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**Computation of VCA Charges (1<sup>st</sup> bi-monthly period 2019-20)**

**(A) CHFC :-**

Month	KTPS	HTPS	DSPM TPS	Korba(W) Extn.	Total Amount in Rs.
April'2019	21,12,406	62,86,335	3,60,72,976	49,52,742	4,94,24,459
May 2019	97,56,378	4,48,65,987	2,56,79,120	3,70,86,329	11,73,87,814
<b>Total</b>	<b>1,18,68,782</b>	<b>5,11,52,323</b>	<b>6,17,52,096</b>	<b>4,20,39,071</b>	<b>16,68,12,273</b>

**(B) CHPP :-**

(i)	Total units purchased from NTPC and NSPCL	: 1,33,93,22,750 KWh
(ii)	Amount paid against units purchased	: Rs. 460,22,73,454
	Rate per unit	: Rs. 3.44 /KWh
(iii)	Average rate approved by CSERC for purchase of power from Central generating stations(NTPC & NSPCL only)	: Rs. 3.11 /KWh
(iv)	Diff. in rate (ii-iii)	: Rs.0.33 /KWh
(v)	CHPP (in Rs.) (i)x(iv)	: Rs. 44,19,76,508
C.	Gross VCA (A+B) in Rs	: Rs 60,87,88,781
D.	Total quantum of power purchased during the period	: 5,54,42,22,628 Kwh
E.	Quantum of power purchased for sale to retail consumers of the State	: 5,37,56,13,388 KWh
F.	Allowable VCA (in Rs.)(C*(E/D))	: Rs. 59,02,74,478
G.	Normative transmission & distribution losses as specified in Tariff order	: 16.58%
H.	Allowable VCA Charges(Rs./Kwh) (F/E*(1-G))	: Rs. 0.13 per KWh

VCA Charge to be recoverable from monthly energy bills of various categories of consumers

1	DLF consumers	Rs. 0.13 per unit
2	Agriculture Consumers	Rs. 0.13 per unit
3	Rest all categories	Rs. 0.13 per unit

To be recovered from energy bill for the consumption in the months of July'19 and August'19 payable in the months of August'19 and Sep'19.

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## Computation of CHPP

S.No.	Particulars	
1	Scheduled energy purchased from CGs during 1st bi-monthly period	Kwh 1,33,93,22,750
2	Amount paid against units purchased	Rs. 4,60,22,73,454
3	Average rate of power purchase	Rs./Kwh 3.44
4	Average rate of Power Purchase as per Tariff Order	Rs./Kwh 3.11
5	Difference in the average rate of PP	Rs./Kwh 0.33
6	CHPP(Change in the cost of power purchased from CGs)	Rs. 441976508

## Computation of VCA (1st Bi-monthly period of FY 2019-20)

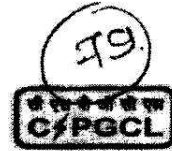
S.No.	Particulars	
1	CHFC	Rs. 168812273
2	CHPP	Rs. 441976508
3	Gross VCA(sub total in Rs.)	Rs. 608788781
4	Allowable VCA(in Rs.)	Rs. 590274478
5	Allowable VCA(in Rs/Kwh)	Rs/Kwh 0.13

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**Computation of Qpp and Qrs (1st Bi-monthly of FY 2019-20)**

S No.	Particulars			
1	Quantum of actual power purchased from CSPGCL thermal Power stations	$Q_1$	2818638000	KwH
2	Quantum of actual power purchased from CSPGCL hydro Power stations(Bango)	$Q_2$	40715418	KwH
3	Quantum of actual power purchased from CSPGCL Renewable Power stations(Small Hydle Station of CSPGCL + CoGen Kawardha)	$Q_3$	7168140	KwH
4	Quantum of scheduled power purchased from CGs at state periphery (CSPTrdCL+NTPC+NSPCL+NPCIL+OHPCL+NHPCL+Bundle Power+SECI)	$Q_4$	1782312090	KwH
5	PGCIL actual losses for the bi-monthly period	L1		
6	Quantum of scheduled power purchased from CGs at state periphery	$Q_5=Q_4(1-L1)$	1723852253	KwH
7	Quantum of actual power purchased from Renewable energy Sources	$Q_6$	233539836	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 (IEX)	$Q_8$	264253890	KwH
10	Quantum of scheduled short term purchased through inter-state route at the State periphery (IEX)	$Q_9=Q_8(1-L1)$	255586362	KwH
11	Quantum of power purchased from other Sources(if any)(Short term + Border Village+Un schduled)	$Q_{10}$	464722619	KwH
12	Total Quantum of power purchased	$Q_{pp}=Q_1+Q_2+Q_3+Q_5+Q_6+Q_7+Q_9+Q_{10}$	5544222628	KwH
13	Normative transmission and distribution losses as specified in the Tariff order	L	16.38%	
14	Quantum of power scheduled for interstate sale(Sale through IEX+Sale to Telangana)	$Q_{PT}$	168609240	KwH
15	Quantum of power purchased for sale to retail consumers of the State	$Q_{RS}=Q_{pp}-Q_{PT}$	5375613388	KwH

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CHHATTISGARH STATE POWER GENERATION COMPANY LIMITED  
(A Govt. of C.G. Undertaking)  
Office of the Executive Director (C&RA)

NO. 03-09/ Bills-15/ 435

Raipur Dtd.

