Computation of VCA Charges (5th bi-monthly period 2017-18)

(A) CHFC :-

	KTPS	HTPS	DSPM TPS	Korba(W)Extn.	Total Amt. In Rs
Feb18	-17013789	26893961	-18266999	16971426	8674600
Mar18	-3501056	23432571	-978365	14668852	33622002
Total	**-20514845**	**50416532**	**-19245364**	**31640278**	**42296602**

(B) CHPP :-

Total units purchased from NTPC and NSPCL = 1232082512 KWh

Amount paid against units purchased = Rs .3918041197.00

Rate per unit(I) = Rs. 3.18 /KWh

Average rate approved by CSERC for purchase of power from Central generating stations (II) = Rs. 3.71 /KWh

Difference in rate (I-II) = Rs. (-)0.53/KWh

CHPP (in Rs.) = Rs.(-)653003731.00

(C) Gross VCA (A+B) in Rs. = Rs.(-)610707130.00

(D) Total quantum of power purchased during the period = 5335931736 Kwh

(E) Quantum of power purchased for sale to retail consumers of the State = 3872479676 KWh

(F) Allowable VCA (in Rs.)[C*(E/D)] = Rs.(-)443212370.00

(G) Normative transmission & distribution losses as specified in Taiff order = 21.11%

(H) Allowable VCA Charges(Rs./Kwh) (F/E*(1-G)) = **Rs.(-)0.15/KWh**

(G) VCA Charge to be deducted from monthly energy bills of various categories of consumers:

1) DLF consumers up to 40 units - Rs.(-) 0.15 per unit

2) DLF consumers 41 to 200 units - Rs.(-) 0.15 per unit

3) DLF Consumers above 200 units - Rs. (-)0.15 per unit

4) Agriculture Consumers - Rs. (-)0.15 per unit

5) Rest all categories - Rs.(-)0.15 per unit

To be deducted from energy bill for the consumption in the months of May18 and Jun'18 payable in the months of Jun'18 and Jul'18

Computation of CHPP

Sno.	Particulars		
1	Scheduled energy purchased from CGs during sixthth bi-monthly period	MU	1232082512
2	Amount paid against units purchased	Rs.	3918041197
	Average rate of power purchase	Rs/Kwh	3.18
3	Average rate of Power Purchase as per Tariff Order	Rs/Kwh	3.71
4	Difference in the average rate of PP	Rs/Kwh	-0.53
5	CHPP(Change in the cost of power purchased from CGs)	Rs.	-653003731

Computation of VCA

Sno.	Particulars			
1	CHFC		Rs	42296602
2	CHPP		Rs	-653003731
3	Gross VCA(sub total in Rs.)	CHFC+CHPP	Rs	-610707130
4	Allowable VCA(in Rs.)	Gross VCA(in Rs.)xQ_{RS}/Q_{PP}	Rs	-443212370
5	Allowable VCA(in Rs/Kwh)	Allowable VCA(in Rs.)/[Qrs*(1-L)]	Rs/Kwh	-0.15

Computation of Qpp qand Qrs

S No.	Particulars			
1	Quantum of actual power purchased from CSPGCL thermal Power stations	Q_1	3214538010	KwH
2	Quantum of actual power purchased from CSPGCL hydro Power stations	Q_2	7544615	KwH
3	Quantum of actual power purchased from CSPGCL Renewable Power stations	Q_3	3692370	KwH
4	Quantum of scheduled power purchased from CGs	Q_4	1613996718	KwH
5	PGCIL actual losses for the bi-monthly period	L1	3.19%	
6	Quantum of scheduled power purchased from CGs at state periphery	$Q_5=Q_4(1\text{-}L1)$	1562510223	KwH
7	Quantum of actual power purchased from Renewable energy Sources	Q_6	173586835	KwH
8	Quantum of actual short term and long term power purchased from State IPPs and CGPs	Q_7	0	KwH
9	Quantum of scheduled short term purchased through inter-state route	Q_8	2529937	KwH
10	Quantum of scheduled short term purchased through inter-state route at the State periphery	$Q_9=Q_8(1\text{-}L1)$	2449232	KwH
11	Quantum of power purchased from other Sources(if any)	Q_{10}	371610450.8	KwH
12	Total Quantum of power purchased	$Q_{PP}=Q_1+Q_2+Q_3+Q_5+Q_6+Q_7+Q_9+Q_{10}$	5335931736	KwH
13	Normative transmission and distribution losses as specified inth Tariff order	L	21.11%	
14	Quantum of power scheduled for interstate sale	Q_{PT}	1463452060	KwH
15	Quantum of power purchased for sale to rtetail consumers of the State	$Q_{RS}=Q_{PP}\text{-}Q_{PT}$	3872479676	KwH

