry leaders and the Public.

PUCSL has already launched a dispute resolution procedure and Consumer Rights and Obligation statement for electricity consumers and PUCSL gained inputs to identify the need of amendments to such documents in line with the changing behaviours of the consumers and service providers.

Establishment of Consumer Network

In general, consumers of corporate sector in Sri Lanka are fairly organized and express their views during formal discussions; hence fair hearing could be assured in case of corporations. However, the commission observed that the voices of un-organized large number of small consumers have not been properly heard since there are no formal organizations to express their views.

In this regard, the Commission intended to create a National Consumer Network that has interest to work on consumer issues on a voluntary basis, which will enable them to formally communicate/submit their views to the Consumer Consultative Committee.

PUCSL established 20 consumer network societies in Southern Province with the objective of empowering consumers in exercising their rights and complying their obligations with regard to their electricity supply and use of electricity.

Accordingly 11 consumer networks established in Galle, 4 in Matara and 5 in Hambanthota.

Awareness Programmes on Lubricant

As a measure of empowering the public on lubricants, PUCSL conducted two full day workshops on "The Lubricants Industry" workshops at Ceylon German Technical Training Institute And Automobile Engineering Training Institute.

Empowering Electricians

Across the world electrical safety is an important element and prudently regulated through various regulatory tools; licensing of electrical technology workers is one of such. Hence, licensing of electrical technology workers is of a highest importance and critical in assuring the electrical safety of lives and property.

PUCSL has taken the initiative to address the gap identified in the electrical installation trade in terms of safety, reliability, and cost effectiveness through the licensing process of electricians in Sri Lanka. The absence of a licensing regime for electrical technology workers has caused negative implications, namely violation of stipulated safety measures & standards and lack of demand of the profession in both the local and international market.

Licensing of electrical technology workers is a formal and legal way of defining their professions and authorizing only those who meet predetermined standards deemed to be necessary, to practice such professions.

An electrician is generally defined as a tradesman specialized in carrying out many types of work associated with electrical installations in buildings, factories or commercial establishments. Most countries apply a licensing regime to authorize electricians.

Sri Lanka is yet to implement a scheme to license/register electrical technology workers. In Sri Lanka, there is no legal definition for "electrician" and this permits anybody to describe

himself/herself as an electrical tradeperson specializing in any area and can engage in any work related to installation, repair, operate and maintain electrical installations or even in the design and planning work. Hence, currently, there is no legal restriction for any individual to practice as an electrical tradeperson here in Sri Lanka.

In this context, an Island wide awareness program was launched by the PUCSL to make aware of the Electrical Workers those who are engaged with domestic wirings about the requirement of a license to carryout domestic electrical wiring.

During the year 2016, PUCSL conducted 30 awareness programs in Killinochchi, Mulative, Homagama, Avissawella, Tissamaharamaya, Tangalle, Mahawewa, Chillaw, Kandy, Galle, Nikaweratiya, Dodanduwa, Akuressa, Matara, Polonnaruwa, Boralesgamauwa,Grandpass, Matale, Kurunegala and Kuliyapitiya addressing about 3600 Electrical Workers.

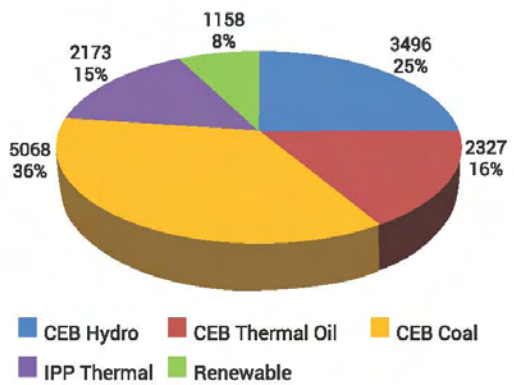
Electricity Conservation

Sri Lanka's energy demand is met through either locally available sources, which are Hydropower, wind power and solar or those sourced from global energy markets as petroleum and coal. Sri Lanka uses its hydropower largely for electricity generation while the maximum potential of wind and solar power is yet to be discovered.

Studies are also underway to discover whether the offshore petroleum resources are available in Sri Lanka's territorial waters ,while discussion were taken place to build a link of energy exchange between India and Sri Lanka.

At present the total electricity requirement of the country is supplied by biomass, hydro power and petroleum. Sri Lanka's energy supply portfolio is described in the graph below,

Chart 04
Annual Cumulative Generation in 2016 (January - December)



Total Generation =
This is excluding the contribution from Minihydro, Biomass and small scale solar generation in December 2016

Total Electricity generated during the year 2016 was 14,222 GWh of which 36 percent generated from CEB Coal, while 25 percent was generated from CEB hydro. Renewable accounts for 8 percent of electricity generation in Sri Lanka.

However, with the Government push for the solar power, Sri Lanka aims to add 200 MW of solar electricity to the national grid by 2020 and 1000 MW by the year 2025.

Among the non- conventional renewable energy (NCRE) sources, Rooftop solar PV considered as one of the fastest technologies to install and integrate into the grid. Government's "Soorya Bala Sangramaya" (energy battle) programme is one strategy to support future energy requirement and so far Sri Lanka has added about 42 megawatts of capacity to the national grid through domestic rooftop solar plants by the end of 2016.

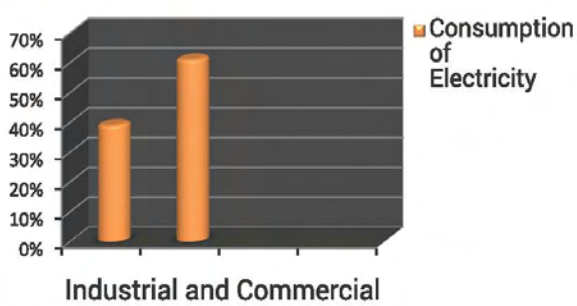
Sri Lanka has 7905 domestic rooftop solar plants that are installed and connected to the national grid, data up to November 2016 reveals.

The total domestic rooftop solar plants before the Soorya Bala Sangramaya (the energy battle for solar) stood at 6485 and increased to 7905 by end November 2016. 1420 domestic rooftop solar plants were added through Soorya Bala Sangramaya by end November 2016.

Generation of electricity through renewable energy sources has become a major concern for government as well as private sector investors. The Government policy is to increase the existing 50 percent of the electricity generation based on the renewable energy sources to 60 percent by the year 2020 and to increase it further up to 70 percent by the year 2030 and to generate the total energy requirement through renewable and other indigenous energy resources by 2050.

Households have consumed 39 percent of electricity while industrial and Commercial have consumed 61 percent of the electricity.

Chart 05
Consumption of Electricity



With the demand is increasing, Sri Lanka also saw a decreasing level of hydro power generation in 2016 as the country went through a drought condition and adding to that "Energy Crisis" – The much talked topic of the developed countries also had an impact on the Electricity sector in Sri Lanka. PUCSL was constantly studying the Energy Security Issue and the Energy Crisis and initiated discussions on precautionary measures to be taken and demand side management tools to manage electricity conservation and efficiency.

Energy conservation refers to the reducing of energy consumption through using less of an energy service. Energy conservation differs from efficient energy use, which refers to using less energy for a constant service. Public Utilities Commission of Sri Lanka identified that Supply-side Energy Efficiency and Demand Side management are the main tools for conserving energy and energy efficiency improvement.

Supply-side Energy Efficiency was addressed with the introduction of Transmission and distribution, energy practices for licensees and demand side management (DSM), which is the planning and implementation of those electric utility activities designed to influence customer uses of electricity in ways that will produce desired changes in the utility's load shape.

Environmental Impact Study on Thermal Power Plants

As the first step, the actual Environmental Impact study on Coal Power Plant Norochcholai is been carried out during the year 2016 by an expert committee appointed by the Commission. Complete process from the Coal unloading point up to the power generation plant were inspected by the team. Site inspection and observations report including advice on the corrective measures to be taken on priority basis, report on restructuring of the environmental monitoring and control procedures, and a review the Environmental Management Plan of the Norochcholai Coal Power Plant will be completed by the Committee within the first quarter of the year 2017.

Reports & Studies

Goal 09 monitoring report - A Comparison of Allowed Charges

This analysis was conducted to evaluate the extent achievement of goal 09 - Reducing charges levies by service provider on services in 2013 by 10% in real terms by year 2020.

The Commission started the function of approving the allowed charges of Licensees since 2012, and therefore possesses detailed information required to monitor the extent of Goal achievement. The intention of this report is to monitor the extent of Goal achievement as at 2016, by comparing selected charges of 2013 with those of 2016, in real terms. This report also seeks to identify any corrective actions requires to be taken, to ensure the intended target will be achieved by 2020.

Charges for comparison have been selected from approved allowed charges and the analysis was carried out based on cost breakdown and price lists of items submitted by Licensees. A final comparison report has been compiled and published.

The purpose of this study is to assess the viability of Demand Response schemes in the Electricity sector at present.

