

Office of Chief Engineer
Commercial Unit



U.P. Rajya Vidyut Utpadan Nigam Ltd.
14th Floor, Shakti bhawan Extn.
Lucknow -226001
Tel No.- 0522-2288056 / 2287030
CIN : U 40101UP1980SGC005065
gm.commercial@uprvunl.org

cecommercialunl@gmail.com

No. 308/UNL/CE(Comml.)/Energy Bill/FY (2021-22)

Date: 13, July, 2021

Superintending Engineer
Electricity Import-Export & Payment Circle
U.P. Power Corporation Ltd
11th floor, Shakti Bhawan Extn.
Lucknow-226001.

Subject: Provisional Main Energy Bill of various TPS of UPRVUNL for the month June-2021.

The Provisional Main Energy bill of various Thermal Power Stations of UPRVUNL against Electricity supplied by U.P. Rajya Vidyut Utpadan Nigam Ltd. to U.P. Power Corporation Ltd. during month **June, 2021** as detailed below, is being enclosed for payment:-

Main Bill No.:- UNL/Energy Bill(SG/ESO)/2021-06/01, dt. 13.07.2021

Rs. 584.3220010 Crs

(Rs. Five hundred eighty four crore, thirty two lacs, twenty thousand and ten only)

It is therefore requested that the payment of this Bill in accordance with Operational parameters of UPERC Generation Regulation-2019 dt. 11.09.2019 & Fixed Cost as per Tariff Order dt. 29.04.2016 & 18.01.2017 and PPA signed between UPRVUNL and UPPCL may kindly be ensured.

Last Energy Account from SLDC/ABT received on dt. 08.07.2021 for Parichha Project.

ITR for A.Y. 2019-20 & A.Y. 2020-21 is hereby attached.

Attached: Copy of ITR A.Y. 2019-20 & A.Y. 2020-21.

(Ravindra Kumar Wahani)
Chief Engineer (Commercial)

No. 308/UNL/CE(Comml.)/Energy Bill/FY (2021-22)

Date: 13, July, 2021

Copy forwarded to the following for their kind information :-

1. PS to Managing Director, UPRVUNL, 7th floor, Shakti Bhawan, Lucknow.
2. Director (Project & Comml.), UPRVUNL, 8th floor, Shakti Bhawan Extn, Lucknow
3. Director (Technical), UPRVUNL, 8th floor, Shakti Bhawan Extn, Lucknow
4. Director (Finance), UPRVUNL, 8th floor, Shakti Bhawan Ext, Lucknow.

Copy forwarded to the following for their kind information & necessary action :-

1. CE (TO/Fuel), UPRVUNL, 14th floor, Shakti Bhawan Extn, Lucknow.
2. Chief Engineer (Project Coordinator), Anpara/Obra/Harduaganj/Parichha TPS.
3. Dy CAO (Accounts), UPRVUNL, 9th floor, Shakti Bhawan Extn, Lucknow.
4. Dy CAO (Finance), UPRVUNL, 8th floor, Shakti Bhawan Extn, Lucknow.
5. Chief Manager (CMU), UPRVUNL, 7th floor, Shakti Bhawan Extn, Lucknow.
6. Dy CAO (CFA&BO), Anpara/Obra/Harduaganj/Parichha TPS.

✓ → Summary file

(Ravindra Kumar Wahani)
Chief Engineer (Commercial)

U.P. Rajya Vidyut Utpadan Nigam Ltd.
14th Floor, Shakti Bhawan Extn., Lucknow
GST Reg. No. 09AAACU4749D2Z9

Bill of supply of Power of the month : Jun-21
Name of Customer :- U.P. Power Corporation Ltd.
Shakti Bhawan, Extn.
14, Ashok Marg, Lucknow
GST Reg. No: 09AAACU5088M4ZM

Bill No. : UNL/Energy Bill (SG/ESO)/2021-06/01
Bill Date : 13.07.2021
Due Date : 30 Days from the billing date
Reference- (i) UPERC Tariff Order Dt.29.04.2016 & 18.01.2017
(ii) UPERC Gen Reg.'19 Dt. 11.09.2019
(iii) PPA for various Thermal Power Stations.

