

BRIEF OF PROCEEDINGS OF

WEBINAR ON TACKLING THE COVID-19 CRISIS – EXPERIENCE SHARING BY SOUTH ASIAN POWER DISTRIBUTION COMPANIES

25th November | 4:00 PM – 5:45 PM IST

SOUTH ASIA REGIONAL INITIATIVE FOR ENERGY INTEGRATION (SARI/EI)



PROCEEDINGS OF

Webinar on Tackling the Covid-19 Crisis – Experience sharing by South Asian power distribution companies

Integrated Research and Action for Development (IRADe), under the USAID’s SARI/EI (South Asia Regional Initiative for Energy Integration), and USAID’s South Asia Regional Energy Hub (SAREH) program, jointly organized a webinar in collaboration with USAID’s Smart Power for Advancing Reliability and Connectivity (SPARC) Program on **Tackling the Covid-19 Crisis – Experience sharing by South Asian power distribution companies**. The webinar was a part of the South Asia Energy Series organized under USAID’s Asia Enhancing Development and Growth through Energy (EDGE) initiative in South Asia. The objective of the webinar was to bring together the senior leadership of power distributions companies from across South Asia on a virtual platform, to share their experiences and challenges faced due to COVID-19, the mitigation strategies, and deliberate on the way forward to build crisis-preparedness, and make the region’s power distribution sector more resilient to future contingencies.

Ms. Monali Zeya Hazra, Regional Energy Manager and Clean Energy Specialist, USAID/India, welcomed everyone to the webinar. She pointed out the critical role played by the power distribution companies (DISCOMs) in South Asia’s power sector. She explained that the current webinar was a platform for the DISCOMs to share their experience on handling the challenges arising out of COVID-19 in their respective countries. She hoped that the webinar would be useful for learning from each other’s experiences.

Dr. Jyoti Parikh, Executive Director, IRADe, delivered the introductory remarks, and acknowledged the participation by South Asian DISCOMs, as well as by USAID representatives. Dr. Parikh explained how COVID-19 has disrupted not only the power sector across the world, but also the general lifestyle. She expressed pleasure in having the senior-most officials from South Asian DISCOMs presenting their experience on mitigating the challenges posed by the pandemic, for the benefit of all present.

Ms. Karen Klimowski, Indo-Pacific Coordinator, Deputy Mission Director (A), USAID/India, delivered the special remarks. She remarked upon the unprecedented impact of the pandemic and the resultant nation-wide lockdown that halted industrial and commercial activities. This, she noted, led to a decrease in the high paying power consumers and increase in subsidized consumers, resulting in financial stress of the Distribution companies from disrupted revenue and cash flows.

She also informed the participants about USAID’s Smart Power for Advancing Reliability and Connectivity (SPARC) program, which was the first program to assess the impact of COVID-19 on the Indian Power Sector. She commended the study carried out by SARI/EI on Impact of COVID-19 on South Asian Power Sector that reported the decline in peak power in the South

Asian countries. She stressed upon the need to adapt to the pandemic, and build a more resilient South Asian power sector that helps DISCOMs reset and recover. Ms. Klimowski also informed of the participants about USAID's initiative to establish South Asia Distribution Utility Network (DUN), which will be an informal network for sharing of knowledge, learnings, and best practices among South Asian power distribution companies. She closed the session by expressing hope that the webinar will be a step towards making the region's power distribution sector more resilient to future contingencies.

Context Setting by Mr. Vikas Gaba, Program Director, USAID SPARC Program and Partner, KPMG India.

Mr. Gaba made a presentation on the overview of COVID-19 impact on South Asian power distribution by USAID's SPARC program. He presented the figures pertaining to the revenue collections, losses etc., of the DISCOMs in South Asia region. A copy of the presentation is attached as **Annexure 1**.

Panel Discussion with South Asian Power utilities:

Mr. Pankaj Batra, Project Director, SARI/EI, IRADe, moderated the panel discussion with South Asian power utilities. He introduced the speakers and set the context for panel discussion by presenting a brief overview of the impact of COVID-19 pandemic on the South Asian power sector and the DISCOMs. He shared the objective of the webinar and explained how it would be beneficial to the power distribution companies, so that they could estimate the losses suffered by them and put up the same to the respective energy regulators in the South Asia (SA) region for being compensated through the tariff.

Mr. Bikash Diwan, MD, Dhaka Power Distribution Company (DPDC) Limited, Bangladesh, gave a brief on the power sector scenario in Bangladesh post COVID-19 pandemic. He expressed concern towards the falling demand in the commercial and industrial segments. The sectors most hit were the aviation, tourism, hospitality, manufacturing industry, and the power sector. He noted that in the residential segment, the increased demand led to high load in the electrical lines in Bangladesh. Ensuring reliable power supply was a challenge, with many technically competent employees passing away due to COVID 19. He stated that the metering, billing and collection processes were severely hampered due to the pandemic. This led to liquidity issues arising from non-payment of bills. The late payment surcharge was exempted from February to June 2020. As a result, DPDC had to borrow money from the banks to pay the generators. They were not able to develop new projects of the distribution system required for the enhanced load anticipated in the coming years. DPDC formed a contingency plan to handle the pandemic, which included creating a special Task Force to supervise operations, a dedicated customer service centre and a WhatsApp Group to facilitate communication among the Group. He concluded by stating the measures planned by DISCOMs in Bangladesh to tackle the impact of COVID-19. These include – more importance to safety measures of employees, including

hygiene of sub-stations and employees; cutting down expenditure as per priority; introduction of online billing and collection to reduce arrears; renovation of modern SCADA system, which is in progress; work from home (WFH) and remote/online work being encouraged, with focus given only to the deliverables.

Mr. Sonam Topche, CEO, Bhutan Power Corporation Limited (BPCL), Bhutan, gave a brief on the situation in Bhutan. He expressed the need for reliable electricity services and explained the impact of COVID-19 in Bhutan. Bhutan experienced an economic slowdown, which reduced the power demand and resulting in reduced sale of power. The first case of COVID-19 was detected on 6th March, 2020 and the international borders were sealed on 23rd March 2020. Tourism, aviation and hospitality industry were hit the hardest. He expressed concern that the national peak load dropped by nearly 61 MW from 323 MW to 262 MW (i.e. a reduction of about 19%) in a span of just 5 days. There was a reduction in electricity consumption mainly from High Voltage industries by 15%, for Medium Voltage industries by 35%, whereas for the Low voltage residential consumers the consumption increased marginally by 3%. The Royal Government of Bhutan introduced a deferment payment plan for industries, which has resulted in a huge cash flow problem for BPCL. They witnessed a drop in collection efficiency from 97% in August 2020 to about 74% in the present state. The Government of Bhutan reduced their investment plans and delayed procurement plans due to supply chain problems, as they sourced most parts from third countries. BPCL has put a contingency plan in place to ensure operational continuity to quickly restore supply during interruptions, Standard Operating Procedures were developed for speedy mobilisation of resources, and non- critical works were deferred. He stated that BPCL has been making continuous efforts to embrace digitalisation and technology in its operations. Mr. Topche opined that prioritization of smart grid initiatives and smart grid master plan is a solution to the challenges posed by the pandemic. He stressed on the need to focus on online platforms for its consumers and keeping the workforce safe and equipped with the necessary skills, including online work systems. He concluded by stating that it will be fruitful to build better flexibility and ensure resiliency, for business continuity.

Mr. P. Mukherjee, Director, West Bengal State Electricity Distribution Company Ltd. (WBSEDCL), India gave a brief on the COVID-19 impact on one of the state owned DISCOMs in India. He stated that it was not only the COVID-19 pandemic, but also the Amphan cyclone which impacted power distribution in the state of West Bengal in India. He stated that sale of electricity in West Bengal dropped tremendously due to the lockdown. A drop of 10% was registered in sale of electricity to the residential segment, while the industrial segment suffered a decline of around 26%. The High Voltage and Extra High Voltage consumers offtake reduced considerably, as also of the Railways, which were shut down. Since industries contribute 40% of their total revenue, the revenue of WBSEDCL took a hit of Rs. 600 crores in April 2020, Rs. 650 crores in May 2020, Rs. 350 crores in June and July 2020. The revenue was more or less restored from September 2020 onwards. Mr. Mukherjee stated that the prime objective of the DISCOMs was to provide reliable power to its consumers, and so their main stress was on O&M (Operation

and Maintenance); while new connections were put on hold. From September 2020 onwards, they have resumed their new connection services to recover the losses due to the COVID-19. The collections have improved after September 2020. However, even during the earlier months of lockdown, the collections were fairly good mainly due to online payment options, such as netbanking, credit/debit card payment, etc. He stated that around 67-70% of the payments are received online. WBSSEDCL also ensured the safety of its employees through regular use of masks and sanitisers. Due to these measures, there was a negligible effect on the work force. He concluded that WBSSEDCL was fully geared to meet such challenges, and intended to recover the losses to some extent during the next three months of December 2020, January and February 2021.

