

**Computation of VCA Charges (3rd bi-monthly period 2018-19)**

**(A) CHFC :-**

	KTPS	HTPS	DSPM TPS	Korba(W)Extn.	Total Units in Rs.
Aug. 18	41631582	45189837	7374132	13749324	107944875
Sep. 18	51923953	54100568	17171000	34909973	158105434
<b>Total</b>	<b>93555535</b>	<b>99290406</b>	<b>24545132</b>	<b>48659297</b>	<b>266050309</b>

**(B) CHPP :-**

Total units purchased from NTPC and NSPCL = 1322814115 KWh

Amount paid against units purchased = Rs. 4050698270.00

Rate per unit(I) = Rs. 3.06 /KWh

Average rate approved by CSERC for purchase of power from Central generating stations (II) = Rs. 3.12 /KWh

Difference in rate (I-II) = Rs. -0.06 /KWh

CHPP (in Rs.) = Rs. -79368847.00

**(C) Gross VCA (A+B) in Rs. = Rs.186681522.00**

**(D) Total quantum of power purchased during the period = 5703735921 Kwh**

**(E) Quantum of power purchased for sale to retail consumers of the State = 4693178701 KWh**

**(F) Allowable VCA (in Rs.)(C\*(E/D)) = Rs.153606295.00**

**(G) Normative transmission & distribution losses as specified in Tariff order = 16.54%**

**(H) Allowable VCA Charges(Rs./Kwh) (F/E\*(1-G)) = Rs.0.04/KWh**

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

- 1) DLF consumers up to 40 units - Rs. 0.04 per unit
- 2) DLF consumers 41 to 200 units - Rs. 0.04 per unit
- 3) DLF Consumers above 200 units - Rs. 0.04 per unit
- 4) Agriculture Consumers - Rs. 0.04 per unit
- 5) Rest all categories - Rs. 0.04 per unit

**To be recovered for the consumption in the months of Nov'18 and Dec'18 payable in the months of Dec'18 and Jan'19**

### Computation of Qpp qand Qrs

S No.	Particulars			
1	Quantum of actual power purchased from CSPGCL thermal Power stations	$Q_1$	3424598940	Kwh
2	Quantum of actual power purchased from CSPGCL hydro Power stations(Bango)	$Q_2$	107106267	Kwh
3	Quantum of actual power purchased from CSPGCL Renewable Power stations(Small Hydle Station of CSPGCL)	$Q_3$	11339360	Kwh
4	Quantum of scheduled power purchased from CGs at state periphery (Trd.(Through CTU) NTPC+NSPCL+NPCIL+OHPCL+NHPCL)+Bundle Power+SECI)	$Q_4$	1723256354	Kwh
5	PGCIL actual losses for the bi-monthly period	L1	3.24%	
6	Quantum of scheduled power purchased from CGs at state periphery	$Q_5=Q_4(1-L1)$	1667422848	Kwh
7	Quantum of actual power purchased from Renewable energy Sources	$Q_6$	168189954	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 interstate route (IEX)	$Q_8$	95740820	Kwh
10	Quantum of scheduled short term purchased through interstate route at the State periphery	$Q_9=Q_8(1-L1)$	92638817	Kwh
11	Quantum of power purchased from other Sources(if any)(Short term + Border Village+Un schduled)	$Q_{10}$	232439734.4	Kwh
12	Total Quantum of power purchased	$Q_{pp}=Q_1+Q_2+Q_3+Q_5+Q_6+Q_7+Q_9+Q_{10}$	5703735921	Kwh
13	Normative transmission and distribution losses as specified inth Tariff order	L	16.54%	
14	Quantum of power scheduled for interstate sale(Sale through IEX+Sale to Telangana)	$Q_{PT}$	1010557220	Kwh
15	Quantum of power purchased for sale to rretail consumers of the State	$Q_{RS}=Q_{pp}-Q_{PT}$	4693178701	Kwh



