

## Computation of VCA Charges (2nd bi-monthly period 2018-19)

**(A) CHFC :-**

	KTPS	HTPS	DSPM TPS	Korba(W)Extn.	Total Amt. In Rs
Jun 18	39357036	12254100	0	12162080	63773216
July 18	42411668	13022675	16517215	7340223	79291781
Total	81768704	25276775	16517215	19502303	143064997

**(B) CHPP :-**

Total units purchased from NTPC and NSPCL = 1317332445 KWh

Amount paid against units purchased = Rs. 4268338399.00

Rate per unit(I) = Rs. 3.24 /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. 0.12/KWh

CHPP (in Rs.) = Rs.158079893.00

(C) Gross VCA (A+B) in Rs. = Rs.301144890.00

(D) Total quantum of power purchased during the period = 5262587800 Kwh

Quantum of power purchased for sale to retail consumers  
(E) of the State = 4249267800 KWh

(F) Allowable VCA (in Rs.)(C\*(E/D)) = Rs. 243158943.00

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

(H) Allowable VCA Charges(Rs./Kwh) (F/E\*(1-G)) = Rs.0.07/KWh

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

- 1) DLF consumers up to 40 units - Rs. 0.07 per unit
- 2) DLF consumers 41 to 200 units - Rs. 0.07 per unit
- 3) DLF Consumers above 200 units - Rs. 0.07 per unit
- 4) Agriculture Consumers - Rs. 0.07 per unit
- 5) Rest all categories - Rs. 0.07 per unit

**To be recovered for the consumption in the months of Sep'18 and Oct'18 payable in the months of Oct'18 and Nov'18**

### Computation of Qpp and Qrs

S No.	Particulars			
1	Quantum of actual power purchased from CSPGCL thermal Power stations	$Q_1$	3275340760	KwH
2	Quantum of actual power purchased from CSPGCL hydro Power stations	$Q_2$	15711687	KwH
3	Quantum of actual power purchased from CSPGCL Renewable Power stations	$Q_3$	494500	KwH
4	Quantum of scheduled power purchased from CGs	$Q_4$	1788052462	KwH
5	PGCIL actual losses for the bi-monthly period	L1	3.56%	
6	Quantum of scheduled power purchased from CGs at state periphery	$Q_5 = Q_4(1-L1)$	1724397794	KwH
7	Quantum of actual power purchased from Renewable energy Sources	$Q_6$	183761239	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	$Q_8$	26648148	KwH
10	Quantum of scheduled short term purchased through interstate route at the State periphery	$Q_9 = Q_8(1-L1)$	25699474	KwH
11	Quantum of power purchased from other Sources(if any)	$Q_{10}$	37182346	KwH
12	Total Quantum of power purchased	$Q_{pp} = Q_1 + Q_2 + Q_3 + Q_5 + Q_6 + Q_7 + Q_9 + Q_{10}$	5262587800	KwH
13	Normative transmission and distribution losses as specified in the Tariff order	L	16.54%	
14	Quantum of power scheduled for interstate sale	$Q_{PT}$	1013320000	KwH
15	Quantum of power purchased for sale to retail consumers of the State	$Q_{RS} = Q_{pp} - Q_{PT}$	4249267800	KwH

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## Computation of CHPP

Sno.	Particulars	MU	
1	Scheduled energy purchased from CGs during First bi-monthly period		1317332445
2	Amount paid against units purchased	Rs.	4268338399
	Average rate of power purchase	Rs/Kwh	3.24
3	Average rate of Power Purchase as per Tariff Order	Rs/Kwh	3.12
4	Difference in the average rate of PP	Rs/Kwh	0.12
5	CHPP(Change in the cost of power purchased from CGs)	Rs.	158079893

## Computation of VCA

Sno.	Particulars		
1	CHFC	Rs	143064997
2	CHPP	Rs	158079893
3	Gross VCA(sub total in Rs.)	Rs	301144890
4	Allowable VCA(in Rs.)	Gross VCA(in Rs.) $\times Q_{Rs}/Q_{app}$	243158943
5	Allowable VCA(in Rs/Kwh)	Allowable VCA(in Rs.)/[Qrs*(1-L)]	Rs/Kwh 0.07

*[Signature]*



**CHHATTISGARH STATE POWER GENERATION COMPANY LIMITED**

(A Govt. of C.G. Undertaking)

**Office of the Chief Engineer (C&CP)**

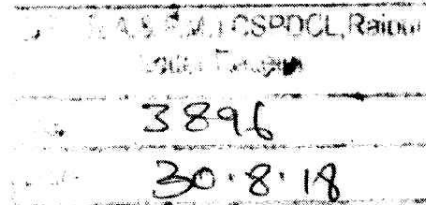
NO. 03-09/ Bills-15/ 469

Raipur Dtd.