Mr. Sanjay Banga, President (Transmission and Distribution), Tata Power Ltd., one of the privately owned distribution company in India, presented his views on the impact of the pandemic on their distribution company. He stated that power demand dropped by almost 50% due to the lockdown. Hence, at the operational front, the network was restored more speedily in case of any fault. Further, lesser number of faults resulted in better reliability parameters. Billing was done on a provisional basis based on average bills for the same period last year for low end consumers. COVID-19 had no impact on billing for high-end consumers, as these consumers have smart meters, which automatically communicate the readings to the utility. The utility was affected adversely commercially, not due to billing efficiency, but in terms of collection efficiency. Also, there was deferment of the fixed charges allowed for industrial and commercial consumers by the regulators, which further affected their liquidity problems.. At the same time, the tariff structure was made by the state regulator in such a way that though in the bulk tariff to the utility, the fixed portion was about 45%, the recovery of this fixed portion of the retail tariff from consumers constituted only about 15%, resulting in stranded fixed portion. The digital payments went up from 55-60% to almost 95%, as time progressed during the pandemic. He added that effective communication with consumers was beneficial, especially, where, in the month of June and July, consumers were encouraged to take photos of the meters for billing and send the same to the utility through WhatsApp, helping in getting actual meter readings. They had liquidity problems, due to which they were unable to pay the generators and transmission companies, which was helped by the Government of India through a scheme for giving the utilities soft loans for taking care of this issue. He stated that the real impact on the tariff will come in the next year, when upward tariff revisions by the regulator would be required to meet the gap. He concluded with the learnings from the impact of the pandemic - -identification of good cost (which was the employee cost) and bad cost (which was maintaining a very high level of infrastructure) in the distribution utility. He stated that the way forward as learnings from the pandemic were to focus on digitalization; and the need to revise of tariff structure. The recovery of fixed cost, especially in case of cross subsidy consumers, has become even more important.

Mr. Hararaj Neupane, Deputy Managing Director (Distribution & Consumer Services), Nepal Electricity Authority, gave a brief on the COVID-19 impact on Nepal's power

distribution sector. He stated that COVID-19 brought about loss of some of their co-workers, loss of revenue and difficulty in service delivery. There was hindrance in smooth operations of industries, which resulted in reduced electricity consumption. Further, Nepal had to face spilling of energy due to run of river plants. Due to first lockdown since 24th March 2020, industrial operations had come down, resulting in more than 40% of loss of revenue by the Nepal Electricity Authority. He stated that while they were expecting a 20% growth of demand in 2020, w.r.t. the same period last year, but demand actually dropped by more than 20%. The revenue collection was only 25% initially, which has now picked up to 85%. The NEA was encouraging consumers to do self-meter reading. Currently, about 25% consumers were paying online. They were also targeting AMR (Automatic Meter Reading) for all 3-phase consumers by 15th July 2021. For the single phase consumers, they have also started the smart metering program. He stated that the present grid access was 86%. They were trying to have full electrification in the next two and a half years. However, electrification projects have been badly hampered due to COVID-19. While NEA has a large participation from the private sector in hydro power generation, they are tied down by the take-or-pay Agreements with these plants. So, if the demand does not improve, they would lose heavily because of that and would have to spill water. Cluster-wise incentives are being offered in this situation to domestic consumers and production related industries are being given waiver of demand charges. Transmission infrastructure was being built for further import of power from India. Because of the delay, while on one hand NEA is being subjected to penalty, on the other hand the consumers would be affected due to non-receipt of the additional power. He said that the NEA and the Government are engaged with determining the exact impact of COVID-19 on the economy and would determine the measures required in policy, rules and regulations, and the support needed for the consumers and the private hydro generators. He concluded by saying that this forum of experience sharing provides useful information for all South Asian nations to learn from one another to cope with the situation.

Mr. Rohan Seneviratne, Addl. General Manager, head of one of the Distribution Divisions of the Ceylon Electricity Board, the national power utility of Sri Lanka, gave a brief overview on the experience of DISCOMs in Sri Lanka. He stated that Sri Lanka had a complete lockdown for 52 days, starting from somewhere in the middle of March, then no new case from 12th May to 29th October 2020, and then a second wave, which is now continuing. During the lockdown period all consumers were supplied power with 24x7 reliability, because of the lesser load. None of their 26,000 staff were affected due to taking proper precautions as advised by their health organization. They used minimum movement of staff, using video conferencing and remote monitoring, and left out the non-essential works. The demand fell by 20% during the initial period and then further to about 33% during the curfew/lockdown period. The peak demand also fell from 2,600 MW to 2,000 MW. He stated that they managed the generation well, by employing minimum O&M staff and arranged for accommodation and food in the power station for some persons for a couple of months, maintaining adequate fuel stock. During this time, they managed the 900 MW coal-based power plant efficiently, which caters to 30% of the load requirements of Sri Lanka, with minimum staff and stay in the power station. They also managed the transmission

system by supporting the staff with transport and food. The revenue took a hit as they stopped issuing bills around the middle of March, and did average billing, due to which the customers were initially dissatisfied. However, CEB launched a customer engagement campaign, in which they explained how the bills were calculated. After that the customers were satisfied and started paying up. Digital payment was encouraged through various incentives. Taking cue of the new normal, digital transformation is being encouraged, by implementing smart grid, e-procurement, etc. A copy of the presentation is attached as **Annexure 2**.

Dr. Narendra de Silva, General Manager, LECO (Lanka Electricity Company (Pvt) Ltd Distribution Company), one of five electricity distribution licensees in Sri Lanka, gave his experience on the impact of COVID 19 on their company and how they tackled the same. He stated that most of the issues were the same as that of CEB, except that they had eight cases of infection, the propagation of which was arrested. He summarized the way forward and noted that digitalisation of the distribution utilities is needed to tackle any sort of pandemic. He urged on the need for a unifying platform for digitalization across businesses, across Distribution utilities within Sri Lanka and across utilities of various South Asian countries.

This was followed by the Question-and-Answer session. **Mr. Pramod Singh the Chief of Party of SAREH** then summed up the proceedings. **Ms. Monali Zeya Hazra, Regional Energy Manager and Clean Energy Specialist, USAID India** delivered the closing remarks and thanked all the panel members for sharing their learnings and experiences. She acknowledged the efforts of the USAID/India team, SARI/EI Project Secretariat, the SAREH team and the SPARC team for a successful collaboration on the event.