## Computation of CHPP

Sno.	Particulars	MU	1322814115
1	Scheduled energy purchased from CGs during Third bi-monthly period		
2	Amount paid against units purchased	Rs.	4050698270
	Average rate of power purchase	Rs/Kwh	3.06
3	Average rate of Power Purchase as per Tariff Order	Rs/Kwh	3.12
4	Difference in the average rate of PP	Rs/Kwh	-0.06
5	CHPP(Change in the cost of power purchased from CGs)	Rs.	-79368847

## Computation of VCA

Sno.	Particulars		
1	CHFC		Rs 266050369
2	CHPP		Rs -79368847
3	Gross VCA(sub total in Rs.)	CHFC+CHPP	Rs 186681522
4	Allowable VCA(in Rs.)	Gross VCA(in Rs.)xQ <sub>RS</sub> /Q <sub>CHPP</sub>	Rs 153606295
5	Allowable VCA(in Rs/Kwh)	Allowable VCA(in Rs.)/[Q <sub>RS</sub> *(1-L)]	Rs/Kwh 0.04

*[Signature]*



CHHATTISGARH STATE POWER GENERATION COMPANY LIMITED

(A Govt. of C.G. Undertaking)

Office of the Executive Director (C&CP)

NO. 03-09/ Bills-15/ 596

Raipur Dtd. 29-Oct-2018

To,

✓ The Chief Engineer (RA&PM)  
4<sup>th</sup> Floor Vidyut Seva Bhawan  
CSPDCL, Raipur

NO.	5395
Date	29.10.18

Sub: Fuel Cost Adjustment calculation for the 3rd Bi-Monthly period of FY 2018-19.

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. **371,882,717** /- for the 2nd Bi-Monthly period of FY 2018-19 (Aug-18 & Sep- 18). As per CSERC order the above FCA amount shall be claimed in two installments w.e.f. **Dec-18**

SE (PM) I

29/10/18

*[Handwritten signature]*

*[Handwritten signature]*  
Executive Director (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 E.D. (O&M:Gen) CSPGCL, Raipur
- 4 The C.E.(EITC)CSPDCL, Raipur. Kindly upload the same in Company web site (cspc.co.in/cspgcl) under the link Fuel Cost Adjustment- 3rd Bi Monthly of FY 2018-19 (Aug-2018 to Sep- 2018)
- 5 The S.O. to M.D. CSPGCL, Raipur
- 6 The S.O. to M.D. CSPDCL, Raipur
- 7 The Manager (B&CM) CSPGCL, Raipur

*[Handwritten signature]*  
01/11

S. Tigga  
*[Handwritten signature]*  
2-11

## Fuel Cost Adjustment calculation for the 3rd Bi-Monthly period of FY 2018-19.

All Figures in Rs.

Name of Plant	Aug-18	Sep-18	Total
KTPS	41631582	51,923,953	93,555,535
HTPS	45189837	54,100,568	99,290,405
DSPM TPS	7374132	17,171,000	24,545,132
KW Extn	13749324	34,909,973	48,659,297
MTTPS	-22712323	128,544,671	105,832,348
<b>Total</b>	<b>85,232,552</b>	<b>286,650,165</b>	<b>371,882,717</b>

RUPEES THIRTY SEVEN CRORES EIGHTEEN LAKHS EIGHTY TWO THOUSAND SEVEN HUNDRED SEVENTEEN 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
Dec-18	46,777,768	49,645,203	12,272,566	24,329,649	52,916,174	185,941,360
Jan-19	46,777,768	49,645,202	12,272,565	24,329,648	52,916,173	185,941,356
<b>Total</b>	<b>93,555,536</b>	<b>99,290,405</b>	<b>24,545,131</b>	<b>48,659,297</b>	<b>105,832,347</b>	<b>371,882,716</b>