According to the findings, it can be noted that there is a general decrease of the charges despite erratic overlook. At the same time it can be noted that there are significant differences between LECO and CEB in terms of charges for the same services. The main reason for this is differences of charge allocation methodologies. In addition to that, it can be noted that there are number of CEB charges that are not cost reflective where they charge concessionary rates for certain services. However, lack of cost breakdown makes it difficult to evaluate those charges with respect to Goal 9. (Reducing charges levies by service provider on services in 2013 by 10% in real terms by year 2020)

Chart 06
CEB - Percentage reduction of Charges

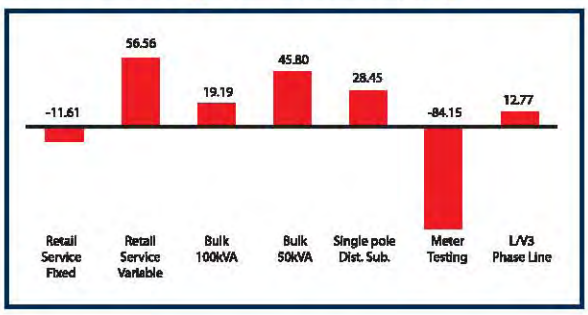
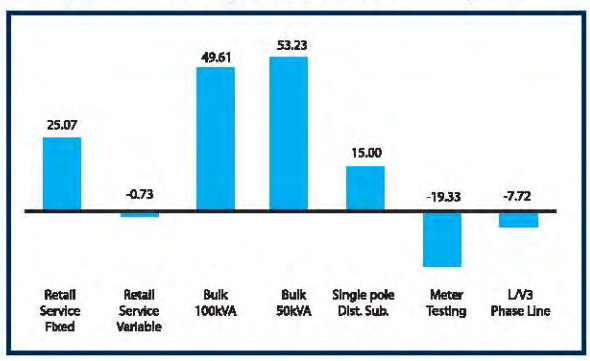


Chart 07
LECO - Percentage reduction of Charges



Report on Variances in Generation Dispatch

In view of ensuring Goal achievement by 2020, the commission has introduced changes to allowed charges methodology, and intends to further streamline the process of reviewing allowed charges.

Variance analysis is used as a tool to evaluate the effectiveness of the dispatch process by capturing the difference between the "Day Ahead Dispatch Schedule" and the "Actual System Dispatch". For this comparison a weekend day (06th September 2015) and a week day (18th September 2015) in the dry season were selected. The comparison of

actual generation and the scheduled generation of each power plant was done at an interval of half an hour. After the comparison, the reasons behind the variances and the possibility of mitigating or avoiding those reasons were investigated.

Accordingly Potential reasons for the variance identified as Sudden problems arisen in generation plants, Sudden problems arisen in Transmission system, Limitation in the software, Issues with the input data to the software. PUCSL identified through incorporating each and every condition to the software, improving the capabilities of the software and by giving accurate data as input to the software will reduce the variance.

Goal 8 Monitoring Report

The goal 8 is to reduce the total cost incurred in the supply of electricity in 2013 by 10% in real terms by the year 2020 (subjected to adjustment for the generation mix and fuel prices) and this report was prepared in order to monitor the progress of this goal. The outcome of this Deliverable is a report on Electricity supply cost Comparison (2013 vs 2015) based on a set of predetermined system/economic conditions.

As per the calculations it is observed that the average cost of generating one unit (in monetary terms) has increased by 15.8% when moving from 2013 to 2015 and in real terms the increase in generation cost is approximately is around 11.2%.

Report of the Regional Self Generation Techniques and Possibility of Adopting Such Techniques & Regulatory Tools into Sri Lanka 2016

When it comes to the total cost, there is 4.1% increase in the total cost (monetary terms) of supplying one unit of electricity in the year 2015 compared to the year 2013. In real terms there is no increase in the total cost and it has reduced by 0.5%.

Though there is an increase in the generation cost when moving from year 2013 to 2015 the total cost of supplying electricity has reduced by a small percentage (0.5%). In order to achieve the goal 8, the reduction in total cost for two years seems inadequate. The reduction is required be at least around 2.5% for two years, assuming linear reduction.

PUCSL is gratified to ensure the electrical energy security and enhance the voltage level of consumers within the stipulated voltage level of 230+/- 6% and improves the reliability of electricity supply. To fulfil this objective, PUCSL studied the regulatory and technical aspects of regional self-generation (distributed energy generation – DEG) techniques and possibility of adapting such techniques inSri Lanka.

The report indicates how to meet current needs, regulatory tools to be adopted for DG and plan for future demands and considers the implications of customer back-up generation on grid operations or portable back-up generation.

In this context, following areas in line with regulatory and technical aspects were investigated and

i. Identify renewable energy systems used in the distributed generation
ii. Identify regional renewable self-generation techniques
iii. Identify such self-generation systems suitable for the 33 kV distribution network in Sri Lanka
iv. Identify such self-generation systems suitable for the low voltage (400 V) distribution network in Sri Lanka
v. Identify regulatory tools to be adopted for DG

The geo-climatic settings of Sri Lanka facilitate with several types of energy resources and some of them could be developed to supply the reasonable part of the energy requirement of the country. Others have the potential for development with the advancement of the technology and economically feasible for use. Following are the main renewable resources available in Sri Lanka.

- Solar
- Wind
- Hydro power in the form mini & micro
- Biomass

Sri Lanka has substantial wind energy resources and as per the study conducted by the National Renewable Energy Laboratory (NREL) it was estimated that, the potential for wind power in Sri Lanka is high as 20,740 MW's. The wind energy is a dependence of the two Asian Monsoons, South West (SW) and North East (NE). The SW is the strongest of the two Monsoons and is spread along the entire West Coast of Sri Lanka as well as in interior areas and some mountainous regions. The winds over flat landscapes in the South-Eastern and North-Western coastal belt are more consistent and occur during both monsoons.

There are various forms of renewable energy resources utilized in the world. However, in this study only regional renewable self-generation techniques were identified and due consideration was given on technical feasibilities, economic principles, environmental and geo-climatic settings of the country.

Experiences with renewable technologies (solar, wind, small hydro and biomass) in developing countries in the region have been mixed. India and China have aggressively promoted its development, with relative success even though many barriers continue to impede its development. Foremost is the high up-front cost of renewables compared with fossil fuel technologies and intermittent nature of some renewables – their dependency on the availability of wind, water, sun, or biomass resource. As a results, distributed generation (DG) requires the use of energy storage devices usually batteries, which are expensive or back-up power, most often diesel generators.

There are, however, a number of benefits to renewables. Renewables in a DG context will often have an advantage when applied in a mini-grid or off-grid rural settings where power line developments are too costly or where line construction will take considerable time to complete. In China small hydro and solar power has successfully applied to run DG mini grids.

Among above mentioned renewable energy methods, solar and wind energy are most appropriate energy sources to be used in Sri Lanka.

The development of wind and solar power generation can lesson demand and reduce peak loads, improve power quality of the distribution network and create income through the sale of excess power back to the grid.

The Solar PV and Micro Hydro have a role in the energy mix of the country and relevant regulatory framework and policies have to be developed. Sri Lankan government has taken steps to promote renewable energy and energy efficiency successfully. However, there are some critical barriers need to addressed.

In this context, careful examination of the impact and validity of Distributed Generation (DG) under local market conditions and the potential contribution that DG can make to a country's energy mix and a proper development plan has to be prepared to accelerate the use of DG technologies in targeted areas giving due c onsiderations on following key elements:

- Essential market reforms and conditions
- Uniform standards and procedures
- Elimination of cross-subsidies gradually
- Prices
- Transmission charges & fees
- Market-based mechanisms
- Economic incentives
- Rural electrification
- Technical and institutional support.

With the proper regulatory structures and incentives, DG can complement central power while increasing access to energy in an incremental, clean and reliable manner meeting the performance, quality and power needs of end users, especially those located outside large cities.

Hence, appropriate measures to be taken to attract entrepreneurs and stakeholders to invest on solar and wind power generation and thereby to reduce the dependency on imported fossil fuel and also to reduce hazardous gas emissions.

Study to analyse the insight of random fire reporting and conditional monitoring of electrical installations to prevent them

Analysing the insight of random fire reportings and condition monitoring of electrical

installations is a key factor in protecting invaluable national and historic assets from contingent calamities.This deliverable was planned to alarm the importance of "Arc Fault Circuit Interrupter (AFCI)", where it was advised to be installed at places where national importance is high; such as Libraries and Museums. By doing such, would be able to value our national events, even in an chaotic situation.PUCSL collected all the data related and the process of developing a mitigation technique in line with the analysis is continued to the year 2016.

Analysis report on System Average Interruption Duration Index (SAIDI) at medium voltage level

Necessary templates have been developed and informed CEB and LECO to submit outage information through LISS. Data submission is in progress and said report will be prepared soon once CEB and LECO submit all the required data.

Study on daily loading patterns of embedded generators (generators connected to electricity distribution system)

The purpose of this study is to identify daily and seasonal variations of the generation of Non-Conventional Renewable Energy (NCRE) power plants. For this, daily generation data for the five years from January 2011 to December 2015, was obtained from more than 50 NCRE power plants. Based on the availability of the data, hourly generation data was obtained from certain power plants. The data was analyzed to identify the individual and combined variations of the generation. The draft report is currently being prepared.

Study on optimization of reserve margin

The objective of the study is to assess the possibility of releasing the reserve margin during certain times of the day without compromising the security of supply as means of cost reduction as the goal is to maintain a constant reserve margin throughout the time. For this, daily (half hourly) dispatch schedules and actual dispatch were analyzed. The finalization of the report was carried forward to year 2017,

Generation Performance Report 2015

The data were obtained from the Licensee Information Submission system (LISS) as well as the daily generation summary submitted by the CEB. The draft report is currently being prepared.