Provisional Main Energy Bill of UPVUNL to UPPCL for Anpara A, Anpara B, Anpara D, Obra B, Parichha Extn, Parichha Extn Stage-2, Harduaganj & Harduagnaj Extn on Schedule Generation (SG).

Projects	Approved Plant capacity as per UPERC T.O. (MW)	No. of Months w.e.f April 2021	Cum.Plant Availability		Capacity charges (Fixed Charges)				Energy Charge(E.C)			Total Amount Capacity Charges+ Energy Charges (Rs. Crs)
			Target by UPERC (%)	Actual till current month w.e.f April 2021 (%)	Total capacity charges approved by UPERC (Rs. Crs)	Percentage to be recovered (%)	Amount of annual capacity charges corresponding to Column 6 (ACCC2) (Rs. Crs)	Amount of capacity charges payable for the month (Rs. Crs)	Scheduled Generation by SLDC/ Energy Sent Out by Plants (MU)	Rate of Energy Charges (REC) (Rs/kwh)	Total Energy Charges (Rs. Crs)	
			3	4#	5	6##	7=(Col 5X6)/100	8###	9	10	11=(Col 9x10)/10	
Anpara 'A'	630	3	85	73.98	306.96	87.04	267.1779840	18.9087360	245.944473	1.87	45.9916165	64.9003525
Anpara 'B'	1000	3	85	86.95	307.88	100.00	307.8800000	25.6566667	575.159255	1.62	93.1757993	118.8324660
Anpara 'D'	1000	3	85	47.99	1088.75	56.46	614.7082500	47.1791667	288.272185	1.44	41.5111946	88.6903613
Obra 'B'	1000	3	80	61.47	421.89	76.84	324.1802760	23.5273990	305.209470	1.52	46.3918394	69.9192384
Harduaganj Extn	500	3	85	46.97	532.38	55.26	294.1931880	25.3590340	141.002385	2.67	37.6476368	63.0066708
Parichha Extn.	420	3	85	98.52	333.66	100.00	333.6600000	27.8050000	104.039025	3.21	33.3965270	61.2015270
Pari.Extn. Stage2	500	3	85	91.38	498.79	100.00	498.7900000	41.5658333	181.513690	3.21	58.2658945	99.8317278
Harduaganj (U#7)	105	3	65	65.48	78.98	100.00	78.9800000	8.6390957	25.120528	3.47	8.7168232	17.3559189
	5155				3569.29		2719.5696980	218.6409314	1866.2610110		365.0973313	583.7382627
TCS 0.1% as per New Clause no. 206 C (1H) of Finance Bill 2020												0.5837383
Total Amount Payable											Rs Crs. 584.3220010	
(Rs. Five hundred eighty four crore, thirty two lacs, twenty thousand and ten only)												

From Commulative Availability Sheet

Column No. 6 : If Col No. 4 is less than Col No.3 , then (Col No.4/Col No. 3)x100% else 100%

Column No 8 : Computed as per UPERC Generation Regulation 2019, dt 11.09.2019 para 25 , for n month=(nxACCCn-(n-i)xACCn-i)/12

Effective Annual Capacity charges on 2% RoE of Harduaganj (U#7) TPS having capacity 105 MW due to deletion of U#5 as per O.M. NO. 592/CE(TO)/Harduaganj dt. 15.07.2017 = 124.11*105/165= 78.98 Cr

Effective Annual Capacity charges on 2% RoE of 2x500 MW Anpara 'D' TPS as per calculation sheet of Verified Bill of March'18 by UPPCL letter no. 1512/EIE&PC/UPRVUNL/U-4, dt. 03.05.2018 is Rs 1088.75 Crs.

Prepared as per DC/SG received from ABT/SLDC & Bill from TPS

Checked as per DC/SG received from ABT/SLDC & Bill from TPS

Verified as per DC/SG received from ABT/SLDC & Bill from TPS

(Saurabh Grover)
EA (Comml.)

(Ritu Singh)
AE (Comml.)

(Goga Pandey)
Accountant

(Khyati Singh)
Accounts officer

(Ritu Singh)
AE(Comml.)

