# K-Electric Limited Investor Presentation

November 2019

## **Pakistan Power Sector**

**Strategic Importance of Karachi** 

**Reforms Underway** 

**KE's Brief History & Overview** 

**Operational & Financial Performance** 

**Multi-Year Tariff** 

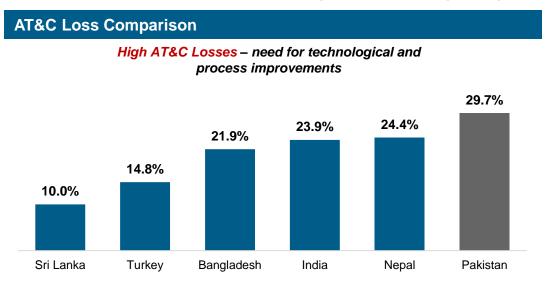
**Future Plans** 

**Key Challenges** 

# Pakistan Power Sector – State of the Industry

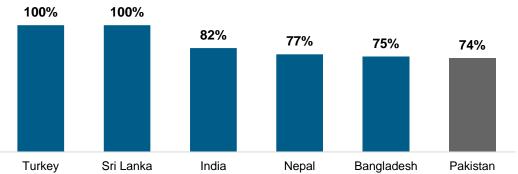


Over 10,000 MW of power generation has been added in the last 5 years, however, overall energy planning remained fragmented across the energy value chain, with little focus on reducing losses and upgrading Transmission and Distribution capacity



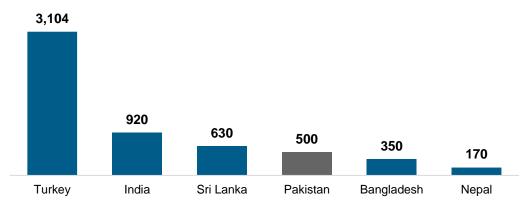


26% of the country's population does not have access to grid electricity – signaling lack of investment in T&D segment, despite capacity additions in Generation



### Per Capita Consumption (kWh)





#### **Need for continued investments**

Potential for **USD 80 Billion of future investments** to bring operational improvements along with sector reforms — out of these **at least 50% are required in Transmission and Distribution upgrades** 

Pakistani power sector including generation, transmission and upgradation has over USD 80 Billion investment opportunities and foreign direct investment was pouring as multiple companies have shown their interest to invest"

Omar Ayub, Minister for Energy, Government of Pakistan

### **Pakistan Power Sector**

# **Strategic Importance of Karachi**

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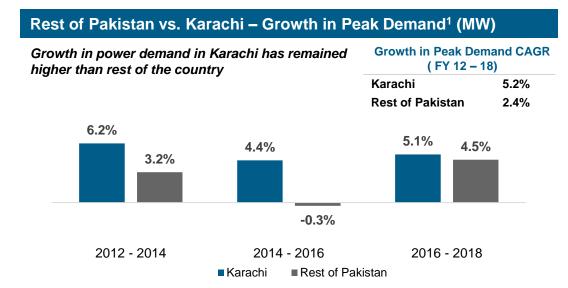
# Strategic Importance of Karachi



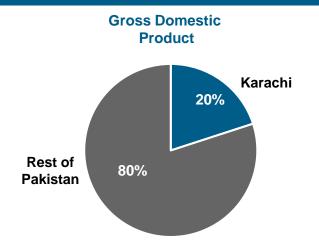
The city of Karachi is essential to Pakistan's economy and drives much of the country's economic growth. As the city's sole electricity provider, KE is of strategic importance to the municipality and the country

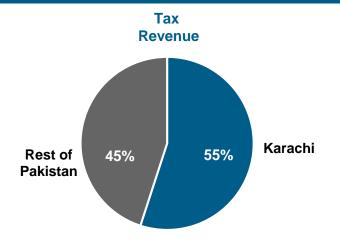
#### Karachi's Importance to Pakistan

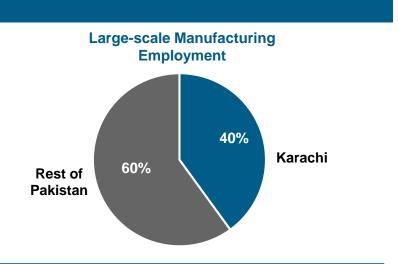
- Karachi is the commercial hub and gateway of Pakistan accounts for c. 20% of the country's GDP
- · Home to Pakistan Stock Exchange, making it the financial centre of Pakistan
- c. 40% of large-scale manufacturing employment is in Karachi
- Population is expected to grow at a CAGR of c. 2.5% in the next 5 years
- Following government initiatives among others would lead to further increase in industrial and commercial activity, resulting in increased power demand
  - Setting up of Special Economic Zone (SEZ) in Dhabeji region
  - Development of National Industrial Park near Port Qasim, Karachi