30-Aug-2018

To,

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



**Sub: Fuel Cost Adjustment calculation for the 2nd 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. **550,317,164** /- for the 2nd Bi-Monthly period of FY 2018-19 (June-18 & July- 18). As per CSERC order the above FCA amount shall be claimed in two installments w.e.f. **Oct-18**

SE(PM) I  
30/08/18

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 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- 2nd Bi Monthly of FY 2018-19 (June -2018 to July- 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

EE(PM) I

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

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



**Executive Director (C&CP) Raipur**  
Shed no.6, Vidyut Sewa Bhawan, Daganiya, Raipur (C.G.) 492013



No. 03-09/ 492

NO.	4184
Date	10/09/18

Raipur, dt. 10.9.18

To,  
✓ Chief Engineer (RA & PM)  
4<sup>th</sup> Floor Sewa Bhawan  
CSPDCL, Raipur.

Sub: Revised Fuel Cost adjustment for 2<sup>nd</sup> Bi-monthly period (June 18 & July 18) of FY 2018-19.

Ref: 1. CSERC order in P.No 31/2018 (T) For MTTPS:Marwa.  
2. FCA Calculation for 2<sup>nd</sup> Bi-monthly period of FY 2018-19 vide T.O letter no 469 dtd. 30/08/2018

SE (PM) I

10/09/18

In compliance to tariff order of MTTPS:Marwa effective from 1<sup>st</sup> July 2018 Fuel Cost adjustment computation for the month of July 2018 is being revised. Accordingly the FCA value for MTTPS:Marwa has been revised from Rs 40,72,52,167/- to Rs32,65,67,562/- and total FCA valve has been revised from Rs55,03,17,164/- to Rs46,96,32,559 (Copy enclosed). The FCA amount shall be claimed in two instalments w.e.f. Oct 2018

Encl: As above

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 Executive Director (Fin.) CSPGCL, Raipur
3. The Executive Director (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 Revised Fuel Cost Adjustment 2<sup>nd</sup> Bi Monthly of FY 2018-19 (June-2018 to July-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

Regd office: "Vidyut Sewa Bhawan", Dangania, Raipur (CG) Phone: 0771-2574097, Fax: 0771-2574806,  
Web Site: [www.cseb.gov.in/cspgcl](http://www.cseb.gov.in/cspgcl) :CIN:U40108CT2003SGC015821

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**Revised Fuel Cost Adjustment calculation for the 2nd Bi-Monthly period of FY 2018-19.**

All Figures in Rs.

Name of Plant	Jun-18	Jul-18	Total
KTPS	39357036	42,411,668	81,768,704
HTPS	12254100	13,022,675	25,276,775
DSPM TPS	0	16,517,215	16,517,215
KW Extn	12162080	7,340,223	19,502,303
MTTPS	168463047	158,104,515	326,567,562
<b>Total</b>	<b>232,236,263</b>	<b>237,396,296</b>	<b>469,632,559</b>

RUPEES FORTY SIX CRORES NINETY SIX LAKHS THIRTY TWO THOUSAND FIVE HUNDRED FIFTY NINE ONLY

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

Month	KTPS	HTPS	DSPM TPS	KW Extn	MTTPS	Total
Oct-18	40,884,352	12,638,388	8,258,608	9,751,152	163,283,781	234,816,281
Nov-18	40,884,352	12,638,387	8,258,607	9,751,151	163,283,781	234,816,278
<b>Total</b>	<b>81,768,704</b>	<b>25,276,775</b>	<b>16,517,215</b>	<b>19,502,303</b>	<b>326,567,562</b>	<b>469,632,559</b>