(Abhishek Srivastava)
EE(Comml.)

Cumulative Availability for FY 2021-22

Month	Days	Cum. Days N	MW 630 AUXn 8.5				MW 1000 AUXn 6.55				MW 1000 AUXn 6.25				MW 1000 AUXn 9.7			
			Anpara "A"				Anpara "B"				Anpara D U6 & 7				Obra "B"			
			Declared Cap.(MU)	Declared Cap.(MW)	Cum.Decl. Cap.(MW)	Cum Ava (%)	Declared Cap.(MU)	Declared Cap.(MW)	Cum.Decl. Cap.(MW)	Cum Ava (%)	Declared Cap.(MU)	Declared Cap.(MW)	Cum.Decl. Cap.(MW)	Cum Ava (%)	Declared Cap.(MU)	Declared Cap.(MW)	Cum.Decl. Cap.(MW)	Cum Ava (%)
Apr-21	30	30	363.188500	15133	15133	87.51	496.417160	20684	20684	73.78	337.428438	14060	14060	49.99	447.245500	18635	18635	68.79
May-21	31	61	308.213750	12842	27975	79.56	668.931000	27872	48556	85.18	347.278063	14470	28530	49.89	417.824500	17409	36044	65.44
Jun-21	30	91	259.967500	10832	38807	73.98	609.271500	25386	73942	86.95	297.922688	12413	40943	47.99	347.246500	14469	50513	61.47
Jul-21	31	122																
Aug-21	31	153																
Sep-21	30	183																
Oct-21	31	214																
Nov-21	30	244																
Dec-21	31	275																
Jan-22	31	306																
Feb-22	28	334																
Mar-22	31	365																
Total			931.369750				1774.619660				982.629189				1212.316500			

Month	Days	Cum. Days N	MW 105 AUXn 9.5				MW 500 AUXn 9.0				MW 420 AUXn 9.0				MW 500 AUXn 9.0			
			#Harduaganj (U#7)				Harduaganj Extn U#8 & 9				Parichha Extn.(2x210)				Parichha Extn.Stage-2 (U#5&6)			
			Declared Cap.(MU)	Declared Cap.(MW)	Cum.Decl. Cap.(MW)	Cum Ava (%)	Declared Cap.(MU)	Declared Cap.(MW)	Cum.Decl. Cap.(MW)	Cum Ava (%)	Declared Cap.(MU)	Declared Cap.(MW)	Cum.Decl. Cap.(MW)	Cum Ava (%)	Declared Cap.(MU)	Declared Cap.(MW)	Cum.Decl. Cap.(MW)	Cum Ava (%)
Apr-21	30	30	41.406680	1725	1725	60.51	153.008750	6375	6375	46.70	273.987650	11416	11416	99.56	278.025500	11584	11584	84.86
May-21	31	61	34.889485	1454	3179	54.84	154.499000	6437	12812	46.16	284.356800	11848	23264	99.78	306.965000	12790	24374	87.82
Jun-21	30	91	59.594805	2483	5662	65.48	159.230875	6635	19447	46.97	264.005775	11000	34264	98.52	323.076500	13462	37836	91.38
Jul-21	31	122																
Aug-21	31	153																
Sep-21	30	183																
Oct-21	31	214																
Nov-21	30	244																
Dec-21	31	275																
Jan-22	31	306																
Feb-22	28	334																
Mar-22	31	365																
Total			135.890970				466.738625				822.350225				908.067000			

Cummulative Availability (%) = $10000 \times \sum_{i=1}^N DC_i / \{N \times IC \times (100 - AUXn)\} \%$

DC_i = Average declared capacity for the ith day of the period in MW.
 N = Number of days during the period, and
 AUXn = Normative Auxiliary Energy Consumption as a percentage of gross generation.

Availability have been calculated as per new Auxiliary Consumption norms w.e.f. 01.04.2019 for MYT 2019-24 specified by UPERC (Terms & conditions of Generation Tariff) Regulation-2019, dt. 11.09.2019.

Saurabh

EA (Comml.)

[Signature]

AE (Comml.)

W. Shrinivas
13/7/21

EE (Comml.)

