

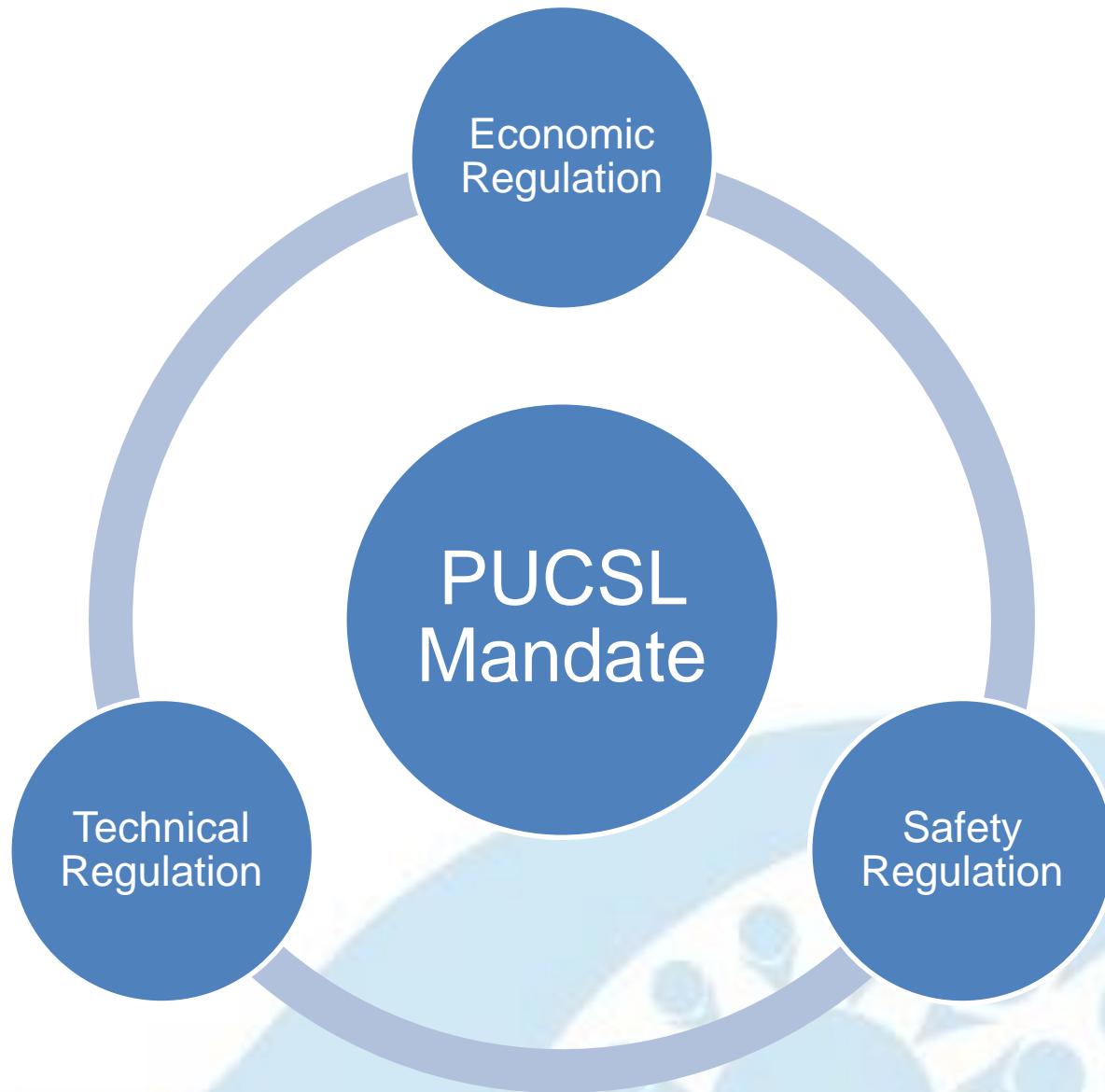
Annexure-VIII

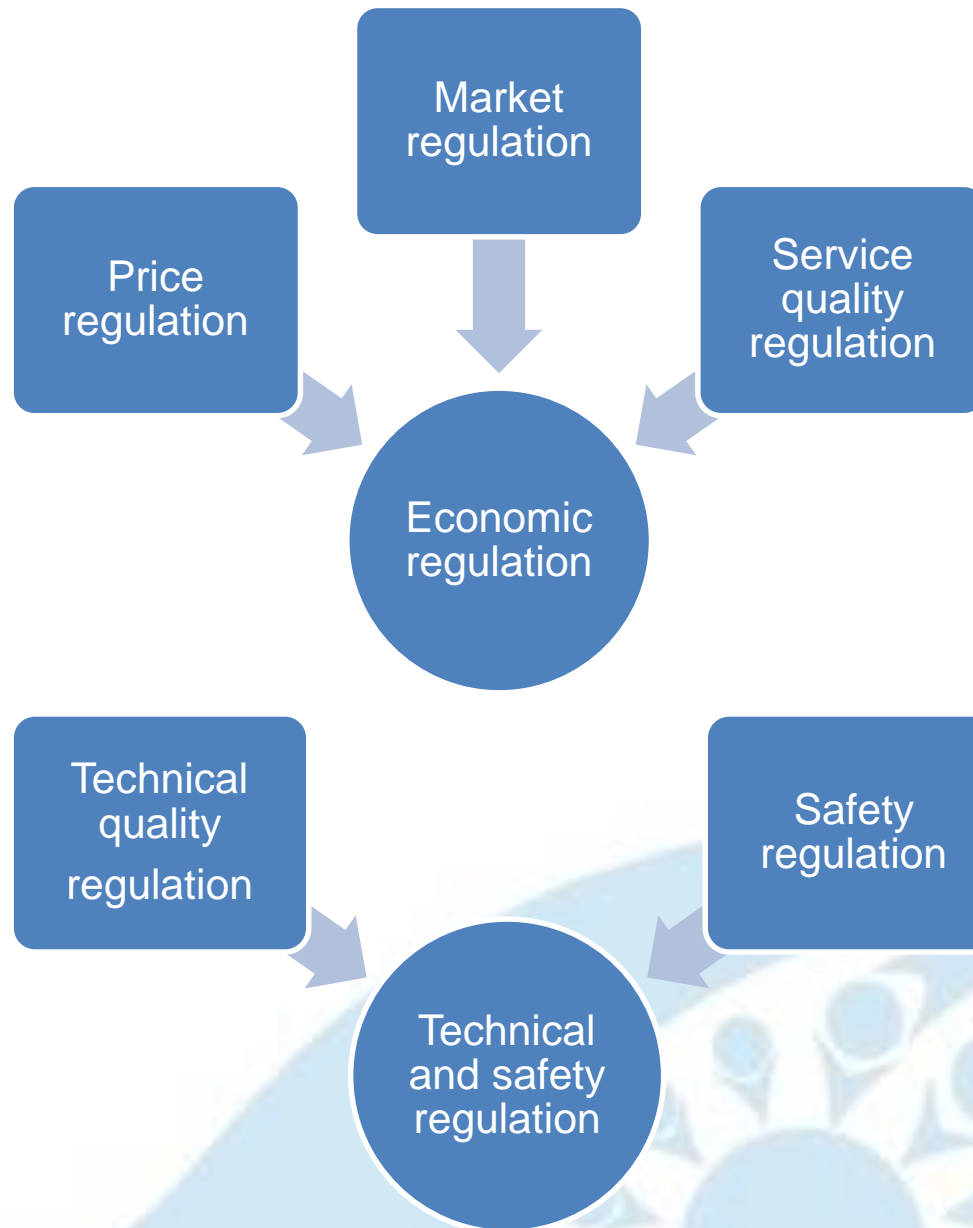
Regulation of the Electricity Industry in Sri Lanka