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**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 June-18	For Month of July-18	Total for period
a	Quantity of Coal / Lignite supplied by Coal/Lignite Company	(MMT)		0.163699200	0.152826350	
b	Adjustment (+/-) in quantity supplied made by Coal/Lignite Company	(MMT)				
c	Coal supplied by Coal/Lignite Company (a+b)	(MMT)		0.163699200	0.152826350	
d	Normative Transit & Handling Losses	%	1.15%	1.15%	1.15%	
e	Normative Transit & Handling Losses (cXd)	(MMT)		0.001882541	0.001757503	
f	Net coal / Lignite Supplied (c-e)	(MMT)		0.161816659	0.151068847	
g	Amount charged by the Coal / Lignite Company	(Rs.)		272,940,698.65	254,809,065.87	
h	Adjustment (+/-) in amount charged made by Coal/Lignite Company	(Rs.)		0.00	0.00	
i	Net amount Charged by Coal Company (g+h)	(Rs.)		272,940,698.65	254,809,065.87	
j	Rate of Coal for the period Charged by Coal Company $= (i / (f \times 10^6))$	Rs/MT		1686.73	1686.71	
k	Rate of Bonus payable to Coal Company	Rs/MT				
l	Net Rate of coal payable to coal compnay (j+k)	Rs/MT		1686.73	1686.71	
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	1864.71	1864.69	
o	Average GCV of coal / Lignite as fired	(kCal/Kg)	3,080.85	2,993	2,989	
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= $((p - (q \times r)) / (o)) \times (n / 1000) / (1 - s)$	Rs/ KWh		2.169	2.172	
u	ECR as considered in Tariff order	Rs/ KWh	1.855	1.855	1.855	
v	Change in ECR (t-u)	Rs/ KWh		= 0.314	0.317	
w	Scheduled Generation during the Period	KWh		125,340,880	133,790,750	
aa	FCA Claim for the Period (vXw)	Rs		39,357,036	42411667.75	81,768,704

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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 June-18	For Month of July-18	Total for period
a	Quantity of Coal / Lignite supplied by Coal/Lignite Company	(MMT)		0.426790	0.454260	
b	Adjustment (+/-) in quantity supplied made by Coal/Lignite Company	(MMT)				
c	Coal supplied by Coal/Lignite Company (a+b)	(MMT)		0.426790	0.454260	
d	Normative Transit & Handling Losses	%	0.20%	0.20%	0.20%	
e	Normative Transit & Handling Losses (cXd)	(MMT)		0.000853580	0.000908520	
f	Net coal / Lignite Supplied (c-e)	(MMT)		0.425936420	0.453351480	
g	Amount charged by the Coal / Lignite Company	(Rs.)		757982539.66	806769484.90	
h	Adjustment (+/-) in amount charged made by Coal/Lignite Company	(Rs.)		0	-25151800	
i	Net amount Charged by Coal Company (g+h)	(Rs.)		757982539.66	781,617,684.90	
j	Rate of Coal for the period Charged by Coal Company = (i/(f*10^6))	Rs/MT		1779.57	1724.09	
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	1724.09	
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	1,804.84	
o	Average GCV of coal / Lignite as fired	(kCal/Kg)	3,406.33	3,656	3,566	
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		1.489	1.481	
u	ECR as considered in Tariff order	Rs/ KWh	1.452	1.452	1.452	
v	Change in ECR (t-u)	Rs/ KWh		0.037	0.029	
w	Net Generation during the Period	KWh		331,191,880	449,057,750	
x	FCA Claim for the Period (vXw )	Rs		12254100	13022675	25,276,775

  
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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 June-18	For Month of July-18	Total for period
a	Quantity of Coal / Lignite supplied by Coal/Lignite	(MMT)		0.19102324	0.17985193	
b	Adjustment (+/-) in quantity supplied made by Coal/Lignite Company	(MMT)				
c	Coal supplied by Coal/Lignite Company (a+b)	(MMT)		0.19102324	0.17985193	
d	Normative Transit & Handling Losses	%	0.20%	0.20%	0.20%	
e	Normative Transit & Handling Losses (cXd)	(MMT)		0.000382046	0.000359704	
f	Net coal / Lignite Supplied (c-e)	(MMT)		0.190641194	0.179492226	
g	Amount charged by the Coal / Lignite Company	(Rs.)		343841198.41	331,746,586.39	
h	Adjustment (+/-) in amount charged made by Coal/Lignite Company	(Rs.)		2,252,508.00	-5,256,709.70	
i	Net amount Charged by Coal Company (g+h)	(Rs.)		346,093,706.41	326,489,876.69	
j	Rate of Coal for the period Charged by Coal Company $= (i/(f \times 10^6))$	Rs/MT		1815.41932	1818.963885	
k	Rate of Bonus payable to Coal Company	Rs/MT				
l	Net Rate of coal payable to coal compnay (j+k)	Rs/MT		1815.41932	1818.963885	
m	Transportation Cost Paid to railways	Rs		44041731.00	40431299	
n	Transportation Charge rate paid to Railways $(m/(f \times 10^6))$	Rs/MT		231.02	225.25	
o	Other Charges (per Ton) towards transportation	Rs/MT				
p	Total per ton Transportation Charges (n+o)			231.02	225.25	
q	Landed Price of Coal per MT ((l+p)	Rs./MT	1,921.22	2046.44	2044.21	
r	Average GCV of coal / Lignite as fired	(kCal/Kg)	3,449.20	3674.71	3549	
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		1.527	1.579	
x	ECR as considered in Tariff order	Rs/ KWh	1.527	1.527	1.527	
y	Change in ECR (w-x)	Rs/ KWh		0.000	0.052	
z	Scheduled Generation during the Period	Kwh		273427500	317,638,750	
aa	FCA Claim for the Period (yX z)	Rs		0	16,517,215	16,517,215