Office of Chief Engineer
Commercial Unit



U.P. Rajya Vidyut Utpadan Nigam Ltd.
14th Floor, Shakti bhawan Extn.
Lucknow -226001
Tel No.- 0522-2288056 / 2287030
CIN : U 40101UP1980SGC005065
gm.commercial@uprvunl.org

cecommercialunl@gmail.com

No. 344/UNL/CE(Comm.) /FCA/FY (2021-22)

Date: 30, July, 2021

Superintending Engineer
Electricity Import-Export & Payment Circle
U.P. Power Corporation Ltd
11th floor, Shakti Bhawan Extn.
Lucknow-226001.

Subject: Supplementary Bill of FCA of various TPS of UPRVUNL for June-2021.

The Supplementary bill of Fuel Cost Adjustment (FCA) for variation in fuel data certified by Cost Accountants of various Thermal Power Stations of U.P. Rajya Vidyut Utpadan Nigam Ltd against electricity supplied to U.P. Power Corporation Ltd. during the month **June-2021**, is being enclosed herewith for payment :-

(1) FCA Bill No.: -UNL/FCA/2021-06/02, dt. 30.07.2021

Rs 85.0276602 Crs

(Rs Eighty five crore, two lac, seventy six thousand, six hundred and two only)

It is, therefore, requested that the payment of these Bills in accordance with UPERC Generation Tariff Regulation-2019, dt. 11.09.2019 and Power Purchase Agreements signed between UPRVUNL and UPPCL may kindly be ensured.

Last fuel data received on dt. 30.07.2021 of Obra-B TPS.

The Calculation sheet for Rate of Variable Cost of MOD stack for the month of August-2021 is attached herewith.

Encl.: As above.

(Ravindra Kumar Wahi)
Chief Engineer (Commercial)

Date: 30, July, 2021

No. 344/UNL/CE(Comm.) /FCA/FY (2021-22)

Copy forwarded to the following for their kind information :-

1. PS to Managing Director, UPRVUNL, 7th floor, Shakti Bhawan, Lucknow.
2. Director (Project & Comm.), UPRVUNL, 8th floor, Shakti Bhawan Extn, Lucknow.
3. Director (Finance), UPRVUNL, 8th floor, Shakti Bhawan Extn, Lucknow.
4. Director (Technical), UPRVUNL, 8th floor, Shakti Bhawan Extn, Lucknow.

Copy forwarded to the following for their kind information & necessary action :-

1. Chief Engineer (TO/Fuel), UPRVUNL, 14th floor, Shakti Bhawan Extn, Lucknow.
2. Chief Engineer (Project Coordinator), Anpara, Obra, Parichha, Harduaganj Projects.
3. Dy CAO (Finance), UPRVUNL, 8th floor, Shakti Bhawan Extn, Lucknow.
4. Dy CAO (Accounts), UPRVUNL, 9th floor, Shakti Bhawan Extn, Lucknow.
5. Chief Manager (CMU), UPRVUNL, 7th floor, Shakti Bhawan Extn, Lucknow.
6. Dy CAO (CFA&BO), Anpara, Obra, Parichha, Harduaganj Thermal Power Project.

→ Summary File

(Ravindra Kumar Wahi)
Chief Engineer (Commercial)

U.P. Rajya Vidyut Utpadan Nigam Ltd.
14th Floor, Shakti Bhawan Extn.,
Lucknow - 226001

GST Reg. No.- 09AAACU4749D2Z9

Bill of supply of Power for Month: June, 2021
Name of Customer :- U.P. Power Corporation Ltd.
Shakti Bhawan, Extn.
14, Ashok Marg, Lucknow
GST Reg. No: 09AAACU5088M4ZM

FCA Bill No.- UNL/FCA/2021-06/02
Bill Date- 30.07.2021
Due Date- 30 Days from the billing date
Reference- (i) UPERC Tariff Order Dt. 29.04.2016 & 18.01.2017
(ii) UPERC Gen Regu., 2019 Dt. 11.09.2019
(iii) Fuel data from Plants (certified by Cost Accountant)