Regulatory Affairs Division: Overview of Functions

16th May 2018







Role of the Regulatory Affairs Division

Develop, and review from time to time, Regulations, Rules, Codes, Standards, Licenses, Methodologies and other Regulatory Tools required for economic, technical and safety regulation of the electricity industry

Regulatory Tools

- Regulations
 - The Minister, on the recommendation of the Commission, makes regulations under an industry Act for purposes set out therein
 - All such regulations made are published in the *Gazette*, and come in to force on the date of such publication or on such later date as maybe specified therein
 - Regulations require the approval of the Parliament to continue in force
- Rules
 - The Commission makes rules under an industry Act for the purposes set out therein
 - All such rules made by the Commission are published in the *Gazette* and come in to force on the date of such publication or on such later date as may be specified therein

Regulatory Tools Contd.

- Codes
 - The Commission approves and regulates the implementation of technical and operational codes developed by licensees in respect of matters required or authorized by the Electricity Act and licenses issued by the Commission
- Methodologies
 - The commission approves and regulates the implementation of methodologies developed by the licensees in respect of matters required or authorized by the Electricity Act and licenses issued by the Commission
- Guidelines
 - The Commission approves and regulates the implementation of guidelines developed by the licensees in respect of matters required or authorized by the Electricity Act and licenses issued by the Commission
- Manuals
 - The Regulatory Manual is a guide for stakeholders representing the code of practice that governs the functions of the Commission

Regulatory Instruments: Hierarchy

- Legislation
 - Public Utilities Commission of Sri Lanka Act, No. 35, 2002
 - Sri Lanka Electricity Act, No 20, 2009, as amended
- Regulations made by the Minister of Power & Energy
- Rules made by PUCSL
- Codes, Methodologies and Guidelines approved by the PUCSL
- Contracts between parties
 - Power Purchase Agreement (PPA) between Generation Licensees and the Transmission Licensee
 - Power Sales Agreement (PSA) between the Transmission Licensee and Distribution Licensees
 - Connection agreements between Distribution Licensees and Customers
- Internal Codes of the Transmission Licensee and Distribution Licensees

Regulatory Instruments – Economic Regulation

- Price (Tariff) Regulation
 - Cost reflective methodologies for tariffs and charges (July, 2011)
 - Transfer Pricing Mechanism
 - Bulk Supply Transaction Guidelines
 - Guidelines for preparation of regulatory accounts (May, 2016)
 - Tariff Review Procedure (August, 2016)
 - Regulations on Disadvantaged Group of Consumers (to be prepared)

Regulatory Instruments – Economic Regulation Contd.

- Service Quality Regulation
 - Electricity (Distribution) Performance Standards Regulation (July, 2016)
 - Electricity (Transmission) Performance Standards Regulation (July, 2016)
 - Guidelines on Benchmarking Distribution Licensees (October, 2013)
 - Electricity (Additional Information to be Provided to Distribution Licensees) Regulations (recommended to the Minister in March, 2014)
 - Supply Services Code (March, 2014)
 - Statement of Rights & Obligations of Consumers (December, 2014)
 - Methodology for Estimation of Energy Supplied (December, 2013)
 - Electricity (Consumer Consultative Committee) Regulations (December, 2009)
 - Electricity (Dispute Resolution Procedure) Rules (May, 2011; January, 2016)

Regulatory Instruments – Economic Regulation Contd.

- Market Regulation
 - Electricity (Applications for Licenses & Exemptions) Regulations (September, 2009)
 - Licenses to Generate, Transmit, Distribute and Supply Electricity as well as Exemptions to Generate and Distribute Electricity (September, 2009)
 - Electricity (Procurement of New Generation Plant & Extension of Existing Generation Plant) Rules (June, 2016)
 - Electricity (Power Purchase Agreement Transfer Price) Regulations (recommended to the Minister in November, 2016)
 - Electricity (Trading Arrangements) Regulations (recommended to Minister in November, 2016)
 - Electricity (Utility Driven Demand Side Management) Regulations (July, 2016)

Regulatory Instruments – Safety & Technical Regulation

- Safety Regulation
 - Electricity (Safety, Quality & Continuity) Regulations – recommended to Minister (July, 2016)
- Technical Regulation
 - Methodology for Merit Order Dispatch (April, 2011)
 - Least-cost Generation Expansion Planning Code (April, 2011)
 - Transmission Planning Code (April, 2011)
 - Distribution Planning Code (April, 2011)
 - Distribution Code (July, 2100)
 - Grid Code (March, 2014)
 - being reviewed
 - Electricity (Meter) Regulations (recommended to the Minister in December 2010)
 - Electricity (Electrical Inspectors' Functions, Duties and Procedures) Regulations (October, 2014)

Thank You



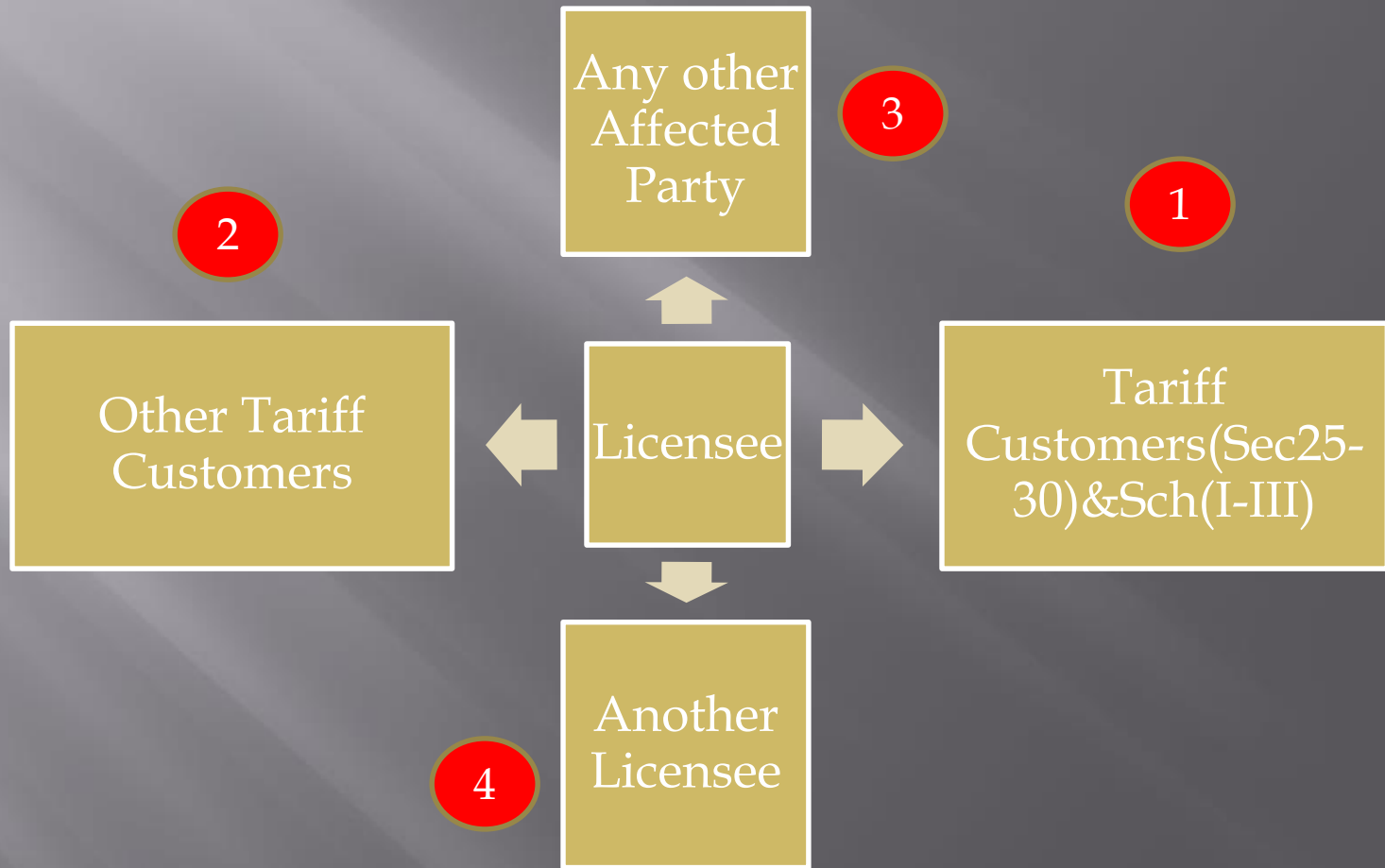
RESOLUTION OF COMPLAINTS AND DISPUTES BY PUCSL