#### Karachi's Contribution to Pakistan's Economy







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# Pakistan Power Sector – Reforms Underway



Policy reforms are underway to address key power sector issues including circular debt and other structural weaknesses – improvement of ecosystem and system performance will definitely fuel economic growth led by domestic and export-led businesses

Challenges Measures Positive Outlook

Circular Debt

Significant increase in Capacity Payments

Tariff Subsidies

High Losses & Weak Governance of ex-WAPDA Entities

#### **Sustainable Capacity**

- Shift to low cost sources (coal, hydel, renewables, etc)
- Targeted fuel mix by 2040: Hydel (40%), Renewables (16%) and Local Coal (25%)
- Attract investment in on-grid and off-grid renewables for greater access
- Integrated planning to improve demand forecasting which will help avoid capacity payments for idle capacity

#### **Structural Changes**

- Planned privatization of state-owned distribution companies
- Regulatory changes including action against power theft
- Gradual phasing out of subsidies through increase in consumer-end tariff
- Competitive bidding
- Opening up of markets allowing wider access to distribution companies

GoP's target to erase circular debt by end of 2020

Addition of low-cost generation

Privatization of stateowned DISCOs

Improved
governance, financial
sustainability of the sector
and better service levels

Source: World Economic Forum, News Reports

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# **KE's Brief History & Overview**

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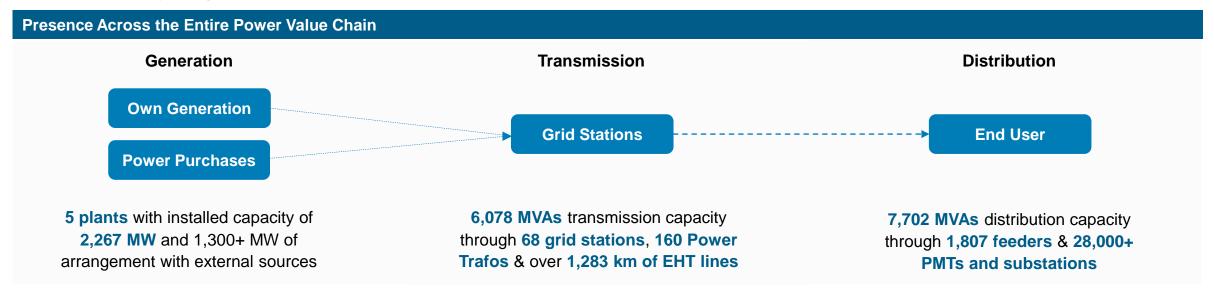
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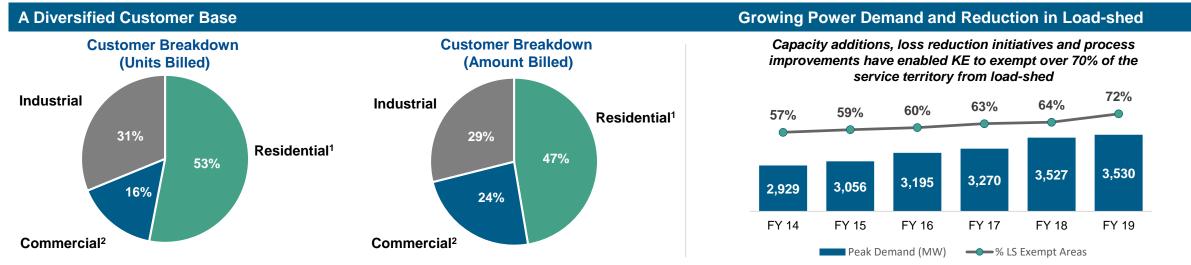
**Key Challenges** 

## **Business Overview**



As the only vertically integrated power supply company in Pakistan, KE has a robust network to ensure sustainable and reliable power supply to Karachi and its adjoining areas