Human Resources of PUCSL

The Public Utilities Commission aims for the highest standards of professional and personal competencies of people in providing an incredible service to the Sri Lankan nation. We believe our present success also has been achieved the greater efforts of our unique team.

In that line commission continuously invests in developing the human capital to take advantage of growth opportunities, more room to succeed, ripen the togetherness of members and to enhance standards of working environment in the journey of creating an extraordinary team of professionals.

The staff strength of PUCSL as at 31.12.2016,

Approved & Existing Cadre as at 31-12-2016

Division	Designation	Approved	Current
DG	Director General	1	1
	Assistant Director	1	-
	Management Assistant	1	-
DDG	Deputy Director General	1	1
	Management Assistant	1	1
Secretory	Secretary to the Commissior	1	1
Licensing	Director	1	1
	Assistant Director	3	2
	Management Assistant	1	-
Tariff & Economic Affairs	Director	1	1
	Deputy Director	1	-
	Assistant Director	2	2
Regulatory Affairs	Director	1	1
	Assistant Director	2	2
Consumer Affairs	Director	1	1
	Deputy Director	2	2
	Management Assistant	2	3
Inspectorate	Director	1	1
	Deputy Director	2	2
	Assistant Director	2	3
	Management Assistant	1	-
Environment, Renewable & Efficiency	Director	1	1
Legal	Director	1	-
Finance	Director	1	1
	Deputy Director	1	1
	Management Assistant	2	2
Human Resources & Admin	Director	1	1
	Assistant Director	1	1
	Management Assistant	2	1
	Driver/OfficeAssistant	4	4
IT & MIS	Director	1	1
	Assistant Director	2	2
Corporate Communication	Director	1	1
	Assistant Director	3	3
Internal Audit	Deputy Director	1	1
		51	45

Staff of Public Utilities Commission of Sri Lanka

Mrs. Janaki Manel Vitanagama
Secretary to the Commission

Mr. Gamini Herath
Deputy Director General

Directors

Left to Right

Mr. B. S. Jayapala –Finance Division, **Mr. Gamini Sarathchandra** –Environment, Renewable & Efficiency Division, **Mr. Nalin Edirisinghe** –Licensing Division, **Mr. Chamath Goonawardena** –Regulatory Affairs Division, **Mr. Kanchana Siriwardena** –Tariff & Economic Affairs Division, **Mr. Y. L. Farook** –Consumer Affairs Division, **Mr. Nilantha Sapumanage** –Inspectorate Division, **Mr. Palitha Sirimal** –Human Resource Management Division

Front

Mr. Jayanat Herath –Corporate Communication Division, **Mr. Laksiri Lokuhewage** –Information Technologies Division

Deputy Directors

Left to Right

Mr. K. G. Keerthisena, Mr. Yasantha Rathuvithana, Mrs. Thushani Haputhanthri, Mr. Shantha Jayasinghe, Mr. L. W.Chandrasekara, (AB) Mr. R. P. Tilakaratne

Assistant Directors

Left to Right

Mr. B. C. Pasindu, Mr. S. Krishanthan, Mr. Y Amila Costa, Mr. Sameera Rukmal Adikaram, Ms. Punsara Nagasinghe, Mr. Hasanka Kamburugamuwa, Mrs. Vinosha Keerthiratne, Mr. Thanuj Dhanushka, Mr. Narada Wickramage, Mr. V. Vimalathithan, Mr. Lilantha Neelawala

Front Line

Mr. Dileepa Karunaratne, Mr. Amila Rajapakse, Mrs. Erandi Udageachchi, Mrs Anushika Kamburugamuwa

Management Assistants

Left to Right

Mr. Dammika Wickramasinghe, Mrs. Dinushi Thewarapperuma, Mr. Eranga Prasad Chadrasiri, Mrs. Shashikala Hettiarachchi, Mr. M.Z.M. Rahan, Mrs. Sureni Sumanapala

Plan for 2017

Activity Plan 2017 presents a wider range of activities targeting four key thrust areas that has been identified by the Commission as indicators to achieve long term goals. The Activities for the year 2017 are drafted in a bottom to top approach to deliver specific outcomes and outputs according to its purpose. The Activities for the year 2017 were identified under four thrust areas which is Price , Quality , Safety and Environment.

The plan comprises 87 activities that are required to be executed on an annual basis up to the target year.

Every year the gap between the present status and the aspired status of the goal is evaluated to prepare the annual activity plan. The identification of strategies to narrow the gap is considered as a key to formulate activity plans. Accordingly, activities have been identified with the view of moving from the present status to the aspired status of the goals in a systematic manner.

The strategies and activities were formulated with the analysis of the present status and causes/issues/barriers in achieving the set goal. Some activities span over more than one year, while some activities have to be repeated over several years.

The implementation plan in respect of each activity has been prepared by the project manager. The responsibilities of each main/sub tasks have been assigned among the team members of the project.

The Activities for each division is identified below.

Consumer Affairs

	Reference	Activity - 2017	Output
01	AP17/COA/01 *	Awareness Campaign on Electricity Consumer Rights & Obligations (CR&O)	Increased empowerment of consumers through CRO
02	AP17/COA/02 *	Awareness Campaign on Electricity Consumer Rights & Obligations (CR&O)	Increased empowerment of consumers through CRO
03	AP17/COA/03 *	Awareness Campaign on Electricity Consumer Rights & Obligations (CR&O)	Increased empowerment of consumers through CRO and CHP
04	AP17/COA/04	Survey on availability and accessibility of CR&O statement and average time spent by consumers to know their Rights and Obligations	Increased empowerment of consumers on CRO
05	AP17/COA/05	Facilitation of Consumer Complaints	Increased compliance with legislative requirements on service (Commercial) quality
06	AP17/COA/06	Mediate disputes referred by licensees, consumers and other affected parties	Increased compliance with legislative requirements on service (Commercial) quality
07	AP17/COA/07	Intervene with licensees to serve consumer inquiry/request/complaint within target days	Increased compliance with legislative requirements on service (Commercial) quality
08	AP17/COA/08	Encourage licensees to respond immediately for consumer complaints	Increased compliance with legislative requirements on service (Commercial) quality
09	AP17/COA/09	Preparatory work for Water Sector Regulation	Develop Necessary Legislative Backing and other necessary regulatory tools
10	AP17/COA/10	Enhance Consumer Consultative Committee activities to serve consumers better	Implement Action Plan Submitted by CCC

Consumer Affairs

	Reference	Activity - 2017	Output
11	AP17/LIC/01	Long Term Transmission Plan	Having sound Transmission Plan in place and increased compliance to the plan
02	AP17/LIC/02	Long Term Generation Expansion Plan	Increased compliance to supply quality standards and reliability
03	AP17/LIC/03	Report on Energy Security	Increased compliance to supply quality standards and reliability

14	AP17/LIC/04	Licensee performance reports	Increased compliance to supply quality standards and reliability, improved knowledge of stakeholders on electricity system operations
15	AP17/LIC/05	Grid Code Enforcement	Increased compliance to supply quality standards and reliability
16	AP17/LIC/06	Medium Voltage Development Plan	Implementation of MV Development Plans
17	AP17/LIC/07	Distribution Code Enhancement and Review Panel (DCERP)	Increased compliance to power and supply quality standards by licensees
18	AP17/LIC/08	Benchmarking SAIDI/SAIFI at MV level among licensees	Increased compliance to power and supply quality standards by licensees
19	AP17/LIC/09	Analyze technical feasibility of integrating battery storage system in to distribution network for peak shaving	Operation of high cost power plants at peak time can be reduced
20	AP17/LIC/10	Licensee Information Submission System	Increased transparency in decision making and access to information in the quality of electricity
21	AP17/LIC/11	License Applications and Exemptions	Granting new licenses and exemptions
22	AP17/LIC/12	Aware stakeholders about the lubricant market	Lubricant (Awareness programs/workshop/market report)

Regulatory Affairs

	Reference	Activity - 2017	Output
23	AP17/RA/01	Implementation of Regulatory accounting guideline	Increased transparency in tariff determination in 2018 through regulatory accounting.
24	AP17/RA/02	Study on impact of tariffs and formulation of advice to the government on the use of electricity in Sri Lanka (2015-2017)	Increased transparency in decision making and access to information in the tariff determination
25	AP17/RA/03	Regulations on disadvantaged group of consumers and provision of life-line tariffs	Increased transparency in decision making and access to information in the tariff determination

