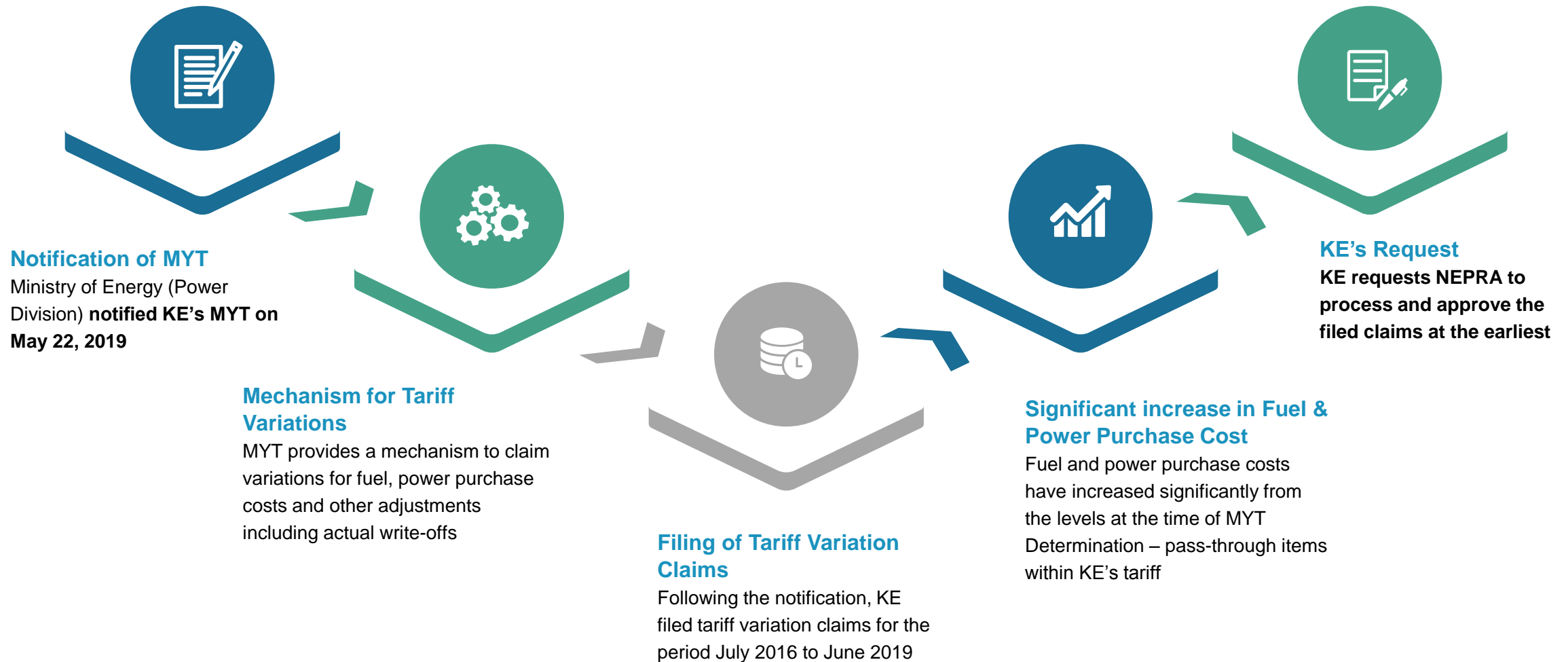

Monthly & Quarterly Tariff Variations

July 2016 to June 2019

Tariff Variations

Tariff Variations – Setting the Context



① Whether the requested Fuel Price Variations are Justified?

Monthly Fuel Cost Adjustment – Summary

- Claims for monthly fuel cost adjustment includes monthly variation in fuel cost of KE's own generating plants as well as power purchases for the period July 2016 to June 2019, which is to be passed on to the consumers
- As the quarterly price levels reset at the end of every quarter, variation for each month has been calculated with respect to the reference price in the last month of the last quarter – this is in line with the mechanism provided within the MYT
- **In total, FCA variation amounts to c. PKR 20.2 Billion out of which PKR 16.9 Billion would be passed on to consumers whereas remaining portion will be included in quarterly variation at NEPRA allowed T&D losses**
- Further, amounts for July 2016 to Nov 2016 are net off provisional FCA previously allowed under the Previous MYT

Summary of month-wise fuel price variations claimed is as follows:

Month	FY 2017		FY 2018		FY 2019	
	Variation Amount	Variation per unit	Variation Amount	Variation per unit	Variation Amount	Variation per unit
	PKR Mn	PKR / kWh	PKR Mn	PKR / kWh	PKR Mn	PKR / kWh
July	424	0.26	(356)	(0.22)	1,139	0.62
August	363	0.23	105	0.06	927	0.57
September	307	0.20	(440)	(0.28)	1,218	0.78
October	(66)	(0.05)	702	0.43	2,710	1.63
November	(229)	(0.19)	(152)	(0.12)	847	0.61
December	1,124	1.00	(236)	(0.24)	767	0.70
January	(66)	(0.07)	1,204	1.15	(37)	(0.04)
February	(805)	(0.83)	1,035	0.98	(894)	(0.93)
March	(137)	(0.11)	2,977	2.09	(1,544)	(1.23)
April	(378)	(0.26)	578	0.37	1,065	0.66
May	(628)	(0.37)	2,191	1.19	2,672	1.43
June	(755)	(0.43)	1,827	0.99	2,831	1.50
Total	(846)	(0.05)*	9,436	0.54*	11,702	0.66*

* Average for the year

② Whether the requested Quarterly Variations are Justified?

Quarterly Tariff Variations – Summary

- Quarterly tariff variations include the following:
 - Resetting of price levels – fuel price of KE's generating plants, power purchase fuel and O&M and capacity cost
 - Unrecovered costs of previous quarter including impact of allowed T&D losses on monthly FCA, variation in O&M and capacity costs and other items including WWF/WPPF/bonus paid to IPPs
 - Annual adjustments including adjustment for allowed T&D losses, CPI indexation and impact of additional write-off claim

Summary of quarterly variations is presented below:

Quarter Ended	Sep-17	Dec-17	Mar-17	Jun-17	Sep-17	Dec-17	Mar-18	Jun-18	Sep-18	Dec-18	Mar-19
Quarterly Revision to reset price levels											
Cost of Fuel - KE	0.885	(0.719)	0.059	0.706	(0.340)	(1.285)	1.848	2.227	0.628	0.146	(0.668)
Power Purchases - fuel cost	(0.615)	1.978	(0.193)	(1.250)	(0.009)	0.991	0.763	(0.992)	0.327	0.720	(0.841)
Power Purchases - O&M and Capacity cost	(0.169)	0.640	(0.175)	(0.262)	0.118	0.807	0.069	(0.580)	0.135	1.653	(0.735)
Total	0.101	1.899	(0.309)	(0.805)	(0.232)	0.513	2.680	0.656	1.091	2.518	(2.244)
Unrecovered cost for the current quarter											
Unrecovered Cost per unit for current quarter	(0.242)	0.598	0.020	(0.514)	(0.112)	0.350	0.324	(0.215)	0.432	1.307	(0.227)
Other tariff Adjustments - Annual T&D losses adjustment, CPI indexation and Additional write-off claims											
	-	-	-	0.121	-	-	-	(0.295)	-	-	-
Reversal of unrecovered cost of previous quarter	-	0.242	(0.598)	(0.020)	0.514	0.112	(0.350)	(0.324)	0.215	(0.432)	(1.307)
Total Required adjustment in KE's Tariff	(0.141)	2.739	(0.887)	(1.219)	0.171	0.975	2.653	(0.178)	1.738	3.392	(3.778)

Quarter ended September 2016 – Monthly FCA – Summary

Description	Unit	Legends	June-16	July-16	Aug-16	Sep-16	Total (July 16 to Sep 16)
<i>Reference</i>							
Units Sent Out							
Units Sent Out – KE	GWh	A		1,007	950	886	
Units – Power purchases	GWh			624	629	586	
Total	GWh			1,630	1,580	1,472	
Cost per unit							
Cost of fuel – KE	Rs./kWh	B	2.927	3.747	3.641	3.627	
Cost of fuel – Power Purchases	Rs./kWh		2.262	1.835	1.899	1.776	
Average Cost per unit	Rs./kWh		5.189	5.582	5.541	5.402	
Variation per unit (over reference)							
Cost of fuel – KE	Rs./kWh	C		0.820	0.715	0.700	
Cost of fuel – Power Purchases	Rs./kWh			(0.427)	(0.363)	(0.486)	
Total Fuel Cost Adjustment	Rs./kWh			0.393	0.352	0.214	
Less: Provisional FCA already passed on	Rs./kWh			0.130	0.120	0.010	
Net FCA to be passed on	Rs./kWh	D		0.263	0.232	0.204	
Net Fuel Cost Adjustment	Ps/kWh	E = D x 100		26.297	23.200	20.369	
<u>Variation Amount</u>							
► Cost of Fuel – KE	Mill Rs.	F = E x A		1,337	1,129	1,030	3,496
► Cost of Fuel – Power Purchases	Mill Rs.			(696)	(573)	(716)	(1,985)
Total Fuel Cost Adjustment	Mill Rs.			641	556	315	1,511
Less: Provisional FCA already passed on	Mill Rs.			217	193	7	417
Net FCA to be passed on	Mill Rs.			424	363	307	1,094

Quarter ended September 2016 – Quarterly Variation – Summary



Total Required Adjustments in KE's Tariff

Description	Units	Sep-16
Quarterly Revision to reset price levels [A]	Rs/kWh	0.101 ①
Unrecovered Cost for current quarter [B]	Rs/kWh	(0.242) ②
Reversal of unrecovered cost of previous quarter [C]	Rs/kWh	-
Total Required adjustment in KE's Tariff	Rs/kWh	(0.141)

Quarterly Revision to reset Price Levels [A]

Description	Units	Jun-16 <i>Reference</i>	Sep-16 <i>Current</i>	Variance
Units Sent out				
KE plants	GWh		886	
Power purchase	GWh		586	
Total sent out	GWh		1,472	
T&D Losses Allowed			20.9%	
Units billed	GWh		1,164	
Cost of Fuel – KE plants	Mill Rs. Rs./kWh	3.700	5,339 4.585	0.885
Cost of Power Purchase – Fuel	Mill Rs. Rs./kWh	2.860	2,614 2.245	(0.615)
Cost of Power Purchase – O&M and capacity	Mill Rs. Rs./kWh	1.522	1,575 1.353	(0.169)
Total Variation	Rs./kWh			① 0.101

Quarter ended September 2016 – Quarterly Variation – Summary

Total Required Adjustments in KE's Tariff

Summary of Unrecovered cost for the Quarter [B]

▶ a. O&M and Capacity cost of Power purchases	Mill Rs	(893)
▶ b. Unrecovered Cost of FCA due to non adjustment of T&D losses	Mill Rs	316
c. <u>Other Adjustments</u>		
– Unrecovered Cost of June 16 Quarter (old MYT)	Mill Rs	(159)
Total Unrecovered cost for the quarter	Mill Rs	(736)
Units to be sold in next quarter at allowed T&D losses	GWh	3,037
Unrecovered Cost per unit for current quarter	Rs/kWh	2 (0.242)

Quarter ended December 2016 – Monthly FCA – Summary

Description	Unit	Legends	Sep-16	Oct-16	Nov-16	Dec-16	Total (Oct 16 to Dec 16)
<i>Reference</i>							
Units Sent Out							
Units Sent Out – KE	GWh	A	886	906	660	538	
Units – Power purchases	GWh		586	600	544	591	
Total	GWh		1,472	1,506	1,204	1,129	
Cost per unit							
Cost of fuel – KE	Rs./kWh	B	3.627	3.706	3.407	3.058	
Cost of fuel – Power Purchases	Rs./kWh		1.776	2.122	2.057	3.340	
Average Cost per unit	Rs./kWh		5.402	5.827	5.464	6.398	
Variation per unit (over reference)							
Cost of fuel – KE	Rs./kWh	C		0.079	(0.219)	(0.569)	
Cost of fuel – Power Purchases	Rs./kWh			0.346	0.281	1.564	
Total Fuel Cost Adjustment	Rs./kWh			0.425	0.061	0.996	
Less: Provisional FCA already passed on	Rs./kWh			0.470	0.250	-	
Net FCA to be passed on	Rs./kWh	D		(0.045)	(0.189)	0.996	
Net Fuel Cost Adjustment	Ps/kWh	E = D x 100		(4.503)	(18.854)	99.568	
<u>Variation Amount</u>							
► Cost of Fuel – KE	Mill Rs.	F = C x A		119	(264)	(642)	(787)
► Cost of Fuel – Power Purchases	Mill Rs.			521	338	1,766	2,625
Total Fuel Cost Adjustment	Mill Rs.			640	74	1,124	1,838
Less: Provisional FCA already passed on	Mill Rs.			706	303	-	1,009
Net FCA to be passed on	Mill Rs.			(66)	(229)	1,124	829

Quarter ended December 2016 – Quarterly Variation – Summary

Total Required Adjustments in KE's Tariff

Description	Units	Dec-16
Quarterly Revision to reset price levels [A]	Rs/kWh	1.899 ¹
Unrecovered Cost for current quarter [B]	Rs/kWh	0.598 ²
Reversal of unrecovered cost of previous quarter [C]	Rs/kWh	0.242
Total Required adjustment in KE's Tariff	Rs/kWh	2.739

Quarterly Revision to reset Price Levels [A]

Description	Units	Jun-16 <i>Reference</i>	Sep-16 <i>Current</i>	Variance
Units Sent out				
KE plants	GWh	886	538	
Power purchase	GWh	586	591	
Total sent out	GWh	1,472	1,129	
T&D Losses Allowed		20.9%	20.9%	
Units billed	GWh	1,164	893	
Cost of Fuel – KE plants	Mill Rs. Rs./kWh	5,339 4.585	3,453 3.866	(0.719)
Cost of Power Purchase – Fuel	Mill Rs. Rs./kWh	2,614 2.245	3,771 4,223	1.978
Cost of Power Purchase – O&M and capacity	Mill Rs. Rs./kWh	1,575 1.353	1,780 1.993	0.640
Total Variation	Rs./kWh			1.899 ¹

Quarter ended December 2016 – Quarterly Variation – Summary

Total Required Adjustments in KE's Tariff

Summary of Unrecovered cost for the Quarter [B]

▶ a. O&M and Capacity cost of Power purchases	Mill Rs	1,078
▶ b. Unrecovered Cost of FCA due to non adjustment of T&D losses	Mill Rs	384
c. <u>Other Adjustments</u>		
– WWF/WPPF / Bonus to IPPs	Mill Rs	68
Total Unrecovered cost for the quarter	Mill Rs	1,530
Units to be sold in next quarter at allowed T&D losses	GWh	2,559
Unrecovered Cost per unit for current quarter	Rs/kWh	2 0.598

Quarter ended March 2017 – Monthly FCA – Summary



Description	Unit	Legends	Dec-16	Jan-17	Feb-17	March-17	Total (Jan 17 to March 17)
			Reference				
Units Sent Out							
Units Sent Out – KE	GWh	A	538	420	445	679	
Units – Power purchases	GWh		591	552	525	613	
Total	GWh		1,129	972	970	1,292	
Cost per unit							
Cost of fuel – KE	Rs./kWh	B	3.058	2.464	2.350	3.104	
Cost of fuel – Power Purchases	Rs./kWh		3.340	3.867	3.219	3.188	
Average Cost per unit	Rs./kWh		6.398	6.330	5.569	6.292	
Variation per unit (over reference)							
Cost of fuel – KE	Rs./kWh	C		(0.594)	(0.708)	0.047	
Cost of fuel – Power Purchases	Rs./kWh				0.527	(0.121)	
Total Fuel Cost Adjustment	Rs./kWh			(0.068)	(0.829)	(0.106)	
Total Fuel Cost Adjustment	Ps/kWh	D = C x 100		(6.772)	(82.939)	(10.612)	
Variation Amount							
▶ Cost of Fuel – KE	Mill Rs.	E = C x A		(578)	(687)	60	
▶ Cost of Fuel – Power Purchases	Mill Rs.				512	(117)	(197)
Total Fuel Cost Adjustment	Mill Rs.			(66)	(805)	(137)	(1,008)