CHHATTISGARH STATE POWER GENERATION COMPANY LIMITED
(A Govt. of C.G. Undertaking)
Office of the Chief Engineer (C&CP)

NO. 03-09/ Bills-15/ 233 Raipur Dtd. **26-Apr-2018**

To,

C.E. (R.A.& P.M.) CSPDCL,Raipur Letter Receipt	
No	765
Date	27.4.18

The Chief Engineer (RA&PM)
4th Floor Vidyut Seva Bhawan
CSPDCL, Raipur

Sub: Fuel Cost Adjustment calculation for the 6th Bi-Monthly period of FY 2017-18.

Ref: 1) CSERC MYT Regulations 2015.
2) CSERC tariff order dtd. 31/03/2017

In compliance to the CSERC vide order referred above, please find enclosed FCA Calculation amounting to Rs. **287,651,626** /- for the 6th Bi-Monthly period of FY 2017-18 (Feb-18 & Mar- 18). As per CSERC order the above FCA amount shall be claimed in two installments w.e.f. **Jun-18**

ACE(I)
CE II (PM)
28/2
27/4/18

Chief Engineer (C&CP)
CSPGCL: Raipur

Copy to :-

1. The Secretary, Chhattisgarh State Electricity Regulatory Commission, New Shanti Nagar Raipur. In compliance to directives given in tariff order dtd. 23/05/2015.
2. The E.D. (Fin) CSPGCL, Raipur
3. The C.E.(EITC)CSPDCL, Raipur. Kindly upload the same in Company web site (cspc.co.in/cspgcl) under the link Fuel Cost Adjustment- 6th Bi Monthly of FY 2017-18 (Feb-2018 to Mar- 2018)
4. The S.O. to M.D. CSPGCL, Raipur
5. The S.O. to M.D. CSPDCL, Raipur
6. The Manager (B&CM) CSPGCL, Raipur

EI RA 5609

7/4/18

Pertains to SE(I)

27/4

Shed No. 06, Vidyut Sewa Bhawan Complex, Dangania, Raipur 492013; CIN no. U40108CT2003SGC015821
Phone No. 0771-2574097, Fax . 0771-2574806; Email : ce.cncp@gmail.com; Web site: www.cseb.gov.in/cspgcl

Diary
.1.18

uel Cost Adjustment calculation for the 6th Bi-Monthly period of FY 2017-18.

All Figures in Rs.

ame of Plant	Feb-18	Mar-18	Total
KTPS	-17,013,789	-3,501,056	-20,514,845
HTPS	26,983,961	23,432,571	50,416,532
DSPM TPS	-18,266,999	-978,365	-19,245,364
KW Extn	16,971,426	14,668,852	31,640,278
MTTPS	112,168,125	133,186,900	245,355,025
Total	**120,842,724**	**166,808,902**	**287,651,626**

RUPEES TWENTY EIGHT CRORES SEVENTY SIX LAKHS FIFTY ONE THOUSAND SIX HUNDRED TWENTY SIX ONLY

As per CSERC order the above amount of FCA shall be claimed as mentioned below:-

All Figures in Rs.

Month	KTPS	HTPS	DSPM TPS	KW Extn	MTTPS	Total
Jun-18	-10,257,423	25,208,266	-9,622,682	15,820,139	122,677,513	143,825,813
Jul-18	-10,257,422	25,208,266	-9,622,682	15,820,139	122,677,512	143,825,813
Total	**-20,514,845**	**50,416,532**	**-19,245,364**	**31,640,278**	**245,355,025**	**287,651,626**