Y. L. Farook, Director-Consumer Affairs

Complaint Handling Process

- ▣ Review complaints, collect information from relevant parties
- ▣ **Identify Dissatisfied Cases:** Inform parties not fulfilled their obligations to comply in accordance with the statement of **Electricity Consumer Rights and Obligations**
- ▣ **Disagreed Cases:** Inform parties to take action in accordance with Electricity(Dispute Resolution Procedure) Rules

Categories of disputes



Dispute Resolution Rules-Part I

- ❑ To resolve the Dispute by the parties
- ❑ Part-I, A - involves with 3 categories of disputes:
 - Category-1: Licensee & Tariff customer (Section 25-30 & Sch. (I-III)
 - Category-2: Licensee & Tariff customer (Other)
 - Category-3: Licensee & Other affected Party
- ❑ Part-I, B - involves with the category:
 - Category-4: Licensee & Another Licensee
- ❑ Disputed party under Part-I,A can make a written request to the **Dispute Resolution Officer** (Deputy General Manager of CEB-Distribution, Transmission or Generation Licensees or LECO-Head of Operation)to resolve the dispute
- ❑ A disputed Licensee (under Part-I, B) can send a written request to the other disputed Licensee with proposals for resolution and with details of 3 persons (one of them will be selected as an **Evaluator** by consent of both party)

Dispute Resolution Rules-Part I..Contd

- ❑ The disputed parties shall make every endeavor to reach a settlement with the assistance of the Dispute Resolution Officer/Evaluator
- ❑ If a settlement is reached, a “Memorandum of Agreement” will be issued by the Dispute Resolution Officer/Evaluator in the form specified
- ❑ If a settlement is not reached, a “ certificate of non settlement” will be issued by the Dispute Resolution Officer/Evaluator in the form specified

Dispute Resolution Rules-Part II

- ❑ Either party failed to reach a settlement under Part-I may inform such failure in the form specified and call upon the Commission to resolve
- ❑ For Category-1, Commission shall appoint a Panel of Mediators and resolve
- ❑ For other 3 categories, Commission shall conduct a pre-mediation to decide whether it is more appropriate to be determined by the Court or at Arbitration
- ❑ If decided so, Commission shall inform the parties to take action accordingly or otherwise, appoint a Panel of Mediators and resolve

Panel of Mediators

- ▣ Consists of 3 persons
- ▣ Chairperson: A member of the Commission or a member of the staff of the Commission or a Public Officer
- ▣ Other 2 persons: Retired Public Officers, having experience and qualifications in the matters related to the dispute
- ▣ Commission appoint the required Panel of Mediators appropriate to the dispute

Panel of Mediators...Contd

- ▣ Shall notify the disputed parties in writing to be present at a mediation conference at the place and time decided
- ▣ Shall endeavor the parties to reach an amicable settlement
- ▣ Conclude the deliberation within the specified period
- ▣ If a **settlement is reached**, issue a Settlement Agreement in the form specified
- ▣ If a **settlement is not reached**, issue a certificate of Non-Settlement in the form specified

Cost of Mediation

- ▣ No cost will be recovered from disputed parties under Category-1, Commission will bare the cost
- ▣ No cost will be recovered from disputed parties under Category-2 and Category-3, if a settlement is reached at the first Mediation Conference, otherwise, will be recovered in equal proportion
- ▣ For Category-4, will be recovered in equal proportion



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THANK YOU

INS Division

Mr. Nilantha Sapumanage

16TH May 2018

Sri Lanka Electricity Act

Function of the Commission 3 (g):

- to **set and enforce technical and other standards relating** to the **safety**, quality, continuity and reliability of electricity supply services and metering services;

Objectives of the Commission 4 (a):

- **to protect the interests of consumers in relation** to the supply of electricity, by **promoting** efficiency, economy and **safety** by persons engaged in, or in commercial activities connected with, the generation, transmission, distribution, supply and use of electricity;

PUCSL ORF

What is ORF?

□ Organizational Result Framework: Expected Outcomes and Outputs as a result of activities of the organization.

Key results areas

➤ Safety

➤ Power Quality (Supply quality and commercial quality for the users)

➤ Price (Tariff) and charges for the users

➤ Environment Pollution

□ Encapsulating the Key Results area, PUCSL sets goals (12 numbers) to achieve ORF

PUCSL OUTCOMES

1. Improved productivity & convenience for electricity consumers
2. Affordable Price for consumers and sustainable financial stability for licensees
3. Improved safety of every living being and properties of general public, licensees & operators
4. Improved environmental conditions for humans, animals and plants

INSPECTORATE KRA's

□ INS KRAs

➤ Safety

□ Outcome:

- ✓ Improved safety for lives and properties of General public, licensees and operators

□ Output:

- ✓ Improved safety for lives and properties of General public, licensees and operators
- ✓ Increased knowledge and awareness on safe use and safe practices of electricity
- ✓ Increased access to safety related information

Why

Globally Accepted Bench Mark is 1:1,000,000 Population

SRI LANKA

Electrocutions

106

Injuries

?

Shocks

?