Quarter ended March 2017 – Quarterly Variation – Summary

Total Required Adjustments in KE's Tariff

Description	Units	Mar-17
Quarterly Revision to reset price levels [A]	Rs/kWh	(0.309) ①
Unrecovered Cost for current quarter [B]	Rs/kWh	0.020 ②
Reversal of unrecovered cost of previous quarter [C]	Rs/kWh	(0.598)
Total Required adjustment in KE's Tariff	Rs/kWh	(0.887)

Quarterly Revision to reset Price Levels [A]

Description	Units	Dec-16 <i>Reference</i>	Mar-17 <i>Current</i>	Variance
Units Sent out				
KE plants	GWh	538	679	
Power purchase	GWh	591	613	
Total sent out	GWh	1,129	1,292	
T&D Losses Allowed		20.9%	20.9%	
Units billed	GWh	893	1,022	
Cost of Fuel – KE plants	Mill Rs. Rs./kWh	3,453 3.866	4,012 3.925	0.059
Cost of Power Purchase – Fuel	Mill Rs. Rs./kWh	3,771 4,223	4,119 4.030	(0.193)
Cost of Power Purchase – O&M and capacity	Mill Rs. Rs./kWh	1,780 1.993	1,858 1.818	(0.175)
Total Variation	Rs./kWh			① (0.309)

Quarter ended March 2017 – Quarterly Variation – Summary

Total Required Adjustments in KE's Tariff

Summary of Unrecovered cost for the Quarter [B]

▶ a. O&M and Capacity cost of Power purchases	Mill Rs	213
▶ b. Unrecovered Cost of FCA due to non adjustment of T&D losses	Mill Rs	(211)
c. <u>Other Adjustments</u>		
– WWF/WPPF / Bonus to IPPs	Mill Rs	76
Total Unrecovered cost for the quarter	Mill Rs	78
Units to be sold in next quarter at allowed T&D losses	GWh	3,890
Unrecovered Cost per unit for current quarter	Rs/kWh	2 0.020

Quarter ended June 2017 – Monthly FCA – Summary



Description	Unit	Legends	Mar-17	Apr-17	May-17	Jun-17	Total (April 17 to June 17)
Units Sent Out			<i>Reference</i>				
Units Sent Out – KE	GWh	A	679	854	1,044	1,079	
Units – Power purchases	GWh		613	629	637	676	
Total	GWh		1,292	1,483	1,680	1,755	
Cost per unit							
Cost of fuel – KE	Rs./kWh	B	3.104	3.282	3.648	3.663	
Cost of fuel – Power Purchases	Rs./kWh		3.188	2.755	2.271	2.199	
Average Cost per unit	Rs./kWh		6.292	6.037	5.918	5.862	
Variation per unit (over reference)							
Cost of fuel – KE	Rs./kWh	C		0.178	0.543	0.558	
Cost of fuel – Power Purchases	Rs./kWh			(0.433)	(0.917)	(0.989)	
Total Fuel Cost Adjustment	Rs./kWh			(0.255)	(0.374)	(0.430)	
Total Fuel Cost Adjustment	Ps/kWh	D = C x 100		(25.523)	(37.361)	(43.018)	
<u>Variation Amount</u>							
► Cost of Fuel – KE	Mill Rs.	E = C X A		263	913	980	2,156
► Cost of Fuel – Power Purchases	Mill Rs.			(642)	(1,540)	(1,735)	(3,917)
Total Fuel Cost Adjustment	Mill Rs.			(378)	(628)	(755)	(1,761)

Quarter ended June 2017 – Quarterly Variation – Summary

Total Required Adjustments in KE's Tariff

Description	Units	Jun-17	
Quarterly Revision to reset price levels [A]	Rs/kWh	(0.805)	1
Unrecovered Cost for current quarter [B]	Rs/kWh	(0.514)	2
Other tariff Adjustments [C]	Rs/kWh	0.121	3
Reversal of unrecovered cost of previous quarter [D]	Rs/kWh	(0.020)	
Total Required adjustment in KE's Tariff	Rs/kWh	(1.219)	

Quarterly Revision to reset Price Levels [A]

Description	Units	Mar-17	Jun-17	Variance
		<i>Reference</i>	<i>Current</i>	
Units Sent out				
KE plants	GWh	679	1,079	
Power purchase	GWh	613	676	
Total sent out	GWh	1,292	1,755	
T&D Losses Allowed		20.9%	20.9%	
Units billed	GWh	1,022	1,388	
Cost of Fuel – KE plants	Mill Rs. Rs./kWh	4,012 3.925	6,427 4.631	0.706
Cost of Power Purchase – Fuel	Mill Rs. Rs./kWh	4,119 4.030	3,858 2.780	(1.250)
Cost of Power Purchase – O&M and capacity	Mill Rs. Rs./kWh	1,858 1.818	2,160 1.556	(0.262)
Total Variation	Rs./kWh			1 (0.805)

Quarter ended June 2017 – Quarterly Variation – Summary

Total Required Adjustments in KE's Tariff

Summary of Unrecovered cost for the Quarter [B]

▶ a. O&M and Capacity cost of Power purchases	Mill Rs	(1,409)
▶ b. Unrecovered Cost of FCA due to non adjustment of T&D losses	Mill Rs	(368)
c. <u>Other Adjustments</u>		
– WWF/WPPF / Bonus to IPPs	Mill Rs	25
– Capacity Charges true up CPPA-G (FY 16)	Mill Rs	(253)
Total Unrecovered cost for the quarter	Mill Rs	(2,005)
Units to be sold in next quarter at allowed T&D losses	GWh	3,897
Unrecovered Cost per unit for current quarter	Rs/kWh	② (0.514)

▶ Other tariff Adjustments [C]

Annual CPI on O&M with T&D loss adjustment	Rs/kWh	0.043
T&D loss adjustment for Fuel cost	Rs/kWh	(0.064)
T&D loss adjustment for Power purchase fuel cost	Rs/kWh	(0.038)
T&D loss adjustment for Power purchase O&M & Capacity cost	Rs/kWh	(0.021)
T&D loss adjustment of other components	Rs/kWh	(0.041)
Additional write off	Rs/kWh	0.241
Total	Rs/kWh	③ 0.121

Quarter ended September 2017 – Monthly FCA – Summary



Description	Unit	Legends	June-17	July-17	Aug-17	Sep-17	Total (July 17 to Sep 17)
			<i>Reference</i>				
Units Sent Out							
Units Sent Out – KE	GWh	A	1,079	979	1,014	923	
Units – Power purchases	GWh		676	665	629	648	
Total	GWh		1,755	1,644	1,644	1,571	
Cost per unit							
Cost of fuel – KE	Rs./kWh	B	3.663	3.350	3.804	3.390	
Cost of fuel – Power Purchases	Rs./kWh		2.199	2.296	2.121	2.192	
Average Cost per unit	Rs./kWh		5.862	5.645	5.926	5.582	
Variation per unit (over reference)							
Cost of fuel – KE	Rs./kWh	C		(0.313)	0.142	(0.273)	
Cost of fuel – Power Purchases	Rs./kWh			0.097	(0.078)	(0.007)	
Total Fuel Cost Adjustment	Rs./kWh			(0.217)	0.064	(0.280)	
Total Fuel Cost Adjustment	Ps/kWh	D = C x 100		(21.659)	6.413	(28.006)	
<u>Variation Amount</u>							
► Cost of Fuel – KE	Mill Rs.	E = C X A		(515)	233	(428)	
► Cost of Fuel – Power Purchases	Mill Rs.			159	(127)	(12)	
Total Fuel Cost Adjustment	Mill Rs.			(356)	105	(440)	(691)

Quarter ended September 2017 – Quarterly Variation – Summary

Total Required Adjustments in KE's Tariff

Description	Units	Sep-17
Quarterly Revision to reset price levels [A]	Rs/kWh	(0.232) ①
Unrecovered Cost for current quarter [B]	Rs/kWh	(0.112) ②
Reversal of unrecovered cost of previous quarter [C]	Rs/kWh	0.514
Total Required adjustment in KE's Tariff	Rs/kWh	0.171

Quarterly Revision to reset Price Levels [A]

Description	Units	Jun-17 Reference	Sep-17 Current	Variance
Units Sent out				
KE plants	GWh	1,079	923	
Power purchase	GWh	676	648	
Total sent out	GWh	1,755	1,571	
T&D Losses Allowed		19.8% ¹	19.8%	
Units billed	GWh	1,407	1,260	
Cost of Fuel – KE plants	Mill Rs. Rs./kWh	6,427 4.567	5,326 4.227	(0.340)
Cost of Power Purchase – Fuel	Mill Rs. Rs./kWh	3,858 2.742	3,443 2.733	(0.009)
Cost of Power Purchase – O&M and capacity	Mill Rs. Rs./kWh	2,160 1.535	2,082 1.653	0.118
Total Variation	Rs./kWh			① (0.232)

1. T&D loss for FY 18 has been used as T&D adjustment of FY 17 to FY 18 has already been accounted for separately

Quarter ended September 2017 – Quarterly Variation – Summary

Total Required Adjustments in KE's Tariff

Summary of Unrecovered cost for the Quarter [B]

▶ a. O&M and Capacity cost of Power purchases	Mill Rs	(211)
▶ b. Unrecovered Cost of FCA due to non adjustment of T&D losses	Mill Rs	(137)
Total Unrecovered cost for the quarter	Mill Rs	(348)
Units to be sold in next quarter at allowed T&D losses	GWh	3,100
Unrecovered Cost per unit for current quarter	Rs/kWh	2 (0.112)

Quarter ended December 2017 – Monthly FCA – Summary

Description	Unit	Legends	Sep-17	Oct-17	Nov-17	Dec-17	Total (Oct 17 to Dec 17)
Units Sent Out			<i>Reference</i>				
Units Sent Out – KE	GWh	A	923	955	693	477	
Units – Power purchases	GWh		648	672	545	525	
Total	GWh		1,571	1,626	1,238	1,001	
Cost per unit							
Cost of fuel – KE	Rs./kWh	B	3.390	3.562	3.187	2.360	
Cost of fuel – Power Purchases	Rs./kWh		2.192	2.451	2.273	2.986	
Average Cost per unit	Rs./kWh		5.582	6.013	5.459	5.346	
Variation per unit (over reference)							
Cost of fuel – KE	Rs./kWh	C		0.172	(0.204)	(1.031)	
Cost of fuel – Power Purchases	Rs./kWh			0.260	0.081	0.795	
Total Fuel Cost Adjustment	Rs./kWh			0.432	(0.122)	(0.236)	
Total Fuel Cost Adjustment	Ps/kWh	D = C x 100		43.169	(12.242)	(23.598)	
<u>Variation Amount</u>							
► Cost of Fuel – KE	Mill Rs.	E = C X A		279	(252)	(1,032)	
► Cost of Fuel – Power Purchases	Mill Rs.			423	100	796	
Total Fuel Cost Adjustment	Mill Rs.			702	(152)	(236)	

Quarter ended December 2017 – Quarterly Variation – Summary

Total Required Adjustments in KE's Tariff

Description	Units	Dec-17	
Quarterly Revision to reset price levels [A]	Rs/kWh	0.513	①
Unrecovered Cost for current quarter [B]	Rs/kWh	0.350	②
Reversal of unrecovered cost of previous quarter [C]	Rs/kWh	0.112	
Total Required adjustment in KE's Tariff	Rs/kWh	0.975	

Quarterly Revision to reset Price Levels [A]

Description	Units	Sep-17 <i>Reference</i>	Dec-17 <i>Current</i>	Variance
Units Sent out				
KE plants	GWh	923	477	
Power purchase	GWh	648	525	
Total sent out	GWh	1,571	1,001	
T&D Losses Allowed		19.8%	19.8%	
Units billed	GWh	1,260	803	
Cost of Fuel – KE plants	Mill Rs. Rs./kWh	5,326 4.227	2,363 2.942	(1.285)
Cost of Power Purchase – Fuel	Mill Rs. Rs./kWh	3,443 2.733	2,990 3.723	0.991
Cost of Power Purchase – O&M and capacity	Mill Rs. Rs./kWh	2,082 1.653	1,975 2.459	0.807
Total Variation	Rs./kWh			① 0.513

Quarter ended December 2017 – Quarterly Variation – Summary

Total Required Adjustments in KE's Tariff

Summary of Unrecovered cost for the Quarter [B]

▶ a. O&M and Capacity cost of Power purchases	Mill Rs	750
▶ b. Unrecovered Cost of FCA due to non adjustment of T&D losses	Mill Rs	62
c. <u>Other Adjustments</u>		
– WWF/WPPF / Bonus to IPPs	Mill Rs	179
Total Unrecovered cost for the quarter	Mill Rs	992
Units to be sold in next quarter at allowed T&D losses	GWh	2,830
Unrecovered Cost per unit for current quarter	Rs/kWh	2 0.350

Quarter ended March 2018 – Monthly FCA – Summary



Description	Unit	Legends	Dec-17	Jan-18	Feb-18	March-18	Total (Jan 18 to March 18)
<i>Reference</i>							
Units Sent Out							
Units Sent Out – KE	GWh	A	477	455	454	691	
Units – Power purchases	GWh		525	591	606	731	
Total	GWh		1,001	1,046	1,060	1,422	
Cost per unit							
Cost of fuel – KE	Rs./kWh	B	2.360	2.683	2.927	3.842	
Cost of fuel – Power Purchases	Rs./kWh		2.986	3.813	3.395	3.598	
Average Cost per unit	Rs./kWh		5.346	6.497	6.322	7.439	
Variation per unit (over reference)							
Cost of fuel – KE	Rs./kWh	C		0.324	0.567	1.482	
Cost of fuel – Power Purchases	Rs./kWh			0.827	0.409	0.612	
Total Fuel Cost Adjustment	Rs./kWh			1.151	0.976	2.094	
Total Fuel Cost Adjustment	Ps/kWh	D = C x 100		115.095	97.642	209.354	
<u>Variation Amount</u>							
► Cost of Fuel – KE	Mill Rs.	E = C x A		339	601	2,107	3,047
► Cost of Fuel – Power Purchases	Mill Rs.			866	434	870	2,169
Total Fuel Cost Adjustment	Mill Rs.			1,204	1,035	2,977	5,217

Quarter ended March 2018 – Quarterly Variation – Summary

Total Required Adjustments in KE's Tariff

Description	Units	Mar-18	
Quarterly Revision to reset price levels [A]	Rs/kWh	2.680	1
Unrecovered Cost for current quarter [B]	Rs/kWh	0.324	2
Reversal of unrecovered cost of previous quarter [C]	Rs/kWh	(0.350)	
Total Required adjustment in KE's Tariff	Rs/kWh	2.653	

Quarterly Revision to reset Price Levels [A]

Description	Units	Dec-17 Reference	Mar-18 Current	Variance
Units Sent out				
KE plants	GWh	477	691	
Power purchase	GWh	525	731	
Total sent out	GWh	1,001	1,422	
T&D Losses Allowed		19.8%	19.8%	
Units billed	GWh	803	1,141	
Cost of Fuel – KE plants	Mill Rs. Rs./kWh	2,363 2.942	5,463 4.790	1.848
Cost of Power Purchase – Fuel	Mill Rs. Rs./kWh	2,990 3.723	5,116 4.486	0.763
Cost of Power Purchase – O&M and capacity	Mill Rs. Rs./kWh	1,975 2.459	2,884 2.529	0.069
Total Variation	Rs./kWh			2.680 1

Quarter ended March 2018 – Quarterly Variation – Summary

Total Required Adjustments in KE's Tariff

Summary of Unrecovered cost for the Quarter [B]

▶ a. O&M and Capacity cost of Power purchases	Mill Rs	330
▶ b. Unrecovered Cost of FCA due to non adjustment of T&D losses	Mill Rs	1,033
Total Unrecovered cost for the quarter	Mill Rs	1,363
Units to be sold in next quarter at allowed T&D losses	GWh	4,209
Unrecovered Cost per unit for current quarter	Rs/kWh	2 0.324