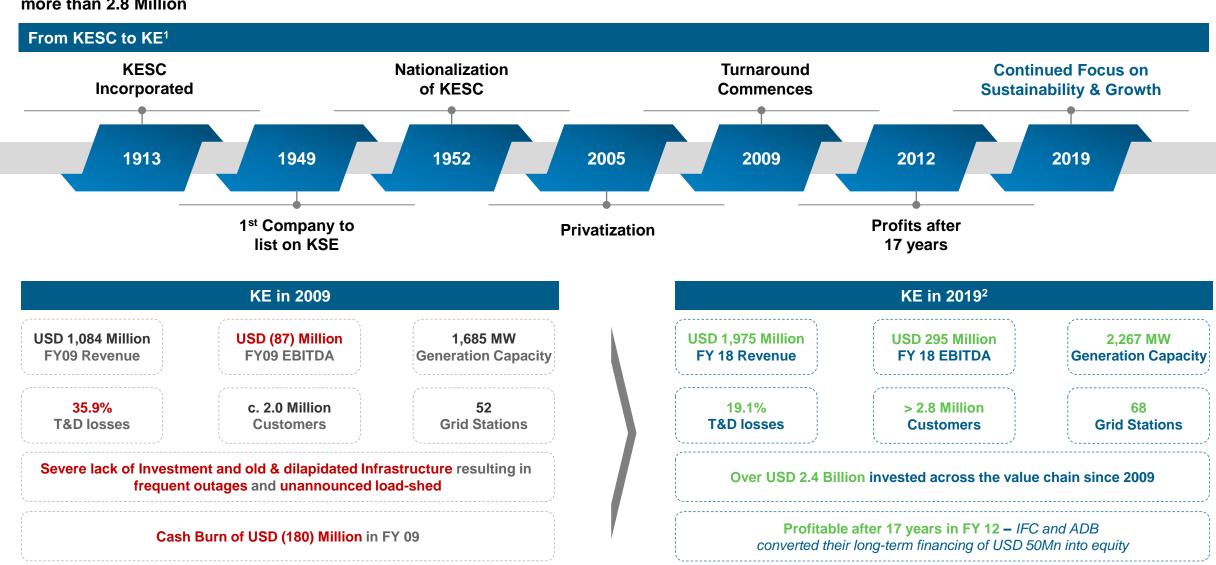




# **Brief History & Overview**



Incorporated in 1913, KE is the only power utility company having presence across the entire energy value chain, and has a customer base of more than 2.8 Million

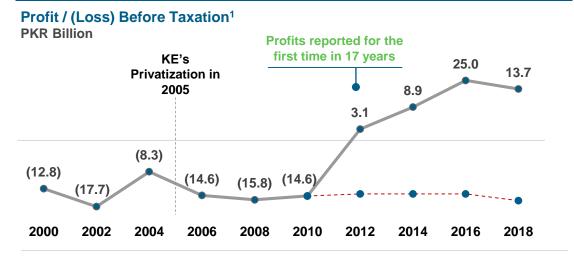


# **KE's Turnaround – A Success Story**



Privatized in 2005, KE's turnaround success presents a classic example of targeted and well-timed investments transforming a cash-bleed, loss making entity into a profit-making utility driven by significant investments and operational improvements

#### KE's Turnaround from a troubled loss-making entity

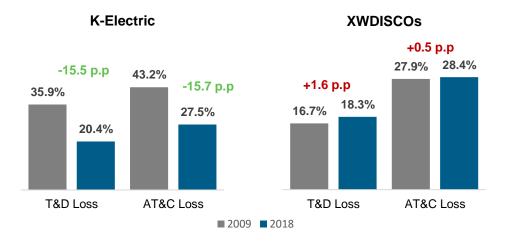


KE's Privatization
& Turnaround –
Setting a
precedent for the
Power Sector

- To keep KE's operations afloat, annual average operational subsidy of c. PKR 9.5 Billion had to be provided by GoP during FY 2003 to FY 2005, which was not required post privatization – losses borne by KE's private investors
- Evident from the performance of XWDISCOs, had KE not been privatized, the company would have continued on a loss-making trajectory, burdening the GoP in the form of operational subsidy – KE's improvement in AT&C losses of 15.7% points (Annual impact of c. PKR 50 Billion<sup>2</sup>)
- XWDISCOs reported a cumulative loss of c. PKR 207 Billion from 2013 to 2016 – Eight out of ten state-owned distribution companies reported losses in FY 16 and are heavily dependent upon GoP support