AUSTRALIA

Electrocutions

35

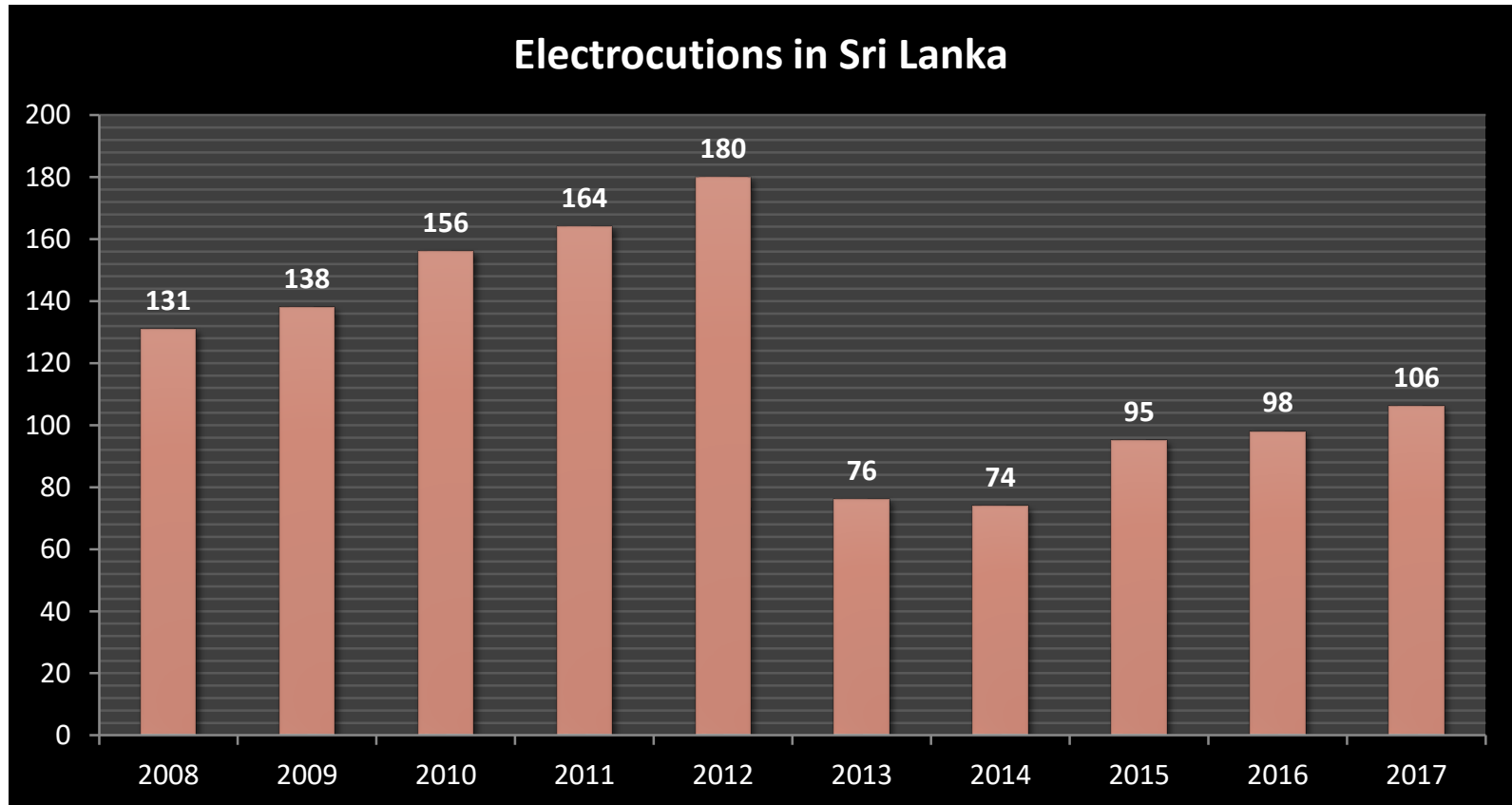
Injuries

315

Shocks

9350

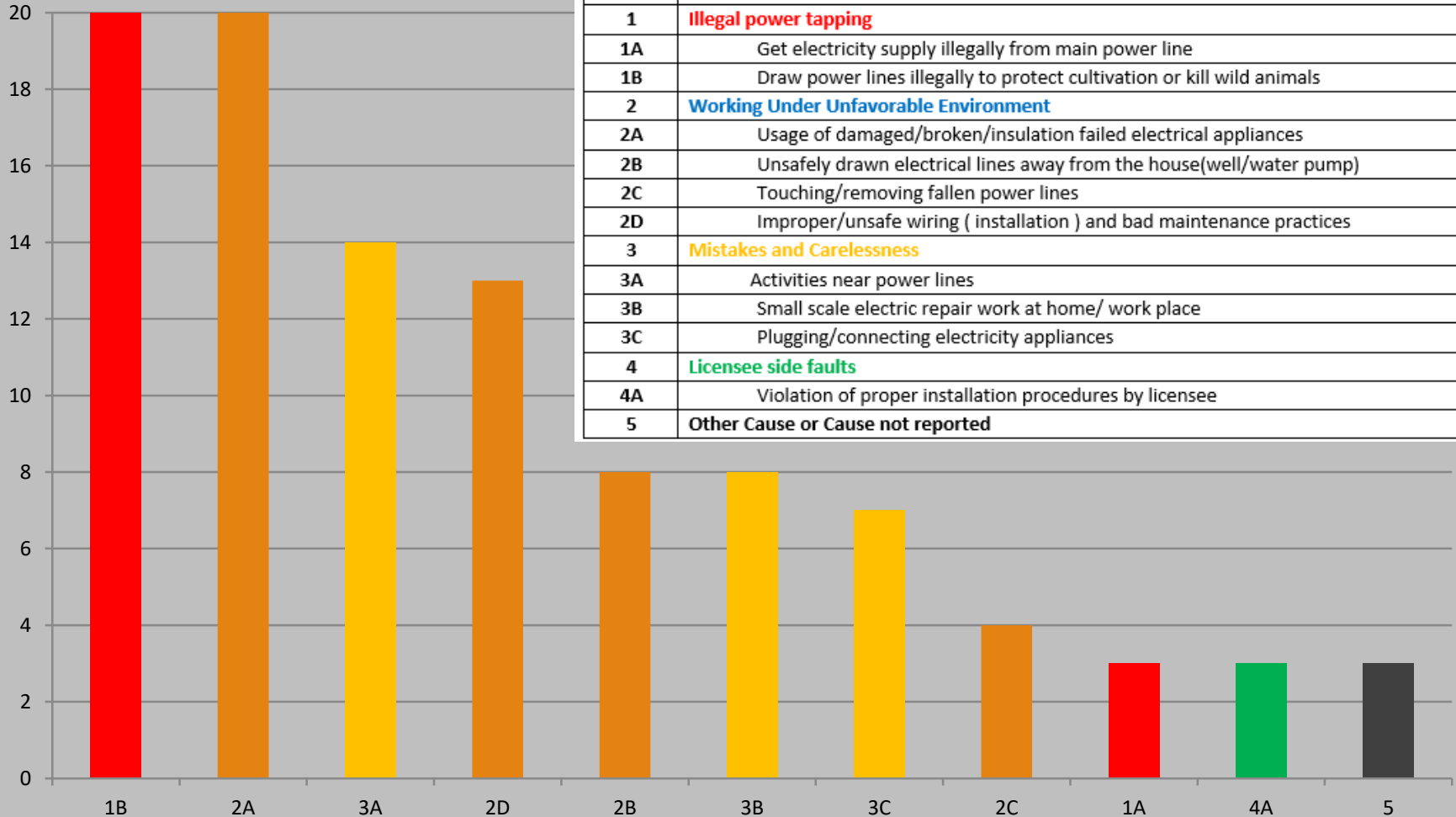
Look back at the history...