Quarter ended June 2018 – Monthly FCA – Summary



Description	Unit	Legends	Mar-18	Apr-18	May-18	Jun-18	Total (April 18 to June 18)
<i>Reference</i>							
Units Sent Out							
Units Sent Out – KE	GWh	A	691	821	1,063	1,114	
Units – Power purchases	GWh		731	735	786	729	
Total	GWh		1,422	1,556	1,849	1,843	
Cost per unit							
Cost of fuel – KE	Rs./kWh	B	3.842	4.503	5.387	5.628	
Cost of fuel – Power Purchases	Rs./kWh		3.598	3.308	3.237	2.802	
Average Cost per unit	Rs./kWh		7.439	7.811	8.624	8.430	
Variation per unit (over reference)							
Cost of fuel – KE	Rs./kWh	C		0.661	1.546	1.786	
Cost of fuel – Power Purchases	Rs./kWh			(0.290)	(0.361)	(0.795)	
Total Fuel Cost Adjustment	Rs./kWh			0.371	1.185	0.991	
Total Fuel Cost Adjustment	Ps/kWh	D = C x 100		37.141	118.519	99.112	
<u>Variation Amount</u>							
► Cost of Fuel – KE	Mill Rs.	E = C X A		1,028	2,858	3,293	7,179
► Cost of Fuel – Power Purchases	Mill Rs.			(450)	(667)	(1,466)	(2,583)
Total Fuel Cost Adjustment	Mill Rs.			578	2,191	1,827	4,596

Quarter ended June 2018 – Quarterly Variation – Summary



Total Required Adjustments in KE's Tariff

Description	Units	Jun-18	
Quarterly Revision to reset price levels [A]	Rs/kWh	0.656	1
Unrecovered Cost for current quarter [B]	Rs/kWh	(0.215)	2
Other tariff Adjustments [C]	Rs/kWh	(0.295)	3
Reversal of unrecovered cost of previous quarter [D]	Rs/kWh	(0.324)	
Total Required adjustment in KE's Tariff	Rs/kWh	(0.178)	

Quarterly Revision to reset Price Levels [A]

Description	Units	Mar-18	Jun-18	Variance
		<i>Reference</i>	<i>Current</i>	
Units Sent out				
KE plants	GWh	691	1,114	
Power purchase	GWh	731	729	
Total sent out	GWh	1,422	1,843	
T&D Losses Allowed		19.8%	19.8%	
Units billed	GWh	1,141	1,478	
Cost of Fuel – KE plants	Mill Rs. Rs./kWh	5,463 4.790	10,374 7.017	2.227
Cost of Power Purchase – Fuel	Mill Rs. Rs./kWh	5,116 4.486	5,166 3.494	(0.992)
Cost of Power Purchase – O&M and capacity	Mill Rs. Rs./kWh	2,884 2.529	2,881 1.949	(0.580)
Total Variation	Rs./kWh			1 0.656

Quarter ended June 2018 – Quarterly Variation – Summary

Total Required Adjustments in KE's Tariff

Summary of Unrecovered cost for the Quarter [B]

▶ a. O&M and Capacity cost of Power purchases	Mill Rs	(1,817)
▶ b. Unrecovered Cost of FCA due to non adjustment of T&D losses	Mill Rs	910
c. <u>Other Adjustments</u>		
– WWF/WPPF / Bonus to IPPs	Mill Rs	27
Total Unrecovered cost for the quarter	Mill Rs	(880)
Units to be sold in next quarter at allowed T&D losses	GWh	4,090
Unrecovered Cost per unit for current quarter	Rs/kWh	② (0.215)

▶ Other tariff Adjustments [C]

Annual CPI on O&M with T&D loss adjustment	Rs/kWh	0.035
T&D loss adjustment for Fuel cost	Rs/kWh	(0.091)
T&D loss adjustment for Power purchase fuel cost	Rs/kWh	(0.045)
T&D loss adjustment for Power purchase O&M & Capacity cost	Rs/kWh	(0.025)
T&D loss adjustment of other components	Rs/kWh	(0.038)
Revision of Additional write off	Rs/kWh	(0.131)
Total	Rs/kWh	③ (0.295)

Quarter ended September 2018 – Monthly FCA – Summary

Description	Unit	Legends	June-18	July-18	Aug-18	Sep-18	Total (July 18 to Sep 18)
<i>Reference</i>							
Units Sent Out							
Units Sent Out – KE	GWh	A	1,114	1,077	957	914	
Units – Power purchases	GWh		729	751	680	655	
Total	GWh		1,843	1,829	1,637	1,568	
Cost per unit							
Cost of fuel – KE	Rs./kWh	B	5.628	6.103	5.914	6.138	
Cost of fuel – Power Purchases	Rs./kWh		2.802	2.951	3.082	3.069	
Average Cost per unit	Rs./kWh		8.430	9.053	8.996	9.207	
Variation per unit (over reference)							
Cost of fuel – KE	Rs./kWh	C		0.475	0.286	0.510	
Cost of fuel – Power Purchases	Rs./kWh			0.148	0.280	0.266	
Total Fuel Cost Adjustment	Rs./kWh			0.623	0.566	0.776	
Total Fuel Cost Adjustment	Ps/kWh	D = C x 100		62.305	56.599	77.646	
<i>Variation Amount</i>							
▶ Cost of Fuel – KE	Mill Rs.	E = C X A		868	468	800	2,137
▶ Cost of Fuel – Power Purchases	Mill Rs.			271	458	417	1,147
Total Fuel Cost Adjustment	Mill Rs.			1,139	927	1,218	3,284

Quarter ended September 2018 – Quarterly Variation – Summary

Total Required Adjustments in KE's Tariff

Description	Units	Sep-18
Quarterly Revision to reset price levels [A]	Rs/kWh	1.091 ¹
Unrecovered Cost for current quarter [B]	Rs/kWh	0.432 ²
Reversal of unrecovered cost of previous quarter [C]	Rs/kWh	0.215
Total Required adjustment in KE's Tariff	Rs/kWh	1.738

Quarterly Revision to reset Price Levels [A]

Description	Units	Jun-18	Sep-18	Variance
		<i>Reference</i>	<i>Current</i>	
Units Sent out				
KE plants	GWh	1,114	914	
Power purchase	GWh	729	655	
Total sent out	GWh	1,843	1,568	
T&D Losses Allowed		18.8% ¹	18.8%	
Units billed	GWh	1,498	1,274	
Cost of Fuel – KE plants	Mill Rs.	10,374	9,627	
	Rs./kWh	6.927	7.555	0.628
Cost of Power Purchase – Fuel	Mill Rs.	5,166	4,812	
	Rs./kWh	3.449	3.777	0.327
Cost of Power Purchase – O&M and capacity	Mill Rs.	2,881	2,623	
	Rs./kWh	1.923	2.058	0.135
Total Variation	Rs./kWh			¹ 1.091

1. T&D loss for FY 18 has been used as T&D adjustment of FY 17 to FY 18 has already been accounted for separately

Quarter ended September 2018 – Quarterly Variation – Summary

Total Required Adjustments in KE's Tariff

Summary of Unrecovered cost for the Quarter [B]

▶ a. O&M and Capacity cost of Power purchases	Mill Rs	836
▶ b. Unrecovered Cost of FCA due to non adjustment of T&D losses	Mill Rs	616
Total Unrecovered cost for the quarter	Mill Rs	1,452
Units to be sold in next quarter at allowed T&D losses	GWh	3,358
Unrecovered Cost per unit for current quarter	Rs/kWh	2 0.432

Quarter ended December 2018 – Monthly FCA – Summary

Description	Unit	Legends	Sep-18	Oct-18	Nov-18	Dec-18	Total (Oct 18 to Dec 18)
<i>Reference</i>							
Units Sent Out							
Units Sent Out – KE	GWh	A	914	986	798	554	
Units – Power purchases	GWh		655	678	581	537	
Total	GWh		1,568	1,663	1,379	1,090	
Cost per unit							
Cost of fuel – KE	Rs./kWh	B	6.138	7.585	6.927	6.257	
Cost of fuel – Power Purchases	Rs./kWh		3.069	3.251	2.895	3.653	
Average Cost per unit	Rs./kWh		9.207	10.836	9.821	9.910	
Variation per unit (over reference)							
Cost of fuel – KE	Rs./kWh	C		1.447	0.788	0.118	
Cost of fuel – Power Purchases	Rs./kWh			0.183	(0.174)	0.585	
Total Fuel Cost Adjustment	Rs./kWh			1.629	0.614	0.703	
Total Fuel Cost Adjustment	Ps/kWh	D = C x 100		162.929	61.446	70.294	
<u>Variation Amount</u>							
► Cost of Fuel – KE	Mill Rs.	E = C X A		2,407	1,087	129	3,622
► Cost of Fuel – Power Purchases	Mill Rs.			304	(240)	638	702
Total Fuel Cost Adjustment	Mill Rs.			2,710	847	767	4,324

Quarter ended December 2018 – Quarterly Variation – Summary

Total Required Adjustments in KE's Tariff

Description	Units	Dec-18
Quarterly Revision to reset price levels [A]	Rs/kWh	2.518 ¹
Unrecovered Cost for current quarter [B]	Rs/kWh	1.307 ²
Reversal of unrecovered cost of previous quarter [C]	Rs/kWh	(0.432)
Total Required adjustment in KE's Tariff	Rs/kWh	3.392

Quarterly Revision to reset Price Levels [A]

Description	Units	Sep-18 <i>Reference</i>	Dec-18 <i>Current</i>	Variance
Units Sent out				
KE plants	GWh	914	554	
Power purchase	GWh	655	537	
Total sent out	GWh	1,568	1,090	
T&D Losses Allowed		18.8%	18.8%	
Units billed	GWh	1,274	886	
Cost of Fuel – KE plants	Mill Rs. Rs./kWh	9,627 7.555	6,823 7.700	0.146
Cost of Power Purchase – Fuel	Mill Rs. Rs./kWh	4,812 3.777	3,984 4.496	0.720
Cost of Power Purchase – O&M and capacity	Mill Rs. Rs./kWh	2,623 2.058	3,288 3.711	1.653
Total Variation	Rs./kWh			¹ 2.518

Quarter ended December 2018 – Quarterly Variation – Summary

Total Required Adjustments in KE's Tariff

Summary of Unrecovered cost for the Quarter [B]

▶ a. O&M and Capacity cost of Power purchases	Mill Rs	2,421
▶ b. Unrecovered Cost of FCA due to non adjustment of T&D losses	Mill Rs	811
c. <u>Other Adjustments</u>		
– WWF/WPPF / Bonus to IPPs	Mill Rs	200
Total Unrecovered cost for the quarter	Mill Rs	3,432
Units to be sold in next quarter at allowed T&D losses	GWh	2,626
Unrecovered Cost per unit for current quarter	Rs/kWh	2 1.307

Quarter ended March 2019 – Monthly FCA – Summary



Description	Unit	Legends	Dec-18	Jan-19	Feb-19	March-19	Total (Jan 19 to March 19)
			Reference				
Units Sent Out							
Units Sent Out – KE	GWh	A	554	419	472	673	
Units – Power purchases	GWh		537	596	486	586	
Total	GWh		1,090	1,015	959	1,259	
Cost per unit							
Cost of fuel – KE	Rs./kWh	B	6.257	4.870	5.869	5.714	
Cost of fuel – Power Purchases	Rs./kWh		3.653	5.003	3.109	2.970	
Average Cost per unit	Rs./kWh		9.910	9.873	8.977	8.684	
Variation per unit (over reference)							
Cost of fuel – KE	Rs./kWh	C		(1.387)	(0.388)	(0.543)	
Cost of fuel – Power Purchases	Rs./kWh			1.350	(0.545)	(0.683)	
Total Fuel Cost Adjustment	Rs./kWh			(0.037)	(0.933)	(1.226)	
Total Fuel Cost Adjustment	Ps/kWh	D = C x 100		(3.683)	(93.264)	(122.618)	
Variation Amount							
► Cost of Fuel – KE	Mill Rs.	E = C X A		(1,408)	(372)	(684)	
► Cost of Fuel – Power Purchases	Mill Rs.			1,370	(522)	(860)	(12)
Total Fuel Cost Adjustment	Mill Rs.			(37)	(894)	(1,544)	(2,475)

Quarter ended March 2019 – Quarterly Variation – Summary



Total Required Adjustments in KE's Tariff

Description	Units	Mar-19
Quarterly Revision to reset price levels [A]	Rs/kWh	(2.244) ①
Unrecovered Cost for current quarter [B]	Rs/kWh	(0.227) ②
Reversal of unrecovered cost of previous quarter [C]	Rs/kWh	(1.307)
Total Required adjustment in KE's Tariff	Rs/kWh	(3.778)

Quarterly Revision to reset Price Levels [A]

Description	Units	Dec-18 <i>Reference</i>	Mar-19 <i>Current</i>	Variance
Units Sent out				
KE plants	GWh	554	673	
Power purchase	GWh	537	586	
Total sent out	GWh	1,090	1,259	
T&D Losses Allowed		18.8%	18.8%	
Units billed	GWh	886	1,023	
Cost of Fuel – KE plants	Mill Rs. Rs./kWh	6,823 7.700	7,193 7.032	(0.668)
Cost of Power Purchase – Fuel	Mill Rs. Rs./kWh	3,984 4.496	3,739 3.655	(0.841)
Cost of Power Purchase – O&M and capacity	Mill Rs. Rs./kWh	3,288 3.711	3,045 2.977	(0.735)
Total Variation	Rs./kWh			① (2.244)

Quarter ended March 2019 – Quarterly Variation – Summary



Total Required Adjustments in KE's Tariff

Summary of Unrecovered cost for the Quarter [B]

▶ a. O&M and Capacity cost of Power purchases	Mill Rs	(528)
▶ b. Unrecovered Cost of FCA due to non adjustment of T&D losses	Mill Rs	(464)
Total Unrecovered cost for the quarter	Mill Rs	(993)
Units to be sold in next quarter at allowed T&D losses	GWh	4,364
Unrecovered Cost per unit for current quarter	Rs/kWh	2 (0.227)

Quarter ended June 2019 – Monthly FCA – Summary



Description	Unit	Legends	Mar-19	Apr-19	May-19	Jun-19	Total (April 19 to June 19)
<i>Reference</i>							
Units Sent Out							
Units Sent Out – KE	GWh	A	673	952	1,114	1,088	
Units – Power purchases	GWh		586	663	759	796	
Total	GWh		1,259	1,615	1,873	1,884	
Cost per unit							
Cost of fuel – KE	Rs./kWh	B	5.714	6.371	7.004	6.919	
Cost of fuel – Power Purchases	Rs./kWh		2.970	2.973	3.107	3.268	
Average Cost per unit	Rs./kWh		8.684	9.343	10.111	10.187	
Variation per unit (over reference)							
Cost of fuel – KE	Rs./kWh	C		0.657	1.290	1.206	
Cost of fuel – Power Purchases	Rs./kWh			0.003	0.137	0.298	
Total Fuel Cost Adjustment	Rs./kWh			0.660	1.427	1.503	
Total Fuel Cost Adjustment	Ps/kWh	D = C x 100		65.965	142.691	150.318	
<u>Variation Amount</u>							
► Cost of Fuel – KE	Mill Rs.	E = C X A		1,061	2,416	2,271	5,748
► Cost of Fuel – Power Purchases	Mill Rs.			4	256	561	821
Total Fuel Cost Adjustment	Mill Rs.			1,065	2,672	2,831	6,569

③ Interest on Security Deposit, Bill Collection Charges, Meter Rent & ToU Billing



Whether the Petitioner has complied with the directions of the Authority in terms of Interest on Security Deposit, Bill Collection Charges, Meter Rent, Application of ToU rates and what is their Financial Impact due to delay in Notification of MYT?