  
AE

  
BE

  
SE

FORMAT-I

Details/Information for Computation of Energy Charge Rates

Name of the Company : Chhattisgarh 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 Aug-18	For Month of Sept 18	Total for period
a	Quantity of Coal / Lignite supplied by Coal/Lignite Company	(MMT)		0.176416170	0.142038500	
b	Adjustment (+/-) in quantity supplied made by Coal/Lignite Company	(MMT)				
c	Coal supplied by Coal/Lignite Company (a+b)	(MMT)		0.176416170	0.142038500	
d	Normative Transit & Handling Losses	%	1.15%	1.15%	1.15%	
e	Normative Transit & Handling Losses (cXd)	(MMT)		0.002028786	0.001633443	
f	Net coal / Lignite Supplied (c-e)	(MMT)		0.174387384	0.140405057	
g	Amount charged by the Coal / Lignite Company	(Rs.)		295,294,377.69	236,825,065.59	
h	Adjustment (+/-) in amount charged made by Coal/Lignite Company	(Rs.)		0.00	4,528,107.90	
i	Net amount Charged by Coal Company (g+h)	(Rs.)		295,294,377.69	241,353,173.49	
j	Rate of Coal for the period Charged by Coal Company = (i/(f*10 <sup>6</sup> ))	Rs/MT		1693.32	1718.98	
k	Rate of Bonus payable to Coal Company	Rs/MT				
l	Net Rate of coal payable to coal compnay (j+k)	Rs/MT		1693.32	1718.98	
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	1871.3	1896.96	
o	Average GCV of coal / Lignite as fired	(kCal/Kg)	3,080.85	3,005	2,817	
p	Normative SHR	Kcal/ kWh	3,110	3,110	3,110	
q	Normative Specific Oil Consumption	m <sup>3</sup> / 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		2.168	2.345	
u	ECR as considered in Tariff order	Rs/ kWh	1.855	1.855	1.855	
v	Change in ECR (t-u)	Rs/ kWh		0.313	0.490	
w	Scheduled Generation during the Period	KWh		133,008,250	105,967,250	
aa	FCA Claim for the Period (vXw)	Rs		41,631,582	51923952.5	93,555,535

  
AE

  
EE

  
SE

FORMAT-I

Details/Information for Computation of Energy Charge Rates

Name of the Company : Chhattisgarh 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 Aug-18	For Month of Sept-18	Total for period
a	Quantity of Coal / Lignite supplied by Coal/Lignite Company	(MMT)		0.336340	0.259558	
b	Adjustment (+/-) in quantity supplied made by Coal/Lignite Company	(MMT)				
c	Coal supplied by Coal/Lignite Company (a+b)	(MMT)		0.336340	0.259558	
d	Normative Transit & Handling Losses	%	0.20%	0.20%	0.20%	
e	Normative Transit & Handling Losses (cXd)	(MMT)		0.000672680	0.000519116	
f	Net coal / Lignite Supplied (c-e)	(MMT)		0.335667320	0.259038884	
g	Amount charged by the Coal / Lignite Company	(Rs.)		597342597.97	460977136.35	
h	Adjustment (+/-) in amount charged made by Coal/Lignite Company	(Rs.)		0	0	
i	Net amount Charged by Coal Company (g+h)	(Rs.)		597342597.97	460,977,136.35	
j	Rate of Coal for the period Charged by Coal Company $=i/(f*10^6)$	Rs/MT		1779.57	1779.57	
k	Rate of Bonus payable to Coal Company	Rs/MT				
l	Net Rate of coal payable to coal compnay (j+k)	Rs/MT	1,609.77	1779.57	1779.57	
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	1,860.32	1,860.32	
o	Average GCV of coal / Lignite as fired	(kCal/Kg)	3,406.33	3,509	3,442	
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	
s	Normative Auxiliary Consumption	%	9.70	9.70	9.70	
t	ECR for the Period= $((p-(qxr))/(0)*(n/1000))/(1-s)$	Rs/ KWh		1.551	1.581	
u	ECR as considered in Tariff order	Rs/ KWh	1.452	1.452	1.452	
v	Change in ECR (t-u)	Rs/ KWh		0.099	0.129	
w	Net Generation during the Period	KWh		456,463,000	419,384,250	
x	FCA Claim for the Period (vXw )	Rs		45189837	54100568	99,290,405

