

CHHATTISGARH STATE POWER GENERATION COMPANY LIMITED
(A Govt. of C.G. Undertaking)

Office of the Chief Engineer (C&CP)

NO. 03-09/ Bills-15/ 526

Raipur Dtd. 30/06/2016

To,

The Executive Director (Comml)
4th Floor Vidyut Sewa Bhawan
CSPDCL, Raipur

Sub: Fuel Cost Adjustment calculation of the 1st Bi-Monthly period of FY 2016-17.

Ref.: 1) CSERC MYT Regulations 2015
2) CSERC tariff order dtd. 30/04/2016

In compliance to the CSERC vide order referred above, please find enclosed herewith FCA Calculation amounting to Rs. 120,93,88,141 /- (**Rs. One Hundred Twenty Crore Ninety Three Lacs Eighty Eight Thousand One Hundred Forty One Only**) for the 1st Bi-Monthly period of FY – 2016-17 (April & May 2016). As per CSERC order the above FCA amount shall be claimed in two installment w.e.f. Aug 2016.

Enclosed:- As above



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 (cseb.gov.in/cspgcl) under the new tab (link/button) Bi-Monthly FCA.
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.

FORMAT-I

Details/Information for Computation of Energy Charge Rates for FCA from April to May 2016

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 Apr-16	For Month of May 16	Total for 1 & 2 months
a	Quantity of Coal / Lignite supplied by Coal/Lignite Company	(MMT)		0.22810605	0.21293632	
b	Adjustment (+/-) in quantity supplied made by Coal/Lignite Company	(MMT)				
c	Coal supplied by Coal/Lignite Company (a+b)	(MMT)		0.228106050	0.212936320	
d	Normative Transit & Handling Losses	%	1.15%	1.15%	1.15%	
e	Normative Transit & Handling Losses (cXd)	(MMT)		0.002623220	0.002448768	
f	Net coal / Lignite Supplied (c-e)	(MMT)		0.225482830	0.210487552	
g	Amount charged by the Coal / Lignite Company	(Rs.)		545,061,240.35	368,321,974.91	
h	Adjustment (+/-) in amount charged made by Coal/Lignite Company	(Rs.)				
i	Net amount Charged by Coal Company (g+h)	(Rs.)		545,061,240.35	368,321,974.91	
j	Rate of Coal for the period Charged by Coal Company = (i/(f*10^6))	Rs/MT		2417.307075	1749.851577	
k	Rate of Bonus payable to Coal Company	Rs/MT				
l	Net Rate of coal payable to coal compnay (j+k)	Rs/MT	1,227.76	2417.307075	1749.851577	
m	Transportation Charge per Ton	Rs/MT	177.98	180.86	180.86	
n	Landed Price of Coal per MT (l+m)	Rs./MT	1,405.74	2598.167075	1930.711577	
o	Average GCV of coal / Lignite as fired as per tariff order	(kCal/Kg)	2,967	2,967	2,967	
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	1.650	3.049	2.266	
u	ECR as considered in Tariff order	Rs/ KWh	1.650	1.650	1.650	
v	Change in ECR (t-u)	Rs/ KWh		1.399	0.616	
w	Net Generation during the Period	KWh		212,989,000.00	185,864,250.00	
x	FCA Claim for the Period (vXw)	Rs		297,971,611	114,492,378	412,463,989


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Details/Information for Computation of Energy Charge Rates for FCA from April to May 2016

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 Apr-16	For Month of May 16	Total for 1 & 2 months
a	Quantity of Coal / Lignite supplied by Coal/Lignite Company	(MMT)		0.376004	0.420224	
b	Adjustment (+/-) in quantity supplied made by Coal/Lignite Company	(MMT)				
c	Coal supplied by Coal/Lignite Company (a+b)	(MMT)		0.376004	0.420224	
d	Normative Transit & Handling Losses	%	0.20%	0.20%	0.20%	
e	Normative Transit & Handling Losses (cXd)	(MMT)		0.000752008	0.000840448	
f	Net coal / Lignite Supplied (c-e)	(MMT)		0.375251992	0.419383552	
g	Amount charged by the Coal / Lignite Company	(Rs.)		548,525,795.02	616,922,719.14	
h	Adjustment (+/-) in amount charged made by Coal/Lignite Company	(Rs.)		14,136,275.32	20,511,735.50	
i	Net amount Charged by Coal Company (g+h)	(Rs.)		562,662,070.34	637,434,454.64	
j	Rate of Coal for the period Charged by Coal Company = $(i/(f*10^6))$	Rs/MT		1499.424606	1519.931937	
k	Rate of Bonus payable to Coal Company	Rs/MT				
l	Net Rate of coal payable to coal compnay (j+k)	Rs/MT	1,214.25	1499.424606	1519.931937	
m	Transportation Charge per Ton	Rs/MT	80.75	80.75	80.75	
n	Landed Price of Coal per MT (l+m)	Rs./MT	1,295	1,580.17	1,600.68	
o	Average GCV of coal / Lignite as fired as per tariff order	(kCal/Kg)	3,356	3,356	3,356	
p	Normative SHR	Kcal/ KWh	2,650	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	1.129	1.378	1.395	
u	ECR as considered in Tariff order	Rs/ KWh	1.129	1.129	1.129	
v	Change in ECR (t-u)	Rs/ KWh		0.249	0.266	
w	Net Generation during the Period	KWh		469,133,870.00	500,148,900.00	
x	FCA Claim for the Period (vXw)	Rs		116,814,334	133,039,607	249,853,941