26	AP17/RA/04	Empower Consumers on CRO and CHP	Increased empowerment of consumers on CRO and CHP
27	AP17/ RA/05	New Format for Electricity Bill	Increased transparency and access to information on supply cost and subsidies to each consumer category.
28	AP17/ RA/06	Preparation of Rules on applications and templates for licenses, exemptions and authorizations	Preparation of Rules on applications and templates for licenses, exemptions and authorizations
29	AP17/ RA/07	Preparation of methodologies for pricing of price regulated petroleum products	Preparation of methodologies for pricing of price regulated petroleum products
30	AP17/ RA/08	Preparation of Rules on transportation and storage of petroleum products for own consumption	Preparation of Rules on transportation and storage of petroleum products for own consumption
Inspectorate			
	Reference	**Activity - 2017**	**Output**
31	AP17/INS/01	Electrical Accident Mitigation Program	Improved effectiveness of the electrical accident mitigation program
32	AP17/INS/02	Mitigation measures to enhance the reliability of the Transmission System	Increased compliance to supply quality and reliability
33	AP17/INS/03	Awareness program on accreditation of electricians	Increased awareness among electricians on accreditation of electrical workers (Electricians)
34	AP17/INS/04	Analysis of root causes which influences on SAIDI and SAIFI	Increased compliance to supply quality and reliability
35	AP17/INS/05	Electrocution Mitigation Program	Increased knowledge and awareness on safe use of electricity
36	AP17/INS/06	Benchmark asset management practices	Increased compliance to reliability standards
37	AP17/INS/07	Preparation and Implementation of Safety and Technical Management Plan	Reduced number of incidents/ accidents caused because of the lapses by electrical licensees through Safety and Technical Management to bring down the electrocutions to the accepted number 20 by 2020

38	AP17/INS/08	Implementation of Independent Safety Audits and defining a common template	Increased compliance on safety standards and regulations by licensees for the safe usage of users and their properties
39	AP17/INS/09	Work comes from Consumer Affair division (disputes)	Increase compliance with legislative requirement on service quality, supply quality and commercial quality
40	AP17/INS/10	Work comes from external parties (electrocutions, unsafe location inspections, etc.)	Increased level of safety for people and property
41	AP17/INS/11	Recommendation of sanctions	Increase compliance with legislative requirement on supply quality and commercial quality

Corporate Communication

	Reference	Activity - 2017	Output
42	AP17/CCO/01	Master Communication Plan	Increased Public Participation in PUCSL's decision making process Increased Media Coverage for PUCSL's Role
43	AP17/CCO/02	Energy Conservation Awareness Campaign	Increased awareness on energy efficiency and conservation among consumers
44	AP17/CCO/03	Awareness on implementation of new socket outlet standards	Consumer gain knowledge on domestic energy saving
45	AP17/CCO/04	Introducing an Electrical Safety module for technical student syllabus	General public & construction professionals will get to know about New socket outlet standards
46	AP17/CCO/05	Corporate Reports	Making Student Technicians aware about prevention of electrical accidents and importance of practicing safety procedures at working places.
47	AP17/CCO/06	Official Announcements - News Paper Notices	Information Dissemination
48	AP17/CCO/07	Consumer Satisfaction Survey	Information Dissemination Consumer satisfaction Survey Report
49	AP17/CCO/08	Information Dissemination	Increased Public Participation in PUCSL's decision making process Increased Media Coverage for PUCSL's Role

Tariff and Economic Affairs

	Reference	Activity - 2017	Output
50	AP17/TEA/01	Fuel Price Indexation	Increased use of fuel price indexation in tariff determination
51	AP17/TEA/02	Study on Generation Cost Benchmarking	Increased use of generation O & M cost benchmarks for tariff determination
52	AP17/TEA/03	Power Plant Heat Rate Tests	Use of most appropriate efficiency parameters for generation plants in tariff determination
53	AP17/TEA/04	Dispatch Audit	Increased efficiency in generation dispatch leading to lower electricity cost
54	AP17/TEA/05	Study on Short Term Debts of CEB	Lower the cost of short term borrowing for tariff determination
55	AP17/TEA/06	Study on indexation of material used in allowed charges	Reduced cost of material/ equipment used in allowed charges
56	AP17/TEA/07	Review of Allowed charges filed for 2018	Efficient and reasonable allowed charges
57	AP17/TEA/08	Bulk supply tariff, Uniform National Tariff and end-user tariff review	Efficient and reasonable electricity tariff
58	AP17/TEA/09	Small Distributor Tariff review	Efficient and reasonable electricity tariffs

Environment, Renewable & Efficiency

	Reference	Activity - 2017	Output
59	AP17/EER/01	Environment performance monitoring system for thermal power generation	Increased compliance to pollution regulations and standards by licensees.
60	AP17/EER/02	Dissemination information of Environment performance	Increased transparency in decision making and access to environmental pollution information in thermal power generation.
61	AP?17/EER/03	Energy efficiency and conservation awareness programs	Increased empowerment of consumers on energy efficiency and conservation
62	AP17/EER/04	Audit on thermal efficiencies in Norochcholai Coal Power Plant	Improve thermal (conversion) efficiencies of the Coal Power generation plant at Norochcholai

63	AP17/EER/05	Knowledge enhancement of intermittent renewable absorption	In house capacity building and awareness of how to absorb more intermittent renewable power into the grid.
64	AP17/EER/06	Improve the share of renewable power	Increased productivity of licensees (by adding intermittent renewable based power into the Grid)

Finance

	Reference	Activity - 2017	Output
65	AP17/FIN/01	Financial Recording	Accurate financial information on time
66	AP17/FIN/02	Preparation of Financial statements	Getting a an unqualified audit opinion
67	AP17/FIN/03	Financial Monitoring activities	Effective financial monitoring
68	AP17/FIN/04	Regulatory and compliances activities	Adherence with financial ,regulatory and statutory requirement
69	AP17/FIN/05	Procurement activities	Timely performing procurement activities
70	AP17/FIN/06	Provide Financial Information to Management	Submit the updated management information to the management

Human Resource Management

	Reference	Activity - 2017	Output
71	2017/HR/01	Employees' Individual Performance Management	Improve accuracy of employee performance. Performance oriented workforce. Improve capacities in skill and knowledge.
72	2017/HR/02	Capacity building, Training & Development (Foreign and Local)	Improved levels of knowledge, skills and attitudes. Improved sense of confidence. Changes in individual behaviors.
73	2017/HR/03	Employees' Succession Planning	Identification of the employees with the potential to assume greater responsibility in the organization.

74	2017/HR/04	Employees' Reward and Recognition	A fair return for their efforts. Motivation to maintain and improve their performance Continuous performance feedback for individuals. Lower negative effects as absenteeism and stress.
75	2017/HR/05	Employees' Productivity Enhancement	Visual presentation of performance measures Gain total visibility of achievement of key deliverables
76	AP17/HR/06	Employee Engagement and Welfare	Mutual understanding among employees Develop sense of self belonging
77	AP17/HR/07	Potential Employee Awareness	Develop potential employee's awareness about the commission
78	AP17/HR/08	Routine and HR Admin Activities	Routine HR Activities

Information Technology

	Reference	Activity - 2017	Output
79	AP17/IT/01	Infrastructure Development	The hardware platform is ensured to meet growing requirements of PUCSL
80	AP17/IT/02	Business Continuity Planning and Disaster Recovery (BCP/DR) + Security + Policies	The hardware platform is ensured to provide necessary support required to achieve business resilience
81	AP17/IT/03	Office Automation	Increase in the services provided to office staff
82	AP17/IT/04	Business Applications	Increase in the services provided to office staff
83	AP17/IT/05	HR and Finance Applications	Reduced manual work
84	AP17/IT/06	Maintenance	It is ensured that PUCSL has the ability to overcome sudden breakdowns, etc. that can occur unexpectedly.
85	AP17/IT/07	Infrastructure Refreshment	The users of services are ensured to be able to receive maximum benefit from them
86	AP17/IT/08	Routine Work	The users of services are ensured to be able to receive maximum benefit from them

• **The Activities are subject to change**

විගණකාධිපති දෙපාර්තමේන්තුව
கணக்காய்வாளர் தலைமை அதிபதி திணைக்களம்
AUDITOR GENERAL'S DEPARTMENT

මගේ අංකය / எனது இல. / My No. } විආර්ථි/ඩී/පියුසී/01/16/19   ඔබේ අංකය / உமது இல. / Your No. }   දිනය / திகதி / Date } 2017 ජුලි 28 දින

The Chairman
Public Utilities Commission of Sri Lanka

Report of the Auditor General on the Financial Statements of the Public Utilities Commission of Sri Lanka for the year ended 31 December 2016 in terms of Section 14(2)(c) of the Finance Act, No. 38 of 1971

The audit of financial statements of the Public Utilities Commission of Sri Lanka for the year ended 31 December 2016 comprising the statement of financial position as at 31 December 2016 and the statement of comprehensive income, statement of changes in equity and cash flow statement for the year then ended and a summary of significant accounting policies and other explanatory information was carried out under my direction in pursuance of provisions in Article 154(1) of the Constitution of the Democratic Socialist Republic of Sri Lanka read in conjunction with Section 13(1) of the Finance Act,No.38 of 1971 and Section 34 of the Public Utilities Commission of Sri Lanka Act,No.35 of 2002. My comments and observations which I consider should be published with the Annual Report of the Commission in terms of Section 14(2) (c) of the Finance Act appear in this report. A detailed report in terms of Section 13(7) (a) of the Finance Act was issued to the Chairman of the Commission on 19 June 2017.

1.2 Management's Responsibility for the Financial Statements

Management is responsible for the preparation and fair presentation of these financial statements in accordance with Sri Lanka Accounting Standards and for such internal control as the management determines is necessary to enable the preparation of financial statements that are free from material misstatements whether due to fraud or error.