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FORMAT-I

Details/Information for Computation of Energy Charge Rates

Name of the Company : Chhattsigarh State Power Generation Company Limited

Name of the Power Station : Korba (East) Thermal Power Station - KTPS

	Description	Unit	Considered in Tariff order	For Month of Feb-18	For Month of Mar-18	Total for period
a	Quantity of Coal / Lignite supplied by Coal/Lignite Company	(MMT)		0.109106440	0.136062470	
b	Adjustment (+/-) in quantity supplied made by Coal/Lignite Company	(MMT)				
c	Coal supplied by Coal/Lignite Company (a+b)	(MMT)		0.109106440	0.136062470	
d	Normative Transit & Handling Losses	%	1.15%	1.15%	1.15%	
e	Normative Transit & Handling Losses (cXd)	(MMT)		0.001254724	0.001564718	
f	Net coal / Lignite Supplied (c-e)	(MMT)		0.107851716	0.134497752	
g	Amount charged by the Coal / Lignite Company	(Rs.)		175,906,248.16	241,139,138.30	
h	Adjustment (+/-) in amount charged made by Coal/Lignite Company	(Rs.)		-10,268,632.50		
i	Net amount Charged by Coal Company (g+h)	(Rs.)		165,637,615.66	241,139,138.30	
j	Rate of Coal for the period Charged by Coal Company =(i/(f*10^6))	Rs/MT		1535.79	1792.89	
k	Rate of Bonus paybale to Coal Company	Rs/MT				
l	Net Rate of coal paybale to coal compnay (j+k)	Rs/MT		1535.79	1792.89	
m	Transportation Charge per Ton	Rs/MT	177.98	177.98	177.98	
n	Landed Price of Coal per MT (l+m)	Rs./MT	1,641.03	1713.77	1970.87	
o	Average GCV of coal / Lignite as fired as per tariff order	(kCal/Kg)	3,080.85	3,498	3,753	
p	Normative SHR	Kcal/ KWh	3,110	3,110	3,110	
q	Normative Specific Oil Consumption	ml/ KWh	2.00	2.00	2.00	
r	GCV of Secondary Fuel (Oil)	Kcal/ml	10	10	10	
s	Normative Auxiliary Consumption	%	11.25	11.25	11.25	
t	ECR for the Period= ((p-(qxr))/(0)*(n/1000)/(1-s)	Rs/ KWh		1.706	1.828	
u	ECR as considered in Tariff order	Rs/ KWh	1.855	1.855	1.855	
v	Change in ECR (t-u)	Rs/ KWh		-0.149	-0.027	
w	Net Generation during the Period	KWh		114,186,500	129,668,750	
aa	FCA Claim for the Period (vXw)	Rs		-17,013,789	-3,501,056	-20,514,845

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FORMAT-I

Details/Information for Computation of Energy Charge Rates

Name of the Company : Chhattsigarh State Power Generation Company Limited

Name of the Power Station . Dr. Shyama Prasad Mukharjee Thermal Power Station - DSPM TPS

	Description	Unit	Considered in Tariff order	For Month of Feb-18	For Month of Mar-18	Total for period
a	Quantity of Coal / Lignite supplied by Coal/Lignite	(MMT)		0.20706752	0.26322097	
b	Adjustment (+/-) in quantity supplied made by Coal/Lignite Company	(MMT)				
c	Coal supplied by Coal/Lignite Company (a+b)	(MMT)		0.20706752	0.26322097	
d	Normative Transit & Handling Losses	%	0.20%	0.20%	0.20%	
e	Normative Transit & Handling Losses (cXd)	(MMT)		0.000414135	0.000526442	
f	Net coal / Lignite Supplied (c-e)	(MMT)		0.206653385	0.262694528	
g	Amount charged by the Coal / Lignite Company	(Rs.)		384512743.16	482,934,922.04	
h	Adjustment (+/-) in amount charged made by Coal/Lignite Company	(Rs.)		-1,369,139.50	24,572,538.85	
i	Net amount Charged by Coal Company (g+h)	(Rs.)		383,143,603.66	507,507,460.89	
j	Rate of Coal for the period Charged by Coal Company =(i/(fX10^6))	Rs/MT		1854.03981	1931.930082	
k	Rate of Bonus paybale to Coal Company	Rs/MT				
l	Net Rate of coal paybale to coal compnay (j+k)	Rs/MT		1854.03981	1931.930082	
m	Transportation Cost Paid to railways	Rs		40291943.00	51,513,886.00	
n	Transportation Charge rate paid to Railways (m/(fX10^6))	Rs/MT		194.97	196.10	
o	Other Charges (per Ton) towards transportation	Rs/MT				
p	Total per ton Transportation Charges (n+o)			194.97	196.10	
q	Landed Price of Coal per MT ((l+p)	Rs./MT	1,921.22	2049.01	2128.03	
r	Average GCV of coal / Lignite as fired as per tariff order	(kCal/Kg)	3,449.20	3831	3828	
s	Normative SHR	Kcal/ KWh	2,500	2,500	2,500	
t	Normative Specific Oil Consumption	ml/ KWh	0.50	0.50	0.50	
u	GCV of Secondary Fuel (Oil)	Kcal/ml	10.00	10.00	10.00	
v	Normative Auxiliary Consumption	%	9.00	9.00	9.00	
w	ECR for the Period= ((s-(txu))/(r)*(q/1000)/(1-v)	Rs/ KWh		1.466	1.524	
x	ECR as considered in Tariff order	Rs/ KWh	1.527	1.527	1.527	
y	Change in ECR (w-x)	Rs/ KWh		-0.061	-0.003	
z	Net Generation during the Period	Kwh		299,459,000	326,121,750	
aa	FCA Claim for the Period (yX z)	Rs		-18,266,999	-978,365	-19,245,364