#### **Operational Improvements outperforming state-owned DISCOs**

Significant Loss Reduction by KE, whereas losses of XWDISCOs have increased



- In view of the above significant improvements shown by KE post privatization, NEPRA has also recommended the GoP to consider privatization of XWDISCOs, encouraging private investments
- This would improve the governance and efficiency of XWDISCOs, make them financially self-sufficient, thus reduce the burden on national exchequer and enable the sector to be financially sustainable

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# **Operational & Financial Performance**

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**Key Challenges** 

# **Operational Performance since 2009**



Through investments of over USD 2.4 Billion across the value chain during FY 09 to FY 19<sup>1</sup>, KE's management focused on enhancing fleet efficiency, reducing T&D losses and improving operational processes to unlock value

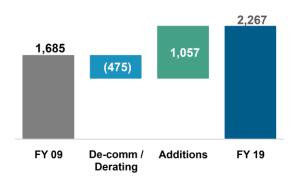
Investments across the value chain since 2009

#### **GENERATION**

### c. USD 1,100 MILLION<sup>1</sup>

- Induction of 4 modern and highly efficient generation plants
- Addition of 1,057 MW of generation capacity
- Fleet efficiency improved from 30% in FY 09 to 37% in FY 19

#### **Capacity Addition (MW)**



### **TRANSMISSION**

# c. USD 615

- Focus on transmission capacity additions and infrastructure rehabilitation
- Addition of 16 new grid stations
- Transmission capacity enhanced by 42%
- c. 404 km of old circuit length rehabilitated and over 98 km of EHT lines added
- Significant reduction in transmission loss – 2.8% points from over 4% in September 2008 to 1.2% in FY 19
- **64% reduction** in trafo / grid equipment tripping

#### DISTRIBUTION

# c. USD 690 MILLION<sup>1</sup>

- Reduction in T&D losses by 16.8% points
- Capacity enhancement by over 3,000 MVAs (c. 64%)
- 7,500+ PMTs have been converted onto Aerial Bundled Cabling (ABC)
- Setting up of Integrated Business Centers – a one-stop solution for customers
- Focus on customer centricity getting closer to customers through Call-Centres and e-solutions
- Process improvements including implementation of SAP-ISU billing





>70%
of Karachi loadshed free vs. 23%
in 2009



100%
Industrial zone loadshed exemption



**19.1%**T&D losses – improvement of 16.8% points since 2009

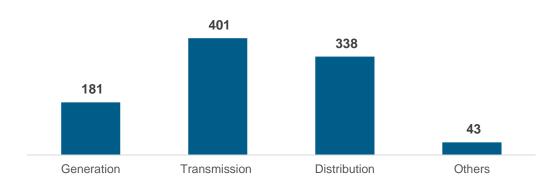
# Investments made across the Value Chain in last 3 years



Over the last three years, various initiatives were undertaken across the energy value chain to enhance capacity, improve reliability of the network along with targeted loss reduction

#### Capex FY 17 - FY 191 (USD Million)

Over USD 960 Million invested across the value chain in the last 3 years

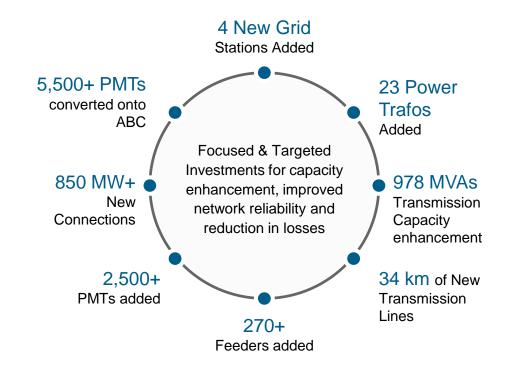


#### **Operational Improvements**

- Overhaul and rehabilitation works resulted in increase in average Gross
   Dependable Capacity (GDC) by c. 70 MW as compared to FY 16
- Significant progress was made on KE's over USD 450 Million TP 1000 project to overcome transmission constraints and facilitate sent-out growth
- T&D losses reduced by over 3% points from FY 16 levels along with c. 4% points improvement in overall recovery levels
- Recovery drives / campaigns to engage defaulters such as 'Current Bill ka Waada'
- Technological advancements including AMI Infrastructure, launch of KE Live App