අංක 306/72, පොල්දුව පාර, බත්තරමුල්ල, ශ්‍රී ලංකාව, .- இல. 306/72, பொல்துவ வீதி, பத்தரமுல்லை, இலங்கை.- No. 306/72, Polduwa Road, Battaramulla, Sri Lanka
+94-11-2887028-34   +94-11-2887223   oaggov@sltnet.lk   www.auditorgeneral.gov.lk

1.3 Auditor's Responsibility

My responsibility is to express an opinion on these financial statements based on my audit. I conducted my audit in accordance with Sri Lanka Auditing Standards consistent with International Auditing Standards of Supreme Audit Institutions (ISSAI 1000 – 1810). 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 misstatements.

An audit involves performing procedures to obtain audit evidence about the amounts and disclosures in the financial statements. The procedures selected depend on the auditor's judgement, including the assessment of the risks of material misstatement of the financial statements, whether due to fraud or error. In making those risk assessments, the auditor considers internal control relevant to the Commission'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 Commission'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 financial statements. Sub-sections (3) and (4) of Section 13 of the Finance Act, No. 38 of 1971 give discretionary powers to the Auditor General to determine the scope and extent of the audit.

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

2. Financial Statements

2.1 Opinion

In my opinion, the financial statements give a true and fair view of the financial position of the Public Utilities Commission of Sri Lanka as at 31 December 2016 and its financial performance and cash flows for the year then ended in accordance with the Sri Lanka Accounting Standards.

2.2 Comments on Financial Statements

2.2.1 Sri Lanka Accounting Standards

Even though property, plant and equipment should be revalued once in three or five years in terms of Sri Lanka Accounting Standard 16, only the computers and office equipment had been revalued in the year 2011 and depreciation had been completed as at 31 December 2016. Nevertheless, the value of property, plant and equipment still in use amounted to Rs.32,721,378. Action had not been taken to eliminate the assets identified for elimination by the Reports of Annual Board of Surveys of the years 2015/2016 and to revalue the other assets.

2.3 Receivable and Payable Accounts

The following observations are made.

(a) According to Section 46 of Electricity Act, No.20 of 2009 and Condition No.11 of the Generation Licence issued to the electricity generation licence holders, a sum of Rs.81,852,700 payable as annual regulatory tax to the Commission by the Ceylon Electricity Board pertaining to the years 2014 and 2015 and a sum of Rs.215,240 receivable from other institutions from the year 2013 up to 2016 had not been recovered even by June 2017.

(b) Even though variable registration fees charged from lubricant companies should be paid half yearly to the Commission within 30 days after the end of relevant period, an estimated fees amounting to Rs.1,562,263 receivable from two companies relating to the last 06 months of the year under review had not been recovered even by June 2017. Further, the balance receivable from one institution over several years amounted to Rs.1,134,698.

2.4 Non-compliance with Laws, Rules, Regulations and Management Decisions

The following non-compliances were observed.

Reference to Laws, Rules and Regulations	Non-compliance
(a) **Financial Regulations of the Democratic Socialist Republic of Sri Lanka** Financial Regulation 371(2) (c) and the Public Finance Circular No.3/2015 of 14 July 2015	Even though the sub imprest should be settled immediately after the completion of the purpose for which it is granted, the advance of Rs.55,000 paid for the programme of South Asian Forum for Infrastructure Regulation in the year 2012 had not been settled even by 31 December 2016.
(b) **Government Procurement Guidelines - 2006** Guidelines 4.2.1(c) and 4.2.2	Detailed Procurement Plan and the Procurement Programme for the year 2016 had not been prepared.

3. Financial Review

3.1 Financial Results

According to the financial statements presented, the operating result of the year under review had been a deficit of Rs.3,082,655 as against the surplus of Rs.4,048,768 for the preceding year, thus indicating a deterioration of Rs.7,131,423 in the financial result of the year under review as compared with the preceding year. The increase of expenditure on personal emoluments by Rs.8,101,684 and the operating expenditure by Rs.6,722,483 despite the increase of income from variable registration fees by Rs.6,158,948 had been the main reasons for the above deterioration.

In analyzing the financial results of the year under review and 04 preceding years, a financial surplus was observed from the year 2012 up to 2015. The surplus had decreased by 84 per cent in the year 2015 as compared with the year 2014 and it had decreased by 176 per cent and had become a deficit in the year 2016 as compared with the year 2015. Nevertheless, in the readjustments of depreciations for employees remuneration and non-current assets to the financial result, the contribution of Rs.92,491,830 in the year 2012 had increased to Rs.98,274,006 with various fluctuations in the year under review.

4. Operating Review

4.1 Performance

The objectives of the Commission as stipulated by Section (14) of the Public Utilities Commission of Sri Lanka Act, No.35 of 2002 were as follows.

- to protect the interest of all consumers and to promote competition,
- to promote efficient in both the operation of and capital investment in public utilities industries namely the electricity, water and petroleum, to promote safety and service quality in public utilities industries and to promote an efficient allocation of resources in public utilities industries.
- To benchmark, where feasible, the utilities services as against international standards and to ensure that price controlled entities acting efficiently, do not find it unduly difficult in financing their public utilities industries.

The following observations are made with regard to the achievement of aforesaid objectives.

(a) Even though the regulating of the utility services such as electricity, water and petroleum should be done by the Commission in terms of the said Act, the legal provisions required to obtain the service of the Commission for petroleum industries

and the water had not been included in the Acts pertaining to the establishment of said industries by the relevant institutions as yet. Therefore, the service of the Commission had been limited only to the electricity industry and it had become a burden to achieve the objectives of rendering services for water and the petroleum industries.

(b) Approval of the Commission had not been received for two activities valued at Rs.2,300,000 which included in the Action Plan of the year under review, thus the said activities could not be carried out.

4.2 Staff Administration

The following observations are made.

(a) Even though the Organization Structure of the new staff should be revised and the approval of the Department of Public Enterprises should be obtained therefor in terms of Paragraphs 9.2(d) and (e) of the Public Enterprises Circular No.PED/12 of 02 June 2003, action had not been taken accordingly.

(b) Approval of the relevant Ministry had not been obtained for the Scheme of Recruitment and Promotion with the concurrence of the Department of Public Enterprises in terms of Paragraph 9.3 of the Circular mentioned in (a) above.

5. Accountability and Good Governance

5.1 Budgetary Control

Overprovision ranging from 21 per cent to 42 per cent pertaining to 05 Items was observed in the comparison between the budgeted expenditure and actual expenditure of the year under review , thus indicating weaknesses in the use of budget as an effective instrument of management control.

6. Systems and Controls

Weaknesses in systems and controls observed during the course of audit were brought to the notice of the Chairman of the Commission from time to time. Special attention is needed in respect of the following areas of control.

	Areas of Systems and Controls	Observations
(a)	Staff Administration	Failure to obtain the approval for the Organization Structure of the Staff
(b)	Revenue Administration	Inefficiency in the recovery of licence fees and the regulatory fees in arrears.

Sgd./ H.M. GAMINI WIJESINGHE
Auditor General

H.M. Gamini Wijesinghe

Auditor General

Financial Statement of PUCSL -2016

PUBLIC UTILITIES COMMISSION OF SRI LANKA

Statement of Financial Position
As At 31st Dec 2016

Assets	Notes	2016 Rs	2016 Rs
Non-Current Assets			
Property Plants & Equipment	1	29,475,844	30,755,494
Capital work in progress	1.1	3,234,750	900,382
Distress Loan		3,151,618	2,402,453
Total Non-Current Assets		35,862,212	34,058,329
Current Assets:			
Investment	2	94,090,625	68,586,020
Inventories	3	431,740	60,212
Receivable	4	112,603,999	106,916,490
	5	7,187,935	6,108,048
Cash & Cash Eqiuvalents		8,384,737	50,194,831
Total Current Assets		222,699,036	231,865,601
Total Assets		**258,561,248**	**265,923,930**
Funds & Liabilities			
Funds			
Accumulated Fund	6	205,943,678	207,128,049
Revaluation Reserves		3,027,878	3,027,878
ADB- TA Assistance		-	2,227,880
		208,971,556	212,383,807
Non-Current Liabilities			
Provision for Gratuity		11,674,734	9,492,922
		11,674,734	9,492,922
Current Liabilities			
Payable Accounts	7	26,530,908	32,707,201
Auditor General's Fees	8	784,050	740,000
Security Deposit - CEB		10,600,000	10,600,000
Total Liabilities		37,914,958	44,047,201
		258,561,248	**265,923,930**

The Accounting Policies and Notes appearing on pages 05 to 12 form an integral part of the financial statements.The Members of the Public Utilities commission of Sri Lanka are responsible for the preparation and presentation of these financial statements.

FOR AND ON BEHALF OF THE PUBLIC UTILITIES COMMISSION OF SRI LANKA

Damitha Kumarasinghe
Director General

Saliya Mathew
Chairman

PUBLIC UTILITIES COMMISION OF SRI LANKA

Statement of Comprehensive Income

For the Year Ended 31 st Dec 2016

	Notes	2016 Rs	2015 Rs
Revenue			
Variable registration fee	9	49,721,848	43,562,900
Annual Regulatory Levies	10	172,712,742	173,946,525
Licences Application Fees	11	160,000	280,000
Other Income	12	6,872,685	5,010,359
Total Revenue		229,467,275	222,799,784
Expenses			
Personnel costs	13	89,449,178	81,347,494
Consultancy Servicers		40,028,734	41,053,981
Operational Expenses	14	103,057,057	96,334,574
Finance Cost	15	14,961	14,967
Total Expenditure		232,549,930	218,751,016
Opearting Surplus/(Deficit) for the year		(3,082,655)	4,048,768

The Accounting Policies and Notes appearing on pages 05 to 12 form an integral part of the financial statements.