Bank Collection Charges & Meter Rent

- Following MYT notification on May 22, 2019, KE has stopped charging meter rent and bank collection charges
- Further, bank charges and meter rent collected from July 2016 to May 2019 have been returned to consumers in the month of June 2019 – financial impact of delay in notification of MYT relating to bank charges and meter rent amounts to **c. PKR 84 Million¹** and **PKR 125 Million¹** respectively
- However, it is also important to consider the significant financial impact of KE's inability to pass on pending cost variations amid increasing fuel price and increasing capacity costs in tariff – KE's cumulative FCA outstanding to be recovered from consumers at June 2019 amounts to **c. PKR 16.9 Billion** and pending variation in Tariff Differential claims amounts to **c. PKR 56.9 Billion²** – financial impact of delay in notification of MYT relating to monthly and quarterly tariff adjustments amount to **c. PKR 2.7 Billion¹**
- In the MYT, NEPRA has included a provision of mid-term review where, amongst other things, NEPRA will review the working capital position of the Company – we request NEPRA to holistically consider the impact of the above in mid-term review and accordingly allow appropriate adjustment

Time of Use Billing & Interest on Security Deposit

- **Implementation of ToU billing** – in accordance with MYT, KE has implemented the ToU after notification of MYT. Further, as the notification can be implemented prospectively, including changes in definition of life-line consumers etc., KE has requested NEPRA to adjust the Schedule of Tariff for the period upto notification of MYT accordingly
- **Interest on Security Deposit** – KE has challenged this directive in the Sindh High Court and the matter is currently under litigation – financial impact of delay in notification of MYT related to Interest on Security deposit – **c. PKR 160 million¹**

1. Impact is for the period July 2016 to June 2019 and has been computed based on KIBOR + 2.5%

2. Assuming no retrospective revision in consumer-end tariff by GoP

Thank You

Back up Pages

Quarter ended Sept 2016 – Monthly FCA – KE's Plants



Units Sent out – GWh						Fuel Cost – Mill Rs.					
Description	Units	Jun-16	Jul-16	Aug-16	Sep-16	Jun-16	Jul-16	Aug-16	Sep-16	Total (Jul – 16 to Sep – 16)	
Plant											
BQPS – I			432	397	355		3,207	2,963	2,665		
Bin Qasim II - 560 MW			343	342	334		1,679	1,677	1,638		
Korangi Town Gas Turbine II			47	49	46		253	262	245		
Site Gas Turbine II			49	51	40		264	273	213		
Korangi CCPP			135	111	111		704	578	578		
Total – KE			1,007	950	886		6,107	5,752	5,339		
Units sent out IPPs			624	629	586						
Total units sent out			1,630	1,580	1,472						
Cost per unit Sent-out	Rs. / kWh					2.927	3.747	3.641	3.627		
Increase / (Decrease) over reference	Rs. / kWh						0.820	0.715	0.700		
Variation amount	Mill Rs.						1,337	1,129	1,030	3,496	
Fuel prices											
Gas	Rs./MMBTU					613	613	613	613		
Furnace Oil	Rs./Mton					27,744	29,889	29,637	30,520		
Furnace Oil	Rs./MMBTU					688	741	734	756		
Gas availability	mmcfd						196	186	194		
Proportion of KE's sent out within total							62%	60%	60%		
Fuel mix within KE's sent out											
Furnace oil							30%	32%	27%		
Gas							70%	68%	73%		

Quarter ended Sept 2016 – Monthly FCA – Power Purchases



		Units Sent out – GWh				Fuel Cost – Mill Rs.				
Description	Units	Jun-16	Jul-16	Aug-16	Sep-16	Jun-16	Jul-16	Aug-16	Sep-16	Total (Jul – 16 to Sep – 16)
Power Purchases										
Kanupp			44	34	25		290	228	167	
Tapal			66	72	59		433	483	387	
Gul Ahmed			67	74	63		461	521	428	
CPPA-G			434	439	428		1,738	1,708	1,567	
Anoud Power			5	5	5		32	30	32	
IIL			6	5	6		37	29	34	
Total – Power purchases			624	629	586		2,991	3,000	2,614	
Units sent out KE			1,007	950	886					
Total units sent out			1,630	1,580	1,472					
Cost per unit Sent-out	Rs. / kWh					2.262	1.835	1.899	1.776	
Increase / (Decrease) over reference	Rs. / kWh						(0.427)	(0.363)	(0.486)	
Variation amount	Mill Rs.						(696)	(573)	(716)	(1,985)
Fuel prices										
Gas	Rs./MMBTU					613	613	613	613	
Furnace Oil	Rs./Mton					27,744	29,889	29,637	30,520	
Furnace Oil	Rs./MMBTU					688	741	734	756	
CPPA-G	Rs./kWh					4.030	4.000	3.891	3.659	
Proportion of power purchases within total sent out							38%	40%	40%	

Quarter ended Sept 2016 – Quarterly Variation – Unrecovered Cost

Calculation of Unrecovered cost	Units		Jun-16	July-16	Aug-16	Sep-16	Quarter
<i>Reference</i>							
Units Sent Out	GWh	a		1,630	1,580	1,472	
T&D Losses allowed		b		20.9%	20.9%	20.9%	
Units Billed	GWh	c = a x (1-b)		1,289	1,249	1,164	
a. O&M and Capacity cost of Power purchases							
O&M and Capacity cost of Power purchases	Mill Rs	d		1,494	1,674	1,575	
O&M and Capacity cost of power purchases (per unit billed)	Rs/kWh	e = d/c	1.522	1.158	1.340	1.353	
Increase or decrease in O&M and Capacity cost (over Reference)	Rs/kWh	f		(0.364)	(0.182)	(0.169)	
O&M and Capacity Cost of Power Purchases - Monthly variations Amount	Mill Rs	g = f x c		(469)	(228)	(197)	(893)
b. Unrecovered Cost of FCA due to non adjustment of T&D losses							
i. Monthly variation in Fuel Cost (FCA) - Per unit							
Cost of Fuel - KE	Rs/kWh	h		0.820	0.715	0.700	
Cost of Fuel - Power Purchases	Rs/kWh	i		(0.427)	(0.363)	(0.486)	
Total	Rs/kWh	j = h + i		0.393	0.352	0.214	
ii. Monthly variation in Fuel Cost (FCA) - Amount							
Cost of Fuel - KE	Mill Rs	k = h x a		1,337	1,129	1,030	3,496
Cost of Fuel - Power Purchases	Mill Rs	l = i x a		(696)	(573)	(716)	(1,985)
Total	Mill Rs	m = k + l		641	556	315	1,511
iii. Unrecovered Cost of FCA due to non adjustment of T&D losses							
Cost of Fuel – KE	Mill Rs	n = k x b		279	236	215	731
Cost of Fuel - Power Purchases	Mill Rs	o = l x b		(145)	120	(150)	(415)
Total	Mill Rs	p = n + o		134	116	66	316

Quarter ended Sept 2016 – Quarterly Variation – O&M and Capacity



Units Sent out – GWh					O&M - Mill Rs.					Capacity Charges – Mill Rs.				
Description	Jun-16	Jul-16	Aug-16	Sep-16	Jun-16	Jul-16	Aug-16	Sep-16	Total Jul – 16 to sep – 16	Jun-16	Jul-16	Aug-16	Sep-16	Total Jul 16 to Sep 16
<u>Power Purchases</u>														
Kanupp		44	34	25		44	34	25	102		-	-	-	-
Tapal		66	72	59		70	75	63	208		141	141	141	424
Gul Ahmed		67	74	63		41	46	39	126		130	130	130	391
CPPA-G		434	439	428		116	111	109	336		931	1,119	1,050	3,100
Anoud Power		5	5	5		9	9	9	28		-	-	-	-
IIL		6	5	6		11	9	10	30		-	-	-	-
Total		624	629	586		291	284	254	828		1,202	1,390	1,322	3,914
Total of O&M and Capacity charges														
											1,494	1,674	1,575	4,743



Quarter ended Dec 2016 – Monthly FCA – KE's Plants



Description	Units	Units Sent out – GWh				Fuel Cost – Mill Rs.				Total (Oct – 16 to Dec – 16)
		Sep-16	Oct-16	Nov-16	Dec-16	Sep-16	Oct-16	Nov-16	Dec-16	
Plant										
BQPS – I		355	339	230	282	2,665	2,725	1,965	2,421	
Bin Qasim II - 560 MW		334	352	348	196	1,638	1,724	1,705	777	
Korangi Town Gas Turbine II		46	42	23	10	245	227	122	45	
Site Gas Turbine II		40	48	5	2	213	257	29	10	
Korangi CCPP		111	125	54	47	578	649	280	199	
Total – KE		886	906	660	538	5,339	5,582	4,101	3,453	
Units sent out IPPs		586	600	544	591					
Total units sent out		1,472	1,506	1,204	1,129					
Cost per unit Sent-out	Rs. / kWh					3.627	3.706	3,407	3.058	
Increase / (Decrease) over reference	Rs. / kWh						0.079	(0.219)	(0.569)	
Variation amount	Mill Rs.						119	(264)	(642)	(787)
Fuel prices										
Gas	Rs./MMBTU					613	613	613	496	
Furnace Oil	Rs./Mton					30,520	32,326	34,633	34,557	
Furnace Oil	Rs./MMBTU					756	801	858	856	
Gas availability	mmcf/d					194	182	136	105	
Proportion of KE's sent out within total						60%	60%	55%	48%	
Fuel mix within KE's sent out										
Furnace oil						27%	29%	28%	46%	
Gas						73%	71%	72%	54%	

Quarter ended Dec 2016 – Monthly FCA – Power Purchases

		Units Sent out – GWh				Fuel Cost – Mill Rs.				Total (Oct – 16 to Dec – 16)
Description	Units	Sep-16	Oct-16	Nov-16	Dec-16	Sep-16	Oct-16	Nov-16	Dec-16	
Power Purchases										
Kanupp		25	39	36	34	167	267	247	273	
Tapal		59	53	40	56	387	356	283	420	
Gul Ahmed		63	61	45	57	428	445	353	461	
CPPA-G		428	435	413	434	1,567	2,058	1,528	2,551	
Anoud Power		5	5	5	5	32	33	34	33	
IIL		6	6	5	6	34	37	31	34	
Total – Power purchases		586	600	544	591	2,614	3,196	2,476	3,771	
Units sent out KE		886	906	660	538					
Total units sent out		1,472	1,506	1,204	1,129					
Cost per unit Sent-out	Rs. / kWh					1.776	2.122	2.057	3.340	2,625
Increase / (Decrease) over reference	Rs. / kWh						0.346	0.281	1.564	
Variation amount	Mill Rs.						521	338	1,766	
Fuel prices										
Gas	Rs./MMBTU					613	613	613	496	
Furnace Oil	Rs./Mton					30,520	32,326	34,633	34,557	
Furnace Oil	Rs./MMBTU					756	801	858	856	
CPPA-G	Rs./kWh					3.659	4.727	3.696	5.884	
Proportion of power purchases within total sent out						40%	40%	45%	52%	

Quarter ended Dec 2016 – Quarterly Variation – Unrecovered Cost

Calculation of Unrecovered cost	Units		Sep-16	Oct-16	Nov-16	Dec-16	Quarter
			<i>Reference</i>				
Units Sent Out	GWh	a	1,472	1,506	1,204	1,129	
T&D Losses allowed		b	20.9%	20.9%	20.9%	20.9%	
Units Billed	GWh	c = a x (1-b)	1,164	1,192	952	893	
a. O&M and Capacity cost of Power purchases							
O&M and Capacity cost of Power purchases	Mill Rs	d	1,575	1,633	1,773	1,780	
O&M and Capacity cost of power purchases (per unit billed)	Rs/kWh	e = d/c	1.353	1.370	1.863	1.993	
Increase or decrease in O&M and Capacity cost (over Reference)	Rs/kWh	f		0.017	0.510	0.640	
O&M and Capacity Cost of Power Purchases - Monthly variations Amount	Mill Rs	g = f x c		21	485	572	1,078
b. Unrecovered Cost of FCA due to non adjustment of T&D losses							
i. Monthly variation in Fuel Cost (FCA) - Per unit							
Cost of Fuel - KE	Rs/kWh	h		0.079	(0.219)	(0.569)	
Cost of Fuel - Power Purchases	Rs/kWh	i		0.346	0.281	1.564	
Total	Rs/kWh	j = h + i		0.425	0.061	0.996	
ii. Monthly variation in Fuel Cost (FCA) - Amount							
Cost of Fuel - KE	Mill Rs	k = h x a		119	(264)	(642)	(787)
Cost of Fuel - Power Purchases	Mill Rs	l = i x a		521	338	1,766	2,625
Total	Mill Rs	m = k + l		640	74	1,124	1,838
iii. Unrecovered Cost of FCA due to non adjustment of T&D losses							
Cost of Fuel – KE	Mill Rs	n = k x b		25	(55)	(134)	(164)
Cost of Fuel - Power Purchases	Mill Rs	o = l x b		109	71	369	549
Total	Mill Rs	p = n + o		134	15	235	384

Quarter ended Dec 2016 – Quarterly Variation – O&M and Capacity



Description	Units Sent out – GWh				O&M - Mill Rs.				Total Oct – 16 to Dec – 16	Capacity Charges – Mill Rs.				Total Oct 16 to Dec 16
	Sep-16	Oct-16	Nov-16	Dec-16	Sep-16	Oct-16	Nov-16	Dec-16		Sep-16	Oct-16	Nov-16	Dec-16	
<u>Power Purchases</u>														
Kanupp	25	39	36	34	25	39	35	34	108	-	-	-	-	-
Tapal	59	53	40	56	63	56	42	59	157	141	141	141	135	418
Gul Ahmed	63	61	45	57	39	38	28	35	100	130	130	130	130	391
CPPA-G	428	435	413	434	109	128	99	131	359	1,050	1,081	1,280	1,238	3,598
Anoud Power	5	5	5	5	9	9	9	8	26	-	-	-	-	-
IIL	6	6	5	6	10	11	9	10	30	-	-	-	-	-
Total	586	600	544	591	254	280	222	277	779	1,322	1,353	1,551	1,503	4,407
Total of O&M and Capacity charges										1,575	1,633	1,773	1,780	5,186



Quarter ended March 2017 – Monthly FCA – KE's Plants



Units Sent out – GWh						Fuel Cost – Mill Rs.				
Description	Units	Dec-16	Jan-17	Feb-17	Mar-17	Dec-16	Jan-17	Feb-17	Mar-17	Total (Jan-17to Mar – 17)
Plant										
BQPS – I		282	223	135	275	2,421	1738	1,275	2,710	
Bin Qasim II - 560 MW		196	87	264	372	777	280	843	1,188	
Korangi Town Gas Turbine II		10	18	9	11	45	65	30	39	
Site Gas Turbine II		2	25	22	15	10	86	78	53	
Korangi CCPP		47	67	16	7	199	227	54	23	
Total – KE		538	420	445	679	3,453	2,395	2,279	4,012	
Units sent out IPPs		591	552	525	613					
Total units sent out		1,129	972	970	1,292					
Cost per unit Sent-out	Rs. / kWh					3.058	2.464	2.350	3.104	
Increase / (Decrease) over reference	Rs. / kWh						(0.549)	(0.708)	0.047	
Variation amount	Mill Rs.						(578)	(687)	60	(1,205)
Fuel prices										
Gas	Rs./MMBTU					496	400	400	400	
Furnace Oil	Rs./Mton					34,557	37,566	39,355	39,788	
Furnace Oil	Rs./MMBTU					856	931	975	986	
Gas availability	mmcfd					105	90	97	110	
Proportion of KE's sent out within total						48%	43%	46%	53%	
Fuel mix within KE's sent out										
Furnace oil						46%	34%	26%	37%	
Gas						54%	66%	74%	63%	

Quarter ended March 2017 – Monthly FCA – Power Purchases

Units Sent out – GWh						Fuel Cost – Mill Rs.				Total (Jan – 17 to Mar – 17)
Description	Units	Dec-16	Jan-17	Feb-17	Mar-17	Dec-16	Jan-17	Feb-17	Mar-17	
Power Purchases										
Kanupp		34	37	28	30	273	249	161	187	
Tapal		56	42	54	69	420	326	446	620	
Gul Ahmed		57	44	56	75	461	366	530	687	
CPPA-G		434	419	378	430	2,551	2,747	1,932	2,558	
Anoud Power		5	5	3	4	33	36	24	34	
IIL		6	6	5	6	34	37	31	33	
Total – Power purchases		591	552	525	613	3,771	3,759	3,123	4,119	
Units sent out KE		538	420	445	679					
Total units sent out		1,129	972	970	1,292					
Cost per unit Sent-out	Rs. / kWh					3.340	3.867	3.219	3.188	197
Increase / (Decrease) over reference	Rs. / kWh						0.527	(0.121)	(0.153)	
Variation amount	Mill Rs.						512	(117)	(197)	
Fuel prices										
Gas	Rs./MMBTU					496	400	400	400	
Furnace Oil	Rs./Mton					34,557	37,566	39,355	39,788	
Furnace Oil	Rs./MMBTU					856	931	975	986	
CPPA-G	Rs./kWh					5.884	6.559	5.110	5.950	
Proportion of power purchases within total sent out						52%	57%	54%	47%	