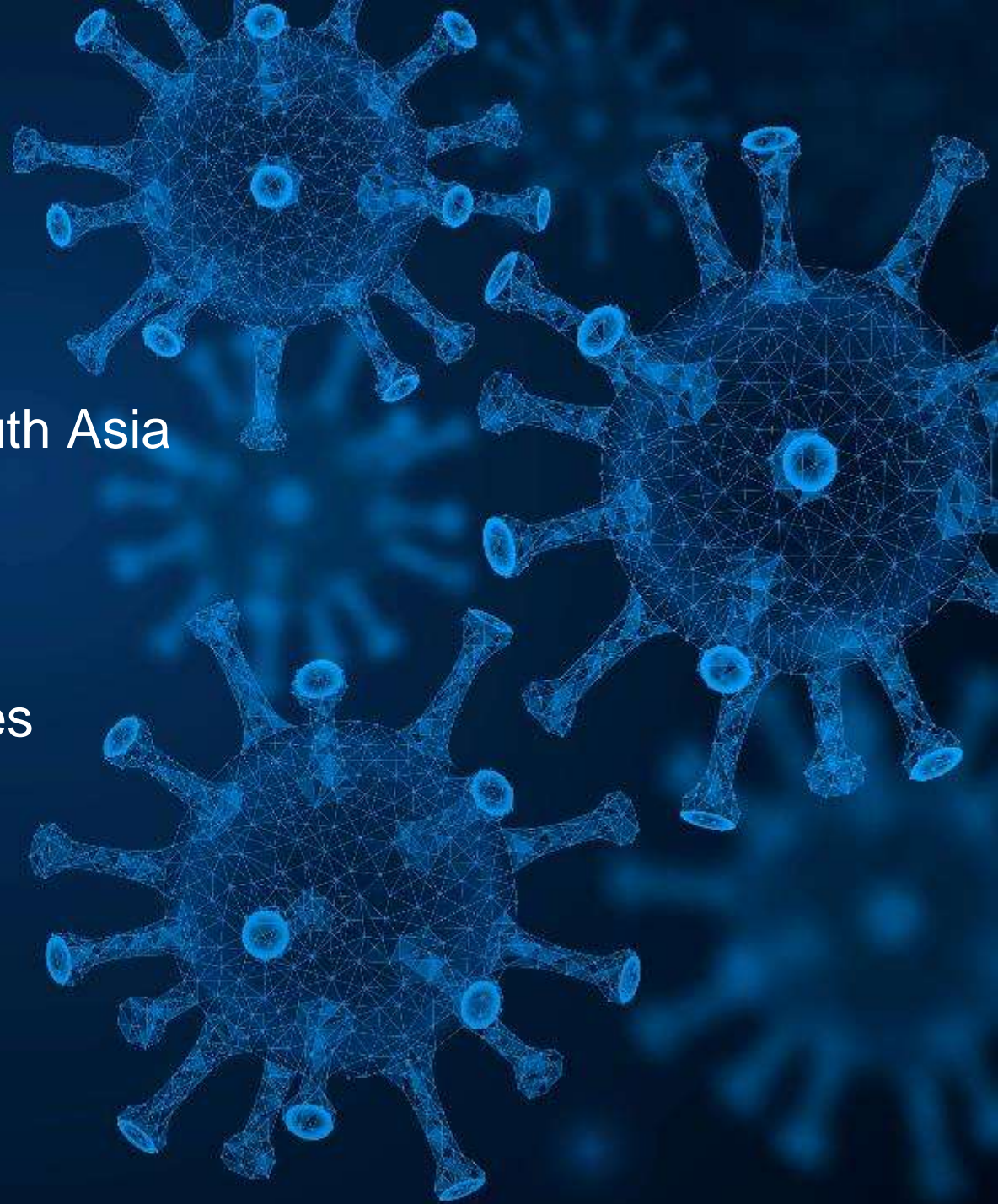
Tackling the COVID-19 crisis:

Experience sharing by South Asian
power distribution companies

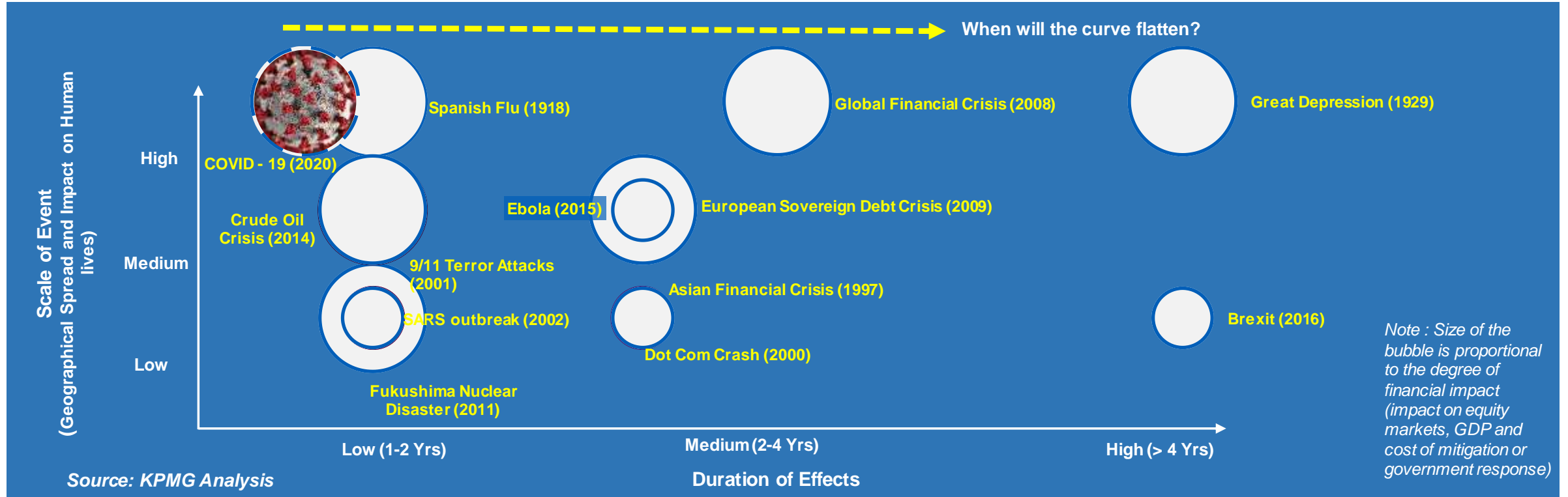
November 25, 2020

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- 2 Impact on South Asian Utilities
- 3 Response by Governments and Utilities
- 4 Way Forward



COVID-19 pandemic is unprecedented in terms of scale and impact



Worst Hit



Airlines

~1/3rd of the global passenger fleet has been **placed into storage** according to IATA & WEF



Tourism

International tourist **arrivals** are expected to **drop by 30%** in 2020 as per UNWTO



Supply Chain

~75% of US based companies reported **doubling of lead times** for raw materials as per ISM



Manufacturing

~1.9 mn units of **lost automobile production** with an **average shutdown of ~24 days** in Europe as per ACEA

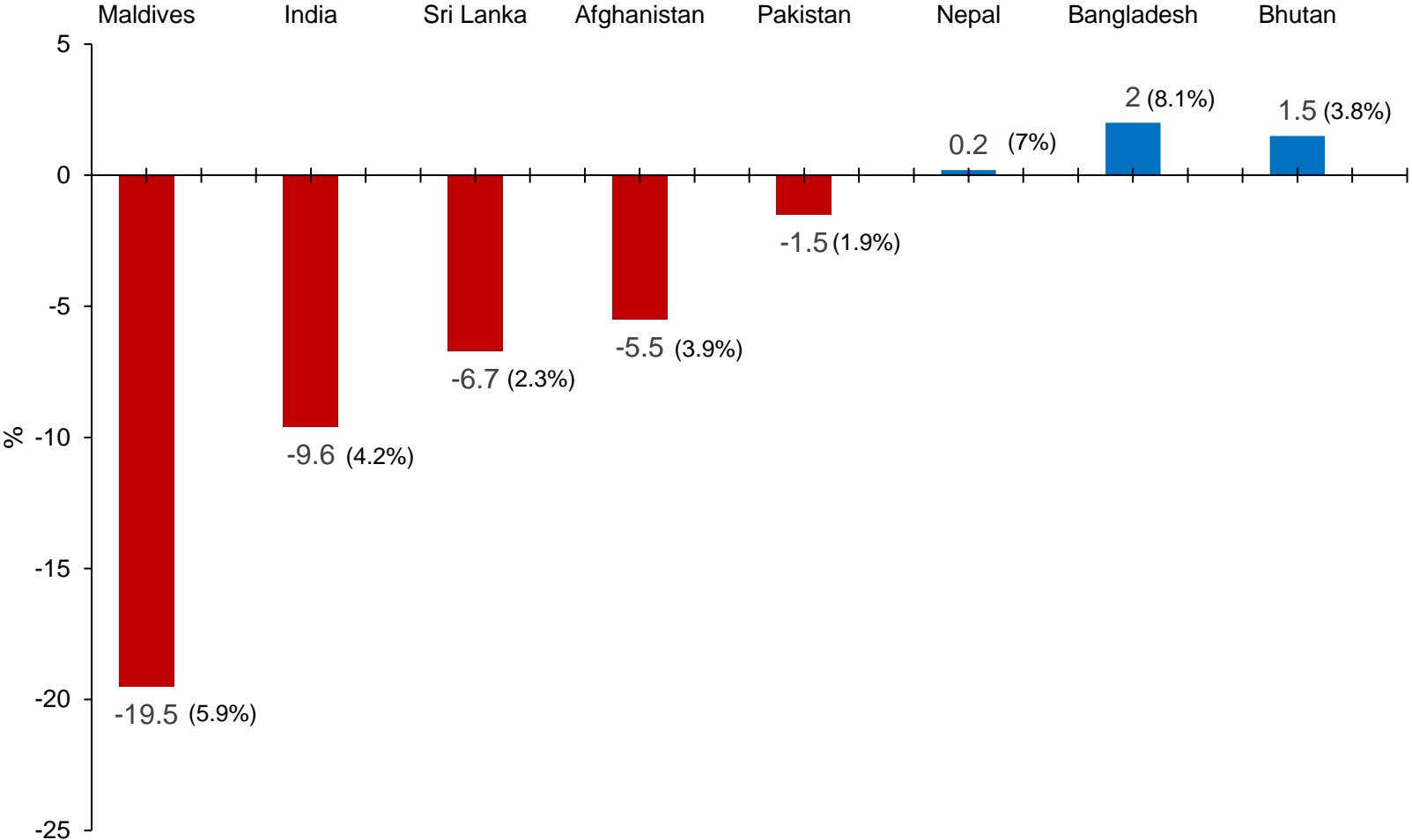


Jobs

COVID could lead to job losses to the tune of **~195 million** across the globe according to ILO

