

## THE IMPACT OF THE ELECTRICITY TARIFF REDUCTION ON THE BILL OF CONSUMERS - 2018

**28<sup>th</sup> March, 2018**

The recent electricity tariffs announced by the Public Utility Regulatory Commission (PURC) continues to generate discussion on the true impact of the reduction on the electricity bill of consumers. The PURC announced an average tariff reduction of 17% and 30% for residential and nonresidential consumers respectively.

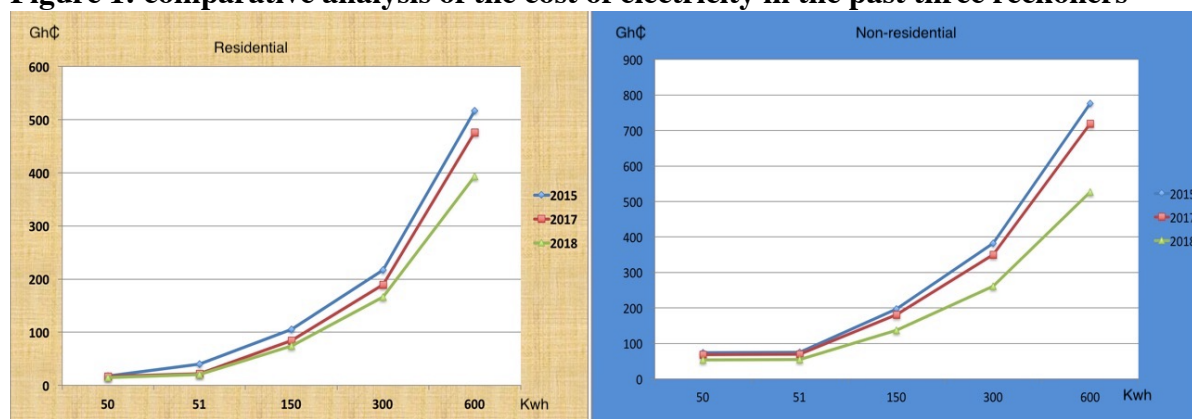
This analysis looks at the overall impact of the tariff reduction on the electricity bill for the various category of consumers. This has been possible following the release of the reckoner by the Electricity Company of Ghana (ECG) and the gazetted tariffs subsequent to earlier announcement by the PURC.

### **Impact of the tariff reduction on the cost of electricity.**

ACEP’s analyses show that the 17% average tariff reduction for residential consumers will have an average effect of 14% reduction on their bills whiles the 30 % tariff reduction for commercial consumer will have an average effect of 23% bill reduction. This is because the impact of the tariff reduction on the bill of consumers depends on government interventions through levies and taxes, either new or existing, and service charges approved by the Commission. It is also important to stress that the impact varies significantly depending on the consumer’s consumption band.

Figure 1 below shows the comparative trends of electricity tariff since 2015. Electricity cost to residential and non-residential consumers have declined in 2017 and 2018, but the extent of decline is greatest in 2018. From 2018, residential consumers will experience significant bill reduction as more electricity is consumed. The actual effect for residential consumers ranges from 8% reduction in electricity bills for those immediately transitioning lifeline band of 50 units to 17% for heavy consumers.

**Figure 1: comparative analysis of the cost of electricity in the past three reckoners**



**Source: ACEP’s analysis based on PURC and ECG data**

For non-residential consumers, the tariff will have an impact of between 3% and 29% bill reduction depending on the level of consumption. Non-residential consumers will see bigger

bill reduction if more than 51Kwh of electricity is consumed. Given that in reality nonresidential consumers use more than 50 units, the minimum impact expected will be about 22%.

The tariff reduction reflects proportionality across-board because the heavier a consumer's consumption, the larger the bill reduction. However, it does not reflect economic equity because the poor, who usually fall within the lower band, will experience little relief. The full analysis for various consumption levels are in annex 1.

### Where is the tariff reduction coming from?

ACEP's analyses of the gazetted tariffs show that the only charges relative to the cost of a unit of electricity that has been reduced is Transmission Service Charge (TSC). The generation and distribution charges rather saw an upwards adjustment. This is at variance with earlier communication from PURC and Government on the variables that affected the reduction in tariffs. While the public was made to believe that negotiated capacity charges and fuel switching were the main variables, the evidence doesn't support this claim. As can be seen from first schedule in table 1, the Bulk Generation Charge (BGC) for VRA increased from 21 Pesewas to about 29 Pesewas per Kwh while the composite BGC moved about 36 pesewas to about 43 Pesewas per Kwh. the Distribution Service Charge (DSC) also increased from 22.2 pesewas to 30.7 Pesewas per kwh. This makes it more imperative for the PURC to publish the specific effects the said negotiated contracts and fuel switching have had on the tariff.