Quarter ended March 2017 – Quarterly Variation – Unrecovered Cost

Calculation of Unrecovered cost	Units		Dec-16	Jan-17	Feb-16	Mar-16	Quarter
			<i>Reference</i>				
Units Sent Out	GWh	a	1,129	972	970	1,292	
T&D Losses allowed		b	20.9%	20.9%	20.9%	20.9%	
Units Billed	GWh	c = a x (1-b)	893	769	767	1,022	
a. O&M and Capacity cost of Power purchases							
O&M and Capacity cost of Power purchases	Mill Rs	d	1,780	1,744	1771	1,858	
O&M and Capacity cost of power purchases (per unit billed)	Rs/kWh	e = d/c	1.993	2.268	2.229	1.818	
Increase or decrease in O&M and Capacity cost (over Reference)	Rs/kWh	f		0.275	0.236	(0.175)	
O&M and Capacity Cost of Power Purchases - Monthly variations Amount	Mill Rs	g = f x c		211	181	(179)	213
b. Unrecovered Cost of FCA due to non adjustment of T&D losses							
i. Monthly variation in Fuel Cost (FCA) - Per unit							
Cost of Fuel - KE	Rs/kWh	h		(0.594)	(0.708)	0.047	
Cost of Fuel - Power Purchases	Rs/kWh	i		0.527	0.121	(0.153)	
Total	Rs/kWh	j = h + i		(0.068)	(0.829)	(0.106)	
ii. Monthly variation in Fuel Cost (FCA) - Amount							
Cost of Fuel - KE	Mill Rs	k = h x a		(578)	(687)	60	(1,205)
Cost of Fuel - Power Purchases	Mill Rs	l = i x a		512	(117)	(197)	197
Total	Mill Rs	m = k + l		(66)	(805)	(137)	(1,008)
iii. Unrecovered Cost of FCA due to non adjustment of T&D losses							
Cost of Fuel – KE	Mill Rs	n = k x b		(121)	(144)	13	(252)
Cost of Fuel - Power Purchases	Mill Rs	o = l x b		107	(25)	(41)	41
Total	Mill Rs	p = n + o		(14)	(168)	(29)	(211)

Quarter ended March 2017 – Quarterly Variation – O&M and Capacity



Units Sent out – GWh					O&M - Mill Rs.					Capacity Charges – Mill Rs.					
Description	Dec-16	Jan-17	Feb-17	Mar-17	Dec-16	Jan-17	Feb-17	Mar-17	Total Jan– 17 to Mar – 17	Dec-16	Jan-17	Feb-17	Mar-17	Total Jan 17 to Mar 17	
<u>Power Purchases</u>															
Kanupp	34	37	28	30	34	36	28	29	93	-	-	-	-	-	
Tapal	56	42	54	69	59	45	58	73	176	135	135	135	135	406	
Gul Ahmed	57	44	56	75	35	28	35	46	109	130	131	131	131	394	
CPPA-G	434	419	378	430	131	150	112	130	392	1,238	1,200	1,197	1,295	3,691	
Anoud Power	5	5	3	4	8	8	6	8	22	-	-	-	-	-	
IIL	6	6	5	6	10	11	9	10	30	-	-	-	-	-	
Total	591	552	525	613	277	277	247	297	822	1,503	1,467	1,466	1,561	4,491	
Total of O&M and Capacity charges											1,780	1,744	1,711	1,858	5,313



Quarter ended June 2017 – Monthly FCA – KE's Plants

Description	Units	Units Sent out – GWh				Fuel Cost – Mill Rs.				Total (Apr – 17 to Jun – 17)
		Mar-17	Apr-17	May-17	Jun-17	Mar-17	Apr-17	May-17	Jun-17	
Plant										
BQPS – I		275	343	462	513	2,710	3,194	4,217	4,563	
Bin Qasim II - 560 MW		372	346	356	342	1,188	1,105	1,137	1,094	
Korangi Town Gas Turbine II		11	32	40	52	39	112	140	181	
Site Gas Turbine II		15	25	43	48	53	88	151	169	
Korangi CCPP		7	108	142	123	23	368	484	419	
Total – KE		679	854	1,044	1,079	4,012	4,867	6,129	6,427	
Units sent out IPPs		613	629	637	676					
Total units sent out		1,292	1,483	1,680	1,755					
Cost per unit Sent-out	Rs. / kWh					3.104	3.282	3.648	3.663	
Increase / (Decrease) over reference	Rs. / kWh						0.178	0.543	0.558	
Variation amount	Mill Rs.						263	913	980	2,156
Fuel prices										
Gas	Rs./MMBTU					400	400	400	400	
Furnace Oil	Rs./Mton					39,788	38,568	37,650	37,759	
Furnace Oil	Rs./MMBTU					986	956	933	936	
Gas availability	mmcf/d					110	152	171	186	
Proportion of KE's sent out within total						53%	58%	62%	61%	
Fuel mix within KE's sent out										
Furnace oil						37%	35%	39%	39%	
Gas						63%	65%	61%	61%	

Quarter ended June 2017 – Monthly FCA – Power Purchases



Units Sent out – GWh						Fuel Cost – Mill Rs.				
Description	Units	Mar-17	Apr-17	May-17	Jun-17	Mar-17	Apr-17	May-17	Jun-17	Total (Apr – 17 to Jun – 17)
Power Purchases										
Kanupp		30	36	24	43	187	220	150	271	
Tapal		69	73	79	80	620	642	651	673	
Gul Ahmed		75	76	87	84	687	700	748	721	
CPPA-G		430	434	411	422	2,558	2,459	2,065	1,936	
Anoud Power		4	4	4	4	34	33	33	33	
IIL		6	5	6	6	33	32	37	36	
FFBL			-	26	37		-	132	188	
Total – Power purchases		613	629	637	676	4,119	4,085	3,815	3,858	
Units sent out KE		679	854	1,044	1,079					
Total units sent out		1,292	1,483	1,680	1,755					
Cost per unit Sent-out						3.188	2.755	2.271	2.199	
Increase / (Decrease) over reference							(0.433)	(0.917)	(0.989)	
Variation amount							(642)	(1,540)	(1,735)	(3,917)
Fuel prices										
Gas	Rs./MMBTU					400	400	400	400	
Furnace Oil	Rs./Mton					39,788	38,568	37,650	37,759	
Furnace Oil	Rs./MMBTU					986	956	933	936	
CPPA-G	Rs./kWh					5.950	5.665	5.024	4.592	
Proportion of power purchases within total sent out						47%	42%	38%	39%	

Quarter ended June 2017 – Quarterly Variation – Unrecovered Cost

Calculation of Unrecovered cost	Units		Mar-17	Apr-17	May-17	Jun-17	Quarter
<i>Reference</i>							
Units Sent Out	GWh	a	1,292	1,483	1,680	1,755	
T&D Losses allowed		b	20.9%	20.9%	20.9%	20.9%	
Units Billed	GWh	c = a x (1-b)	1,022	1,173	1,329	1,388	
a. O&M and Capacity cost of Power purchases							
O&M and Capacity cost of Power purchases	Mill Rs	d	1,858	1,658	1,844	2,160	
O&M and Capacity cost of power purchases (per unit billed)	Rs/kWh	e = d/c	1.818	1.414	1.388	1.556	
Increase or decrease in O&M and Capacity cost (over Reference)	Rs/kWh	f		(0.404)	(0.430)	(0.262)	
O&M and Capacity Cost of Power Purchases - Monthly variations Amount	Mill Rs	g = f x c		(474)	(572)	(363)	(1,409)
b. Unrecovered Cost of FCA due to non adjustment of T&D losses							
i. Monthly variation in Fuel Cost (FCA) - Per unit							
Cost of Fuel - KE	Rs/kWh	h		0.178	0.543	0.558	
Cost of Fuel - Power Purchases	Rs/kWh	i		(0.433)	(0.917)	(0.989)	
Total	Rs/kWh	j = h + i		(0.255)	(0.374)	(0.430)	
ii. Monthly variation in Fuel Cost (FCA) - Amount							
Cost of Fuel - KE	Mill Rs	k = h x a		263	913	980	2,156
Cost of Fuel - Power Purchases	Mill Rs	l = i x a		(642)	(1,540)	(1,735)	(3,917)
Total	Mill Rs	m = k + l		(378)	(628)	(755)	(1,761)
iii. Unrecovered Cost of FCA due to non adjustment of T&D losses							
Cost of Fuel – KE	Mill Rs	n = k x b		55	191	205	451
Cost of Fuel - Power Purchases	Mill Rs	o = l x b		(134)	(322)	(363)	(819)
Total	Mill Rs	p = n + o		(79)	(131)	(158)	(368)

Quarter ended June 2017 – Quarterly Variation – O&M and Capacity



Description	Units Sent out – GWh				O&M - Mill Rs.				Total Apr – 17 to Jun – 17	Capacity Charges – Mill Rs.				Total April 17 to June 17
	Mar-17	Apr-17	May-17	Jun-17	Mar-17	Apr-17	May-17	Jun-17		Mar-17	Apr-17	May-17	Jun-17	
<u>Power Purchases</u>														
Kanupp	30	36	24	43	29	35	23	42	101	-	-	-	-	-
Tapal	69	73	79	80	73	78	84	86	248	135	136	142	142	421
Gul Ahmed	75	76	87	84	46	47	54	52	153	131	131	131	131	394
CPPA-G	430	434	411	422	130	133	118	120	371	1,295	1,079	1,163	1,329	3,572
Anoud Power	4	4	4	4	8	8	8	8	25	-	-	-	-	-
IIL	6	5	6	6	10	9	10	10	29	-	-	-	-	-
FFBL	-	-	26	37	-	-	12	19	32	-	-	96	221	317
Total	613	629	637	676	297	311	311	337	959	1,561	1,347	1,533	1,823	4,704
Total of O&M and Capacity charges										1,858	1,658	1,844	2,160	5,663

Quarter ended June 2017 – Quarterly Variation – Annual Adjustment

Description	Tariff Level	T&D loss Adj. Factor	T&D loss Adj.	Tariff level adj. for T&D losses	CPI – X	CPI Indexation	Tariff level adjusted for T&D losses & CPI
	Jun – 17			Jul – 17			Jul – 17
	PKR / kWh	Factor	PKR / kWh	PKR / kWh	%	PKR / kWh	PKR / kWh
Fuel and Power Purchase							
Fuel cost - own generation	4.631	0.986	(0.064)	4.567			4.567
Power purchase - fuel cost	2.780	0.986	(0.038)	2.742			2.742
Power purchase - O&M and capacity cost	1.556	0.986	(0.021)	1.535			1.535
Sub-total	8.967		(0.123)	8.844			8.844
O&M							
Generation	0.421	0.986	(0.006)	0.415	5.02%	0.021	0.436
Transmission	0.213	0.986	(0.003)	0.210	3.51%	0.007	0.217
Distribution	1.137	0.986	(0.016)	1.121	3.51%	0.039	1.161
Sub-total	1.771		(0.024)	1.747		0.068	1.814
Other Components							
Bad debts	0.213	0.986	(0.003)	0.210		0.241	0.451
Other income	(0.308)	0.986	0.004	(0.304)			(0.304)
Depreciation	0.537	0.986	(0.007)	0.530			0.530
Return component	1.448	0.986	(0.020)	1.428			1.428
Base rate adjustment component	1.074	0.986	(0.015)	1.059			1.059
			(0.041)				

Calculation Inputs

T&D loss Adjustment factor for FY 2018

Current T&D level - FY 2018	C T&D	19.80%
Previous T&D level - FY 2017	P T&D	20.90%
T&D Adjustment factor	$(1 - P \text{ T\&D}) / (1 - C \text{ T\&D})$	0.986

Change in CPI

Current CPI - May 2017	216.33
Reference CPI - May 2016	205.99
Increase in CPI (%)	5.02%

Description	CPI	X Factor Lower of		Lower of fixed or 30% of CPI	CPI – X
		Fixed	30% of CPI		
Generation	5.02%		N/A		5.02%
Transmission	5.02%	2.00%	1.51%	1.51%	3.51%
Distribution	5.02%	3.00%	1.51%	1.51%	3.51%

Quarter ended Sept 2017 – Monthly FCA – KE's Plants



Units Sent out – GWh						Fuel Cost – Mill Rs.				
Description	Units	Jun-17	Jul-17	Aug-17	Sep-17	Jun-17	Jul-17	Aug-17	Sep-17	Total (Jul-17to Sep – 17)
Plant										
BQPS – I		513	420	493	399	4,563	3,670	4,547	3,607	
Bin Qasim II - 560 MW		342	351	353	347	1,094	1,123	1,127	1,110	
Korangi Town Gas Turbine II		52	43	28	34	181	149	99	119	
Site Gas Turbine II		48	53	45	45	169	186	157	157	
Korangi CCPP		123	112	95	98	419	380	324	333	
Total – KE		1,079	979	1,014	923	6,427	5,507	6,254	5,326	
Units sent out IPPs		676	665	629	648					
Total units sent out		1,755	1,644	1,644	1,571					
Cost per unit Sent-out	Rs. / kWh					3.663	3.350	3.804	3.390	
Increase / (Decrease) over reference	Rs. / kWh						(0.313)	0,142	(0.273)	
Variation amount	Mill Rs.						(515)	233	(428)	(710)
Fuel prices										
Gas	Rs./MMBTU					400	400	400	400	
Furnace Oil	Rs./Mton					37,759	37,083	38,302	38,038	
Furnace Oil	Rs./MMBTU					936	919	949	943	
Gas availability	mmcfd					186	173	159	164	
Proportion of KE's sent out within total						61%	60%	62%	59%	
Fuel mix within KE's sent out										
Furnace oil						39%	35%	41%	36%	
Gas						61%	65%	59%	64%	

Quarter ended Sept 2017 – Monthly FCA – Power Purchases

		Units Sent out – GWh				Fuel Cost – Mill Rs.				Total (Jul – 17 to Sep – 17)
Description	Units	Jun-17	Jul-17	Aug-17	Sep-17	Jun-17	Jul-17	Aug-17	Sep-17	
Power Purchases										
Kanupp		43	30	-	25	271	182	-	153	
Tapal		80	70	73	72	673	597	591	602	
Gul Ahmed		84	67	70	61	721	581	598	545	
CPPA-G		422	451	439	443	1,936	2,155	2,036	1,879	
Anoud Power		4	3	3	3	33	22	24	24	
IIL		6	6	6	6	36	38	35	34	
FFBL		37	39	38	38	188	200	202	204	
SNPC		-	-	-	1	-	-	-	2	
Total – Power purchases		676	665	629	648	3,858	3,774	3,487	3,443	
Units sent out KE		1,079	979	1,014	923					
Total units sent out		1,755	1,644	1,644	1,571					
Cost per unit Sent-out	Rs. / kWh					2.199	2.296	2.121	2.192	
Increase / (Decrease) over reference	Rs. / kWh						0.097	(0.078)	(0.007)	
Variation amount	Mill Rs.						159	(127)	(12)	20
Fuel prices										
Gas	Rs./MMBTU					400	400	400	400	
Furnace Oil	Rs./Mton					37,759	37,083	38,302	38,038	
Furnace Oil	Rs./MMBTU					936	919	949	943	
CPPA-G	Rs./kWh					4.592	4.784	4.636	4.239	
Proportion of power purchases within total sent out						39%	40%	38%	41%	

Quarter ended Sept 2017 – Quarterly Variation – Unrecovered Cost



Calculation of Unrecovered cost	Units		Jun-17	July-17	Aug-17	Sep-17	Quarter
<i>Reference</i>							
Units Sent Out	GWh	a	1,755	1,644	1,644	1,571	
T&D Losses allowed		b	19.8% ¹	19.8%	19.8%	19.8%	
Units Billed	GWh	c = a x (1-b)	1,407	1,319	1,318	1,260	
a. O&M and Capacity cost of Power purchases							
O&M and Capacity cost of Power purchases	Mill Rs	d	2,160	1,862	1,827	2,082	
O&M and Capacity cost of power purchases (per unit billed)	Rs/kWh	e = d/c	1.535	1.412	1.386	1.653	
Increase or decrease in O&M and Capacity cost (over Reference)	Rs/kWh	f		(0.123)	(0.149)	0.118	
O&M and Capacity Cost of Power Purchases - Monthly variations Amount	Mill Rs	g = f x c		(162)	(197)	148	(211)
b. Unrecovered Cost of FCA due to non adjustment of T&D losses							
i. Monthly variation in Fuel Cost (FCA) - Per unit							
Cost of Fuel - KE	Rs/kWh	h		(0.313)	0.142	(0.273)	
Cost of Fuel - Power Purchases	Rs/kWh	i		0.097	(0.078)	(0.007)	
Total	Rs/kWh	j = h + i		(0.217)	0.064	(0.280)	
ii. Monthly variation in Fuel Cost (FCA) - Amount							
Cost of Fuel - KE	Mill Rs	k = h x a		515	233	(428)	710
Cost of Fuel - Power Purchases	Mill Rs	l = i x a		159	(127)	(12)	20
Total	Mill Rs	m = k + l		(356)	105	(440)	(691)
iii. Unrecovered Cost of FCA due to non adjustment of T&D losses							
Cost of Fuel – KE	Mill Rs	n = k x b		(102)	46	(85)	(141)
Cost of Fuel - Power Purchases	Mill Rs	o = l x b		31	(25)	(2)	4
Total	Mill Rs	p = n + o		(71)	21	(87)	(137)