29-Jun-2019

To,

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

(RA&PM) CSPDCL, Raipur
2425
Date 03-07-19

**Sub: Fuel Cost Adjustment calculation for the 1st Bi-Monthly period of FY 2019-20.**

**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. **370,522,398** /- for the 1st Bi-Monthly period of FY 2019-20 (April-19 & May- 19). As per CSERC order the above FCA amount shall be claimed in two installments w.e.f. **Aug-19**

EE (Person)  
03/02/19

Executive Director (C&RA)  
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- 1st Bi Monthly of FY 2019-20 (Apr-2019 to May-2019)
- 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

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

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### Fuel Cost Adjustment calculation for the 1st Bi-Monthly period of FY 2019-20.

All Figures in Rs.

Name of Plant	Apr-19	May-19	Total
KTPS	2112406	9,756,378	11,868,784
HTPS	6286335	44,865,987	51,152,322
DSPM TPS	36072976	25,679,120	61,752,096
KW Extn	4952742	37,086,329	42,039,071
MTTPS	125456219	78,253,906	203,710,125
<b>Total</b>	<b>174,880,678</b>	<b>195,641,720</b>	<b>370,522,398</b>

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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
Aug-19	5,934,392	25,576,161	30,876,048	21,019,536	101,855,063	185,261,200
Sep-19	5,934,392	25,576,161	30,876,048	21,019,535	101,855,062	185,261,198
<b>Total</b>	<b>11,868,784</b>	<b>51,152,322</b>	<b>61,752,096</b>	<b>42,039,071</b>	<b>203,710,125</b>	<b>370,522,398</b>

  
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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 April-19	For Month of May-19	Total for period
a	Quantity of Coal / Lignite supplied by Coal/Lignite Company	(MMT)		0.118962900	0.099829700	
b	Adjustment (+/-) in quantity supplied made by Coal/Lignite Company	(MMT)				
c	Coal supplied by Coal/Lignite Company (a+b)	(MMT)		0.118962900	0.099829700	
d	Normative Transit & Handling Losses	%	1.15%	1.15%	1.15%	
e	Normative Transit & Handling Losses (cXd)	(MMT)		0.001368073	0.001148042	
f	Net coal / Lignite Supplied (c-e)	(MMT)		0.117594827	0.098681658	
g	Amount charged by the Coal / Lignite Company	(Rs.)		198,350,493.25	166,449,121.70	
h	Adjustment (+/-) in amount charged made by Coal/Lignite Company	(Rs.)		-6,030,996.85		
i	Net amount Charged by Coal Company (g+h)	( Rs.)		192,319,496.40	166,449,121.70	
j	Rate of Coal for the period Charged by Coal Company = $(i/(f*10^6))$	Rs/MT		1635.44	1686.73	1658.84
k	Rate of Bonus payable to Coal Company	Rs/MT				
l	Net Rate of coal payable to coal compnay (j+k)	Rs/MT		1635.440	1686.730	
m	Transportation Charge per Ton	Rs/MT	177.98	177.98	177.98	
n	Landed Price of Coal per MT (l+m)	Rs./MT	1,841.03	1813.42	1864.71	1836.82
o	Average GCV of coal / Lignite as fired	(kCal/Kg)	3,080.85	3,366	3,344	3,354
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= $((p-qxr)/(0)^*(r/1000)/(1-s))$	Rs/ KWh		1.876	1.941	1.907
u	ECR as considered in Tariff order	Rs/ KWh	1.855	1.855	1.855	
v	Change in ECR (t-u)	Rs/ KWh		0.021	0.086	
w	Scheduled Generation during the Period	KWh		100,590,750.00	113,446,250.00	
aa	FCA Claim for the Period (vXw )	Rs		2,112,406	9,756,378	11,868,784

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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 April-19	For Month of May-19	Total for period
a	Quantity of Coal / Lignite supplied by Coal/Lignite Company	(MMT)		0.357110	0.351080	
b	Adjustment (+/-) in quantity supplied made by Coal/Lignite Company	(MMT)				
c	Coal supplied by Coal/Lignite Company (a+b)	(MMT)		0.357110	0.351080	
d	Normative Transit & Handling Losses	%	0.20%	0.20%	0.20%	
e	Normative Transit & Handling Losses (cXd)	(MMT)		0.000714220	0.000702160	
f	Net coal / Lignite Supplied (c-e)	(MMT)		0.356395780	0.350377840	
g	Amount charged by the Coal / Lignite Company	(Rs.)		634230288.32	623520958.92	
h	Adjustment (+/-) in amount charged made by Coal/Lignite Company	(Rs.)		2357990.72		
i	Net amount Charged by Coal Company (g+h)	( Rs.)		636588279.04	623520958.92	
j	Rate of Coal for the period Charged by Coal Company = $(i/(f*10^6))$	Rs/MT		1786.18	1779.57	1782.90
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	1786.18	1779.57	1782.90
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	1,866.93	1,860.32	1,863.65
o	Average GCV of coal / Lignite as fired	(kCal/Kg)	3,406.33	3,711	3,435	3,562
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		1.472	1.585	1.531
u	ECR as considered in Tariff order	Rs/ KWh	1.452	1.452	1.452	
v	Change in ECR (t-u)	Rs/ KWh		0.020	0.133	
w	Net Generation during the Period	KWh		314,316,750.00	337,338,250.00	
x	FCA Claim for the Period (vXw )	Rs		6286335	44865987	51,152,322