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Details/Information for Computation of Energy Charge Rates for FCA from April to May 2016

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 Apr-16	For Month of May 16	Total for 1 & 2 months
a	Quantity of Coal / Lignite supplied by Coal/Lignite Company	(MMT)		0.185196	0.206976	
b	Adjustment (+/-) in quantity supplied made by Coal/Lignite Company	(MMT)				
c	Coal supplied by Coal/Lignite Company (a+b)	(MMT)		0.185196	0.206976	
d	Normative Transit & Handling Losses	%	0.20%	0.20%	0.20%	
e	Normative Transit & Handling Losses (cXd)	(MMT)		0.000370392	0.000413952	
f	Net coal / Lignite Supplied (c-e)	(MMT)		0.184825608	0.206562048	
g	Amount charged by the Coal / Lignite Company	(Rs.)		270,169,421.43	303,857,458.72	
h	Adjustment (+/-) in amount charged made by Coal/Lignite Company	(Rs.)		6,962,643.07	10,102,795.10	
i	Net amount Charged by Coal Company (g+h)	(Rs.)		277,132,064.50	313,960,253.82	
j	Rate of Coal for the period Charged by Coal Company = $(i/(f*10^6))$	Rs/MT		1499.424606	1519.931937	
k	Rate of Bonus payable to Coal Company	Rs/MT				
l	Net Rate of coal payable to coal compnay (j+k)	Rs/MT	1,214.25	1499.424606	1519.931937	
m	Transportation Charge per Ton	Rs/MT	80.75	80.77	80.77	
n	Landed Price of Coal per MT (l+m)	Rs./MT	1,295	1,580.19	1,600.70	
o	Average GCV of coal / Lignite as fired as per tariff order	(kCal/Kg)	3,356	3,356	3,356	
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	0.965	1.178	1.193	
u	ECR as considered in Tariff order	Rs/ KWh	0.965	0.965	0.965	
v	Change in ECR (t-u)	Rs/ KWh		0.213	0.228	
w	Net Generation during the Period	KWh		289,981,250.00	286,162,500.00	
x	FCA Claim for the Period (vXw)	Rs		61,766,006	65,245,050	127,011,056


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Details/Information for Computation of Energy Charge Rates for FCA from April to May 2016

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 Apr-16	For Month of May 16	Total for 1 & 2 months
a	Quantity of Coal / Lignite supplied by Coal/Lignite	(MMT)		0.20373707	0.25371546	
b	Adjustment (+/-) in quantity supplied made by Coal/Lignite Company	(MMT)				
c	Coal supplied by Coal/Lignite Company (a+b)	(MMT)		0.20373707	0.25371546	
d	Normative Transit & Handling Losses	%	0.20%	0.20%	0.20%	
e	Normative Transit & Handling Losses (cXd)	(MMT)		0.000407474	0.000507431	
f	Net coal / Lignite Supplied (c-e)	(MMT)		0.203329596	0.253208029	
g	Amount charged by the Coal / Lignite Company	(Rs.)		368665631.97	488,333,280.19	
h	Adjustment (+/-) in amount charged made by Coal/Lignite Company	(Rs.)		829,320.00	31,827.12	
i	Net amount Charged by Coal Company (g+h)	(Rs.)		369,494,951.97	488,365,107.31	
j	Rate of Coal for the period Charged by Coal Company $= (i / (f \times 10^6))$	Rs/MT		1817.22169	1928.710986	
k	Rate of Bonus payable to Coal Company	Rs/MT				
l	Net Rate of coal payable to coal company (j+k)	Rs/MT		1817.22169	1928.710986	
m	Transportation Cost Paid to railways	Rs		66237435.00	81731236.00	
n	Transportation Charge rate paid to Railways $(m / (f \times 10^6))$	Rs/MT		325.76	322.78	
o	Other Charges (per Ton) towards transportation	Rs/MT				
p	Total per ton Transportation Charges (n+o)			325.76	322.78	
q	Landed Price of Coal per MT ((l+p)	Rs./MT	1,525.70	2142.98	2251.49	
r	Average GCV of coal / Lignite as fired as per tariff order	(kCal/Kg)	3,280.29	3280.29	3280.29	
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 = $((s - (t \times u)) / (r) * (q / 1000)) / (1 - v)$	Rs/ KWh	1.275	1.791	1.882	
x	ECR as considered in Tariff order	Rs/ KWh	1.275	1.275	1.275	
y	Change in ECR (w-x)	Rs/ KWh		0.516	0.607	
z	Net Generation during the Period	Kwh		325,068,000.00	325,442,500.00	
aa	FCA Claim for the Period (yX z)	Rs		167,735,088	197,543,598	365,278,686