PUBLIC UTILITIES COMMISION OF SRI LANKA

Cash Flow Statement

For the Year Ended 31 st Dec 2016

	2016 Rs	2015 Rs
Cash Generated from Operating Activities		
Operational Surplus / (Deficit) in the year	(3,082,655)	4,048,768
Adjusted for		
Depreciation	11,907,483	11,454,707
Provision for Gratuity	2,181,812	1,763,397
Income on disposal of fixed assets	(25,217)	(122,075)
Adjustment for Prior Year Period	(85,356)	6,940,460
Interest income	(6,570,707)	(4,689,873)
Amortization of government grant	(238,422)	
Finance Cost	14,961	14,967
	4,101,899	**19,410,351**
Changes Working Capital		
(Increase) / Decrease in Inventories	(371,528)	26,423
(Increase) / Decrease in Deposit	(257,889)	
(Increase) / Decrease in Receivable		(43,068,944)
Increase / (Decrease) in Payable		26,809,553
Increase / (Decrease) in Provisions Made	44,050	200,000
(Increase) /Decrease Advance, Pre Payments & Distress Loan	(1,571,163)	381,848
Net Changes in Working Capital	**(11,366,186)**	**(15,651,120)**
Cash Generated from / (Used in) Operating Activities	**(7,264,287)**	**3,759,231**
Cash Flow from the Investing Activities		

Fixed Assets Disposal Income Received	25,217	122,075
Purchase of Fixed Asset	(12,968,020)	(15,126,061)
Interest Received	3,818,859	4,851,686
Withdrawal of Fixed Deposit	101,000,000	47,000,000
Increase in Investment of Gratuity	(1,406,902)	
Invested in Fixed Deposits/TBS & Call Deposits	(125,000,000)	
Net Cash Flow from (Used in) Investing Activities	(34,530,846)	36,847,700
Cash Flow from the Finance Activities		
Finance Cost	(14,961)	(14,967)
Gratuity Payments		
Net Cash Flow from (Used in) Finance Activities	(14,961)	(14,967)
Cash and Cash Equivalent at the Beginning of the Year	50,194,831	9,602,867
Cash and Cash Equivalent at the End of the Year	8,384,737	50,194,831
Cash and Cash Equivalents,	8,384,737	50,194,831
Cash in Hand & at Bank	8,384,737	50,194,831

PUBLIC UTILITIES COMMISION OF SRI LANKA

Statement of Changes in Equity

For the Year Ended 31st December 2016

	Accumulated fund	Revaluation Reserves	ADB -TA Assistance	Total
	Rs.	Rs.	Rs.	Rs.
Balance as at 1st January 2016	207,128,049	3,027,878	2,227,880	212,383,807
Balance as at 1st January 2016	207,128,049	3,027,878	2,227,880	212,383,807
Deficit in the Income Statement	(3,082,655)	-		(3,082,655)
Prior Year Adjustments	1,898,284	-		1,898,284
Amortization of Gvt Grant			(2,227,880)	(2,227,880)
Balance as at 31st December 2016	205,943,678	3,027,878	-	208,971,556

General Accounting Policies

01 .General

The Public Utilities Commission of Sri Lanka (PUCSL) was established to regulate certain utility industries pursuant to a coherent national policy.

In line with the above policy, with the enactment of Sri Lanka Electricity Act No: 20 of 2009 PUCSL were fully empowered to regulate the electricity industry in Sri Lanka.

02 .Basis of Preparation

2.1 The financial statements have been prepared in accordance with the Sri Lanka Accounting Standards issued by the Institute of Chartered Accountants Sri Lanka, the requirements of Public Utilities Commission of Sri Lanka Act No: 35 of 2002 and the Sri Lanka Accounting and Auditing Standards' Act No: 15 of 1995.

2.2 The financial statements of Public Utilities Commission are prepared under the historical cost convention.

2.3 Financial period

The financial year of the commission shall be the calendar year.

03. Adoptions of Sri Lanka Accounting Standards

The Commission has adopted the following new and revised Sri Lanka Accounting Standards (LKAS) and accounting policies of the Commission have been revised where relevant, to reflect the revision of these LKAS.

The adoption of the new and revised standards has resulted to changes to the method of presentation and additional disclosures being made in the financial statements

The following are the new and revised SLAS that are relevant to the Commission.

LKAS 1Presentation of Financial Statements

LKAS 2 Inventories

LKAS 8 Accounting Policies, Changes in Accounting Estimate and errors

LKAS 10 Events after the Balance Sheet date

LKAS 16 Properties, Plant and Equipment

LKAS 20 Accounting for Government Grants and Disclosure of Government Assistance

LKAS 18 Revenue

LKAS 26 Accounting and Reporting by Retirement Benefits Plans

LKAS 24 Related party disclosures

LKAS 37 Provisions, Contingent Assets and Liabilities

04. Comparative Information

The Accounting Policies applied by the Commission are, unless otherwise stated, consistent with those used in the previous year. Previous year's figures and phrases have been rearranged, wherever necessary, to conform to the current year's presentation.

05. Events after the Balance Sheet Date

All material post balance sheet events have been considered and appropriate adjustments or disclosures have been made in the respective notes to the financial statements.

06. Valuations of Assets and their Bases of Measurement

6.1 Property Plant & Equipment

The Property Plant & equipment are recorded at cost/less accumulated depreciation and revaluation gain and losses as set out below.The cost of property plant and equipment is the cost of purchase or construction together with any expenses incurred in the bringing the assets to its working condition for its intended use.

6.2 Revaluation of Property Plant and Equipment

The revaluation will be done if required by appointing the committee. The committee will appointed by the Director General.

6.3 Depreciation

Provision for depreciation is calculated by using a straight-line on the cost of property plant and equipment. The depreciation rates of equipment has revised by reviewing the existing useful time of assets considering the technological factors. The commission has approved revised useful time. Accordingly depreciation rates of the assets are as follows:

1 Furniture and Fixtures	20%
2 Computer and Office Equipment	
Multi Media Projector	25 %
Desktop computer	25 %
Laptop computer	25 %
Mobile phones	33 1/3 %
Portable hard disk	33 1/3 %
LTO Tape drive	33 1/3 %
LTO Tape	33 1/3 %
UPS	50 %
3. Vehicles	20%
4. Software	33 1/3%

The calculation of depreciation is applied from the date of purchase of property plant and equipment in the current year.

The useful lives, residual values and depreciation methods of assets are reviewed and revalued if required, at the end of the each financial year.

Capital work in progress

Capital expenses incurred during the year which are not completed as at the reporting date are shown as capital working progress whilst capital assets completed during the year and available for use will transfer to the property plant and equipment.

07. Inventories

Inventories are valued at the lower of cost. The cost of each category of inventory is determined on the following basis.

Stationery value at purchase price.=

08 Investments

Commission invests its surplus income fixed deposits with Bank of Ceylon to maximize return to the Commission.

09 Receivable

Receivable are stated at the amounts they are estimated to realize. No provision is being made for bad or doubtful debts.

10. Advances & Prepayments

Advance account includes a part of the premium paid to the Sri Lanka Insurance Corporation for the Medical Insurance for the staff. As the policy is effective up to 30th September 2015, it is required to treat the premium paid in proportionate basis.

11 Cash and cash Equivalents

Cash and cash equivalents in the cash flow statement comprise cash at bank and in hand.

12. Retirement Benefit Plan-Gratuity.

12.1 Full provision has been made on account of retiring gratuity after completion of a year of service of an employee according to a policy decision of the Commission, in conformity with the Sri Lanka Accounting Standard Accounting and Reporting by Retirement Benefits Plans 'At half month's salary for each year of service from the date of commencement of service.

According to payment of Gratuity Act No.12 of 1983, the liability for gratuity to an employee arises only on completion of one year of continued service with the Commission. Therefore, Gratuity Provision has been provided in accordance with the Gratuity Act.

The provision for liability is externally invested after Balance sheet date

12.2 Employee Provident Fund and Employee Trust Fund

Contributions were made in line with respective statutes and regulations in respect of all eligible employees.

Increase the EPF Contribution 12% to 15% by the employer and 8% to 10% by employee effect from 1st October 2013.

13. Recognition of Liabilities

A liability is recognized in the Balance Sheet when it is probable that an outflow of resources embodying economic benefits will result from the settlement of a present obligation and the amount at which the settlement will take place can be measure reliably. Payables are stated at their cost.

14. Assets transferred under ADB TA Project

Under ADB TA Assistance Project, following IT related software and equipment were transferred to PUCSL. The related ADB Fund amount decided to reduce over the useful life of the funded software and equipment.