  
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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 Extr

	Description	Unit	Considered in Tariff order	For Month of April-19	For Month of May-19	Total for period
a	Quantity of Coal / Lignite supplied by Coal/Lignite Company	(MMT)		0.175890	0.172920	
b	Adjustment (+/-) in quantity supplied made by Coal/Lignite Company	(MMT)				
c	Coal supplied by Coal/Lignite Company (a+b)	(MMT)		0.175890	0.172920	
d	Normative Transit & Handling Losses	%	0.20%	0.20%	0.20%	
e	Normative Transit & Handling Losses (cXd)	(MMT)		0.000351780	0.000345840	
f	Net coal / Lignite Supplied (c-e)	(MMT)		0.175538220	0.172574160	
g	Amount charged by the Coal / Lignite Company	(Rs.)		312,382,082.34	307,107,337.98	
h	Adjustment (+/-) in amount charged made by Coal/Lignite Company	(Rs.)		1161398.44		
i	Net amount Charged by Coal Company (g+h)	( Rs.)		313543480.78	307107337.98	
j	Rate of Coal for the period Charged by Coal Company = $(i/(f*10^6))$	Rs/MT		1786.18	1779.57	1782.90
k	Rate of Bonus payable to Coal Company	Rs/MT				
l	Net Rate of coal payable to coal compnay (j+k)	Rs/MT	1,809.77	1786.18	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	1,866.93	1,860.32	1863.65
o	Average GCV of coal / Lignite as fired	(kCal/Kg)	3,400.59	3,713	3,435	3,567
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		1.258	1.355	1.307
u	ECR as considered in Tariff order	Rs/ KWh	1.243	1.243	1.243	
v	Change in ECR (t-u)	Rs/ KWh		0.015	0.112	
w	Scheduled Generation during the Period	KWh		330,182,810.00	331,127,940.00	
x	FCA Claim for the Period (vXw )	Rs		4,952,742	37,086,329	42,039,071

  
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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 April-19	For Month of May-19	Total for period
a	Quantity of Coal / Lignite supplied by Coal/Lignite	(MMT)		0.18468986	0.15401213	
b	Adjustment (+/-) in quantity supplied made by Coal/Lignite Company	(MMT)				
c	Coal supplied by Coal/Lignite Company (a+b)	(MMT)		0.18468986	0.15401213	
d	Normative Transit & Handling Losses	%	0.20%	0.20%	0.20%	
e	Normative Transit & Handling Losses (cXd)	(MMT)		0.000369380	0.000308024	
f	Net coal / Lignite Supplied (c-e)	(MMT)		0.184320480	0.153704106	0.338024586
g	Amount charged by the Coal / Lignite Company	(Rs.)		332466042.15	290254034.58	
h	Adjustment (+/-) in amount charged made by Coal/Lignite Company	(Rs.)		620,965.08	-3,528,607.86	
i	Net amount Charged by Coal Company (g+h)	(Rs.)		333,087,007.23	286,725,426.72	
j	Rate of Coal for the period Charged by Coal Company $= (i/(f \times 10^6))$	Rs/MT		1807.11	1865.44	1833.63
k	Rate of Bonus payable to Coal Company	Rs/MT				
l	Net Rate of coal payable to coal compnay (j+k)	Rs/MT		1807.11	1865.44	
m	Transportation Cost Paid to railways	Rs		46392727.96	38763495.00	85156222.96
n	Transportation Charge rate paid to Railways $(m/(f \times 10^6))$	Rs/MT		251.70	252.20	251.92
o	Other Charges (per Ton) towards transportation	Rs/MT				
p	Total per ton Transportation Charges (n+o)			251.70	252.20	
q	Landed Price of Coal per MT ((l+p)	Rs./MT	1,921.22	2058.81	2117.64	2,085.55
r	Average GCV of coal / Lignite as fired	(kCal/Kg)	3,449.20	3430.41	3609.14	3516.77
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= $((s-(tu))/(r) \times (q/1000)) / (1-v)$	Rs/ KWh		1.646	1.699	1.625
x	ECR as considered in Tariff order	Rs/ KWh	1.527	1.527	1.527	
y	Change in ECR (w-x)	Rs/ KWh		0.119	0.082	
z	Scheduled Generation during the Period	Kwh		303,134,250.00	313,160,000	
aa	FCA Claim for the Period (yX z)	Rs		36072975.75	25679120	61,752,096

  
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