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**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 June-18	For Month of July-18	Total for period
a	Quantity of Coal / Lignite supplied by Coal/Lignite Company	(MMT)		0.210210	0.223740	
b	Adjustment (+/-) in quantity supplied made by Coal/Lignite Company	(MMT)				
c	Coal supplied by Coal/Lignite Company (a+b)	(MMT)		0.210210	0.223740	
d	Normative Transit & Handling Losses	%	0.20%	0.20%	0.20%	
e	Normative Transit & Handling Losses (cXd)	(MMT)		0.000420420	0.000447480	
f	Net coal / Lignite Supplied (c-e)	(MMT)		0.209789580	0.223292520	
g	Amount charged by the Coal / Lignite Company	(Rs.)		373,334,683.78	397,364,074.74	
h	Adjustment (+/-) in amount charged made by Coal/Lignite Company	(Rs.)		0	-12388200	
i	Net amount Charged by Coal Company (g+h)	(Rs.)		373334683.78	384,975,874.74	
j	Rate of Coal for the period Charged by Coal Company $= (i / (f * 10^6))$	Rs/MT		1779.57	1724.09	
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	1724.09	
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	1,804.84	
o	Average GCV of coal / Lignite as fired	(kCal/Kg)	3,400.59	3,632	3,568	
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		1.281	1.265	
u	ECR as considered in Tariff order	Rs/ KWh	1.243	1.243	1.243	
v	Change in ECR (t-u)	Rs/ KWh		0.038	0.022	
w	Scheduled Generation during the Period	KWh		320,054,750	333,646,500	
x	FCA Claim for the Period (vXw)	Rs		12162080.5	7,340,223	19,502,303

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**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 June-18	For Month of July-18	Total for period
a	Quantity of Coal / Lignite supplied by Coal/Lignite Company	(MMT)	-	0.37906283	0.38564172	
b	Adjustment (+/-) in quantity supplied made by Coal/Lignite Company	(MMT)	-			
c	Coal supplied by Coal/Lignite Company (a+b)	(MMT)		0.37906283	0.38564172	
d	Normative Transit & Handling Losses	%	0.80%	0.80%	0.80%	
e	Normative Transit & Handling Losses (cXd)	(MMT)		0.003032503	0.003085134	
f	Net coal / Lignite Supplied (c-e)	(MMT)		0.376030327	0.382556586	
g	Amount charged by the Coal / Lignite Company	(Rs.)		761272170.59	783972404.71	
h	Adjustment (+/-) in amount charged made by Coal/Lignite Company	(Rs.)		0.00	53,372,396.15	
i	Net amount Charged by Coal Company (g+h)	(Rs.)		761272170.59	837344800.86	
j	Rate of Coal for the period Charged by Coal Company = (i/(fX10 <sup>6</sup> ))	Rs/MT		2024.50	2188.81	
k	Rate of Bonus payable to Coal Company	Rs/MT				
l	Net Rate of coal payable to coal company (j+k)	Rs/MT		2024.5	2188.81	
m	Transportation Cost Paid to railways	Rs		84779355.00	86376600.00	
n	Transportation Charge rate paid to Railways (m/(fX10 <sup>6</sup> ))	Rs/MT		225.46	225.79	
o	Other Charges (per Ton) towards transportation	Rs/MT				
p	Total per ton Transportation Charges (n+o)			225.46	225.79	
q	Landed Price of Coal per MT ((l+p)	Rs/MT	1,535	2,249.96	2,415	
r	Average GCV of coal / Lignite as fired	(kCal/Kg)	3,280.29	3,705	3,533	
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		1.521	1.712	
x	ECR as considered in Tariff order	Rs/ KWh		1.20	1.373	
y	Change in ECR (w-x)	Rs/ KWh		0.321	0.339	
z	Scheduled Generation during the Period	Kwh		524807000	466,385,000	
aa	FCA Claim for the Period (yX z)	Rs		168463047	158104515	326,567,562

(on leave)  
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