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Details/Information for Computation of Energy Charge Rates for FCA from April to May 2016

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 Apr-16	For Month of May 16	Total for 1 & 2 months
a	Quantity of Coal / Lignite supplied by Coal/Lignite Company	(MMT)	-	0.13941987	0.10095446	
b	Adjustment (+/-) in quantity supplied made by Coal/Lignite Company	(MMT)	-			
c	Coal supplied by Coal/Lignite Company (a+b)	(MMT)		0.13941987	0.10095446	
d	Normative Transit & Handling Losses	%	0.80%	0.80%	0.80%	
e	Normative Transit & Handling Losses (cXd)	(MMT)		0.001115359	0.000807636	
f	Net coal / Lignite Supplied (c-e)	(MMT)		0.138304511	0.100146824	
g	Amount charged by the Coal / Lignite Company	(Rs.)		235,719,107.88	169,925,523.62	
h	Adjustment (+/-) in amount charged made by Coal/Lignite Company	(Rs.)				
i	Net amount Charged by Coal Company (g+h)	(Rs.)		235719107.88	169925523.62	
j	Rate of Coal for the period Charged by Coal Company = $(i/(f \times 10^6))$	Rs/MT		1704.348659	1696.763979	
k	Rate of Bonus payable to Coal Company	Rs/MT				
l	Net Rate of coal payable to coal compnay (j+k)	Rs/MT		1704.348659	1696.763979	
m	Transportation Cost Paid to railways	Rs		40,114,999.00	28,735,052.00	
n	Transportation Charge rate paid to Railways $(m/(f \times 10^6))$	Rs/MT		290.05	286.93	
o	Other Charges (per Ton) towards transportation	Rs/MT				
p	Total per ton Transportation Charges (n+o)			290.05	286.93	
q	Landed Price of Coal per MT ((l+p)	Rs./MT	1,535	1,994	1,984	
r	Average GCV of coal / Lignite as fired as per tariff order	(kCal/Kg)	3,280.29	3,280.29	3,280.29	
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	1.2	1.522	1.515	
x	ECR as considered in Tariff order	Rs/ KWh	1.20	1.20	1.20	
y	Change in ECR (w-x)	Rs/ KWh		0.322	0.315	
z	Net Generation during the Period	Kwh		159,975,000.00	10,376,250.00	
aa	FCA Claim for the Period (yX z)	Rs		51,511,950	3,268,519	54,780,469


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FCA calculation for the 1st Bi-Month (April & May) of FY 2016-17

All Figures in Rs.

Name of Plant	Apr-16	May-16	Total
KTPS	297,971,611	114,492,378	412,463,989
HTPS	116,814,334	133,039,607	249,853,941
DSPM TPS	167,735,088	197,543,598	365,278,686
KW Extn	61,766,006	65,245,050	127,011,056
MTTPS	51,511,950	3,268,519	54,780,469
Total	695,798,989	513,589,152	1,209,388,141

FCA charges for the 1st Bi-monthly of FY 2016-17 **1,209,388,141**

(Rs. One Hundred Twenty Crore Ninety Three Lacs Eighty Eight Thousand One Hundred Forty One 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
Aug-16	206,231,995	124,926,971	182,639,343	63,505,528	27,390,235	604,694,072
Sep-16	206,231,994	124,926,970	182,639,343	63,505,528	27,390,234	604,694,069
Total	412,463,989	249,853,941	365,278,686	127,011,056	54,780,469	1,209,388,141


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