  
AE

  
EE

  
SE

FORMAT-I

Details/Information for Computation of Energy Charge Rates

Name of the Company : Chhattisgarh State Power Generation Company Limited

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

	Description	Unit	Considered in Tariff order	For Month of Aug-18	For Month of Sept-18	Total for period
a	Quantity of Coal / Lignite supplied by Coal/Lignite Company	(MMT)		0.165660	0.127842	
b	Adjustment (+/-) in quantity supplied made by Coal/Lignite Company	(MMT)				
c	Coal supplied by Coal/Lignite Company (a+b)	(MMT)		0.165660	0.127842	
d	Normative Transit & Handling Losses	%	0.20%	0.20%	0.20%	
e	Normative Transit & Handling Losses (cXd)	(MMT)		0.000331320	0.000255684	
f	Net coal / Lignite Supplied (c-e)	(MMT)		0.165328680	0.127586316	
g	Amount charged by the Coal / Lignite Company	(Rs.)		294,213,518.47	227,048,440.37	
h	Adjustment (+/-) in amount charged made by Coal/Lignite Company	(Rs.)		0	0	
i	Net amount Charged by Coal Company (g+h)	( Rs.)		294213518.47	227,048,440.37	
j	Rate of Coal for the period Charged by Coal Company = $(i/(10^6))$	Rs/MT		1779.57	1779.57	
k	Rate of Bonus payable to Coal Company	Rs/MT				
l	Net Rate of coal payable to coal compnay (j+k)	Rs/MT	1,609.77	1779.57	1779.57	
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	1,860.32	1,860.32	
o	Average GCV of coal / Lignite as fired	(kCal/Kg)	3,400.59	3,568	3,435	
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	
s	Normative Auxiliary Consumption	%	5.25	5.25	5.25	
t	ECR for the Period= $((p-(qxr))/(0)*(n/1000))/(1-s)$	Rs/ KWh		1.304	1.355	
u	ECR as considered in Tariff order	Rs/ KWh	1.243	1.243	1.243	
v	Change in ECR (t-u)	Rs/ KWh		0.061	0.112	
w	Scheduled Generation during the Period	KWh		225,398,750	311,696,190	
x	FCA Claim for the Period (vXw )	Rs		13749323.75	34,909,973	48,659,297

  
AE

  
EE

  
SE



FORMAT-I

Details/Information for Computation of Energy Charge Rates


Name of the Company : Chhattisgarh 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 Aug-18	For Month of Sept-18	Total for period
a	Quantity of Coal / Lignite supplied by Coal/Lignite Company	(MMT)		0.15836138	0.20300891	
b	Adjustment (+/-) in quantity supplied made by Coal/Lignite Company	(MMT)				
c	Coal supplied by Coal/Lignite Company (a+b)	(MMT)		0.15836138	0.20300891	
d	Normative Transit & Handling Losses	%	0.20%	0.20%	0.20%	
e	Normative Transit & Handling Losses (cXd)	(MMT)		0.000316723	0.000406018	
f	Net coal / Lignite Supplied (c-e)	(MMT)		0.158044657	0.202602892	
g	Amount charged by the Coal / Lignite Company	(Rs.)		287181728.63	372,612,245.41	
h	Adjustment (+/-) in amount charged made by Coal/Lignite Company	(Rs.)		3,764,240.32	-730,998.42	
i	Net amount Charged by Coal Company (g+h)	(Rs.)		290,945,968.95	371,881,246.99	
j	Rate of Coal for the period Charged by Coal Company = (i/(fX10 <sup>6</sup> ))	Rs/MT		1840.90987	1835.51796	
k	Rate of Bonus payable to Coal Company	Rs/MT				
l	Net Rate of coal payable to coal compnay (j+k)	Rs/MT		1840.90987	1835.51796	
m	Transportation Cost Paid to railways	Rs		35093172.00	46634812	
n	Transportation Charge rate paid to Railways (m/(fX10 <sup>6</sup> ))	Rs/MT		222.05	230.18	
o	Other Charges (per Ton) towards transportation	Rs/MT				
p	Total per ton Transportation Charges (n+o)			222.05	230.18	
q	Landed Price of Coal per MT ((l+p)	Rs./MT	1,921.22	2062.96	2065.70	
r	Average GCV of coal / Lignite as fired	(kCal/Kg)	3,449.20	3646.00	3577.77	
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-(tu))/(r)*(q/1000)/(1-v)	Rs/ KWh		1.551	1.583	
x	ECR as considered in Tariff order	Rs/ KWh	1.527	1.527	1.527	
y	Change in ECR (w-x)	Rs/ KWh		0.024	0.056	
z	Scheduled Generation during the Period	Kwh		307,255,500	306,625,000	
aa	FCA Claim for the Period (yX z)	Rs		7374132	17,171,000	24,545,132