**Table 1: Movements in the cost elements for calculating the electricity tariff**

FIRST SCHEDULE		
Tariff Category Effective	14-Dec-15	15-Mar-18
BGC VRA - (GHp/kWh)	21.0816	28.9108
Composite BGC (VRA and IPPs) - (GHp/kWh)	35.9673	42.977
SECOND SCHEDULE		
Tariff Category Effective	14-Dec-15	15-Mar-18
TSC 1* - (GHp/kWh)	5.5845	3.0437
TSC 2 - (GHp/kWh)	3.1523	1.6976
Total TSC	5.5845	4.7413
THIRD SCHEDULE		
Tariff Category Effective	14-Dec-15	15-Mar-18
DSC - (GHp/kWh)	22.2176	30.7555
DWC <sup>1</sup> - (GHp/kWh)	32.7404	30.7555

Source: PURC

From the analysis of the data given by the PURC, the only justification for the reduction could be as a result of increased hydro generation. The recent rebound of Akosombo to optimal power production provides cheaper electricity to soothe the biting cost of thermal power generation. However, to the extent that the composite BGC for 2018 is higher than that for 2015, the reduction in tariffs remain largely unexplained.

### Conclusion

ACEP emphasizes that cheaper electricity is important for the socio-economic life of the people of Ghana. Industry in particular has suffered the brunt of high cost of electricity in recent times. Transparency around the processes to reverse the trend is therefore important to ensure

<sup>1</sup> Distribution Wheeling Charge- Distribution charge for bulk consumers

convergence on a sustainable strategy for providing cost effective power to society. The transition from recent experience of power cuts (“dumsor”) requires transparent governance of the sector to assure the investor community of sustainable power for their investments. The government and PURC should be transparent about the drivers of the tariffs to instill confidence in the public of what they are doing to reduce electricity tariffs.

We also urge consumers to compare their units of consumption to ACEP’s full analysis of the impact of the new tariffs (Annex 1) to ensure that they are getting the right level of reduction in their electricity bills.