### Capacity Addition & System Improvements in last 3 years

Power Supply added to KE's System in last 3 Years									
National Grid	Oursun	SNPC	FPCL						
(150 MW)	(50 MW)	(101 MW)	(52 MW)						
June, 2019	Nov, 2018	Jan, 2018	May, 2017						



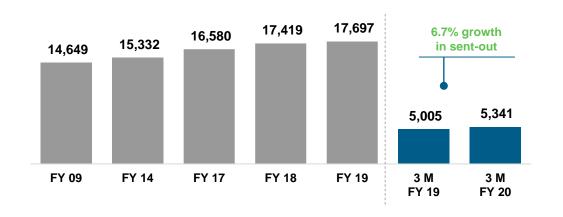
1. Capex numbers for FY 19 are provisional and unaudited

# **Operational Performance – Generation, Transmission & Distribution**



Driven by focused investments, the company has continued to improve on the operational parameters – strong operational performance in the first quarter of FY 20 to further the operational improvements of previous years

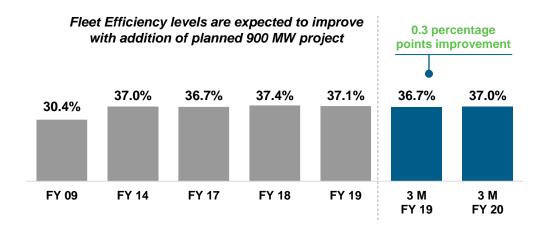
### Sent-out (GWh)



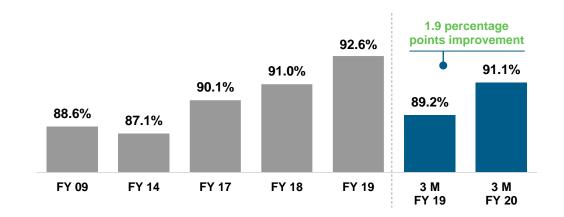
## Rolling Average T&D Losses (%)



### **Generation Fleet Efficiency (%)**



### **Recovery Ratio (%)**



1. FY 19 and 3M FY 20 numbers are provisional and unaudited

## **Financial Performance**



Despite change in tariff, the company continued to perform on the operational front which translated into improved financial performance in FY 18

### **Financial Highlights**

#### **Change in Tariff Level & Structure**

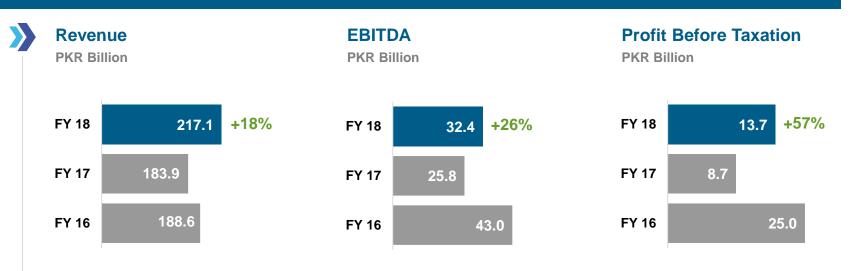
- As compared to FY 16, FY 17 profitability has been impacted due to change to KE's tariff structure and level
- Under the new tariff structure, KE is incentivized to improve profitability by beating yearly performance benchmarks as well as reduction in O&M expenses and increase in units sold
- In addition, KE has filed its appeal for consideration at Appellate Tribunal on key MYT issues. The Appellate Tribunal is yet to be constituted

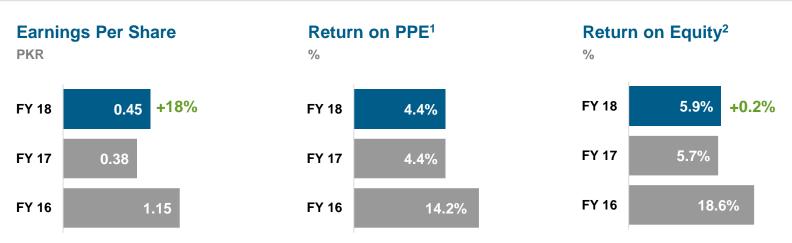
# Continuous Investments and Improved Operational Performance in FY 18