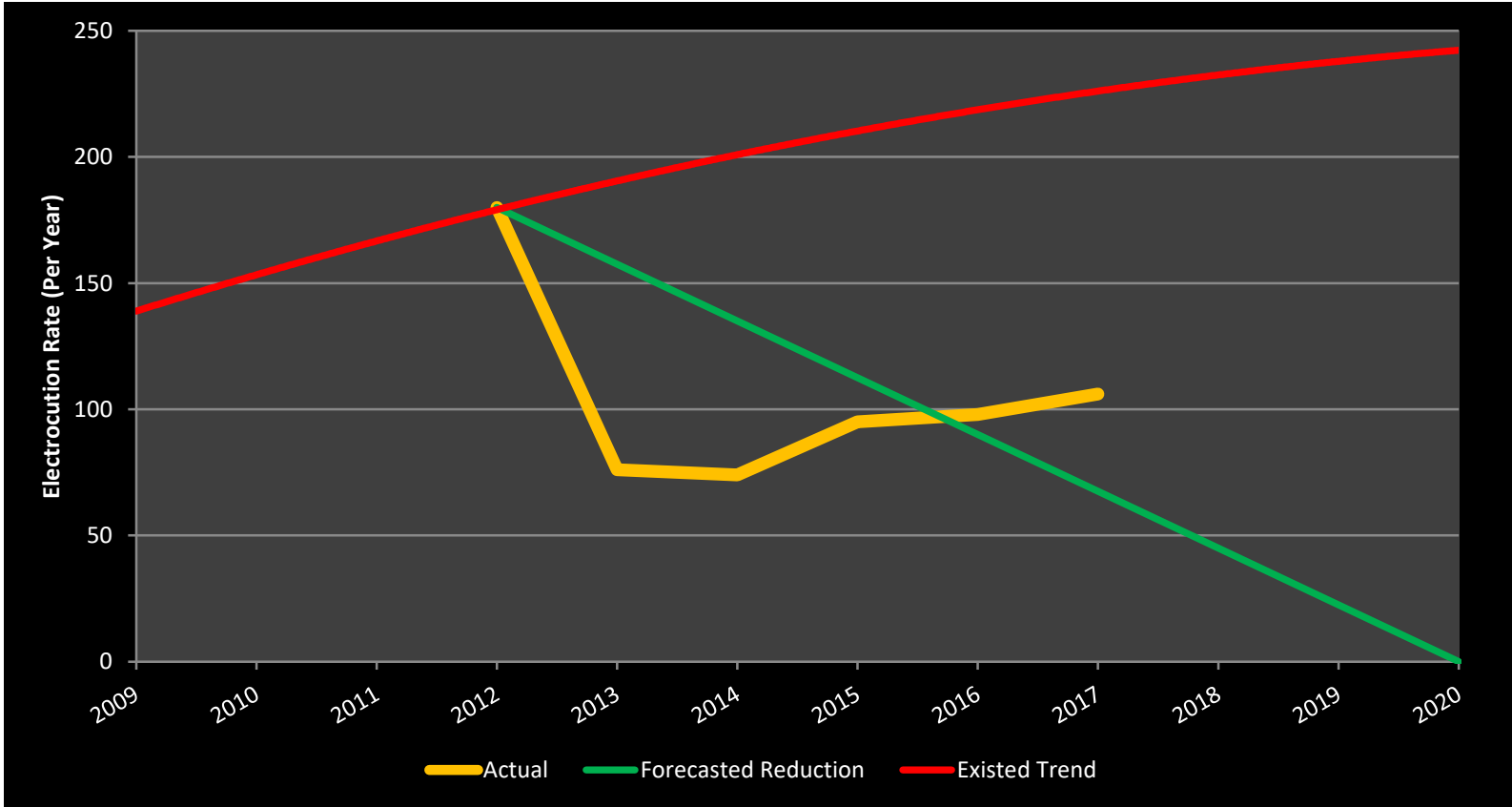
Causes of Electrocutions in 2017

Causes of Electrocutions in 2017

Code No	Cause of electrocution
1	Illegal power tapping
1A	Get electricity supply illegally from main power line
1B	Draw power lines illegally to protect cultivation or kill wild animals
2	Working Under Unfavorable Environment
2A	Usage of damaged/broken/insulation failed electrical appliances
2B	Unsafely drawn electrical lines away from the house(well/water pump)
2C	Touching/removing fallen power lines
2D	Improper/unsafe wiring (installation) and bad maintenance practices
3	Mistakes and Carelessness
3A	Activities near power lines
3B	Small scale electric repair work at home/ work place
3C	Plugging/connecting electricity appliances
4	Licensee side faults
4A	Violation of proper installation procedures by licensee
5	Other Cause or Cause not reported



Where we want to be in 2020- < 20 number of electrocutions



Electricity Safety Objectives of PUCSL

□ Safeguarding Lives and Properties

(GENERAL PUBLIC)

□ Protecting Lives And Properties

(LICENSEE)

Activity Plan Deliverables

Activity Plan Deliverables (For General Public)

- Electrician Licensing
 - ✓ Reduce the electricity related misfortunes taking place due to incompetency in Electrical Installations

- Establishing Village Level Voluntary Committees to avoid/ discourage illicit electricity tapping/ usage
 - ✓ Forming a regiment to monitor and control unlawful power access

- Widespread Public Awareness (Audio, Video, Cartoon , Leaflets, Exhibitions, school guidelines and grade 6 and 10 syllabus)
 - ✓ Mitigate accidents related to the Illegal power tapings

Activity Plan Deliverables

(For General Public)

- New Clearance Regulations (Section 54 of the Sri Lanka Electricity Act No 20, of 2009)
- Preparation of Policy Advice To The Government On Managing The Safety Clearances Of Transmission Line Corridors
 - ✓ Way Leave
 - ✓ Safety Signage
 - ✓ Clearance
 - ✓ Strategic Planning With Local Authorities
- Standardization of Electrical Appliances (PUCSL and SLSI)
 - ✓ Alleviating probable chance of meeting up with accident due to substandard products

Activity Plan Deliverables

(For General Public)

- Preparation of guideline for power failure investigations
 - ✓ A Guideline which streamlines the process of Power Failure Investigations and provides initiative to minimize power failures in future.
- Development of regulatory measures for water fittings
 - ✓ Increasing the efficiency of water-resources usage through advancement in Quality
- Establishment of Plumber Licensing
 - ✓ Assuring the importance of possessing license to diminish incompetency in the profession to increase the efficiency

Activity Plan Deliverables (For Licensee)

- Safety and Technical Management Plan
- Safety Indices
- Incident Reporting System (IRS)
- Safety Audits

Routine Activities

Routine Activities

- Sanctions
 - ✓ Giving verdict for the violations which were referred by the utilities.
- Site Inspections
 - ✓ Visiting the places which had been identified with electricity installation violations and remedying.
- Monitoring and Controlling the electrocutions
 - ✓ With the help of police having an eye on the electrocutions and planning mitigation measures
- Heat Rate Test