COVID-19 has had a profound impact on the South Asian region

Estimated Real GDP FY20 (FY 19)



Economy expected to contract by **7.7% in 2020**

Demand components (private consumption, exports, etc.) except for Government consumption to decline

Significant impact on countries such as Maldives where tourism is a significant contributor to the GDP

Drop in employment & labor productivity

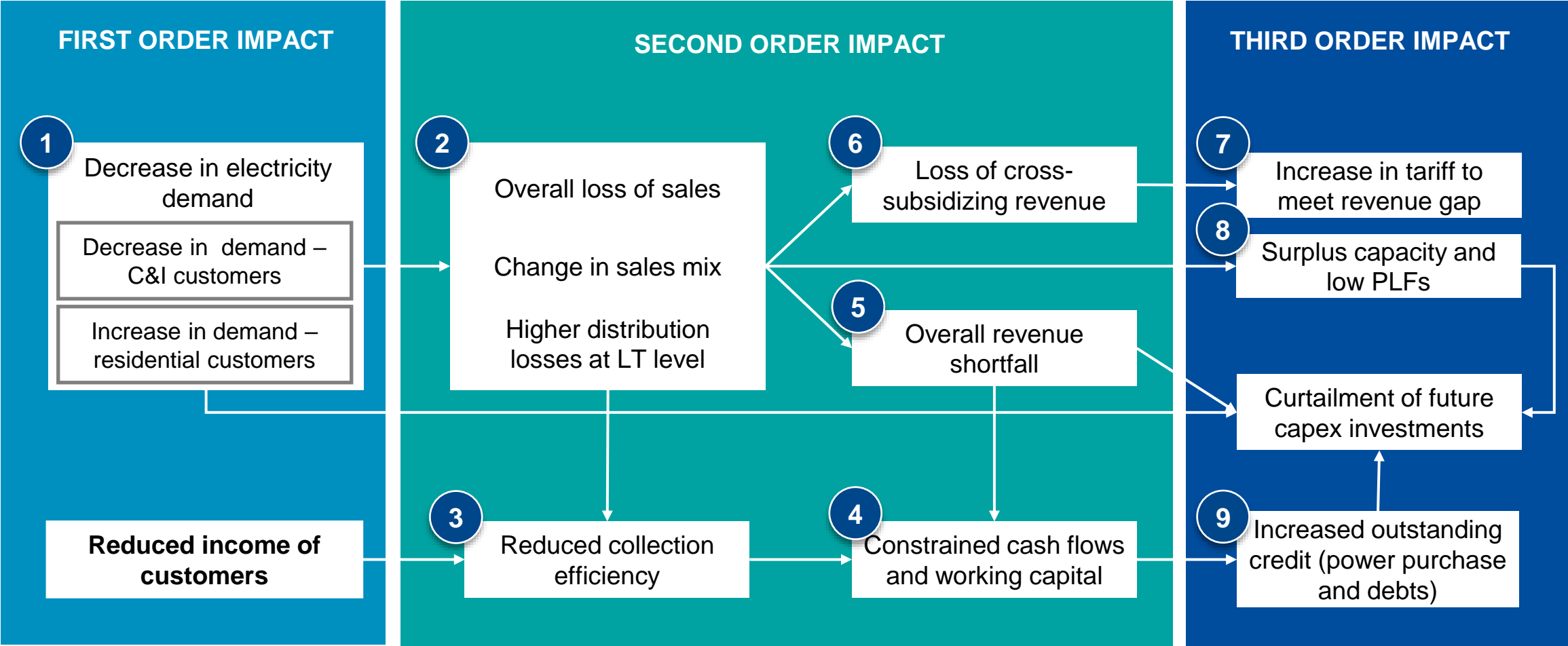
Disruption in industrial production

FY19 real GDP growth rates in parenthesis, Bangladesh, Bhutan, Nepal, Pakistan report GDP July – June; Afghanistan, Maldives & Sri Lanka – Jan – Dec; India – April – March, India estimates are for FY 20-21 period and in parenthesis FY 19-20 growth numbers shown; Source: South Asia Economic Focus – Fall 2020 “Beaten or Broken ? Informality and COVID 19 – The World Bank published August 2020

Impact of COVID – 19: South Asian Utilities



Power being essential service didn't face direct discontinuity, however witnessed second & third-degree effects



Different South Asian countries depending on their conditions have been impacted differently, on the above impacts

COVID-19 has imposed fresh set of challenges on the distribution segment

INDICATIVE ONLY

	India	Nepal	Bangladesh	Bhutan	Sri Lanka
Electricity Demand	<ul style="list-style-type: none"> Peak demand ↓ 26% in 1st lockdown week ↑ 13.4% in Oct'20 from Oct'19 levels Industrial states (AP, Tamil Nadu, Maharashtra etc.) lagging in demand revival 	<p>Within 1st 2 weeks consumption ↓ 30% & peak demand ↓ 20%</p>	<p>Peak demand ↓ 12% within 1st lockdown week</p>	<p>Peak demand ↓ 28.6% within a week of lockdown</p>	<p>Consumption ↓ 15% in b/w Jan – Apr 2020</p>
Supply	<ul style="list-style-type: none"> Generation ↓ 12.5% b/w Apr-Jul'20 w.r.t 2019 Liquidity issues - \$12 Bn package may offer relief RE share 12% in Aug 20 – 10% in Aug 19 	<ul style="list-style-type: none"> Partial/ full shut down of NEA plants Import from India ↓ 5192 MWh/day – \$ 300k saving/ day 	<ul style="list-style-type: none"> IPP & Rental plants due \$ 180-190 Mn / month from Discoms – est. liquidity issues Import from India ↓ 5.36% 	<p>Surplus power (avg. 4.1 MU/day) absorbed by India</p>	<p>Generation ↓ 22.7% in Apr w.r.t Jan 2020</p>
Liquidity & Revenue	<ul style="list-style-type: none"> 80% ↓ in collections \$3-3.5 bn rev shortfall Est. cross subsidy impact of \$2-2.5 Bn in FY21 Genco outstanding > \$13bn 	<ul style="list-style-type: none"> ~\$15 Mn/ month est. revenue shortfall High cross subsidy – NPR 4.54.kWh – drop in C&I demand (45% of total pre-COVID sales) to impact cash flows 	<ul style="list-style-type: none"> 70% ↓ in collections Discom losses ~\$2 Bn in Mar-Dec period & tariff deficit of \$1 Bn 	<p>Loss of revenue consq. to demand reduction</p>	<ul style="list-style-type: none"> 14% ↓ in revenue in b/w Jan – Apr 2020 (w.r.t 2019) Operating loss ~\$140 Mn b/w Jan – Apr 2020 – 10% ↑ (w.r.t 2019)

Global Response by Governments and Power Utilities *(incl. South Asia)*



- **Government Stimulus**
- **Utility Operations and Continuity**
- **Customer side Interventions**
- **Regulatory Measures**
- **Health and Safety Considerations**