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Details/Information for Computation of Energy Charge Rates

Name of the Company : Chhattsigarh State Power Generation Company Limited

Name of the Power Station : Korba (West) Thermal Power Station - HTPS

	Description	Unit	Considered in Tariff order	For Month of Feb-18	For Month of Mar-18	Total for period
a	Quantity of Coal / Lignite supplied by Coal/Lignite Company	(MMT)		0.321131	0.233495	
b	Adjustment (+/-) in quantity supplied made by Coal/Lignite Company	(MMT)				
c	Coal supplied by Coal/Lignite Company (a+b)	(MMT)		0.321131	0.233495	
d	Normative Transit & Handling Losses	%	0.20%	0.20%	0.20%	
e	Normative Transit & Handling Losses (cXd)	(MMT)		0.000642262	0.000466990	
f	Net coal / Lignite Supplied (c-e)	(MMT)		0.320488738	0.233028010	
g	Amount charged by the Coal / Lignite Company	(Rs.)		570331289.38	414689034.73	
	Adjustment (+/-) in amount charged made by Coal/Lignite Company	(Rs.)		-12834127.39	-16617774.97	
i	Net amount Charged by Coal Company (g+h)	(Rs.)		557,497,161.99	398,071,259.76	
j	Rate of Coal for the period Charged by Coal Company =(i/(f*10^6))	Rs/MT		1739.52	1708.25	
k	Rate of Bonus paybale to Coal Company	Rs/MT				
l	Net Rate of coal paybale to coal compnay (j+k)	Rs/MT	1,609.77	1739.52	1708.25	
m	Transportation Charge per Ton	Rs/MT	80.75	80.75	80.75	
n	Landed Price of Coal per MT (l+m)	Rs./MT	1,690.52	1,820.27	1,789.00	
o	Average GCV of coal / Lignite as fired as per tariff order	(kCal/Kg)	3,406.33	3,504	3,473	
p	Normative SHR	Kcal/ KWh	2,650.00	2,650	2,650	
q	Normative Specific Oil Consumption	ml/ KWh	0.80	0.80	0.80	
r	GCV of Secondary Fuel (Oil)	Kcal/ml	10	10	10	
	Normative Auxiliary Consumption	%	9.70	9.70	9.70	
t	ECR for the Period= ((p-(qxr))/(0)*(n/1000)/(1-s)	Rs/ KWh		1.520	1.507	
u	ECR as considered in Tariff order	Rs/ KWh	1.452	1.452	1.452	
v	Change in ECR (t-u)	Rs/ KWh		0.068	0.055	
w	Net Generation during the Period	KWh		396,822,950	426,046,750	
x	FCA Claim for the Period (vXw)	Rs		26,983,961	23,432,571	50,416,532

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Details/Information for Computation of Energy Charge Rates