**Annex 1: ACEP's full analysis of the impact of the new tariffs**

Band	Residential					Non Residential				
	2015	2017	2018	% change 2015/18	% change 2017/18	2015	2017	2018	% change 2015/18	% change 2017/18
-	2.13	2.13	2.13	0%	0%	12.40	12.40	12.40	0%	0%
1	1.85	1.83	1.56	16%	15%	13.64	13.53	13.23	3%	2%
2	2.16	2.13	1.82	16%	15%	14.88	14.66	14.06	6%	4%
3	2.49	2.44	2.10	16%	14%	16.10	15.78	14.88	8%	6%
4	2.81	2.74	2.37	16%	14%	17.32	16.91	15.71	9%	7%
5	3.13	3.05	2.65	15%	13%	18.56	18.04	16.55	11%	8%
10	4.76	4.59	4.02	16%	12%	24.73	23.66	20.70	16%	13%
15	6.36	6.11	5.38	15%	12%	30.92	29.31	24.83	20%	15%
20	7.98	7.63	6.77	15%	11%	37.08	34.94	29.00	22%	17%
25	9.59	9.17	8.14	15%	11%	43.25	40.57	33.15	23%	18%
30	11.20	10.70	9.52	15%	11%	49.42	46.22	37.30	25%	19%
35	12.83	12.24	10.88	15%	11%	55.59	51.86	41.44	25%	20%
40	14.43	13.76	12.25	15%	11%	61.77	57.48	45.59	26%	21%
45	16.06	15.29	13.62	15%	11%	67.94	63.13	49.74	27%	21%
50	17.66	16.82	15.01	15%	11%	74.11	68.76	53.91	27%	22%
51	40.02	22.26	20.59	49%	8%	75.33	69.88	54.72	27%	22%
60	45.96	27.91	25.47	45%	9%	86.43	80.02	62.19	28%	22%
70	52.57	34.19	30.89	41%	10%	98.78	91.29	70.50	29%	23%
80	59.16	40.45	36.32	39%	10%	111.12	102.57	78.79	29%	23%
90	65.77	46.70	41.72	37%	11%	123.47	113.84	87.10	29%	23%
100	72.38	52.98	47.15	35%	11%	135.80	125.11	95.39	30%	24%
110	78.97	59.25	52.57	33%	11%	148.14	136.38	103.70	30%	24%
120	85.58	65.51	57.97	32%	12%	160.49	147.65	111.99	30%	24%
130	92.19	71.77	63.41	31%	12%	172.83	158.93	120.29	30%	24%
140	98.78	78.05	68.82	30%	12%	185.18	170.21	128.60	31%	24%
150	105.39	84.30	74.24	30%	12%	197.51	181.48	136.89	31%	25%
151	112.29	89.93	79.77	29%	11%	198.74	182.59	137.72	31%	25%
160	118.62	95.95	85.02	28%	11%	209.84	192.74	145.19	31%	25%
170	125.62	102.63	90.84	28%	11%	222.19	204.01	153.49	31%	25%
180	132.64	109.31	96.68	27%	12%	234.52	215.29	161.79	31%	25%
190	139.67	115.98	102.51	27%	12%	246.88	226.56	170.08	31%	25%
200	146.67	122.67	108.34	26%	12%	259.21	237.83	178.39	31%	25%
210	153.69	129.35	114.17	26%	12%	271.55	249.11	186.70	31%	25%
220	160.72	136.02	120.01	25%	12%	283.90	260.37	194.98	31%	25%
230	167.72	142.70	125.84	25%	12%	296.23	271.65	203.29	31%	25%
240	174.74	149.38	131.67	25%	12%	308.59	282.93	211.58	31%	25%
250	181.77	156.06	137.51	24%	12%	320.92	294.19	219.89	31%	25%
260	188.78	162.75	143.33	24%	12%	333.25	305.45	228.17	32%	25%
270	195.80	169.44	149.16	24%	12%	345.60	316.73	236.49	32%	25%
280	202.82	176.11	155.00	24%	12%	357.93	328.00	244.77	32%	25%
290	209.83	182.79	160.82	23%	12%	370.27	339.27	253.08	32%	25%
300	216.85	189.47	166.66	23%	12%	382.62	350.55	261.39	32%	25%
310	238.14	209.87	174.23	27%	17%	395.74	362.84	270.21	32%	26%
320	247.74	219.04	181.79	27%	17%	408.89	375.16	279.04	32%	26%
330	257.35	228.22	189.37	26%	17%	422.01	387.46	287.88	32%	26%
340	266.97	237.39	196.94	26%	17%	435.15	399.77	296.70	32%	26%
350	276.57	246.57	204.50	26%	17%	448.27	412.08	305.54	32%	26%
400	324.64	292.44	242.36	25%	17%	513.95	473.61	349.70	32%	26%
450	372.69	338.32	280.20	25%	17%	579.60	535.14	393.86	32%	26%
500	420.76	384.20	318.06	24%	17%	645.27	596.67	438.02	32%	27%
550	468.81	430.07	355.90	24%	17%	710.92	658.20	482.19	32%	27%
600	516.88	475.95	393.75	24%	17%	776.60	719.73	526.35	32%	27%
650	570.27	526.91	435.80	24%	17%	880.20	818.04	596.02	32%	27%
700	623.67	577.89	477.85	23%	17%	983.79	916.35	665.71	32%	27%
750	677.08	628.86	519.90	23%	17%	1,087.41	1,014.65	735.38	32%	28%
800	730.48	679.83	561.96	23%	17%	1,190.99	1,112.97	805.05	32%	28%
850	783.87	730.80	604.01	23%	17%	1,294.60	1,211.27	874.74	32%	28%
900	837.27	781.78	646.07	23%	17%	1,398.20	1,309.59	944.41	32%	28%
950	890.68	832.74	688.12	23%	17%	1,501.80	1,407.89	1,014.09	32%	28%
1,000	944.06	883.72	730.17	23%	17%	1,605.39	1,506.20	1,083.77	32%	28%
1,050	997.47	934.68	772.22	23%	17%	1,708.99	1,604.51	1,153.44	33%	28%
1,100	1,050.87	985.66	814.27	23%	17%	1,812.60	1,702.83	1,223.13	33%	28%
1,200	1,157.66	1,087.61	898.38	22%	17%	2,019.79	1,899.44	1,362.48	33%	28%
1,300	1,264.47	1,189.56	982.48	22%	17%	2,227.00	2,096.06	1,501.84	33%	28%
1,400	1,371.26	1,291.50	1,066.59	22%	17%	2,434.19	2,292.68	1,641.19	33%	28%
1,500	1,478.07	1,393.44	1,150.70	22%	17%	2,641.40	2,489.30	1,780.55	33%	28%
2,000	2,012.06	1,903.17	1,571.22	22%	17%	3,677.41	3,472.40	2,477.33	33%	29%
2,500	2,546.05	2,412.89	1,991.75	22%	17%	4,713.39	4,455.49	3,174.11	33%	29%
3,000	3,080.04	2,922.61	2,412.27	22%	17%	5,749.40	5,438.58	3,870.89	33%	29%
3,500	3,614.05	3,432.34	2,832.80	22%	17%	6,785.40	6,421.67	4,567.67	33%	29%
4,000	4,148.04	3,942.06	3,253.32	22%	17%	7,821.41	7,404.77	5,264.45	33%	29%
4,500	4,682.03	4,451.78	3,673.85	22%	17%	8,857.40	8,387.88	5,961.23	33%	29%
5,000	5,216.02	4,961.50	4,094.37	22%	17%	9,893.40	9,370.96	6,658.01	33%	29%
10,000	10,555.98	10,058.72	8,299.62	21%	17%	20,253.43	19,201.92	13,625.81	33%	29%
Average				24%	14%				28%	23%