1. T&D loss for FY 18 has been used as T&D adjustment of FY 17 to FY 18 has already been accounted for separately

Quarter ended Sept 2017 – Quarterly Variation – O&M and Capacity



Units Sent out – GWh					O&M - Mill Rs.					Capacity Charges – Mill Rs.				
Description	Jun-17	Jul-17	Aug-17	Sep-17	Jun-17	Jul-17	Aug-17	Sep-17	Total Jul– 17 to Sep – 17	Jun-17	Jul-17	Aug-17	Sep-17	Total Jul 17 to Sep 17
<u>Power Purchases</u>														
Kanupp	43	30	-	25	42	30	-	25	55	-	-	-	-	-
Tapal	80	70	73	72	86	75	78	77	231	142	143	143	143	429
Gul Ahmed	84	67	70	61	52	42	44	38	124	131	132	132	132	397
CPPA-G	422	451	439	443	120	118	115	134	367	1,329	1,050	1,049	1,271	3,370
Anoud Power	4	3	3	3	8	6	6	6	18	-	-	-	-	-
IIL	6	6	6	6	10	10	10	9	30	-	-	-	-	-
FFBL	37	39	38	38	19	20	20	20	60	221	235	229	227	690
SNPC	-	-	-	1	-	-	-	-	-	-	-	-	-	-
Total	676	665	629	648	337	302	274	309	885	1,823	1,560	1,553	1,773	4,886
Total of O&M and Capacity charges										2,160	1,862	1,827	2,082	5,771

Quarter ended Dec 2017 – Monthly FCA – KE's Plants

Description	Units	Units Sent out – GWh				Fuel Cost – Mill Rs.				Total (Sep-17to Dec- 17)
		Sep-17	Oct-17	Nov-17	Dec-17	Sep-17	Oct-17	Nov-17	Dec-17	
Plant										
BQPS – I		399	422	283	144	3,607	4,047	2,608	1,285	
Bin Qasim II - 560 MW		347	360	314	276	1,110	1,151	1,003	883	
Korangi Town Gas Turbine II		34	28	24	9	119	97	84	31	
Site Gas Turbine II		45	40	30	11	157	138	105	39	
Korangi CCPP		98	106	42	37	333	360	144	124	
Total – KE		923	955	693	477	5,326	5,793	3,944	2,363	
Units sent out IPPs		648	672	545	525					
Total units sent out		1,571	1,626	1,238	1,001					
Cost per unit Sent-out	Rs. / kWh					3.390	3.562	3.187	2.360	
Increase / (Decrease) over reference	Rs. / kWh						0.172	(0.204)	(1.031)	
Variation amount	Mill Rs.						279	(252)	(1,032)	(1,005)
Fuel prices										
Gas	Rs./MMBTU					400	400	400	400	
Furnace Oil	Rs./Mton					38,038	39,751	41,069	44,422	
Furnace Oil	Rs./MMBTU					943	985	1,018	1,101	
Gas availability	mmcf/d					164	158	134	101	
Proportion of KE's sent out within total						59%	59%	56%	48%	
Fuel mix within KE's sent out										
Furnace oil						36%	38%	31%	19%	
Gas						64%	62%	69%	81%	

Quarter ended Dec 2017 – Monthly FCA – Power Purchases

Units Sent out – GWh						Fuel Cost – Mill Rs.				Total (Oct – 17 to Dec – 17)
Description	Units	Sep-17	Oct-17	Nov-17	Dec-17	Sep-17	Oct-17	Nov-17	Dec-17	
Power Purchases										
Kanupp		25	37	33	21	153	239	205	112	
Tapal		72	67	38	31	602	576	341	284	
Gul Ahmed		61	70	36	30	545	614	335	283	
CPPA-G		443	449	387	387	1,879	2,284	1,623	1,983	
Anoud Power		3	3	3	3	24	21	22	28	
IIL		6	6	5	5	34	34	32	32	
FFBL		38	39	38	37	204	212	239	228	
SNPC		1	2	4	10	2	7	16	40	
Total – Power purchases		648	672	545	525	3,443	3,987	2,813	2,990	
Units sent out KE		923	955	693	477					
Total units sent out		1,571	1,626	1,238	1,001					
Cost per unit Sent-out	Rs. / kWh					2.192	2.451	2.273	2.986	1,319
Increase / (Decrease) over reference	Rs. / kWh						0.260	0.081	0.795	
Variation amount	Mill Rs.						423	100	796	
Fuel prices										
Gas	Rs./MMBTU					400	400	400	400	
Furnace Oil	Rs./Mton					38,038	39,751	41,069	44,422	
Furnace Oil	Rs./MMBTU					943	985	1,018	1,101	
CPPA-G	Rs./kWh					4.239	5.082	4.190	5.119	
Proportion of power purchases within total sent out						41%	41%	44%	52%	

Quarter ended Dec 2017 – Quarterly Variation – Unrecovered Cost

Calculation of Unrecovered cost	Units		Sep-17	Oct-17	Nov-17	Dec-17	Quarter
<i>Reference</i>							
Units Sent Out	GWh	a	1,571	1,626	1,238	1,001	
T&D Losses allowed		b	19.8%	19.8%	19.8%	19.8%	
Units Billed	GWh	c = a x (1-b)	1,260	1,304	993	803	
a. O&M and Capacity cost of Power purchases							
O&M and Capacity cost of Power purchases	Mill Rs	d	2,082	1,730	2,169	1975	
O&M and Capacity cost of power purchases (per unit billed)	Rs/kWh	e = d/c	1.653	1.326	2.185	2.459	
Increase or decrease in O&M and Capacity cost (over Reference)	Rs/kWh	f		(0.326)	0.532	0.807	
O&M and Capacity Cost of Power Purchases - Monthly variations Amount	Mill Rs	g = f x c		(426)	528	648	750
b. Unrecovered Cost of FCA due to non adjustment of T&D losses							
i. Monthly variation in Fuel Cost (FCA) - Per unit							
Cost of Fuel - KE	Rs/kWh	h		0.172	(0.204)	(1.031)	
Cost of Fuel - Power Purchases	Rs/kWh	i		0.260	0.081	0.795	
Total	Rs/kWh	j = h + i		0.432	(0.122)	(0.236)	
ii. Monthly variation in Fuel Cost (FCA) - Amount							
Cost of Fuel - KE	Mill Rs	k = h x a		279	(252)	(1,032)	(1,005)
Cost of Fuel - Power Purchases	Mill Rs	l = i x a		423	100	796	1,319
Total	Mill Rs	m = k + l		702	(152)	(236)	314
iii. Unrecovered Cost of FCA due to non adjustment of T&D losses							
Cost of Fuel – KE	Mill Rs	n = k x b		55	(50)	(204)	(199)
Cost of Fuel - Power Purchases	Mill Rs	o = l x b		84	20	158	261
Total	Mill Rs	p = n + o		139	(30)	(47)	62

Quarter ended Dec 2017 – Quarterly Variation – O&M and Capacity



Units Sent out – GWh					O&M - Mill Rs.					Capacity Charges – Mill Rs.				
Description	Sep-17	oct-17	Nov-17	Dec-17	Sep-17	oct-17	Nov-17	Dec-17	Total Oct– 17 to Dec – 17	Sep-17	oct-17	Nov-17	Dec-17	Total Oc t 17 to Dec 17
<u>Power Purchases</u>														
Kanupp	25	37	33	21	25	36	32	21	89	-	-	-	-	-
Tapal	72	67	38	31	77	72	41	33	146	143	143	143	143	430
Gul Ahmed	61	70	36	30	38	44	23	19	85	132	133	133	133	398
CPPA-G	443	449	387	387	134	120	115	116	351	1,271	912	1,416	1,257	3,585
Anoud Power	3	3	3	3	6	5	5	7	17	-	-	-	-	-
IIL	6	6	5	5	9	9	9	8	26	-	-	-	-	-
FFBL	38	39	38	37	20	20	20	19	60	227	235	232	220	687
SNPC	1	2	4	10	-	-	-	-		-	-	-	-	-
Total	648	672	545	525	309	307	245	222	774	1,773	1,423	1,924	1,753	5,100
Total of O&M and Capacity charges										2,082	1,730	2,169	1,975	5,874

Quarter ended March 2018 – Monthly FCA – KE's Plants



Units Sent out – GWh						Fuel Cost – Mill Rs.				
Description	Units	Dec-17	Jan-18	Feb-18	Mar-18	Dec-17	Jan-18	Feb-18	Mar-18	Total (Jan–18 to Mar– 18)
Plant										
BQPS – I		144	166	186	376	1,285	1,856	2,233	4,437	
Bin Qasim II - 560 MW		276	174	218	240	883	556	697	768	
Korangi Town Gas Turbine II		9	11	3	11	31	38	12	38	
Site Gas Turbine II		11	32	36	46	39	111	127	161	
Korangi CCPP		37	72	10	18	124	246	35	61	
Total – KE		477	455	454	691	2,363	2,808	3,103	5,463	
Units sent out IPPs		525	591	606	731					
Total units sent out		1,001	1,046	1,060	1,422					
Cost per unit Sent-out	Rs. / kWh					2.360	2.683	2.927	3.842	
Increase / (Decrease) over reference	Rs. / kWh						0.324	0.567	1.482	
Variation amount	Mill Rs.						339	601	2,107	3,047
Fuel prices										
Gas	Rs./MMBTU					400	400	400	400	
Furnace Oil	Rs./Mton					44,422	51,448	50,885	46,842	
Furnace Oil	Rs./MMBTU					1,101	1,275	1,261	1,161	
Gas availability	mmcfd					101	90	89	93	
Proportion of KE's sent out within total						48%	43%	43%	49%	
Fuel mix within KE's sent out										
Furnace oil						19%	28%	35%	50%	
Gas						81%	72%	65%	50%	

Quarter ended March 2018 – Monthly FCA – Power Purchases



Units Sent out – GWh						Fuel Cost – Mill Rs.				Total (Jan – 18 to Mar – 18)
Description	Units	Dec-17	Jan-18	Feb-18	Mar-18	Dec-17	Jan-18	Feb-18	Mar-18	
Power Purchases										
Kanupp		21	34	28	26	112	219	214	225	
Tapal		31	45	57	71	284	420	523	737	
Gul Ahmed		30	28	46	73	283	288	495	802	
CPPA-G		387	404	373	442	1,983	2,675	1,854	2,746	
Anoud Power		3	4	3	4	28	30	32	34	
IIL		5	6	5	5	32	34	30	32	
FFBL		37	20	32	40	228	123	206	265	
SNPC		10	51	62	70	40	202	244	276	
Total – Power purchases		525	591	606	731	2,990	3,990	3,599	5,116	
Units sent out KE		477	455	454	691					
Total units sent out		1,001	1,046	1,060	1,422					
Cost per unit Sent-out	Rs. / kWh					2.986	3.813	3.395	3.598	2,169
Increase / (Decrease) over reference	Rs. / kWh						0.827	0.409	0.612	
Variation amount	Mill Rs.						866	434	870	
Fuel prices										
Gas	Rs./MMBTU					400	400	400	400	
Furnace Oil	Rs./Mton					44,422	51,448	50,885	46,842	
Furnace Oil	Rs./MMBTU					1,101	1,275	1,261	1,161	
CPPA-G	Rs./kWh					5.119	6.625	4.974	6.213	
Proportion of power purchases within total sent out						52%	57%	57%	51%	

Quarter ended March 2018 – Quarterly Variation – Unrecovered Cost

Calculation of Unrecovered cost	Units		Dec-17	Jan-18	Feb-18	Mar-18	Quarter
<i>Reference</i>							
Units Sent Out	GWh	a	1,001	1,046	1,060	1,422	
T&D Losses allowed		b	19.8%	19.8%	19.8%	19.8%	
Units Billed	GWh	c = a x (1-b)	803	839	850	1,141	
a. O&M and Capacity cost of Power purchases							
O&M and Capacity cost of Power purchases	Mill Rs	d	1,975	2,090	2,316	2,884	
O&M and Capacity cost of power purchases (per unit billed)	Rs/kWh	e = d/c	2.459	2.491	2.724	2.529	
Increase or decrease in O&M and Capacity cost (over Reference)	Rs/kWh	f		0.032	0.264	0.069	
O&M and Capacity Cost of Power Purchases - Monthly variations Amount	Mill Rs	g = f x c		27	225	79	330
b. Unrecovered Cost of FCA due to non adjustment of T&D losses							
i. Monthly variation in Fuel Cost (FCA) - Per unit							
Cost of Fuel - KE	Rs/kWh	h		0.324	0.567	1.482	
Cost of Fuel - Power Purchases	Rs/kWh	i		0.827	0.409	0.612	
Total	Rs/kWh	j = h + i		1.151	0.976	2.094	
ii. Monthly variation in Fuel Cost (FCA) - Amount							
Cost of Fuel - KE	Mill Rs	k = h x a		339	601	2,107	3,047
Cost of Fuel - Power Purchases	Mill Rs	l = i x a		866	434	870	2,169
Total	Mill Rs	m = k + l		1,204	1,035	2,977	5,217
iii. Unrecovered Cost of FCA due to non adjustment of T&D losses							
Cost of Fuel – KE	Mill Rs	n = k x b		67	119	417	603
Cost of Fuel - Power Purchases	Mill Rs	o = l x b		171	86	172	429
Total	Mill Rs	p = n + o		238	205	589	1,033

Quarter ended March 2018 – Quarterly Variation – O&M and Capacity



Description	Units Sent out – GWh				O&M - Mill Rs.				Total Jan– 18 to Mar– 18	Capacity Charges – Mill Rs.				Total Jan 18 to Mar 18
	Dec-17	Jan-18	Feb-18	Mar-18	Dec-17	Jan-18	Feb-18	Mar-18		Dec-17	Jan-18	Feb-18	Mar-18	
<u>Power Purchases</u>														
Kanupp	21	34	28	26	21	33	28	26	87	-	-	-	-	-
Tapal	31	45	57	71	33	50	63	78	192	143	146	146	146	439
Gul Ahmed	30	28	46	73	19	18	29	47	95	133	136	136	136	407
CPPA-G	387	404	373	442	116	122	111	129	361	1,257	1332	1,326	1,762	4,421
Anoud Power	3	4	3	4	7	7	7	7	21	-	-	-	-	-
IIL	5	6	5	5	8	9	7	9	25	-	-	-	-	-
FFBL	37	20	32	40	19	10	17	21	48	220	119	192	241	553
SNPC	10	51	62	70	-	19	43	49	110	-	89	210	233	532
Total	525	591	606	731	222	268	305	366	939	1,753	1,823	2,011	2,518	6,352
Total of O&M and Capacity charges										1,975	2,090	2,316	2,884	7,290