e of the Company : Chhattsigarh State Power Generation Company Limited

me of the Power Station : Marwa Thermal Power Plant - MTPP

	Month	Unit	Considered in Tariff order	For Month of Feb-18	For Month of Mar-18	Total for period
a	Quantity of Coal / Lignite supplied by Coal/Lignite Company	(MMT)	-	0.39052349	0.33534688	
b	Adjustment (+/-) in quantity supplied made by Coal/Lignite Company	(MMT)	-			
c	Coal supplied by Coal/Lignite Company (a+b)	(MMT)		0.39052349	0.33534688	
d	Normative Transit & Handling Losses	%	0.80%	0.80%	0.80%	
e	Normative Transit & Handling Losses (cXd)	(MMT)		0.003124188	0.002682775	
f	Net coal / Lignite Supplied (c-e)	(MMT)		0.387399302	0.332664105	
g	Amount charged by the Coal / Lignite Company	(Rs.)		752648818.35	669905082.11	
h	Adjustment (+/-) in amount charged made by Coal/Lignite Company	(Rs.)				
	Net amount Charged by Coal Company (g+h)	(Rs.)		752648818.35	669905082.11	
j	Rate of Coal for the period Charged by Coal Company =(i/(fX10^6))	Rs/MT		1942.82	2013.76	
k	Rate of Bonus paybale to Coal Company	Rs/MT				
l	Net Rate of coal paybale to coal compnay (j+k)	Rs/MT		1942.82	2013.76	
m	Transportation Cost Paid to railways	Rs		81963309.00	73352030.00	
n	Transportation Charge rate paid to Railways (m/(fX10^6))	Rs/MT		211.57	220.50	
o	Other Charges (per Ton) towards transportation	Rs/MT				
p	Total per ton Transportation Charges (n+o)			211.57	220.50	
q	Landed Price of Coal per MT ((l+p)	Rs /MT	1,535	2,154	2,234	
r	Average GCV of coal / Lignite as fired as per tariff order	(kCal/Kg)	3,280.29	3,669.00	3,781.000	
s	Normative SHR	Kcal/ KWh	2,378	2,378	2,378	
t	Normative Specific Oil Consumption	ml/ KWh	0.50	0.50	0.50	
	GCV of Secondary Fuel (Oil)	Kcal/ml	10	10	10	
v	Normative Auxiliary Consumption	%	5.25	5.25	5.25	
w	ECR for the Period= ((s-(txu))/(r)*(q/1000)/(1-v)	Rs/ KWh		1.470	1.480	
x	ECR as considered in Tariff order	Rs/ KWh	1.20	1.20	1.20	
y	Change in ECR (w-x)	Rs/ KWh		0.270	0.280	
z	Net Generation during the Period	Kwh		415,437,500	475,667,500	
aa	FCA Claim for the Period (yX z)	Rs		112,168,125	133,186,900	245,355,025

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Details/Information for Computation of Energy Charge Rates

Name of the Company : Chhattsigarh State Power Generation Company Limited

Name of the Power Station : - 1x500 MW KW Extn

	Description	Unit	Considered in Tariff order	For Month of Feb-18	For Month of Mar-18	Total for period
a	Quantity of Coal / Lignite supplied by Coal/Lignite Company	(MMT)		0.158169	0.115005	
b	Adjustment (+/-) in quantity supplied made by Coal/Lignite Company	(MMT)				
c	Coal supplied by Coal/Lignite Company (a+b)	(MMT)		0.158169	0.115005	
d	Normative Transit & Handling Losses	%	0.20%	0.20%	0.20%	
e	Normative Transit & Handling Losses (cXd)	(MMT)		0.000316338	0.000230010	
f	Net coal / Lignite Supplied (c-e)	(MMT)		0.157852662	0.114774990	
g	Amount charged by the Coal / Lignite Company	(Rs.)		280,909,440.98	204,249,823.01	
	Adjustment (+/-) in amount charged made by Coal/Lignite Company	(Rs.)		-6321286.61	-8184874.25	
i	Net amount Charged by Coal Company (g+h)	(Rs.)		274,588,154.37	196,064,948.76	
j	Rate of Coal for the period Charged by Coal Company =(i/(f*10^6))	Rs/MT		1739.52	1708.255	
k	Rate of Bonus paybale to Coal Company	Rs/MT				
l	Net Rate of coal paybale to coal compnay (j+k)	Rs/MT	1,609.77	1739.52	1708.26	
m	Transportation Charge per Ton	Rs/MT	80.75	80.75	80.75	
n	Landed Price of Coal per MT (l+m)	Rs./MT	1,690.52	1,820.27	1,789.01	
o	Average GCV of coal / Lignite as fired as per tariff order	(kCal/Kg)	3,400.59	3,502	3,477	
p	Normative SHR	Kcal/ KWh	2,375	2,375	2,375	
q	Normative Specific Oil Consumption	ml/ KWh	0.50	0.50	0.50	
r	GCV of Secondary Fuel (Oil)	Kcal/ml	10	10	10	
	Normative Auxiliary Consumption	%	5.25	5.25	5.25	
t	ECR for the Period= ((p-(qxr))/(0)*(n/1000)/(1-s)	Rs/ KWh		1.300	1.287	
u	ECR as considered in Tariff order	Rs/ KWh	1.243	1.243	1.243	
v	Change in ECR (t-u)	Rs/ KWh		0.057	0.044	
w	Net Generation during the Period	KWh		297,744,310	333,383,000	
x	FCA Claim for the Period (vXw)	Rs		16,971,426	14,668,852	31,640,278

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