Government Stimulus

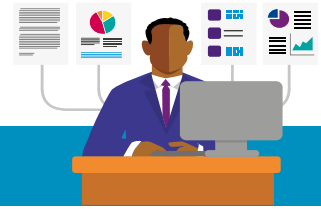


Stimulus package	ANEEL, Brazil	<ul style="list-style-type: none">\$ 75 Mn as guarantee liquidity for electricity sector cos.No suspension of supply (for 90 days) for payment default.
Working capital loans	Queensland, Western Australia	<ul style="list-style-type: none">\$ 218 Mn for subsidizing utility bills. The stimulus intends to freeze cost increase for electricity bills.
Financial assistance for vulnerable	Scottish & Southern Energy, UK	<ul style="list-style-type: none">Financial assistance of \$ 1.25 for communities most vulnerable to pandemic.
Subsidy on utility bills	South Asia	<ul style="list-style-type: none">India: \$ 12 Bn stimulus package for Discoms to mitigate their liquidity crisis.Bangladesh: Stimulus package for economy incl. \$ 3.5 Bn for banks to provide working capital loans to industriesSri Lanka: \$ 250 Mn refinancing facility for banks to provide loan moratorium and working capital

Utility Operations and Continuity



Digital Enablement	ENEL, Italy	<ul style="list-style-type: none">Stress testing and back-up of operating center – <u>100% IT applications on cloud – 55% employees work remotely</u>
Service Prioritization	Washington Utilities and Trans. Commission	<ul style="list-style-type: none"><u>Online portal to provide outage information and resolve billing related issues.</u>Online public meetings, hearings and workshops to maintain transparency.
Infra upgradation	Federal Energy Regulatory Comm (USA)	<ul style="list-style-type: none">Assured electricity system operators of accepting impacts of COVID-19 outbreak as acceptable basis for non-compliance.<u>Dedicated POC</u> with powers for COVID-related issues.Oral arguments on WebEx & telephonic settlement conferences
Employee Well-being	South Asia	<ul style="list-style-type: none">BSES, India: Established back up system operations & <u>network center to maintain business continuity</u>TPDDL, India: <u>Launched e-bill services on WhatsApp</u>, introduced missed call service to register complaintBPC, Bhutan: <u>Suspended non-essential works</u> such as planned maintenance.



Customer Side Interventions

Commercial innovations	Federal Govt. of Australia	<ul style="list-style-type: none">• Extension of hardship policies (meant for consumers with low paying capacity and includes bill discounts, etc.) to consumers impacted by COVID-19.
Emergency credit schemes	E. ON Energy, UK	<ul style="list-style-type: none">• Offered direct debit payment options to reduce monthly bills by up to 20%. Extended emergency credit levels for customers with prepayment meters from GBP 5 to GBP 50.
Suspended disconnection	Scottish Power	<ul style="list-style-type: none">• Launched direct debit facility for customers and supported customers through relaxation of bills and grants.
Last mile services	South Asia	<ul style="list-style-type: none">• PUCL, Sri Lanka :Provided household electrical maintenance service during the curfew• DERC, India :Provided financial incentives to enhance uptake of self-meter reading during lockdown• BPC, Bhutan: Customers to face no disconnection in case of default on bill payment

Regulatory Measures



Extension of submission deadlines	OFGEM, UK	<ul style="list-style-type: none">• Extended the timelines for submission of Q1 2020 quarterly and monthly reports for Complaints, Social Obligations Reporting etc. to July 2020.• Suspended all public open hearings but continued to hold online meetings
Waive off late payment charges	FERC, USA	<ul style="list-style-type: none">• Postponed regulatory filing deadlines by two months, audits, certifications and other on-site activities.
Deferment of bill due dates	ENEL, Italy	<ul style="list-style-type: none">• Reduced tariff for vulnerable sections and promoted online payment method.
Reduced tariff for vulnerable	South Asia	<ul style="list-style-type: none">• Indian ERCs: Extended the due dates for bills raised between March-June 2020 by two to six weeks without levying late payment surcharge & provided a temporary relief on compliance requirements• Nepal: Deferred the payment of power bills & provided rebate on tariff for customers with low consumption• RMA, Bhutan: Provided deferment in loan repayment and interest waiver for 3 months

Health and Safety Considerations



Employee rostering	National Grid, USA	<ul style="list-style-type: none">• <u>Restrictions on regular workforce from entering (emergency response critical) control rooms.</u>• Suspension of energy efficiency and other services requiring visit to consumer premise.
Dedicated task force	New York Power Authority	<ul style="list-style-type: none">• Early formation of an <u>internal task force for employee and public safety</u> and established an incident command structure.
Remote working	ENEL, Italy	<ul style="list-style-type: none">• <u>Global Task Force</u> for seamless operations in 32 countries• <u>“Vacation Day Bank”</u> for employees engaged in field operations – paid time off for service during COVID-19
Employee protection	South Asia	<ul style="list-style-type: none">• MPERC, India :Established <u>virtual courtrooms</u> for hearings• Nepal Discoms: <u>Rostering of employees</u> across consumer management & O&M. Employees of other deps on standby• Bangladesh: Directives by Ministry to Discoms to ensure <u>welfare and safety</u> of employees

Way Forward



COVID is one form of disruption. Preparedness is needed for multiple form of threats:



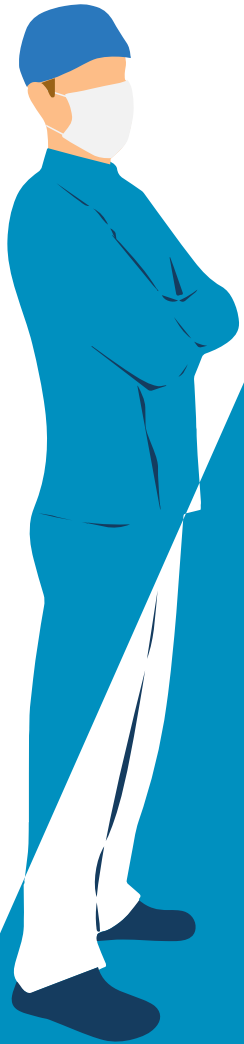
Natural
adversities

Technological
threats



Human induced
threats

Health
emergencies



Key Priorities Going Forward

01



Financial recovery

- **Liquidity management** - cost reduction, stringent expense management in the immediate and medium-term
- Implement **risk-weighted financial management strategy** in the longer term to enable financial recovery

02



Resilience as a key criteria for planning

- Aim to improve resilience to ensure continuity of supply and sustainability of operations
- **Any form of disruption should be included** in such resilience planning

03



Higher level of digitalization for operations

- **Fast-track adoption of digital infrastructure** incl. approval processes, bid process mgt. workforce mgt., customer experience etc.
- Deployment of digital solutions including drones/UAVs for **asset monitoring**, assets mgt. analytics, IOT based methods to track **network indicators**

04



Workforce management

- **Workforce to be trained and equipped** to maintain business continuity
- Focus on **health, safety and wellbeing** of employees
- Prepared workforce with clear roles and response mechanism incl. disaster task force

05



Cyber security and risk management

- Proactive communication to create **awareness related to cybersecurity risks** amongst the workforce, customers, and other stakeholders to avoid any pitfalls
- Define a **cybersecurity policy** classifying stakeholders based on risk and develop and continuously assess the monitoring and response plan

06



Deep customer engagement and management

- **Deeper engagement and value delivery to customers** through ensuring proactive updates on vital information through various mediums, leveraging social media presence and organizing digital events to understand customer requirements

Thank You

About the Program:

The Smart Power for Advancing Reliability and Connectivity (SPARC) is a three year bi-lateral program of the USAID with the Ministry of Power, Government of India. The objective of the program is to modernize electricity distribution utilities to improve their operational and financial performance. The implementing partner of the SPARC program is KPMG.