Provisional Fuel Cost Adjustment Bill due to variation in Cost & GCY of fuel of various TPS of UPRVUNL raised to UPPCL as per UPERC Gen. Tariff Regu., 2019 Dt. 11.09.2019

S.No.	Parameters	Symbol	Unit	Anpara A	Anpara B	Anp D	Obra B	Harduaganj Extn.	Pari Extn.	Pari Extn. Stage-2	Harduaganj	Total
	Unit No.			U#1,2&3	U#4&5	U#6&7	U#9 to 13	U#8&9	U#3&4	U#5&6	U#7	
A	Energy Exported & Billed (ESO)	ESO	MU	245.944473	575.159255	288.272185	305.209470	141.002385	104.039025	181.513690	25.120528	1866.2610110
Normative Operating Parameters												
B	Gross Station Heat Rate (GSHR)	H	Kcal/kwh	2430	2390	2374	2755	2430	2430	2430	2625	
C	Sp. Oil Cons.	(Qs)n	ml/kwh	0.50	0.50	0.50	2.10	0.50	0.50	0.50	2.50	
D	Auxiliary Energy Consumption	AUXn	%	8.50	6.55	6.25	9.70	9.00	9.00	9.00	9.50	
Fuel Data for the month												
E	Price of Primary fuel (Coal)	Pp	Rs. kg	2.38593	2.53583	2.39568	2.53099	4.51385	4.36876	4.36876	4.51385	
F	Price of Secondary fuel (Oil)	Ps	Rs. ml	0.04601318	0.04601318	0.04601318	0.06316097	0.04338251	0.03469024	0.03469024	0.04338251	
G	Gross Calorific Value of Primary fuel (Coal)	Cp	Kcal/kg	3521.00	3606.00	3688.00	3637.00	3140.00	3104.04	3104.04	3140.00	
H	Gross Calorific Value of Primary fuel (Coal) less 85 Kcal/kg on account of variation during storage (Cp1= Cp-85)	Cp1	Kcal/kg	3436.00	3521.00	3603.00	3552.00	3055.00	3019.04	3019.04	3055.00	
I	Gross Calorific Value of Secondary fuel (oil)	Cs	Kcal/lit	9116.33	9116.33	9116.33	9079.00	10570.00	9608.59	9608.59	10570.00	
Formula of ECR				$ECR = 100 \{ Pp * (H - (Qs)n * Cs / 1000) / Cp1 + Ps * (Qs)n \} / (100 - AUXn)$								
J	Energy Charge Rate for the month (ECR)	ECR	Rs./kwh	1.8658	1.8630	1.7050	2.3058	3.9607	3.8756	3.8756	4.3623	
K	Already claimed energy charge rate (ECR1)	ECR1	Rs./kwh	1.8700	1.6200	1.4400	1.5200	2.6700	3.2100	3.2100	3.4700	
L	Diff in ECR (J-K)	ECR2	Rs./kwh	-0.0042	0.2430	0.2650	0.7858	1.2907	0.6656	0.6656	0.8923	
M	Amt. of Energy Charge due to variation in fuel data (AxL)/10		Rs.Crs	-0.1032967	13.9763699	7.6392129	23.9833602	18.1991778	6.9248375	12.0815512	2.2415047	84.9427175
N	TCS 0.1% as per New Clause no. 206 C (1H) of Finance Bill 2020 (M*0.1/100)											0.0849427
O	Total FCA Billed Amount Payable (Cr) (M+N)											85.0276602

(Rs Eighty five crore, two lac, seventy six thousand, six hundred and two only)

Normative Parameters have been taken as per UPERC Generation Tariff Regulation-2019, dt. 11.09.2019 for various TPS of UPRVUNL.

Prepared as per ESO/SG & Bills /Fuel data received from TPS

Checked as per ESO/SG & Bills /Fuel data received from TPS

Verified as per ESO/SG & Bills /Fuel data received from TPS

Saurabh Grover
(Saurabh Grover)
EA (Comml.)

Sandeep
(S.K. Yadav)
AE (Comml.)

Goga Pandey
(Goga Pandey)
Accountant

Khyati Singh
(Khyati Singh)
Accounts Officer

Sandeep
(S.K. Yadav)
AE(Comml.)