Web based Licensee Information Submission System	Rs. 451,880
9 Laptop computers	Rs. 1,418,580
4 Desk top computers	Rs. 357,420
Total Value Charged to ADB TA Project	Rs. 2,227,880

Income Statement

15. Revenue Recognition

15.1 Variable Registration (License) Fees

In term of the clause 2 of the "Lubricant Agreement" executed with the Government of Sri Lanka, the lubricant market participants are required to pay bi-annually a fixed and a variable registration (License) fee equivalent to sum of rupees One Million of 0.5% of total invoiced sales for the period (whichever is higher), subject to a maximum of rupees five million. In the event 0.5% of a market participant's total invoiced sales for a bi-annual period being greater than rupees one million, such additional amount is to be paid to the Public Utilities Commission, within 30 days of the end of the period.

15.2 Annual Regulatory levy

According to Section 46 of Sri Lanka Electricity Act, No.20 of 2009, Commission empowered to impose an annual regulatory levy and it's to be recovered from every licensee before the thirtieth day of June of that year. This Act was certified on 8th April 2009 and implemented by the Commission from that date.

15. 3 Licenses Application fees

In additional to the imposed the levies, according to Section 11 of the Sri Lanka Electricity Act, the Commission is empowered to collect the application processing fee with the license applications for licenses generate, transmit or distribute the electricity.

15.4 Interest Income

Interest income was calculated on accrued basis. Revenue is recognized only when it is probable that the economic benefits associated with the transaction will flow to the Commission. Therefore net interest income shown in the financial statements after deducting 8% withholding tax as final tax according to section 133 (1) of Act No:10 of Inland Revenue Act 2006.

15.5 Government Grants

As the Commission has decided to cover estimated expenditure in pursuance of own income from June 2009 there were no government grants received during the year under review.

16. Expenditure Recognition

Expenses are recognized in the income statement on the budgetary allocation approved by the Commission.

17. Disclosures

CEB Security deposit Rs. 10.6 M for the Case no. CA (Writ Application) 08/2013

Related Party Disclosures

Name	Position	Other Positions	Related Party Relationships as prescribedin line with Sri Lanka Accounting Standard 24
Mr.C.N.S.W. Mathew	Chairman	Member of the commission to amend the boundaries of work Member of the Council –University of Sri Jayawardenapura- (till –13/03/2015)	Non-related Non-related
Mr.Sanjaya Gamage	Deputy –Chairman	Unofficial Magistrate- Chief Magistrate Courts, Colombo Executive Committee Member–Bar Association of Sri Lanka Panel Lawyer–Sri Lanka	Non-related Non-related Non-related
Prof. Rahula Athalage	Members of the Commission	Deputy Vice Chancellor– University of Moratuwa Director –Environ Sustainability Global (Pvt) Ltd Director - Polipo (Pvt) Ltd	Non-related Non-related Non-related
Mr.Prasad Galhena	Members of the Commission	Member of Board of Directors 1.Ceylon Petrolium Corporation 2.The Housing Development Bank 3.SLT Vision om Pvt) Ltd	 Non-related Non-related Non-related

Note01
PUBLIC UTILITIES COMMISION OF SRI LANKA

Property Plants & Equipment
As at 31 December 2016

	Fumiture & Fixtures	Computer & Office Equipments	Vehicles	Tools	Software	Total
	Rs	Rs	Rs	Rs	Rs	Rs
As at Beginning of the year	14,825,435	25,818,527	32,869,060	30,305	4,699,651	78,242,978
Additions During the year	-	6,896,726	-	-	3,736,926	10,633,652
Disposal During the year	(15,786)	(240,038)				(255,824)
As at End of the Year	14,809,649	32,475,215	32,869,060	30,305	8,436,577	88,620,806
Depreciation						
As at Beginning of the Year	10,687,598	14,434,556	18,343,847	-	4,021,483	47,487,484
Charge for the year	1,426,899	4,926,336	4,853,239	-	701,009	11,907,483
Prior year adjustment	5,967				(148)	5,819
Depreciation on disposal	(15,786)	(240,038)				(255,824)
As atthe End of the Year	12,104,677	19,120,854	23,197,086	-	4,722,344	59,144,962
Net Book Value as at 31 December 2016	2,704,972	13,354,362	9,671,974	30,305	3,714,233	29,475,844

Note :1.1 Capital working progress

Project Management work flow & document management system	897,750
HRIS	840,000
Website	1,140,000
Lubricant	357,000
	3,234,750

PUBLIC UTILITIES COMMISION OF SRI LANKA

Notes to the Financial Statements

1st of January to 31 st December 2016

	2016 Rs	2015 Rs
02. Invesments		
Fiexd Deposit	84,500,000	60,500,000
Gratuity Fund Investment	9,590,626	8,086,020
	94,090,626	68,586,020
03.Inventories	431,740	60,212
04.Receivable		
Variable registration fee		
Chevron Lubricant Ltd	4,000,000	4,000,000
Lanka IOC Ltd	4,000,000	4,000,000
Mclarans Lubricant	2,781,804	2,183,287
Ceylon Petrolium Corporation	4,000,000	4,000,000
Laugfs	2,050,106	1,313,494
Interocean Services Ltd	570,545	580,565
Associated Motorways	1,342,347	1,115,759
TVS Lanka (Pvt) Ltd (Bharat Petrolium Cor.)	2,561,130	1,842,638
United Motors	862,263	862,263
Toyota Lanka (Pvt) Ltd	3,488,915	2,651,831
N. M. Distributors (Pvt) Limited	1,834,698	1,694,698
	27,491,808	24,244,535
Annual regulatory levies	82,074,700	82,381,128
Fixed Deposits Interest receivable	2,882,644	228,499
Other-receivable	154,847	62,328
	112,603,999	106,916,490
05.Deposit ,Advances and Prepayments		
Deposit		
Deposit Dialog Axiata PLC	1,500	1,500
BOC Property Development Ltd	826,571	826,571
Girl Friendly Association	25,000	8,800
Deposit for Provision for Fixed Assets	241,689	-
	1,094,760	836,871
Advance & Pre Payments		
Advances	222,563	180,030
Postal Dept	26,840	6,595

Pre Payments	4,278,597	3,873,720
	4,528,000	4,060,345
Distress Loan	1,453,075	1,105,732
Festival advance	112,100	105,100
Total Deposit,Advance and Prepayments	7,187,935	6,108,048

06. Accumulated Fund

Balance at 1st January 2016	207,128,049	196,138,821
Surplus /(Deficit) for 31/12/16	(3,082,655)	4,048,768
Prior Year Adjustments (6.1)	1,898,284	6,940,460
	205,943,678	207,128,049

6.1 Disclosure on prior year adjustement 2016

Category	Total	2015
Commiunication	49,176	49,176
Depreciation	(5,819)	11,650
Loss on Currency conversion	(1,233)	(1,233)
Public awareness	256,589	256,589
Other Allowances	(79,088)	(79,088)
Annual regulatory levy	(136,800)	(136,800)
Variable Registration fee	66,251	66,251
Audit fee	(240,250)	(240,250)
Amortizationof government grant	1,989,458	355,200
Total	1,898,284	281,495

07. Account Payable

Consumble Materials	-	343
Printing & Advertising	1,552,440	4,243,151
Communication	347,792	237,144
Floral arrangement	1,825	8,617
Translation	-	7,209
Other allowances	2,682,665	2,279,617
News Papers	-	13,750
Overtime	98,760	134,352
Stationary	-	1,500
Transport	3,712	10,389
Travelling	11,000	25,375

Welfare & Public Relations	25,938	23,520
Maintenance of Office Building	180	-
Maintenance of Office Vehicle	-	23,420
Subscription	458,896	-
Maintenance of Computer and equipment	-	6,000
Water	13,883	18,087
Electricity	78,626	98,594
Public Awareness	11,220,931	6,463,907
Consultancy	9,744,663	18,130,378
Stamp Duty Payable	3,750	3,650
Local Training Expense	-	907,609
Janitorial Servicers	7,500	849
Postal	-	860
Research &Survey	-	68,880
Insuarance	36,660	-
Provision for FA	241,689	-
	26,530,908	32,707,201

08. Auditor General's Fees

Balance B/F	740,000	540,000
payments during the year(2012 &2013)	(466,200)	-
Povision for year	270,000	-
Under provision for 2014 & 2015	240,250	200,000
	784,050	740,000

09. Variable Registration Fees

Lanka IOC Ltd	8,000,000	8,000,000
Cheveron Lubricant Lanka	8,000,000	8,000,000
Mclarens Lubricant	4,139,478	3,278,998
Ceylon Petrolium Corporation	7,946,172	7,958,471
LAUGFS Lubricants Limited	3,460,653	2,622,232
Interocean Services Ltd	938,372	1,097,037
Assosiated Motorways	2,640,331	1,892,777
TVS Lanka (Pvt) Ltd	4,699,430	3,392,511
United Motors	1,787,883	1,411,358
Toyota Lanka (Pvt) Ltd	6,690,205	4,780,721
N. M. Distributors (Pvt) Limited	1,419,324	1,128,795
	49,721,848	43,562,900