Thank You

Tariff Filing and Analysis Procedures

Kanchana Siriwardena

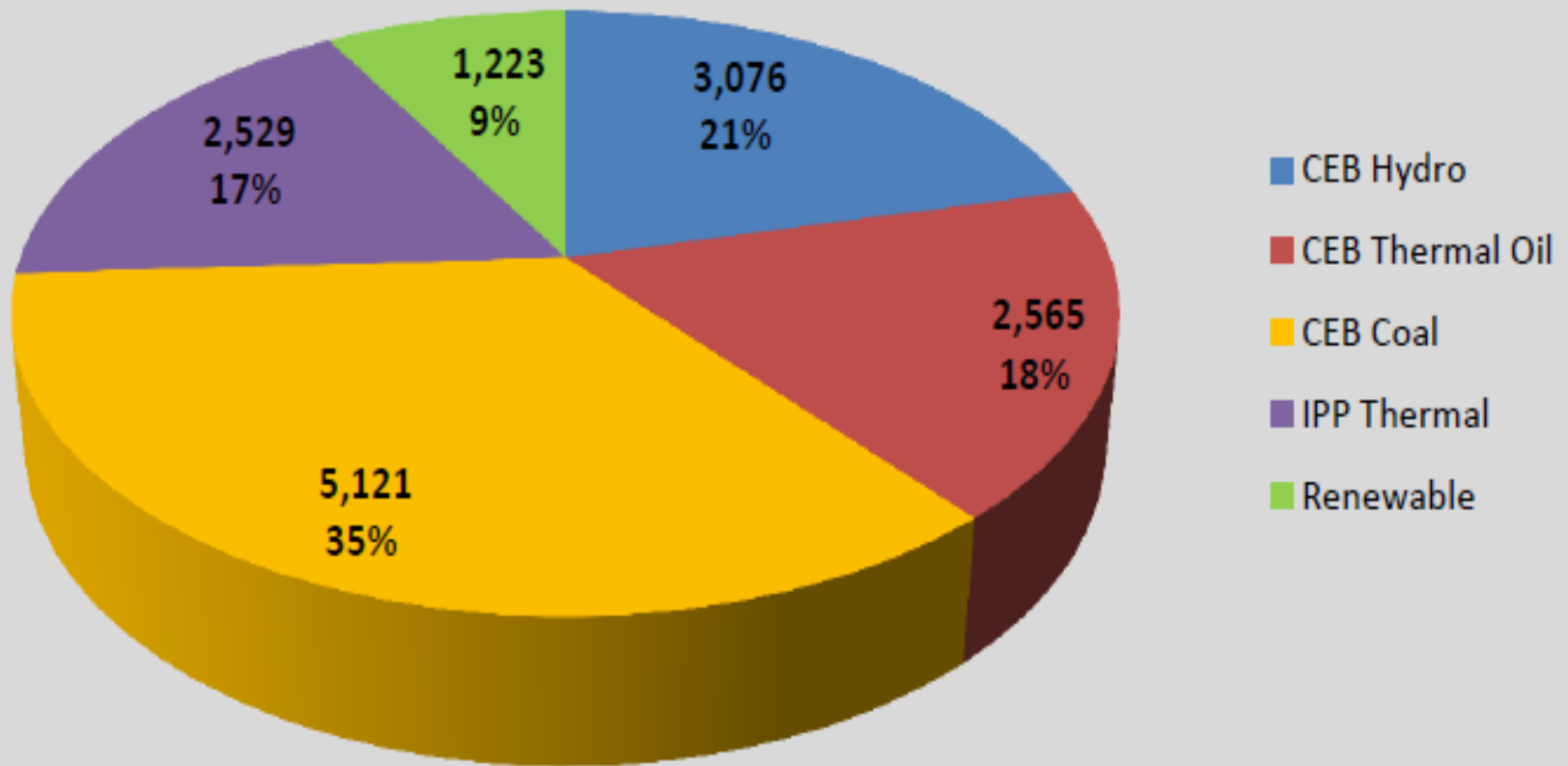
Public Utilities Commission of Sri Lanka

11th October 2017

Sri Lanka Power Sector statistics

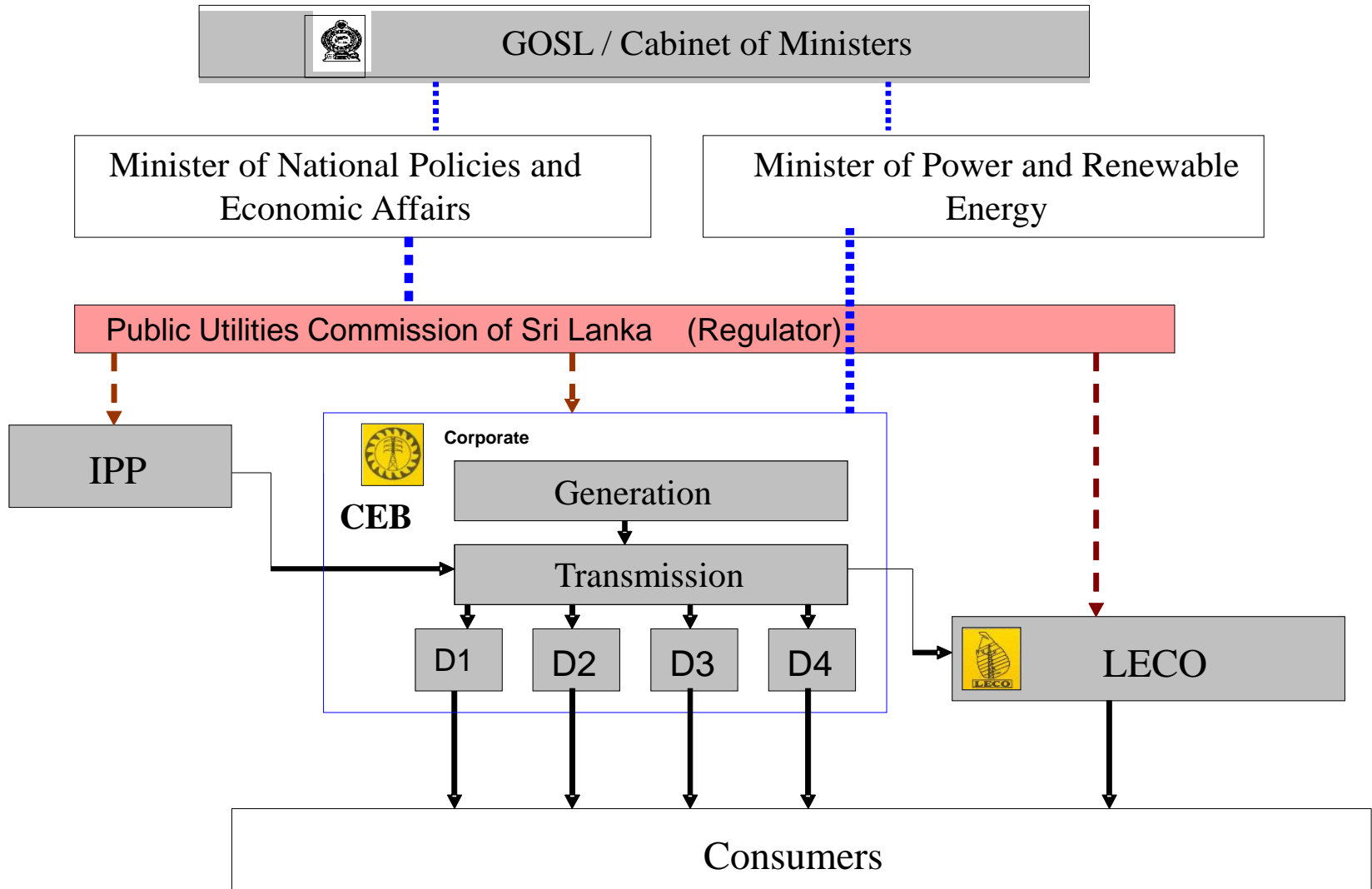
- **Generation Capacity (3,950 MW)**
 - Large Hydro 1,377 MW
 - CEB Thermal 1,504 MW
 - IPP Thermal 511 MW
 - NCRE 557 MW (354 MW mini-hydro, 129 MW Wind, Solar 51MW, other 24 MW)
- **Peak Demand – 2,400 MW**
- **Sales – 13,500 GWh**
- **Consumers – 6.4 Million**