Abhishek Srivastava
(Abhishek Srivastava)
EE(Comml.)

Rate of Variable Cost for MOD of the month Aug'21 as per UPERC Order dt. 21.06.2016 against Petition no.- 1070/2015 according to Energy/FCA Bill of the month June-2021

Projects	Approved Plant capacity as per UPERC T.O. #	No. of Months	Target Availability by UPERC #	Cumulative Availability *	Total capacity charges at 15.5% RoE#	Total capacity charges at 2% RoE#	Percentage to be recovered *	Amount of annual capacity charges at 15.5% RoE corresponding to Column 6	Total capacity charges for month at 15.5% RoE	Amount of annual capacity charges at 2% RoE corresponding to Column 6	Total capacity charges for month at 2% RoE *	Foregoing Capacity Charges for the month	Energy Charge as per Main Energy Bill	Variable Charge as per FCA Bill	Total Variable Cost - Foregoing Fixed Cost	Scheduled Generation by SLDC/ Energy Sent	Revised Rate of Variable Cost for MOD
	(MW)		(%)	(%)	(Rs. Crs)	(Rs. Crs)	(%)	(Rs. Crs)	(Rs. Crs)	(Rs. Crs)	(Rs. Crs)	(Rs. Crs)	(Rs. Crs)	(Rs. Crs)	(Rs. Crs)	(MU)	(Rs/kwh)
		1	2	3	4	5	6	7=(Col. 4X6)/100	8	9=(Col. 5X6)/100	10	11=(Col. 8-10)	12	13	14=(Col. 12+13-11)	15	16= (Col 14/Col 15)*10
Anpara 'A'	630	3	85	73.98	339.55	306.96	87.04	295.5443200	20.9162800	267.1779840	18.9087360	2.0075440	45.9916165	-0.1032967	43.8807758	245.944473	1.784
Anpara 'B'	1000	3	85	86.95	485.68	307.88	100.00	485.6800000	40.4733333	307.8800000	25.6566667	14.8166666	93.1757993	13.9763699	92.3355026	575.159255	1.605
Anpara 'D'	1000	3	85	47.99	1323.02	1088.75	56.46	746.977092	57.3308667	614.7082500	47.1791667	10.1517000	41.5111946	7.6392129	38.9987075	288.272185	1.353
Obra 'B'	1000	3	80	61.47	453.56	421.89	76.84	348.5155040	25.2935293	324.1802760	23.5273990	1.7661303	46.3918394	23.9833602	68.6090693	305.209470	2.248
H'dnj. Extn	500	3	85	46.97	658.65	532.38	55.26	363.9699900	31.3736950	294.1931880	25.3590340	6.0146610	37.6476368	18.1991778	49.8321536	141.002385	3.534
Pari. Extn.	420	3	85	98.52	381.95	333.66	100.00	381.9500000	31.8291667	333.6600000	27.8050000	4.0241667	33.3965270	6.9248375	36.2971978	104.039025	3.489
Pari. Extn. Stage-2	500	3	85	91.38	607.06	498.79	100.00	607.0600000	50.5883333	498.7900000	41.5658333	9.0225000	58.2658945	12.0815512	61.3249457	181.513690	3.379
H'dnj. (U#7) S	105	3	65	65.48	82.82	78.98	100.00	82.8163636	9.0587299	78.9800000	8.6390957	0.4196342	8.7168232	2.2415047	10.5386937	25.120528	4.195
TOTAL					4332.29	3569.29		3312.5132696	276.0427725	2719.5696980	218.6409314	48.2230028	365.0973313	84.9427175	401.8170460	1866.2610110	

UPPCL letter no. 766/CE/PPA, dt. 23.05.2018

* Taken from Energy Bill of the month.

As per UPERC Tariff Order.

** Taken from FCA Bill of the month.

Column No. 8 & 10 computed as per UPERC Generation Regulation 2019, dt. 11.09.2019 para 25, for n month=(nxACCn-(n-1)xACCn-1)/12

Saurabh

EA (Comml.)

Sandeep
30.07.2021

AE (Comml.)

Abhinav
30/7/21

EE (Commercial), UPRVUNL