10.Annual Regulatory Levies		
Generation	61,320,742	63,576,525
Transmission	21,360,000	21,370,000
Distribution	90,032,000	89,000,000
	172,712,742	173,946,525
11. Licences Application Fees	160,000	280,000
	160,000	280,000
12. Other Income		
Interest	6,570,707	4,689,873
Exemption fee	34,000	6,000
Sundry Income	4,340	192,411
Income:Fixed Asset Disposal	25,217	122,075
Amortization of government grant	238,422	
	6,872,685	5,010,359
13.Personel costs		
Personel Emoluments		
Commissioners Remu:	1,536,000	1,536,000
Salaries	49,412,573	44,165,785
Other Allowances	26,050,042	24,660,340
Over-time	1,375,340	1,366,988
Contribution for Employee Provident Fund	7,411,170	6,545,820
Contribution for Employee Trust Fund	1,482,241	1,309,164
Gratuity Expense	2,181,812	1,763,397
	89,449,178	81,347,494
14.Operational costs		
Training &Traveling Expenses - Overseas & Local		
Overseas & Local Training	4,770,568	3,585,232
Foreign Travelling Expenses	1,287,084	1,148,209
Incidental / perdium	3,793,995	3,721,389
Travelling (Local)	1,060,798	1,118,400
	10,912,446	9,573,230

Consumable Materials		
Stationery	532,483	664,124
Open Stock 01-01-2016	-	86,635
Closing Stock 31-12-2016	-	(60,212)
Fuel & Parking	4,380,115	4,019,819
Consumable Material	143,663	122,072
Entertainment	194,929	201,324
	5,251,190	5,033,762
Contractual Services		
Transport & Hiring of Vehicle	13,044,068	10,131,748
Communication including Newspapers & Postal	3,342,035	3,138,228
Printing & Advertising	3,483,284	6,603,263
Survey	744,337	1,951,066
Rents and Rates for Building	10,872,744	10,025,397
Electricity	1,041,868	1,030,012
Medical	4,722,692	4,333,031
Water	260,230	308,755
Insurance	844,082	542,729
Subscription	458,896	737,169
Janitorial Services	1,029,604	860,284
Legal & Investigation Fees	41,000	517,000
	39,884,840	40,178,682
Other services		
Public Awareness Cost	28,905,096	24,965,878
Auditor General's Fees	270,000	200,000
Welfare & Public Relations	471,912	1,233,099
Floral Arrangements	95,578	129,981
Consumer Consultative Committee Expenses		620,000
SARRC event	2,563,814	
Others (Translation Fees)	179,843	115,847
	32,486,243	27,264,805
Maintenance of vehicles	804,832	1,063,273
Maintenance of Office Building	380,673	60,279
Maintenance of Computer, Equipment & Software	1,429,352	1,705,836
Depreciation Charges	11,907,483	11,454,707
	14,522,339	14,284,095
Total operational cost	103,057,057	96,334,574

15. Finance Cost

Bank Charges	10,680	10,605
Loss on currency conversion	4,281	4,362
	14,961	14,967

Date of the Committee meeting	Permanent position	Position in the audit committee	Matters discussed	Decision taken	Directives given
2016.02.18	01 Member of the Commission 02 Member of the Commission 03 Secretary to the Commission 04 Internal Auditor 05 Superintendent of Audit 06 Director depart-mentof Public enterprises 07 Director General of the Commission 08 Finance Director of the Commission	01 President of the Audit Committee 02 Vice President of the Audit Committee 03 Secretary of the Committee 04 Convener 05 Observer of the Committee 06 Treasury Representative 07 Invitee 08 Invitee	01 Minutes of the committee meeting held on 2015-12-17 02 Matters that were issued as audit inquiries by the Internal Auditor and the Auditor General 03 Whether there is an ability to sell the Generation license 04 Performance report of Internal auditor	01 Confirmed the minutes as accurate 02 Taking measures to prevent delays on the generation of electricity, according to the generation licence Explaining the intervention of the commission that can be made on the transmitting of the electricity to the national grid after generation 03 Explaining that the generation licenses cannot be sold to a another party, but a company can be trans-ferred to another party and the Commission cannot intervene in the process of transferring 04 Recommendation to submit the performance report to the commission	01 Approved the Committee minute 02 Action taken to get the reasons for the delay in generation and ancel generation licenses of the licensees who were unable to produce reasonable reasons. 03 Inform the licens-ees to update the Commission immedi-ately if the company transferred into another company under the company ordinance 04 Recommended to submit to the Commis-sion

Date of the Committee meeting	Permanent position	Position in the audit committee	Matters discussed	Decision taken	Directives given
2016.04.28	01. Member of the Commission 02. Member of the Commission 03. Secretary to the Commission 04. Internal Auditor 05. Superintendent of Audit 06. Director department of Public enterprises 07. Director General of the Commisssion 08. Finance Director to the Commission 09. Representative of the line ministry	01. President of the Audit Committee 02. Vice President of the Audit Committee 03. Secretary of the Committee 04. Convener 05. Observer of the Committee 06. Representative of the Treasury 07. Invitee 08. Invitee 09. Invitee	01. Report of the committee meeting held on 2016.02. 02. Inquiries by the Internal Auditor and the Auditor General Inefficiency of the Generation licensees Not generating the electricity even though the license has been obtained 03. Inability to recover the arrears from the CEB. 04. Performance report of Internal auditor	01. Discussion of the minutes of the committee and the approval process 02. Discussions were held about the reasons for delaying in generating electricity by the licensees, possible steps to avoid the delays and the reasons for the inability of 1/3 of licensees to generate electricity It is confirmed that the delays are due to social and environmental problems arising after giving the licenses and can not be avoided even though the licenses have been given considering all the facts that need to be considered in the licensing process. 03. The Committee was explained that the Commission's financial situation is significantly affected and that certain functions had to be omitted due to lack of funds due to the non-payment of CEB for regulating electricity transmission and distribution even though the Commission makes efforts to recover the outstanding without further delays. It was explained that since it is contrary to the public interest and is a state institution, it has not been incited and motivated by the powers vested in the Commission. 04. Obtain the recommendation of the committee to submit the performance report to the commission	01. Approved the Committee Report 02. It is confirmed that the delay cannot be avoided due to environmental and social reasons . The electricity purchase agreement is valid for only two years and it was explained that the licenses are automatically terminated due to the fact that they are not allowed to sell the electricity to the grid after two years. 03. It was considered to make a request to the Secretary of the Ministry to immediate settlement of the arrears and to request the Secretary of the Ministry to inform CEB to settle the arrears. 4)Recommended to submit to the Commission

Date of the Committee meeting	Permanent position	Position in the audit committee	Matters discussed	Decision taken	Directives given
2016.07.28	01. Member of the Commission 02. Member of the Commission 03. Secretary to the Commission 04. Internal Auditor 05. Superintendent of Audit 06. Director department of Public enterprises 07. Director General of the Commisssion 08. Finance Director to the Commission 09. Representative of the line ministry	01. President of the 02. Audit Committee 03. Vice President of the Audit Committee 04. Secretary of the Committee 05. Convener 06. Observer of the Committee 07. Representative of the Treasury 08. Invitee 09. Invitee 10. Invitee	01. Discussion of the Committee report of 28th ,04, 2016. 02. Discussions were held on the Audit Queries and Reports of the Auditor General and observations of the internal auditor.	01. Disscussion of the report of the committee and seeking approval 02. The Committee was informed by the representative of the Auditor General that all the audit queries and reports have been answered and those answers were acceptable	01. Approved the Committee Report 02. The committee appreciated the effort that has been made to respond the audit queries and correction of the shortcomings that has been mentioned in the report.

Date of the Committee meeting	Permanent position	Position in the audit committee	Matters discussed	Decision taken	Directives given
2016.10.20	01. Member of the Commission 02. Member of the Commission 03. Secretary to the Commission 04. Internal Auditor 05. Superintendent of Audit 06. Director department of Public enterprises 07. Director General of the Commisssion 08. Finance Director to the Commission 09. Representative of the line ministry	01. President of the Audit Committee 02. Vice President of the Audit Committee 03. Secretary of the Committee 04. Convener 05. Observer of the Committee 06. Representative of the Treasury 07. Invitee 08. Invitee 09. Invitee	01. Discussion of the Committee report of 2016.07.28 02. Response to inquiries and information requests made by the Government Audit and the Line Ministry	01 Discussion of the report of the committee and the approval process 02. Discussions were made with regard to shortcomings in the presentation of contigence liabilities of the annual financial statements. 03. Discussions were made with regard to shortcomings in the presentation of government tax rate in the calculation of building rentals 04. The mistake of not including the internal audit plan in the activity plan 05. It was discussed the non-availability of the Audit Committee Report in the Annual Report and suggested that it should be included in the report from the coming year. 06. Report submitted by the Auditor General to the Commission, prepared in accordance with Section 13 (7) (a) of the Finance Act No 38 of 1971 07. Discussion on approving the internal audit plan for year 2017 Performance report of the Internal Auditor	01. Approved the Committee Report 02. It is agreed that the court charges could not be demonstrated as liabilities as it cannot be assumed since it is a responsibility of the Commission. 03. It is directed to get the instruction from the Commissioner of Inland Revenue 04. Since the Internal Audit plan was prepred by the internal auditor and was approved even thought it was not included in the Annual Report, the Committee directed to include the audit plans in future activity plan 05. It was directed to include the audit committee report in the Annual Report. 06. It was decided to obtain the approval of the Commission to rectify the shortcomings outlined in the Report and draft the responses 07. Internal audit plan for 2017 was approved by the committee and asked to present the copies of the plan to the Auditor General 08. The Committee approved to present the Performance report of the internal auditor to the Commission.

(K G Keerthisena) **Internal Auditor** 2017.08.2

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