Energy Resources 2017

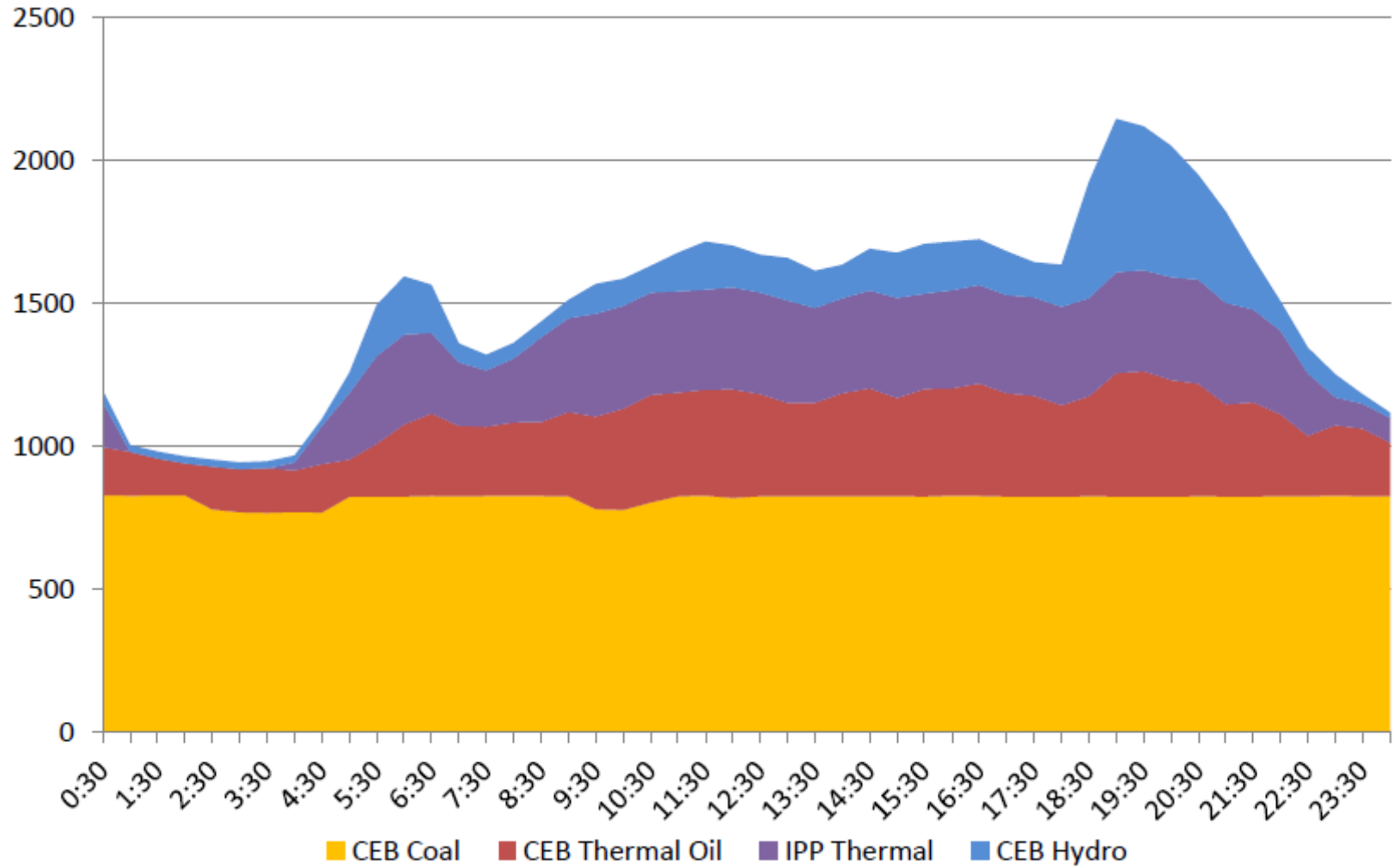


Industry Structure

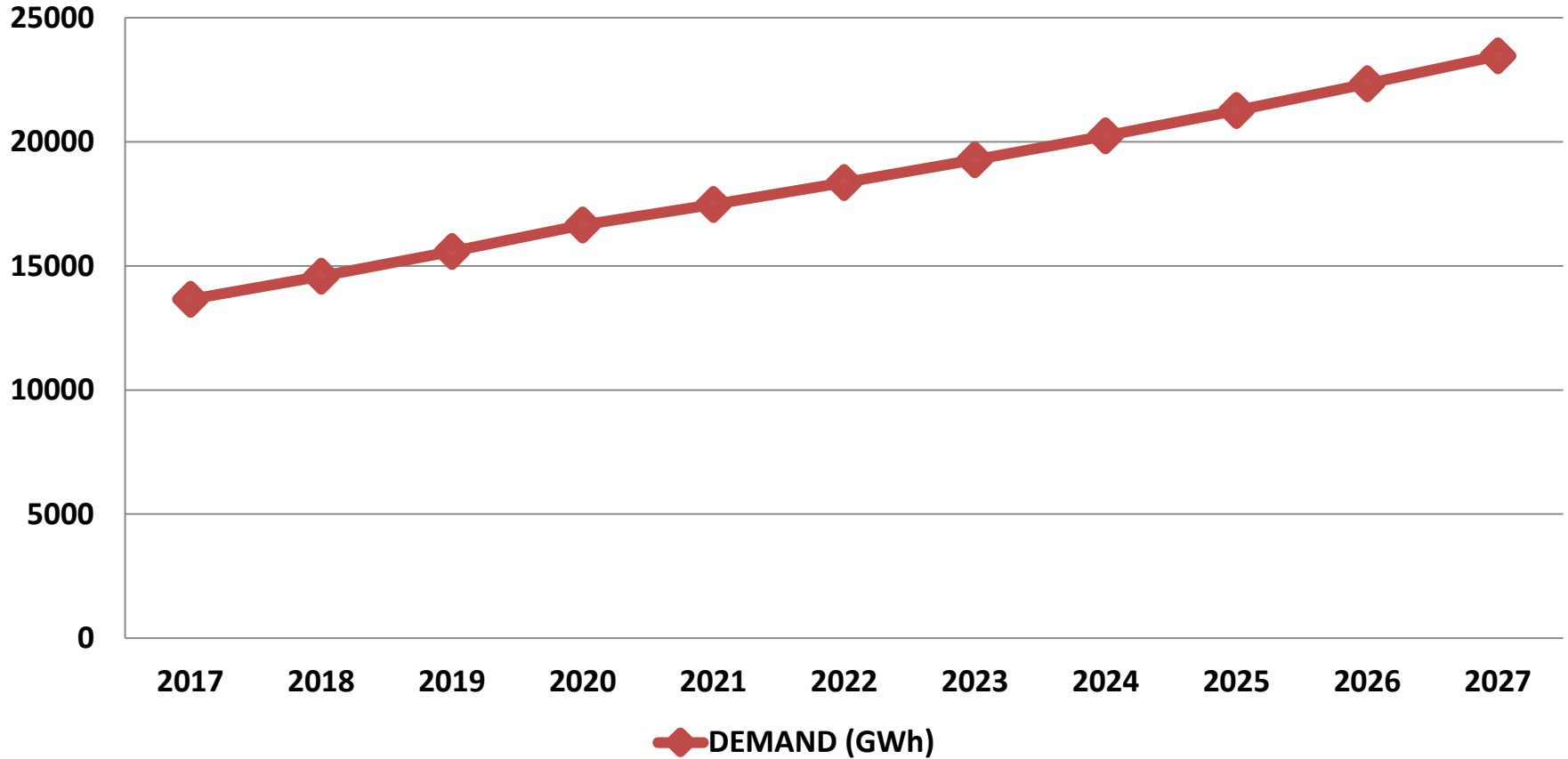
- Structure



Load Curve



Projected Demand Growth



Highlight of achievements

- Electrification – Almost 100%
- Availability – 24/7
- Losses – 14.5% in 2009 to 8.96% in 2016