Quarter ended June 2018 – Monthly FCA – KE's Plants

Units Sent out – GWh						Fuel Cost – Mill Rs.				
Description	Units	Mar-18	Apr-18	May-18	Jun-18	Mar-18	Apr-18	May-18	Jun-18	Total (Apr-18 to Jun- 18)
Plant										
BQPS – I		376	460	519	517	4,437	5,572	6,692	6,842	
Bin Qasim II - 560 MW		240	262	287	339	768	988	1,666	1,980	
Korangi Town Gas Turbine II		11	17	51	57	38	78	322	346	
Site Gas Turbine II		46	28	58	62	161	123	371	377	
Korangi CCPP		18	54	148	139	61	243	909	829	
Total – KE		691	821	1,063	1,114	5,463	7,005	9,960	10,374	
Units sent out IPPs		731	735	786	729					
Total units sent out		1,422	1,556	1,849	1,843					
Cost per unit Sent-out	Rs. / kWh					3.842	4.503	5.387	5.628	7,179
Increase / (Decrease) over reference	Rs. / kWh						0.661	1.546	1.786	
Variation amount	Mill Rs.						1,028	2,858	3,293	
Fuel prices										
Gas (Comingled)	Rs./MMBTU					400	487	725	691	
Furnace Oil	Rs./Mton					46,842	48,627	54,405	60,212	
Furnace Oil	Rs./MMBTU					1,161	1,205	1,348	1,492	
Natural Gas	mmcf/d					93	102	120	155	
RLNG	mmcf/d					-	11	60	60	
Proportion of KE's sent out within total						49%	53%	57%	60%	
Fuel mix within KE's sent out										
Furnace oil						50%	51%	38%	33%	
Gas						50%	45%	41%	49%	
RLNG						-	5%	21%	19%	

Quarter ended June 2018 – Monthly FCA – Power Purchases



Units Sent out – GWh						Fuel Cost – Mill Rs.				Total (Apr – 18 to Jun – 18)
Description	Units	Mar-18	Apr-18	May-18	Jun-18	Mar-18	Apr-18	May-18	Jun-18	
Power Purchases										
Kanupp		26	24	35	39	225	212	345	378	
Tapal		71	76	87	67	737	778	966	827	
Gul Ahmed		73	81	82	70	802	898	1,024	924	
CPPA-G		442	445	465	442	2,746	2,687	3,027	2,433	
Anoud Power		4	5	5	5	34	47	48	55	
IIL		5	6	6	6	32	32	34	32	
FFBL		40	39	40	39	265	259	277	270	
SNPC		70	59	67	62	276	234	264	245	
Total – Power purchases		731	735	786	729	5,116	5,147	5,984	5,166	
Units sent out KE		691	821	1,063	1,114					
Total units sent out		1,422	1,556	1,849	1,843					
Cost per unit Sent-out	Rs. / kWh					3.598	3.308	3.237	2.802	
Increase / (Decrease) over reference	Rs. / kWh						(0.290)	(0.361)	(0.795)	
Variation amount	Mill Rs.						(450)	(667)	(1,466)	(2,583)
Fuel prices										
Gas (Comingled)	Rs./MMBTU					400	487	725	691	
Furnace Oil	Rs./Mton					46,842	48,627	54,405	60,212	
Furnace Oil	Rs./MMBTU					1,161	1,205	1,348	1,492	
CPPA-G	Rs./kWh					6.213	6.033	6.512	5.501	
Proportion of power purchases within total sent out						51%	47%	43%	40%	

Quarter ended June 2018 – Quarterly Variation – Unrecovered Cost

Calculation of Unrecovered cost	Units		Mar-18	April-18	May-18	Jun-18	Quarter
<i>Reference</i>							
Units Sent Out	GWh	a	1,422	1,556	1,849	1,843	
T&D Losses allowed		b	19.8%	19.8%	19.8%	19.8%	
Units Billed	GWh	c = a x (1-b)	1,141	1,248	1,483	1,478	
a. O&M and Capacity cost of Power purchases							
O&M and Capacity cost of Power purchases	Mill Rs	d	2,884	2668	3,278	2,881	
O&M and Capacity cost of power purchases (per unit billed)	Rs/kWh	e = d/c	2.529	2.138	2.211	1.949	
Increase or decrease in O&M and Capacity cost (over Reference)	Rs/kWh	f		(0.391)	(0.318)	(0.580)	
O&M and Capacity Cost of Power Purchases - Monthly variations Amount	Mill Rs	g = f x c		(487)	(472)	(858)	(1,817)
b. Unrecovered Cost of FCA due to non adjustment of T&D losses							
i. Monthly variation in Fuel Cost (FCA) - Per unit							
Cost of Fuel - KE	Rs/kWh	h		0.661	1.546	1.786	
Cost of Fuel - Power Purchases	Rs/kWh	i		(0.290)	(0.361)	(0.795)	
Total	Rs/kWh	j = h + i		0.371	1.185	0.991	
ii. Monthly variation in Fuel Cost (FCA) - Amount							
Cost of Fuel - KE	Mill Rs	k = h x a		1,028	2,858	3,293	7,179
Cost of Fuel - Power Purchases	Mill Rs	l = i x a		(450)	(667)	(1,466)	(2,583)
Total	Mill Rs	m = k + l		578	2,191	1,827	4,596
iii. Unrecovered Cost of FCA due to non adjustment of T&D losses							
Cost of Fuel – KE	Mill Rs	n = k x b		204	566	652	1,421
Cost of Fuel - Power Purchases	Mill Rs	o = l x b		(89)	(132)	(290)	(511)
Total	Mill Rs	p = n + o		114	434	362	910

Quarter ended June 2018 – Quarterly Variation – O&M and Capacity



Units Sent out – GWh					O&M - Mill Rs.					Capacity Charges – Mill Rs.				
Description	Mar-18	Apr-18	May-18	Jun-18	Mar-18	Apr-18	May-18	Jun-18	Total Apr– 18 to Jun – 18	Mar-18	Apr-18	May-18	Jun-18	Total Apr 18 to Jun 18
Power Purchases														
Kanupp	26	24	35	39	26	23	34	38	95	-	-	-	-	-
Tapal	71	76	87	67	78	83	96	74	253	146	137	147	150	434
Gul Ahmed	73	81	82	70	47	52	53	45	150	136	137	137	137	412
CPPA-G	442	445	465	442	129	137	132	127	396	1,762	1,550	2,112	1,762	5,424
Anoud Power	4	5	5	5	7	9	10	10	29	-	-	-	-	-
IIL	5	6	6	6	9	9	10	9	28	-	-	-	-	-
FFBL	40	39	40	39	21	21	21	21	63	241	237	243	234	713
SNPC	70	59	67	62	49	42	48	44	135	233	228	235	229	692
Total	731	735	786	729	366	378	404	369	1,150	2,518	2,290	2,874	2,512	7,676
Total of O&M and Capacity charges														
										2,884	2,668	3,278	2,881	8,826



Quarter ended June 2018 – Quarterly Variation – Annual Adjustment

Description	Tariff Level	T&D loss Adj. Factor	T&D loss Adj.	Tariff level adj. for T&D losses	CPI – X	CPI Indexation	Tariff level adjusted for T&D losses & CPI
	Jun – 18			Jul – 18			Jul – 18
	PKR / kWh	Factor	PKR / kWh	PKR / kWh	%	PKR / kWh	PKR / kWh
Fuel and Power Purchase							
Fuel cost - own generation	7.017	0.987	(0.091)	6.927			6.927
Power purchase - fuel cost	3.494	0.987	(0.045)	3.449			3.449
Power purchase - O&M and capacity cost	1.949	0.987	(0.025)	1.923			1.923
Sub-total	12.460		(0.161)	12.299			12.299
O&M							
Generation	0.436	0.987	(0.006)	0.431	4.19%	0.018	0.449
Transmission	0.217	0.987	(0.003)	0.215	2.93%	0.006	0.221
Distribution	1.161	0.987	(0.015)	1.146	2.93%	0.034	1.179
Sub-total	1.814		(0.023)	1.791		0.058	1.849
Other Components							
Bad debts	0.210 ¹	0.987	(0.003)	0.207		0.111	0.318
Other income	(0.304)	0.987	0.004	(0.300)			(0.300)
Depreciation	0.530	0.987	(0.007)	0.523			0.523
Return component	1.428	0.987	(0.018)	1.410			1.410
Base rate adjustment component	1.059	0.987	(0.014)	1.046			1.046
			(0.038)				

Calculation Inputs

T&D loss Adjustment factor for FY 2019

Current T&D level - FY 2019	C T&D	18.75%
Previous T&D level - FY 2018	P T&D	19.80%
T&D Adjustment factor	$(1 - P \text{ T\&D}) / (1 - C \text{ T\&D})$	0.987

Change in CPI

Current CPI - May 2018	225.4
Reference CPI - May 2017	216.33
Increase in CPI (%)	4.19%

Description	CPI	X Factor Lower of		Lower of fixed or 30% of CPI	CPI – X
		Fixed	30% of CPI		
Generation	4.19%		N/A		4.19%
Transmission	4.19%	2.00%	1.26%	1.26%	2.93%
Distribution	4.19%	3.00%	1.26%	1.26%	2.93%

1. This is after reversal of additional write-offs of FY 17 – PKR 0.241/kWh

Quarter ended Sept 2018 – Monthly FCA – KE's Plants



Description	Units	Units Sent out – GWh				Fuel Cost – Mill Rs.				Total (Jul-18 to sep- 18)
		Jun-18	Jul-18	Aug-18	Sep-18	Jun-18	Jul-18	Aug-18	Sep-18	
Plant										
BQPS – I		517	478	422	454	6,842	7,149	6,149	6,596	
Bin Qasim II - 560 MW		339	353	300	247	1,980	2,336	1,957	1,610	
Korangi Town Gas Turbine II		57	43	45	38	346	301	309	258	
Site Gas Turbine II		62	56	60	56	377	389	407	383	
Korangi CCPP		139	146	130	118	829	984	862	780	
Total – KE		1,114	1,077	957	914	10,374	11,159	9,684	9,627	
Units sent out IPPs		729	751	680	655					
Total units sent out		1,843	1,829	1,637	1,568					
Cost per unit Sent-out	Rs. / kWh					5.628	6.103	5.914	6.138	
Increase / (Decrease) over reference	Rs. / kWh						0.475	0,286	0.510	
Variation amount	Mill Rs.						868	468	800	2,137
Fuel prices										
Gas (Comingled)	Rs./MMBTU					691	791	777	778	
Furnace Oil	Rs./Mton					60,212	63,727	67,640	68,668	
Furnace Oil	Rs./MMBTU					1,492	1,579	1,676	1,702	
Natural Gas	mmcf					155	132	133	132	
RLNG	mmcf					60	60	60	60	
Proportion of KE's sent out within total						60%	59%	58%	58%	
Fuel mix within KE's sent out										
Furnace oil						33%	35%	29%	32%	
Gas						49%	45%	49%	47%	
RLNG						19%	20%	22%	21%	

Quarter ended Sept 2018 – Monthly FCA – Power Purchases

Units Sent out – GWh						Fuel Cost – Mill Rs.				Total (Jul – 18 to Sep – 18)
Description	Units	Jun-18	Jul-18	Aug-18	Sep-18	Jun-18	Jul-18	Aug-18	Sep-18	
Power Purchases										
Kanupp		39	37	32	19	378	410	347	216	
Tapal		67	67	49	61	827	894	679	889	
Gul Ahmed		70	72	54	69	924	1,021	805	1054	
CPPA-G		442	459	430	428	2,433	2,448	2,545	2,275	
Anoud Power		5	4	6	4	55	51	67	45	
IIL		6	5	6	5	32	32	34	30	
FFBL		39	40	40	7	270	282	316	53	
SNPC		62	65	64	63	245	258	254	251	
Total – Power purchases		729	751	680	655	5,166	5,396	5,047	4,812	
Units sent out KE		1,114	1,077	957	914					
Total units sent out		1,843	1,829	1,637	1,568					
Cost per unit Sent-out	Rs. / kWh					2.802	2.951	3.082	3.069	1,147
Increase / (Decrease) over reference	Rs. / kWh						0.148	0.280	0.266	
Variation amount	Mill Rs.						271	458	417	
Fuel prices										
Gas (Comingled)	Rs./MMBTU					691	791	777	778	
Furnace Oil	Rs./Mton					60,212	63,727	67,640	68,668	
Furnace Oil	Rs./MMBTU					1,492	1,579	1,676	1,702	
CPPA-G	Rs./kWh					5.501	5.334	5.919	5.322	
Proportion of power purchases within total sent out						40%	41%	42%	42%	

Quarter ended Sept 2018 – Quarterly Variation – Unrecovered Cost

Calculation of Unrecovered cost	Units		Jun-18	July-18	Aug-18	Sep-18	Quarter
<i>Reference</i>							
Units Sent Out	GWh	a	1,843	1,829	1,637	1,568	
T&D Losses allowed		b	18.8% ¹	18.8%	18.8%	18.8%	
Units Billed	GWh	c = a x (1-b)	1,491	1,486	1,330	1,274	
a. O&M and Capacity cost of Power purchases							
O&M and Capacity cost of Power purchases	Mill Rs	d	2,881	3,021	3,059	2,623	
O&M and Capacity cost of power purchases (per unit billed)	Rs/kWh	e = d/c	1.923	2.034	2.300	2.058	
Increase or decrease in O&M and Capacity cost (over Reference)	Rs/kWh	f		0.110	0.376	0.135	
O&M and Capacity Cost of Power Purchases - Monthly variations Amount	Mill Rs	g = f x c		164	501	172	836
b. Unrecovered Cost of FCA due to non adjustment of T&D losses							
i. Monthly variation in Fuel Cost (FCA) - Per unit							
Cost of Fuel - KE	Rs/kWh	h		0.475	0.286	0.510	
Cost of Fuel - Power Purchases	Rs/kWh	i		0.148	0.280	0.266	
Total	Rs/kWh	j = h + i		0.623	0.566	0.776	
ii. Monthly variation in Fuel Cost (FCA) - Amount							
Cost of Fuel - KE	Mill Rs	k = h x a		868	468	800	2,137
Cost of Fuel - Power Purchases	Mill Rs	l = i x a		271	458	417	1,147
Total	Mill Rs	m = k + l		1,139	927	1,218	3,284
iii. Unrecovered Cost of FCA due to non adjustment of T&D losses							
Cost of Fuel – KE	Mill Rs	n = k x b		163	88	150	401
Cost of Fuel - Power Purchases	Mill Rs	o = l x b		51	86	78	215
Total	Mill Rs	p = n + o		214	174	228	616

1. T&D loss for FY 19 has been used as T&D adjustment of FY 18 to FY 19 has already been accounted for separately

Quarter ended Sept 2018 – Quarterly Variation – O&M and Capacity



Description	Units Sent out – GWh				O&M - Mill Rs.					Capacity Charges – Mill Rs.				
	Jun-18	Jul-18	Aug-18	Sep-18	Jun-18	Jul-18	Aug-18	Sep-18	Total Jul- 18 to Sep- 18	Jun-18	Jul-18	Aug-18	Sep-18	Total Jul 18 to Sep 18
<u>Power Purchases</u>														
Kanupp	39	37	32	19	38	37	31	18	86	-	-	-	-	-
Tapal	67	67	49	61	74	82	59	73	214	150	161	161	161	482
Gul Ahmed	70	72	54	69	45	51	38	49	138	137	149	149	149	446
CPPA-G	442	459	430	428	127	215	117	103	435	1,762	1,750	1,930	1,727	5,407
Anoud Power	5	4	6	4	10	9	11	8	28	-	-	-	-	-
IIL	6	5	6	5	9	9	10	9	27	-	-	-	-	-
FFBL	39	40	40	7	21	22	21	4	47	234	245	241	40	525
SNPC	62	65	64	63	44	49	48	48	145	229	243	243	236	722
Total	729	751	680	655	369	474	337	311	1,121	2,512	2,548	2,723	2,312	7,528
Total of O&M and Capacity charges										2,881	3,021	3,059	2,623	8,704

Quarter ended Dec 2018 – Monthly FCA – KE's Plants

Description	Units	Units Sent out – GWh				Fuel Cost – Mill Rs.				Total (Oct-18 to Dec-18)
		Sep-18	Oct-18	Nov-18	Dec-18	Sep-18	Oct-18	Nov-18	Dec-18	
Plant										
BQPS – I		454	472	322	156	6,596	8,273	5,432	2,732	
Bin Qasim II - 560 MW		247	340	340	364	1,610	2,853	2,938	3,754	
Korangi Town Gas Turbine II		38	32	40	8	258	278	360	82	
Site Gas Turbine II		56	42	-	-	383	367	-	-	
Korangi CCPP		118	99	95	26	780	847	821	255	
Total – KE		914	986	798	554	9,627	12,618	9,550	6,283	
Units sent out IPPs		655	678	537	537					
Total units sent out		1,568	1,663	1,379	1,090					
Cost per unit Sent-out	Rs. / kWh					6.138	7.585	6.927	6.257	
Increase / (Decrease) over reference	Rs. / kWh						1.447	0.788	0.118	
Variation amount	Mill Rs.						2,407	1,087	129	3,622
Fuel prices										
Gas (Comingled)	Rs./MMBTU					778	999	1,016	1,225	
Furnace Oil	Rs./Mton					68,668	71,670	77,712	72,926	
Furnace Oil	Rs./MMBTU					1,702	1,776	1,926	1,807	
Natural Gas	mmcf					132	111	115	57	
RLNG	Mmcfd					60	60	60	56	
Proportion of KE's sent out within total						58%	59%	58%	51%	
Fuel mix within KE's sent out										
Furnace oil						32%	40%	26%	23%	
Gas						47%	39%	48%	37%	
RLNG						21%	21%	26%	41%	