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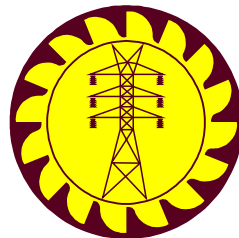
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Powering the Nation During and Post COVID-19 in Sri Lanka

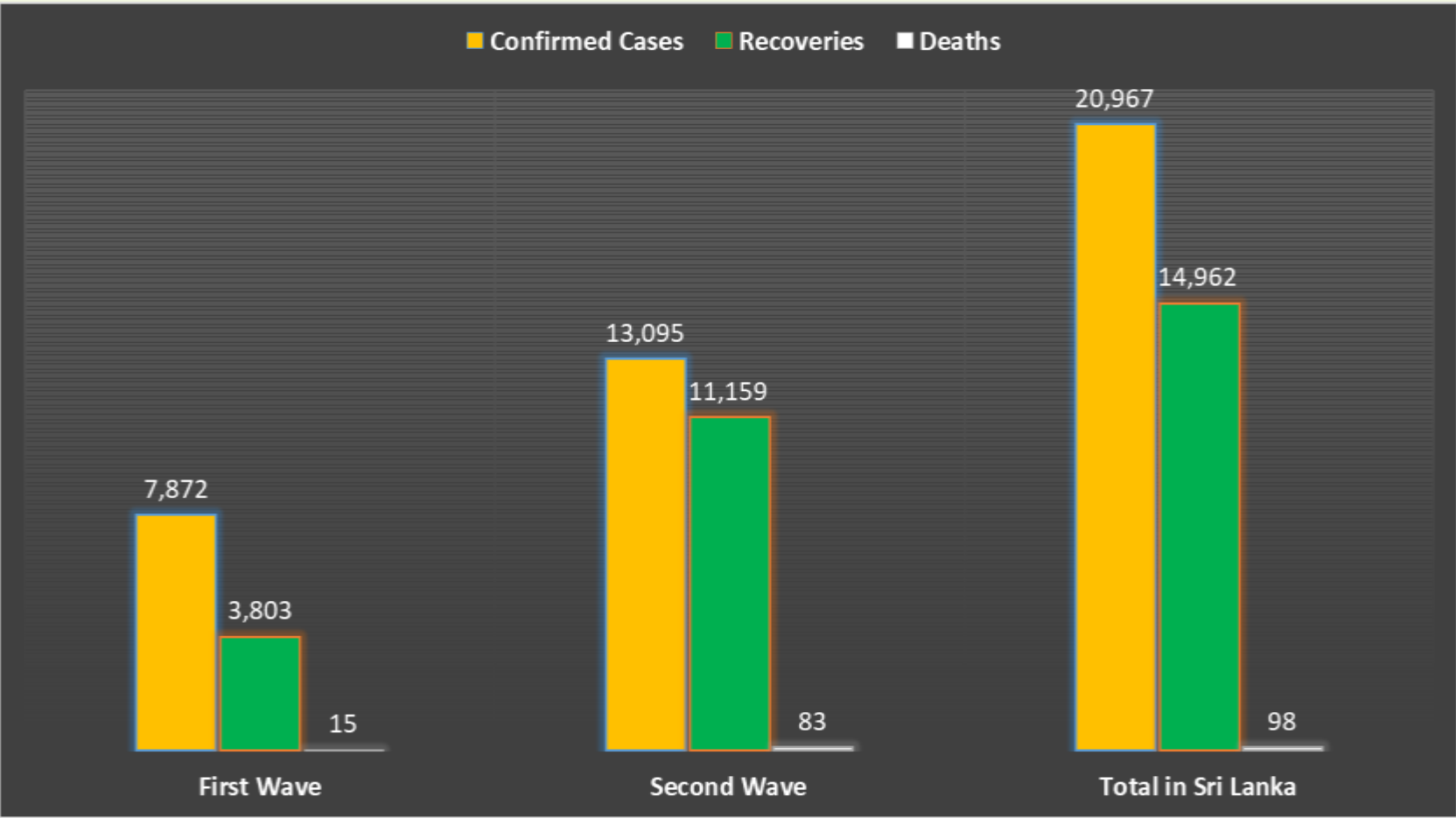
Eng. Rohan Seneviratne

Additional General Manager (Distribution Division 4), Ceylon Electricity Board
Sri Lanka

Business  as Usual

COVID - Confirmed Cases, Recoveries, Deaths

First Wave Vs. Second Wave



Status of the Country from 2020-03-16 to 2020-09-11

Period	16-03-20	17-03-20	18-03-20 To 20-03-20	21-03-20 To 11-05-2020	12-05-20 To 29-10-20	30-10-20 To 09-11-20
Public Holiday	1					
Partial Lock Down			3			
Full Lock Down				52		
Country is Back to Normal					170	
Partial Lock Down Covid 19 2nd Wave						12

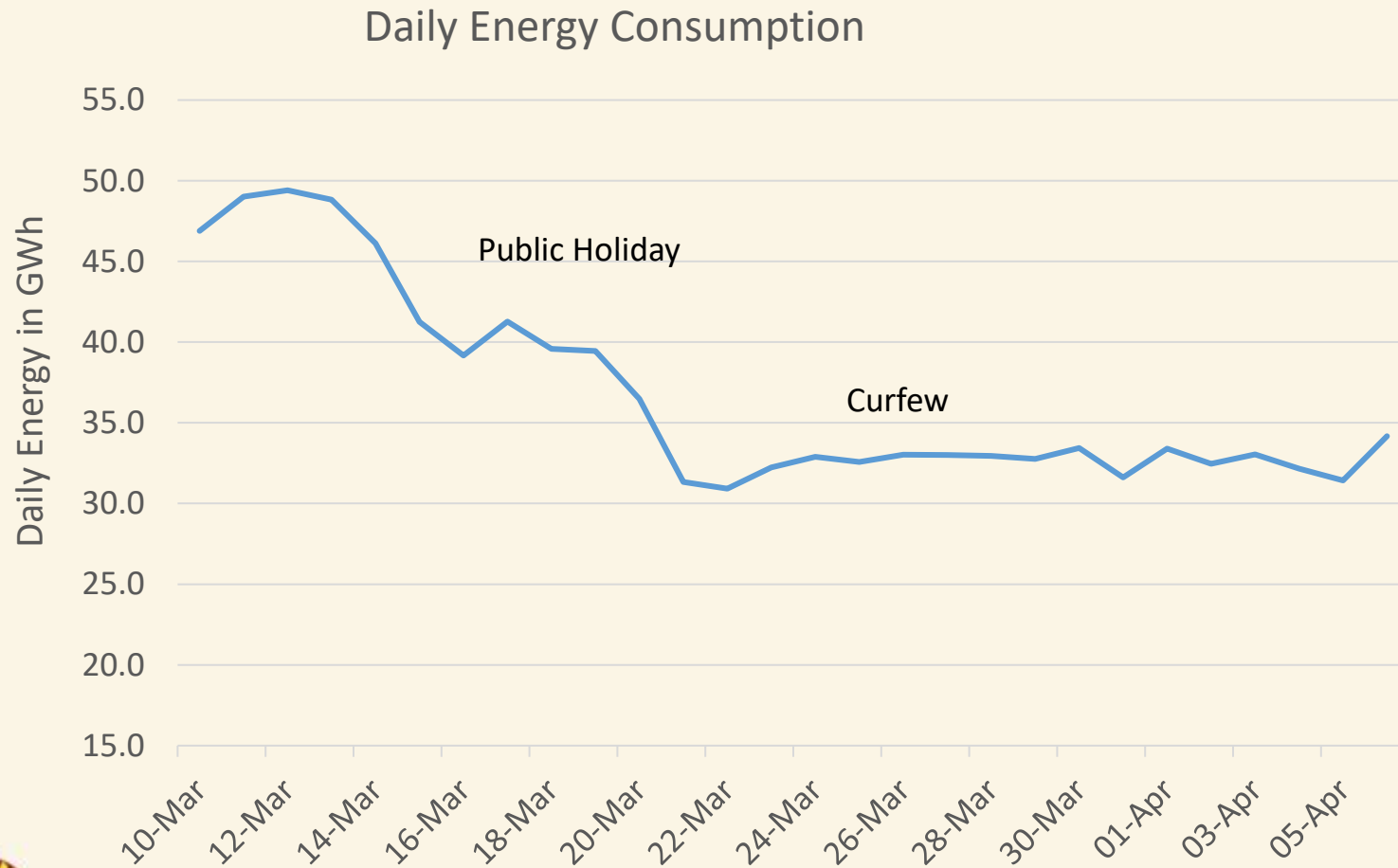


Managing the Sri Lankan Electrical Grid during Covid-19 Outbreak

- Provided 24x7 power supply to the nation with better reliability
- All staff practiced sanitary procedures laid down by health authorities
- No Covid infections among the staff of 26000
- New Normal