 Driven by operational improvements including sent-out and T&D losses, FY 18 marked improvements in financial performance as compared to FY 17

#### **Sustained Financial Outlook**

Continued and sustained operational improvements in future through investments in all core functions will translate into improved financial results





# **Key Financing Initiatives**



Investors have shown continued trust and confidence in the company's fundamentals, enabling KE to make the planned investments on accelerated basis and further the positive trajectory of operational improvements

### **Key Financing Initiatives**



Financing of upto PKR 25 Billion from a syndicate of local banks for partially funding TP – 1000 project and certain ongoing Distribution projects



- This was part of 18 months ICP program comprising of 3 six-monthly issues. Last ICP issued in September 2019
- Another ICP program for 3 six-monthly issues has been signed with Faysal Bank with the 1st ICP issued in Aug 2019 amounting to PKR 8 Billion



USD 50 Million GuarantCo supported loan facility for upgradation of Transmission and Distribution infrastructure – will enable KE to capitalize upon the growth potential

# VIS Credit Rating Company Limited

"VIS Credit Rating Company Limited (VIS) has assigned preliminary rating of AA+ (Double A Plus) to K-Electric Limited's (KE) proposed Rs. 25 Billion Sukuk. KE's long-term entity and Sukuk rating (Rs. 22 Billion Sukuk) have been reaffirmed at AA (Double A) and AA+ (Double A Plus), respectively. The Company's short-term ratings have been upgraded from A-1 (Single A One) to 'A-1+' (Single A-One Plus)....Rating assigned to KE's outstanding Islamic Commercial Paper (ICP-A) has also been upgraded to 'A-1+' (A-One Plus)"

Press Release, VIS Credit Rating Company Limited, October 14, 2019

## **KE Sukuk – PKR 25 Billion**



KE intends to issue a rated, secured and listed Sukuk of up to PKR 25 Billion (inclusive of Green Shoe Option of PKR 5 Billion)

### Salient features of the proposed PKR 25 Billion Sukuk

#### Purpose

 To fund the routine Capex and incremental Opex requirements, primarily due to increase in cost of fuel – temporarily funded by PKR 20 Billion bridge financing

#### **Expected Timelines**

Pre-IPO: November 2019

• IPO: April 2020

#### **Security**

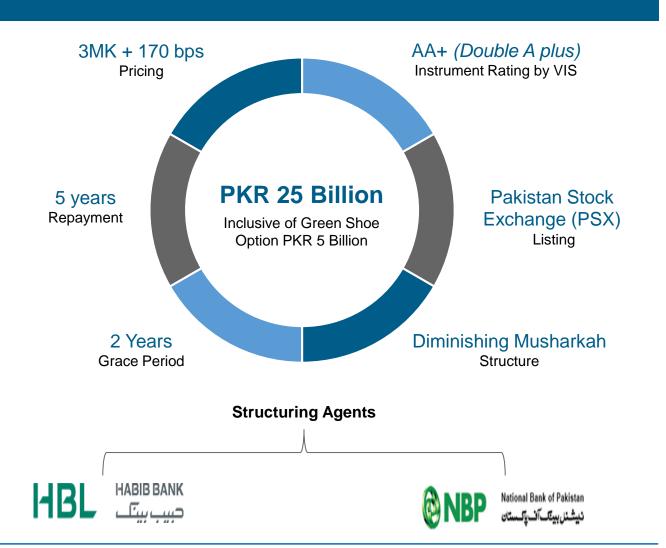
- Strong collateral comprising of a hypothecation charge over generation assets pool; and
- Attractive payment security in the form of lien over Master Collection Account (MCA) for payments of rentals and redemption amount

#### **Shariah Board**

Renowned scholars form part of a 5 member Shariah board

...Company Secretary Muhammad Rizwan Dalia reported to the Pakistan Stock Exchange (PSX) "the board of directors of the company, at a meeting held on February 8 (Friday),...approved the issue of KE-rated and listed Sukuk of up to PKR 25 Bn, including a green shoe option of up to PKR 5 Bn.."