  
AE

  
EE

  
SE

**FORMAT-I**

Details/Information for Computation of Energy Charge Rates

Name of the Company : Chhattisgarh State Power Generation Company Limited  
 Name of the Power Station : Marwa Thermal Power Plant - MTPP

	Month	Unit	Considered in Tariff order	For Month of Aug-18	For Month of Sept-18	Total for period
a	Quantity of Coal / Lignite supplied by Coal/Lignite Company	(MMT)	-	0.33977519	0.32763057	
b	Adjustment (+/-) in quantity supplied made by Coal/Lignite Company	(MMT)	-			
c	Coal supplied by Coal/Lignite Company (a+b)	(MMT)		0.33977519	0.32763057	
d	Normative Transit & Handling Losses	%	0.80%	0.80%	0.80%	
e	Normative Transit & Handling Losses (cXd)	(MMT)		0.002718202	0.002621045	
f	Net coal / Lignite Supplied (c-e)	(MMT)		0.337056988	0.325009525	
g	Amount charged by the Coal / Lignite Company	(Rs.)		671680981.66	662149273.25	
h	Adjustment (+/-) in amount charged made by Coal/Lignite Company	(Rs.)		-106,127,847.86	-23,879,653.64	
i	Net amount Charged by Coal Company (g+h)	(Rs.)		565553133.80	638269619.61	
j	Rate of Coal for the period Charged by Coal Company = (i/(fX10 <sup>6</sup> ))	Rs/MT		1677.92	1963.85	
k	Rate of Bonus payable to Coal Company	Rs/MT		1677.92	1963.85	
l	Net Rate of coal payable to coal compnay (j+k)	Rs/MT		78048148.00	75361002.00	
m	Transportation Cost Paid to railways	Rs		225.62	231.87	
n	Transportation Charge rate paid to Railways (m/(fX10 <sup>6</sup> ))	Rs/MT		225.62	231.87	
o	Other Charges (per Ton) towards transportation	Rs/MT		225.62	231.87	
p	Total per ton Transportation Charges (n+o)			225.62	231.87	
q	Landed Price of Coal per MT ((l+p)	Rs./MT	1,535	1,903.54	2,196	
r	Average GCV of coal / Lignite as fired	(kCal/Kg)	3,280.29	3,574	3,446	
s	Normative SHR	Kcal/ KWh	2,378	2,378	2,378	
t	Normative Specific Oil Consumption	ml/ KWh	0.50	0.50	0.50	
u	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		1.334	1.596	
x	ECR as considered in Tariff order	Rs/ KWh		1.373	1.373	
y	Change in ECR (w-x)	Rs/ KWh		-0.039	0.223	
z	Scheduled Generation during the Period	Kwh		582,367,250	576,433,500	
aa	FCA Claim for the Period (yX z)	Rs		-22712322.75	128544670.5	<b>105,832,348</b>

*[Signature]*  
AE

*[Signature]*  
EE

*[Signature]*  
SE