Changes in the Daily Energy Consumption



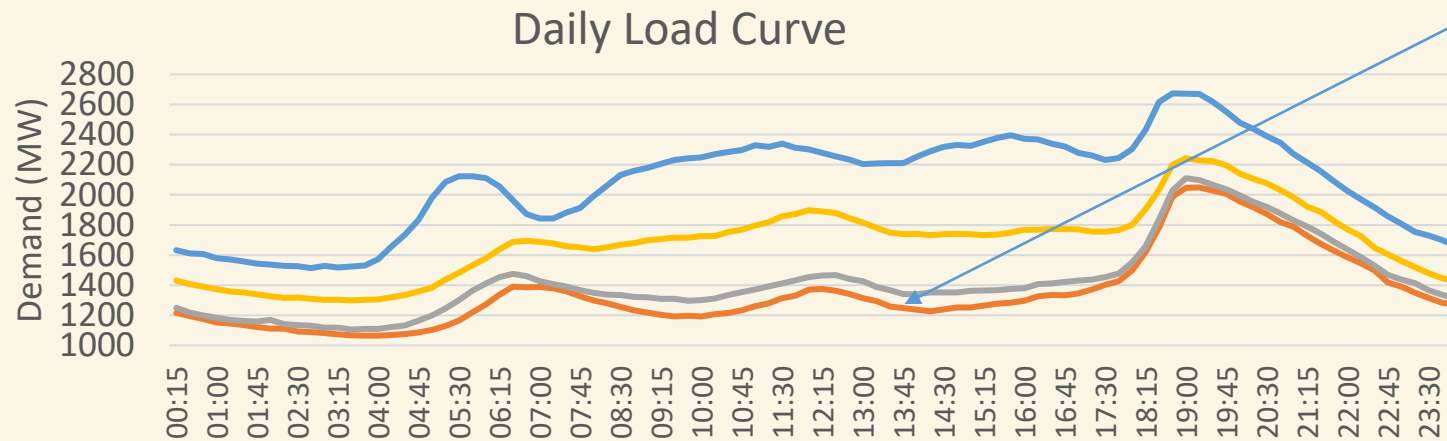
Scenario	Average Daily Energy/(GWh)
Normal Working day	48.5
Weekend	39.4
Special public holiday	39.9
Curfew period	32.7

*Typical
Week Day*



Changes in the daily Load Curve

- People used to different life style with the work from during the covid-19 pandemic



1st Demand Curve-
Dominated by the Domestic
load with forces and hospital
load.

— 4/2/2020 (Island wide curfew)

— 4/6/2020 (curfew lifted in some areas)

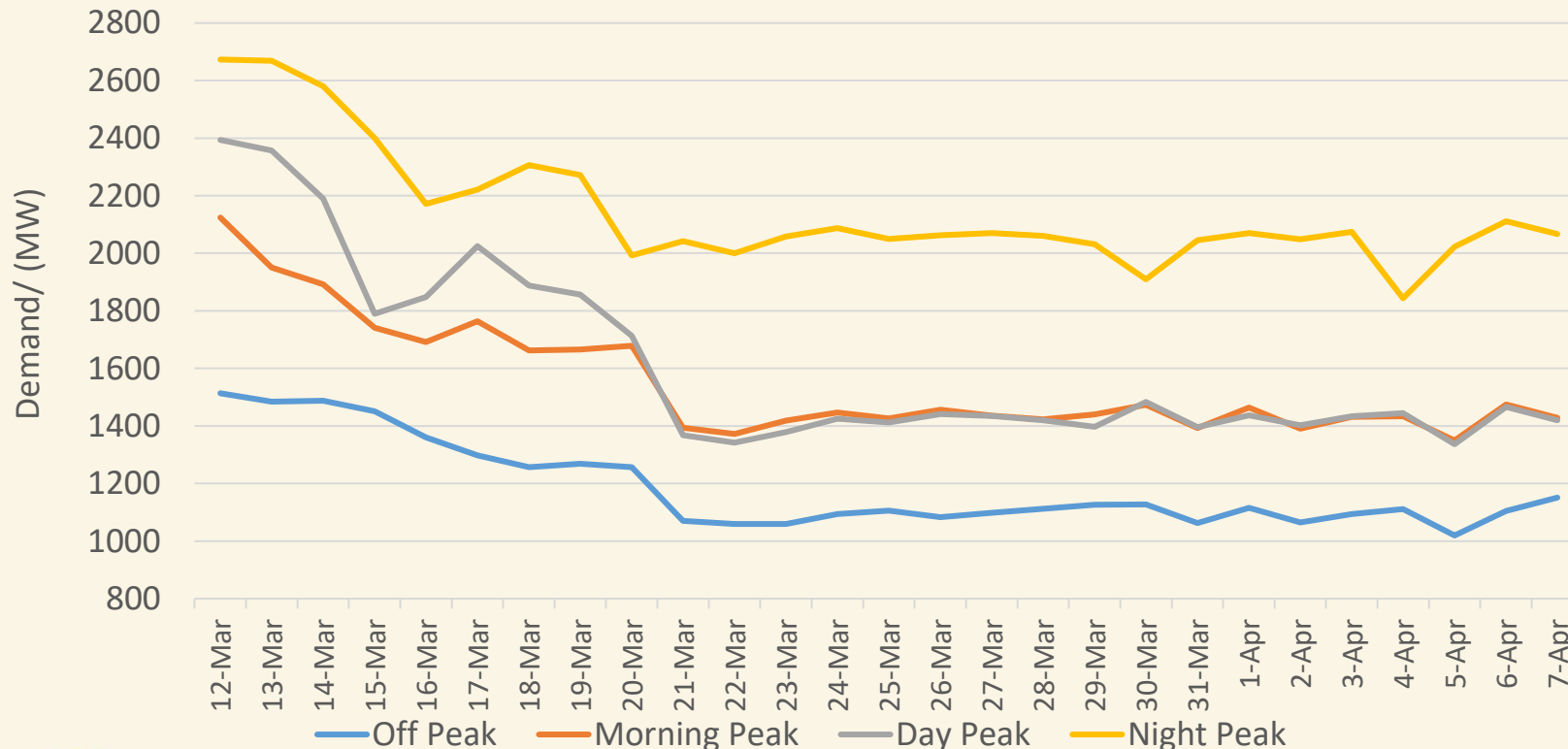
— 3/12/2020 (Normal working day)

— Special PH



Peak Load Variations from Pre Covid-19 to Covid-19

Peak variations from pre Covid-19 to Covid-19



Peak	Demand Drop in MW/(% w.r.t corresponding peak) -16.03 to 20.03	Demand Drop in MW/(% w.r.t corresponding peak) -after 20.03.2020
MP	300/(14 %)	650/(30%)
DP	450/(19%)	900/(38%)
NP	350/(13%)	580/(22%)
OP	200(14%)	350/(24%)

- **Non monitored Roof top solar during day time makes both Day peak and Morning Peak same**
- **Less load reduction off peak and night peak- less 24 hrs working industries**



Generation

- Business continuity plans for power stations
- Minimum O&M staff for operation and essential maintenance
- Minimise employee movement
- Provided accommodation and food items
- Suspended non essential work , third party contracts
- Maintain database of employees before leaving the station
- PHI clearance before reporting to duty and close monitoring after reporting to work.
- Maintain adequate fuel and coal stocks
- Case Study – Lakvijaya Coal Power Plant





Management of the Impact of COVID-19 Outbreak on Daily Operations of Lakvijaya Power Plant, Norochcholai

June 2020



Continuous encouragement and guidance was provided by the authorities..



Hon. Minister of Power and Energy Mahinda Amaraweera inspects the main control room of LVPP on 7th April 2020



Secretary to the Ministry of Power and Energy Ms. Wasantha Perera speaking to employees involved in coal unloading operations at LVPP on 17th April 2020



Ceylon Electricity Board General Manager Eng. D.D.K. Karunaratne speaking to main control room engineers at LVPP on 5th April 2020.



Transmission and Distribution

- Business continuity plans for transmission and distribution
- Minimum O&M staff for operation and essential maintenance
- Decreased the movements of operational staff of GSS by increasing the allocated time per shift up to 48 hours
- Minimise employee movement
- Made arrangements to facilitate with essential food items and sanitizing items.
- Provided transport
- Provided accommodation and food items
- Suspended non essential work , third party contracts
- Maintain database of employees before leaving the station









Issuing of Electricity Bills

- Stopped issuing bills around 15th March 2020
- Non payment disconnection was stopped
- Issuing bills commenced last week of April in non curfew areas
- Issuing bills in Colombo, Gampaha and Kalutara districts commenced around 12th May 2020



Revenue Collection - Online Payment Facilities

- Card Payments
22000

හිතවත් ලංවිම පාරිභෝගිකයනි

මාර්තු, අප්‍රේල්, මැයි මාස සඳහා ඔබ වෙත වෙන වෙනම විදුලි බිල්පත් ලබා දෙනු ලැබේ. මේ අභියෝගාත්මක අවස්ථාවේ ඔබට අත්‍යවශ්‍ය විදුලිය අඛණ්ඩව ලබා දීමට ඔබට ලබා දුන් විදුලි බිල්පත් ගෙවීමෙන් අපට සහාය ලබා දෙන්න!