Express Tribune, 09 February, 2019



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## **Determined MYT**



As compared to KE's Previous MYT, the Determined MYT presents a different, de-risked, Return on RAB structure with additional upsides for KE to unlock value and further its improvement trajectory

#### **Opportunities to Unlock Value under the Determined MYT**

As highlighted below, the Determined MYT presents several opportunities for KE to capitalize upon as key projects come online. KE also remains confident of a positive outcome to its Appellate Tribunal case on key MYT issues including application of notional Debt to Equity ratio by NEPRA while calculating the allowed returns



**Return on RAB structure** – allows for a long-term, de-risked, construct as KE's RAB will continue to increase as key projects come online – this structure is also in line with tariff structure provided to other power sector entities in Pakistan



Dollarized returns across the value chain have been allowed



**Operational Efficiencies –** outperforming NEPRA benchmarks for T&D loss, sent-out growth and beating NEPRA projected O&M costs



Removal of "-X" Factor from O&M Indexation for Generation – similar to IPPs



**Allowance of Actual write-offs –** improved recovery which combined with allowed write-offs will minimize KE's recovery gap



Mid-Term Review Mechanism in Tariff – to re-assess certain assumptions including investments, exchange rates and working capital



**Investment Flexibility** – investments in new generation projects *(other than BQPS – III)*, subject to NEPRA's approval



Tax / WWF / WPPF allowed as pass-through items

There are numerous opportunities to unlock value and allow for future improvements under the Determined MYT

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# **Initiatives across the Energy Value Chain**



Planned initiatives would result in investments of c. USD 3 Billion in all core functions in the next four years – would enable KE to unlock key value drivers under the MYT along with benefitting consumers and the economy at large

#### **Investments across the Value Chain**

#### Generation

- Capacity addition of c. 3,000 MW key projects include:
- 900 MW RLNG Plant the project would significantly improve KE's overall fleet efficiency
- 700 MW Coal IPP (equity project)
- c. 1,000 MW through external IPPs including 300 MW of renewables<sup>1</sup>
- Planned projects would also diversify KE's fuel mix

#### **Transmission**

- Capacity enhancement and improved network reliability through two key projects
- TP 1000: addition of 1,000 MVAs
  - To date, 4 grid stations and 22 power trafos have been added under TP – 1000 project
- TP 2: to further improve system / network reliability and facilitate sent-out growth

Investments of around USD 3 Billion in the next four years enabling KE to capitalize upon growth potential and provide consumer value

#### **Distribution**

- Capacity enhancement through addition of c. 300 feeders and over 5,000 transformers
- Conversion of 15,000 PMTs onto ABC by 2023 – significant reduction in losses
- Targeted recovery drives / campaigns to engage defaulting consumers and improve recovery levels
- Simplified New Connection process expected to add over 1,400 MW of new connections in the next four years
- · Safety enhancement initiatives

Improved Network Reliability

Reduction in Load-shed

Process
Automation and
Improved Service
Levels

**Enhanced Network Safety** 

Industrial
Connections fueling
economic growth

1. Includes IPPs which are currently under planning / approval

# Potential for Further Value Improvement through a Strategic Investor



In addition to KE's robust investment plan of c. USD 3 Billion across the energy value chain, an aggressive, strategic investor, Capex plan would further improve Karachi's power infrastructure

#### **Strategic Investment – Potential Impact**

- An aggressive investment plan, would be an opportunity for Karachi's power sector to reach new levels of excellence
- A strategic investor with **technical expertise** would, among other operational improvements, leverage its strengths to bring **technological advancements across the power value chain**, benefiting the consumers and economy at large
- Shanghai Electric Power (SEP) signed a Definitive Agreement to acquire 66.4% stake in the company in October 2016, subject to receipt of government and regulatory approvals and has presented such a plan to the GoP
- SEP is one of the largest electric power companies in Shanghai and is committed to developing the power sector worldwide through operations in over 20 countries outside of China
- SEP is a subsidiary of the State Power Investment Corporation of China (SPIC), one of China's big 4 generation companies with installed capacity of over 142,700 MW and also has operations in over 43 countries globally
- SPIC is an active participant in the development of Pakistan's power sector and is a key CPEC investor involved in a wide variety of projects

"... SEP will leverage its own strengths as a strategic investor and further realise K-Electric's potential to provide better services to the people of Pakistan and the Government of Pakistan."