Quarter ended Dec 2018 – Monthly FCA – Power Purchases



Units Sent out – GWh						Fuel Cost – Mill Rs.				
Description	Units	Sep-18	Oct-18	Nov-18	Dec-18	Sep-18	Oct-18	Nov-18	Dec-18	Total (Sep - 18 to Dec - 18)
Power Purchases										
Kanupp		19	-	-	-	216	-	-	-	
Tapal		61	76	49	25	889	1,095	741	425	
Gul Ahmed		69	81	42	22	1054	1,214	697	378	
CPPA-G		428	411	373	374	2,275	2,347	1,764	2,403	
Anoud Power		4	4	4	4	45	54	54	52	
IIL		5	5	5	5	30	37	35	42	
FFBL		7	34	39	40	53	269	312	344	
SNPC		63	68	67	59	251	393	387	339	
Oursun		-	-	2	7	-	-	-	-	
Total – Power purchases		655	678	581	537	4,812	5,408	3,991	3,984	
Units sent out KE		914	986	798	554					
Total units sent out		1,568	1,663	1,379	1,090					
Cost per unit Sent-out	Rs. / kWh					3.069	3.251	2.895	3.653	
Increase / (Decrease) over reference	Rs. / kWh						0.183	(0.174)	0.585	
Variation amount	Mill Rs.						304	(240)	638	702
Fuel prices										
Gas (Comingled)	Rs./MMBTU					778	999	1,016	1,225	
Furnace Oil	Rs./Mton					68,668	71,670	77,712	72,926	
Furnace Oil	Rs./MMBTU					1,702	1,776	1,926	1,807	
CPPA-G	Rs./kWh					5.322	5.711	4.727	6.430	
Proportion of power purchases within total sent out						42%	41%	42%	49%	

Quarter ended Dec 2018 – Quarterly Variation – Unrecovered Cost

Calculation of Unrecovered cost	Units		Sep-18	Oct-18	Nov-18	Dec-18	Quarter
<i>Reference</i>							
Units Sent Out	GWh	a	1,568	1,663	1,379	1,090	
T&D Losses allowed		b	18.8%	18.8%	18.8%	18.8%	
Units Billed	GWh	c = a x (1-b)	1,274	1,352	1,120	886	
a. O&M and Capacity cost of Power purchases							
O&M and Capacity cost of Power purchases	Mill Rs	d	2,623	2,813	3,231	3,288	
O&M and Capacity cost of power purchases (per unit billed)	Rs/kWh	e = d/c	2.058	2.082	2.884	3.711	
Increase or decrease in O&M and Capacity cost (over Reference)	Rs/kWh	f		0.023	0.826	1.653	
O&M and Capacity Cost of Power Purchases - Monthly variations Amount	Mill Rs	g = f x c		31	925	1,464	2,421
b. Unrecovered Cost of FCA due to non adjustment of T&D losses							
i. Monthly variation in Fuel Cost (FCA) - Per unit							
Cost of Fuel - KE	Rs/kWh	h		1.447	0.788	0.118	
Cost of Fuel - Power Purchases	Rs/kWh	i		0.183	(0.174)	0.585	
Total	Rs/kWh	j = h + i		1.629	0.614	0.703	
ii. Monthly variation in Fuel Cost (FCA) - Amount							
Cost of Fuel - KE	Mill Rs	k = h x a		2,407	1,087	129	3,622
Cost of Fuel - Power Purchases	Mill Rs	l = i x a		304	(240)	638	702
Total	Mill Rs	m = k + l		2,710	847	767	4,324
iii. Unrecovered Cost of FCA due to non adjustment of T&D losses							
Cost of Fuel – KE	Mill Rs	n = k x b		451	204	24	679
Cost of Fuel - Power Purchases	Mill Rs	o = l x b		57	(45)	120	132
Total	Mill Rs	p = n + o		508	159	144	811

Quarter ended Dec 2018 – Quarterly Variation – O&M and Capacity



Units Sent out – GWh					O&M - Mill Rs.					Capacity Charges – Mill Rs.					
Description	Sep-18	Oct-18	Nov-18	Dec-18	Sep-18	Oct-18	Nov-18	Dec-18	Total Oct– 18 to Dec– 18	Sep-18	Oct-18	Nov-18	Dec-18	Total Oct 18 to Dec 18	
Power Purchases															
Kanupp	19	-	-	-	18	-	-	-	-	-	-	-	-	-	
Tapal	61	76	49	25	73	91	60	31	182	161	165	165	165	494	
Gul Ahmed	69	81	42	22	49	57	30	16	102	149	151	151	151	452	
CPPA-G	428	411	373	374	103	118	82	121	320	1,727	1,684	2,158	2,157	5,999	
Anoud Power	4	4	4	4	8	8	8	9	25	-	-	-	-	-	
IIL	5	5	5	5	9	8	8	8	24	-	-	-	-	-	
FFBL	7	34	39	40	4	18	21	22	61	40	205	235	246	686	
SNPC	63	68	67	59	48	52	52	45	149	236	255	248	223	727	
Oursun	-	-	2	7	-	-	4	12	16	-	-	12	83	95	
Total	655	678	581	537	311	354	263	263	880	2,312	2,460	2,968	3,025	8,453	
Total of O&M and Capacity charges											2,623	2,813	3,231	3,288	9,333



Quarter ended March 2019 – Monthly FCA – KE's Plants



Description	Units	Units Sent out – GWh				Fuel Cost – Mill Rs.				Total (Jan-19 to Mar-19)
		Dec-18	Jan-19	Feb-19	Mar-19	Dec-18	Jan-19	Feb-19	Mar-19	
Plant										
BQPS – I		156	133	182	288	2,732	2,026	2,888	3,522	
Bin Qasim II - 560 MW		364	194	266	365	3,754	1,940	2,495	3,036	
Korangi Town Gas Turbine II		8	14	8	17	82	154	79	136	
Site Gas Turbine II		-	-	-	9	-	-	-	71	
Korangi CCPP		26	78	17	54	255	823	163	428	
Total – KE		554	419	472	673	6,283	4,943	5,625	7,193	
Units sent out IPPs		537	596	486	586					
Total units sent out		1,090	1,015	959	1,259					
Cost per unit Sent-out	Rs. / kWh					6.257	4.870	5.859	5.714	
Increase / (Decrease) over reference	Rs. / kWh						(1.387)	(0.388)	(0.543)	
Variation amount	Mill Rs.						(1,408)	(372)	(684)	(2,463)
Fuel prices										
Gas (Comingled)	Rs./MMBTU					1,225	1,222	1,125	973	
Furnace Oil	Rs./Mton					72,926	63,540	63,331	67,465	
Furnace Oil	Rs./MMBTU					1,807	1,575	1,570	1,672	
Natural Gas	mmcf/d					57	36	40	81	
RLNG	mmcf/d					56	60	60	60	
Proportion of KE's sent out within total						51%	41%	49%	53%	
Fuel mix within KE's sent out										
Furnace oil						23%	19%	31%	24%	
Gas						37%	31%	30%	43%	
RLNG						41%	50%	38%	33%	

Quarter ended March 2019 – Monthly FCA – Power Purchases

Units Sent out – GWh						Fuel Cost – Mill Rs.				Total (Jan - 19 to Mar - 19)
Description	Units	Dec-18	Jan-19	Feb-19	Mar-19	Dec-18	Jan-19	Feb-19	Mar-19	
Power Purchases										
Kanupp		-	-	-	-	-	-	-	-	
Tapal		25	58	42	36	425	815	482	493	
Gul Ahmed		22	41	36	37	378	611	429	522	
CPPA-G		374	380	322	386	2,403	2,877	1,541	1,918	
Anoud Power		4	5	3	3	52	47	38	43	
IIL		5	6	3	3	42	42	23	22	
FFBL		40	38	18	40	344	324	149	328	
SNPC		59	63	55	71	339	362	319	413	
Oursun		7	7	7	9	-	-	-	-	
Total – Power purchases		537	596	486	586	3,984	5,078	2,980	3,739	
Units sent out KE		554	419	472	673					
Total units sent out		1,090	1,015	959	1,259					
Cost per unit Sent-out	Rs. / kWh					3.653	5.003	3.109	2.970	
Increase / (Decrease) over reference	Rs. / kWh						1.350	(0.545)	(0.683)	
Variation amount	Mill Rs.						1,370	(522)	(860)	(12)
Fuel prices										
Gas (Comingled)	Rs./MMBTU					1,225	1,222	1,125	973	
Furnace Oil	Rs./Mton					72,926	63,540	63,331	67,465	
Furnace Oil	Rs./MMBTU					1,807	1,575	1,570	1,672	
CPPA-G	Rs./kWh					6.430	7.563	4.780	4.964	
Proportion of power purchases within total sent out						49%	59%	51%	47%	

Quarter ended March 2019 – Quarterly Variation – Unrecovered Cost

Calculation of Unrecovered cost	Units		Dec-18	Jan-19	Feb-19	Mar-19	Quarter
<i>Reference</i>							
Units Sent Out	GWh	a	1,090	1,015	959	1,259	
T&D Losses allowed		b	18.8%	18.8%	18.8%	18.8%	
Units Billed	GWh	c = a x (1-b)	886	825	779	1,023	
a. O&M and Capacity cost of Power purchases							
O&M and Capacity cost of Power purchases	Mill Rs	d	3,288	3,009	3,165	3,045	
O&M and Capacity cost of power purchases (per unit billed)	Rs/kWh	e = d/c	3.711	3.649	4.064	2.977	
Increase or decrease in O&M and Capacity cost (over Reference)	Rs/kWh	f		(0.063)	0.353	(0.735)	
O&M and Capacity Cost of Power Purchases - Monthly variations Amount	Mill Rs	g = f x c		(52)	275	(751)	(528)
b. Unrecovered Cost of FCA due to non adjustment of T&D losses							
i. Monthly variation in Fuel Cost (FCA) - Per unit							
Cost of Fuel - KE	Rs/kWh	h		(1.387)	(0.388)	(0.543)	
Cost of Fuel - Power Purchases	Rs/kWh	i		1.350	(0.545)	(0.683)	
Total	Rs/kWh	j = h + i		(0.037)	(0.933)	(1.226)	
ii. Monthly variation in Fuel Cost (FCA) - Amount							
Cost of Fuel - KE	Mill Rs	k = h x a		(1,408)	(372)	(684)	(2,463)
Cost of Fuel - Power Purchases	Mill Rs	l = i x a		1,370	(522)	(860)	(12)
Total	Mill Rs	m = k + l		(37)	(894)	(1,544)	(2,475)
iii. Unrecovered Cost of FCA due to non adjustment of T&D losses							
Cost of Fuel – KE	Mill Rs	n = k x b		(264)	(70)	(128)	(462)
Cost of Fuel - Power Purchases	Mill Rs	o = l x b		257	(98)	(161)	(2)
Total	Mill Rs	p = n + o		(7)	(168)	(289)	(464)

Quarter ended March 2019 – Quarterly Variation – O&M and Capacity



Units Sent out – GWh					O&M - Mill Rs.					Capacity Charges – Mill Rs.				
Description	Dec-18	Jan-19	Feb-19	Mar-19	Dec-18	Jan-19	Feb-19	Mar-19	Total Jan – 19 to Mar – 19	Dec-18	Jan-19	Feb-19	Mar-19	Total Jan 19 to Mar 17
<u>Power Purchases</u>														
Kanupp	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Tapal	25	58	42	36	31	80	58	50	187	165	183	183	183	550
Gul Ahmed	22	41	36	37	16	33	29	30	91	151	170	170	170	509
CPPA-G	374	380	322	386	121	138	87	123	347	2,157	1,743	2,113	1,752	5,609
Anoud Power	4	5	3	3	9	10	7	7	23	-	-	-	-	-
IIL	5	6	3	3	8	8	5	5	18	-	-	-	-	-
FFBL	40	38	18	40	22	21	10	22	53	246	233	107	247	588
SNPC	59	63	55	71	45	52	46	59	157	223	244	252	278	774
Oursun	7	7	7	9	12	12	13	15	40	83	82	87	103	273
Total	537	596	486	586	263	353	253	311	916	3,025	2,656	2,912	2,734	8,302
Total of O&M and Capacity charges										3,288	3,009	3,165	3,045	9,219

Quarter ended June 2019 – Monthly FCA – KE's Plants



Description	Units	Units Sent out – GWh				Fuel Cost – Mill Rs.				Total (Apr-19 to Jun-19)
		Mar-19	Apr-19	May-19	Jun-19	Mar-19	Apr-19	May-19	Jun-19	
Plant										
BQPS – I		288	408	512	509	3,522	6,222	8,598	8,402	
Bin Qasim II - 560 MW		365	350	359	339	3,036	2,593	2,666	2,683	
Korangi Town Gas Turbine II		17	27	52	56	136	210	400	459	
Site Gas Turbine II		9	31	49	56	71	240	377	462	
Korangi CCPP		54	136	142	128	428	1,024	1,075	1,026	
Total – KE		673	952	1,114	1,088	7,193	10,288	13,116	13,032	
Units sent out IPPs		586	663	759	796					
Total units sent out		1,259	1,615	1,873	1,884					
Cost per unit Sent-out	Rs. / kWh					5.714	6.371	7.004	6.919	
Increase / (Decrease) over reference	Rs. / kWh						0.657	1.290	1.209	
Variation amount	Mill Rs.						1,061	2,416	2,271	5,748
Fuel prices										
Gas (Comingled)	Rs./MMBTU					973	885	886	944	
Furnace Oil	Rs./Mton					67,465	69,312	73,479	70,129	
Furnace Oil	Rs./MMBTU					1,672	1,718	1,821	1,738	
Natural Gas	mmcf/d					81	143	147	142	
RLNG	mmcf/d					60	60	60	60	
Proportion of KE's sent out within total						53%	59%	59%	58%	
Fuel mix within KE's sent out										
Furnace oil						24%	28%	34%	36%	
Gas						43%	51%	47%	45%	
RLNG						33%	21%	19%	19%	

Quarter ended June 2019 – Monthly FCA – Power Purchases



Units Sent out – GWh						Fuel Cost – Mill Rs.				Total (Apr - 19 to Jun - 19)
Description	Units	Mar-19	Apr-19	May-19	Jun-19	Mar-19	Apr-19	May-19	Jun-19	
Power Purchases										
Kanupp		-	0	16	25	-	1	206	325	
Tapal		36	37	70	75	493	542	1,094	1,157	
Gul Ahmed		37	57	82	83	522	876	1,311	1,354	
CPPA-G		386	445	462	467	1,918	2,572	2,377	2,401	
Anoud Power		3	5	4	5	43	68	51	57	
IIL		3	5	6	6	22	35	45	44	
FFBL		40	39	40	39	328	315	328	318	
SNPC		71	68	70	68	413	391	405	394	
Oursun		9	9	9	8	-	-	-	-	
CPPA-G 150 MW		-	-	-	20	-	-	-	105	
Total – Power purchases		586	663	759	796	3,739	4,801	5,819	6,155	
Units sent out KE		673	952	1,114	1,088					
Total units sent out		1,259	1,615	1,873	1,884					
Cost per unit Sent-out	Rs. / kWh					2.970	2.973	3.107	3.268	
Increase / (Decrease) over reference	Rs. / kWh						0.003	0.137	0.298	
Variation amount	Mill Rs.						4	256	561	821
Fuel prices										
Gas (Comingled)	Rs./MMBTU					973	885	886	944	
Furnace Oil	Rs./Mton					67,465	69,312	73,479	70,129	
Furnace Oil	Rs./MMBTU					1,672	1,718	1,821	1,738	
CPPA-G	Rs./kWh					4.964	5.787	5.146	5.146	
Proportion of power purchases within total sent out						47%	41%	41%	42%	