දැන් ක්‍රෙඩිට් සහ ඩෙබිට් කාඩ් භාවිතයෙන් අමතර ගාස්තු කිසිවක් නොමැතිව ceb.lk වෙබ් අඩවිය හෝ CEB Care App එක මගින් ආරක්ෂිතව නිවසේ සිටම විදුලි බිල්පත් ගෙවන්න පුළුවන්.

එසේම,

- බැංකුවල online බිල්පත් ගෙවීමේ පහසුකම් භාවිතයෙන්
- M-cash, genie, EzCash හා FriMi ගෙවීම් ක්‍රම මගින්
- ශ්‍රී ලංකා තැපැල් කාර්යාල මගින්
- ලංවිම ගෙවීම් කවුළු (POS) මගින් හෝ
- ස්වයං ගෙවීම් KIOSKS යන්ත්‍ර භාවිතයෙන් ද බිල්පත් ගෙවිය හැක.

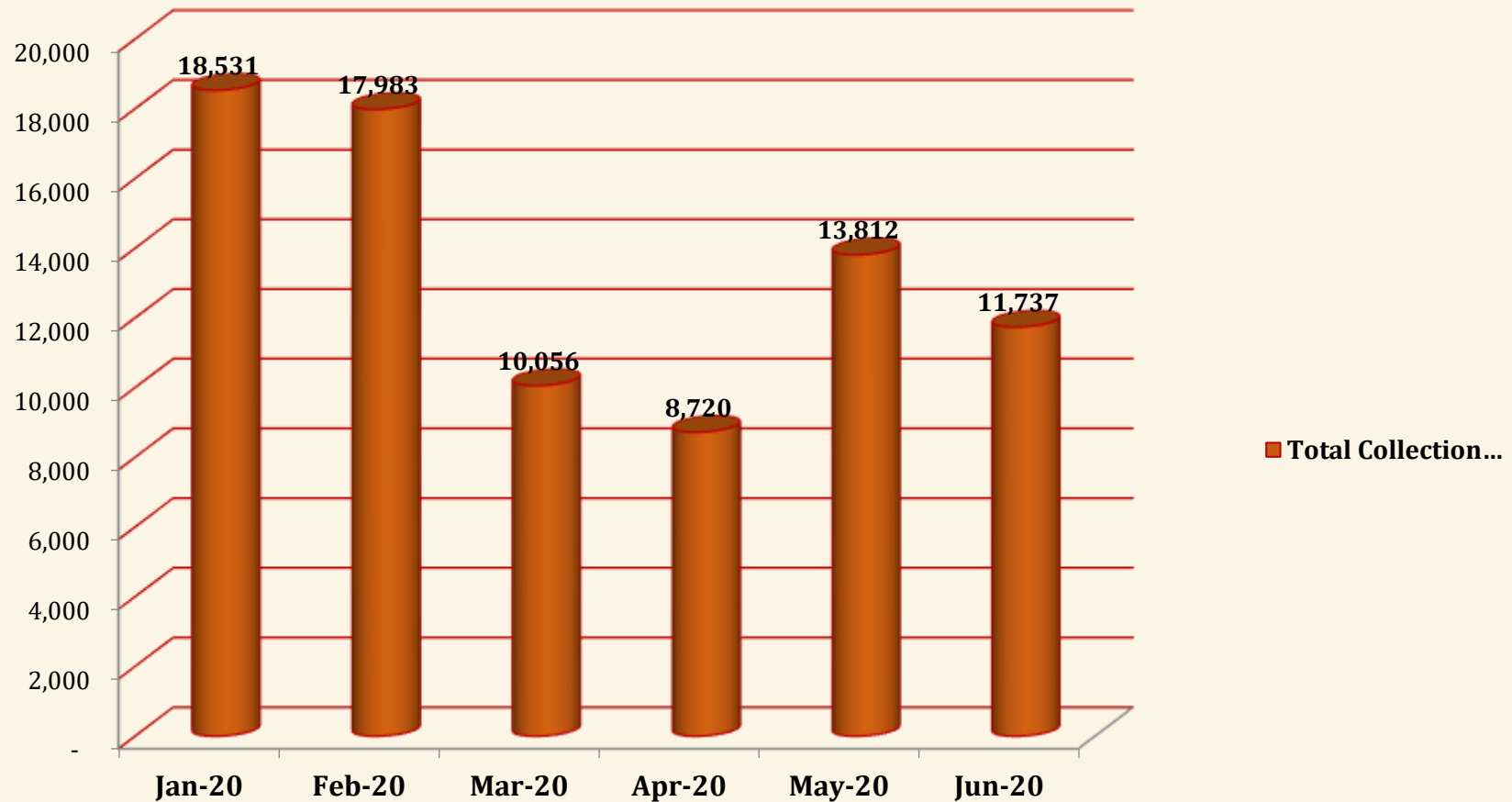
Let's rise together!



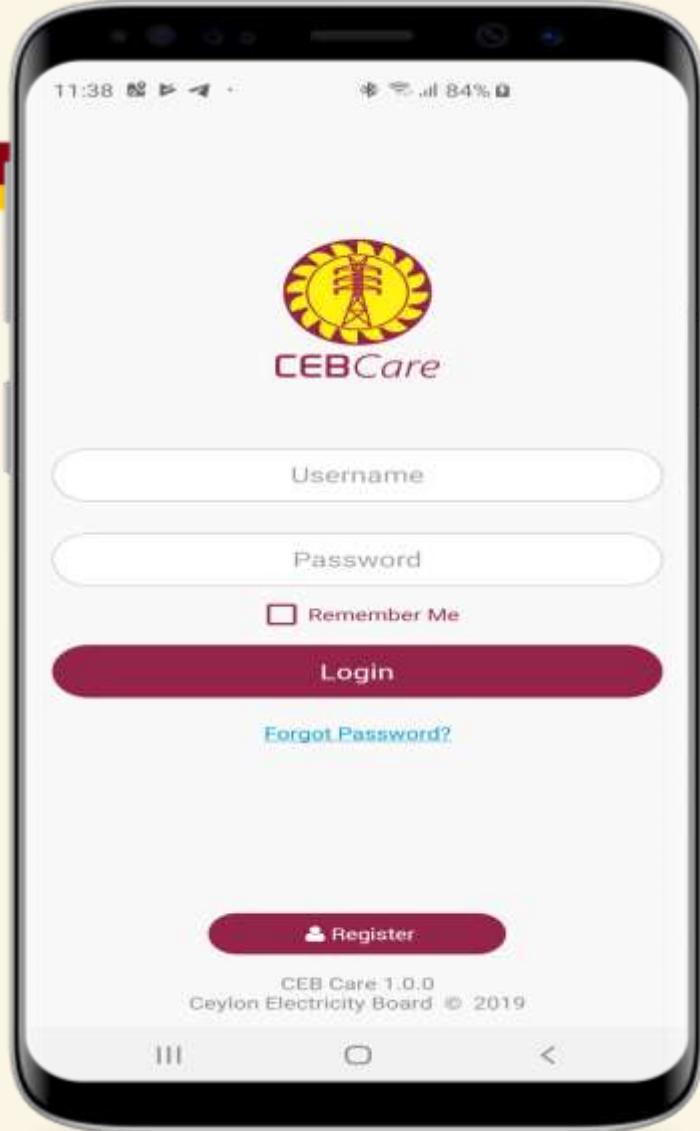
ලංකා විදුලිබල මණ්ඩලය
இலங்கை மின்சார சபை
CEYLON ELECTRICITY BOARD



Monthly Total Collection CEB 2020



Key Features



- Complain with Account Number
- Complain with custom location
- LiveTrack complaint status
- Power interruption notifications
- Billing and usage history info
- Online bill payments



New Normal of Electrical Energy Service Delivery

- Energy Security
 - Fuel storage in new power plants
 - Coal storage
 - More renewable power
 - Fuel diversity
- Reliable and resilient grid (Smart Grid)
 - Stability management
 - SCADA operation in distribution network
- Digital Transformation
 - Digital customer
 - Smart Meters
 - ERP
 - Work from home
 - Digital signature
 - E- Procurement



Thank You !

Business  t as Usual