Wang Yundan, Chairman SEP

An aggressive investment plan along with KE's planned initiatives would result in greater positive impact for KE's customers and Karachi, while also facilitating economic growth in Karachi and Pakistan

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# **Key Challenges**

# **Key Challenges – Receivables from Government Entities and Departments**



Delays in release of payments from relevant authorities and growing receivables from government entities impacts the working capital position of the company for which continuous engagement with relevant stakeholders is being done

#### Receivables & Payables - Government Entities / Departments (September 2019)

Receivables from Government Entitie	s PKR Billion		Payables to Government Entities	PKR Billion		
Tariff Differential Claims <sup>1</sup>	149.2		NTDC / CPPA – G	97.3		Net Receivable to
KWSB "Strategic Customer"	32.4	_	SSGC	13.7	_	KE
Government of Sindh (GoS)	18.9			10.7		c. PKR 98
Other Federal & Provincial Entities	13.7		Other Federal & Provincial Entities	5.5		Billion
Total Receivables	214.2		Total Payables	116.5		

#### KE seeks a fair and equitable resolution to the issue of receivables and payables

- KE is in continuous engagement with relevant stakeholders for a fair and expedient resolution to the issue of receivables and payables, including any mark-up
- Delays in release of TDC and energy dues of strategic customers including KWSB by GoP resulted in consequential delays in payments to NTDC / CPPA G and SSGC
- Monthly payments are being received against KWSB dues since January 2016. Further, execution of a Power Supply Agreement with GoS guarantee around KWSB dues is in advanced stages
- Power Purchase Agreement with NTDC provides for a set-off mechanism through which KE's payables to NTDC / CPPA G are to be off-set with TDC receivables KE has net TDC receivables of c. PKR 52 Billion from the GoP
- GoP is considering revision in consumer-end tariff which would reduce accumulation in subsidy claims
- On the disputed mark-up, GoP is a party on both sides (receivables & payables) establishes mutuality of obligations and accordingly, settlement of outstanding dues, including any mark-up, shall be done on net basis

1. Includes pending tariff variations

# Other Challenges

**Policies** 

balanced



The management is confident of the strategies put in place to mitigate other key challenges as highlighted below

Mitigating Strategy **Challenges Description** Planned 900 MW and 700 MW projects being pursued on fast track basis **Demand-Supply** Delayed finalization of MYT has resulted in consequential delays in execution of planned generation projects Gap Engagement with GoP for additional supply from the National Grid to manage the growing power demand Encroachments and illegal settlements hinders access to certain areas Continuous engagement with local administration authorities on kunda removal drives / tampering with **City Infrastructure** Theft of earthing / grounding equipment network / Right of Way issues and External Factors Tampering with KE's network by TV cable / internet cable impacting Provision of Revalidation of grounding / earthing of HT / LT poles and operators poses a safety hazard **Safe Power Supply** change in specification of earthing / grounding material to Right of Way ("RoW") issues impact timely execution of avoid theft projects Consistency in Engagement at Government level and with the regulator to Consistency in regulatory landscape and government policies to ensure that interest of all stakeholders is **Government / Regulatory** ensure certainty in regulatory and policy matters, enabling

a pro-investment environment

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# The Journey Continues



Capitalizing on the ongoing projects and with the continued investments, KE would continue to strive, improving the lives of people of Karachi and bringing economic prosperity in the country

### **Potential Impact**



# **Capacity Additions**

Swift capacity additions and ability to provide new connections, particularly to industrial consumers on the back of increased T&D capacity



# **Growth & Productivity**

 Operational improvements to translate into greater economic activity and industrial growth – direct impact on national GDP



# Operational Efficiency

- System reliability and process improvements
- Reduced load-shed
- Improved service levels



# Socio-Economic Improvements

 Reliability and sustainability in power supply to have a direct impact on Human Development Index



#### Dollarized Returns

Accelerated Capex and dollarized returns across the value chain



# **Enhanced Safety**

Public Accident Prevention Plan and grounding of HT / LT network – enhancing overall safety levels

Aligned with the mission of brightening lives by building the capacity to deliver uninterrupted, safe and affordable power to Karachiites, KE will continue to make investments across the value chain, enabling the company to improve operationally whilst progressing on the value creation curve through innovation and technological advancements

# Thank You

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