Current Priorities

- Generation and Transmission Investment
 - Absorbing intermittent RE sources
 - Coal v Natural Gas
 - Ownership
- System reliability
 - Few blackouts in 2016
- Power and Supply Quality
- Tariff
 - Subsidies and cross subsidies

Legal Background

- Sri Lanka Electricity Act, No. 20 of 2009
 - Recovery of reasonable costs of the Licensee
 - **Tariff methodology**
 - Subject to General Policy Guidelines of the Government
 - **Subsidies and funds for subsidies**
 - Cross-subsidies

Tariff Methodology

- Multi Year Tariff Methodology
 - Review costs over 5 year tariff period
 - Transmission and Distribution - variable revenue caps
 - Retail – variable price cap
 - Generation costs reviewed every 6 months
 - Possible consumer tariff revision every six months
 - Uniform National Tariff
 - Ex-post adjustments

Transmission and Distribution Costs

- Forecast Demand
- Approved Investment Plans
- Forecast Operation costs
- Asset Base
- Depreciation forecast
- Return on Assets
- Network Loss targets

Licensees can make profits through cost cutting and efficiency improvement

Generation Costs

- As per the terms of Power Purchase Agreements
- Dispatch forecast based on Guidelines/
software
- Reviewed every six months due to sizable variations possible
- Cost pass through

Costs to Consumer Tariffs

- Allowed costs are decided by PUCSL
- Licensees are requested to come up with proposed tariff structure
- Government Policy Guidelines and other demand side management objectives taken into account
- Consumers/ stakeholders are consulted
- Cost of supply calculations
- Tariff published as approved by PUCSL

Bulk Supply Transaction Account

- As per PUCSL guidelines
- Records bulk electricity purchase and sales of Transmission Licensee
- Place where subsidy can be injected
- Only Licensee account closely monitored by PUCSL

Structural Changes in Tariff

- Mandatory Time Of Use Tariffs for all Bulk consumers
- Optional TOU tariffs for Domestic Category
- Introduced categories to target subsidies
 - Agriculture sector included in Industry Category
 - Government schools, hospitals, etc
 - Domestic below 60 grouping

Latest Domestic Tariff

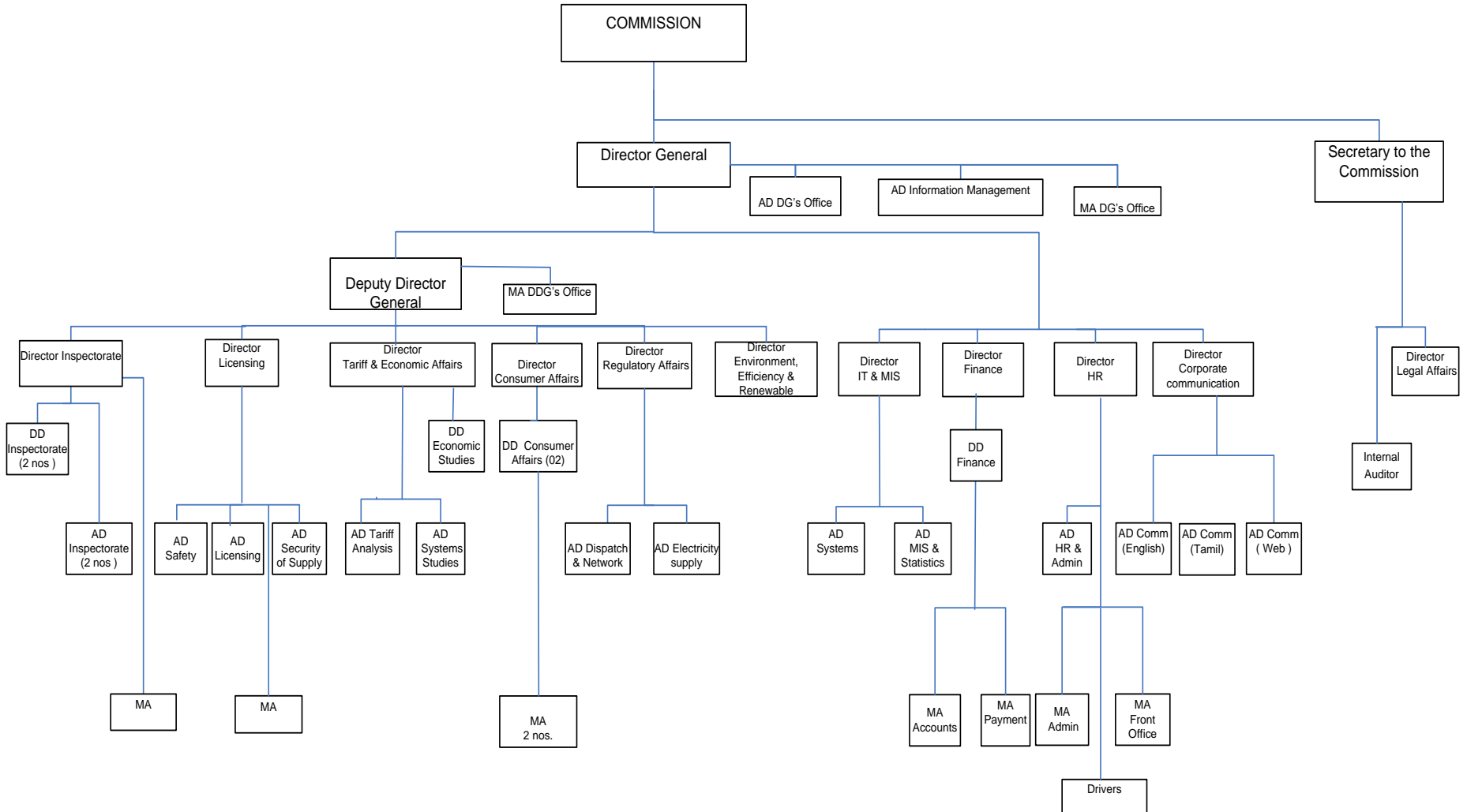
Consumption (kWh/month)	Rs./kWh	Rs./month
0-30	2.50	30
31-60	4.85	60
0-60	7.85	-
61-90	10.00	90
91-120	27.75	480
121-180	32.00	480
>180	45.00	540

Upcoming Reforms

- Standardized Regulatory Accounts and Financial Separation
- Generation Dispatch Audit
- Interest payment for Security Deposits
- Performance Standards and Penalties
- Tariff methodology review in 2018

Thank You

Organization Structure



DD – Deputy Director
 AD – Assistant Director
 MA – Management Assistant

Organizational Results Framework (ORF), Key Performance Indicators (KPI) and Impact

