

**Office of Chief Engineer
Commercial Unit**

cecommercialunl@gmail.com



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

No. 98/UNL/CE(Comml.)/Energy Bill/FY (2021-22)

Date: 09, March, 2022

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 February-2022.

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 **February, 2022** as detailed below, is being enclosed for payment:-

Main Bill No.:- UNL/Energy Bill(SG/ESO)/2022-02/01, dt. 09.03.2022

Rs 675.8807668 Crs

(Rs Six hundred seventy five crore, eighty eight lacs, seven thousand, six hundred and sixty eight 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. 09.03.2022 for Parichha TPS.

(Arvind kumar Singh)
Chief Engineer (Commercial)

No. 98/UNL/CE(Comml.)/Energy Bill/FY (2021-22)

Date: 09, March, 2022

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 Extn, 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 (L-1), Anpara/Obra/Harduaganj/Parichha TPS.
3. Dy CAO (Accounts), UPRVUNL, 9th floor, Shakti Bhawan Extn, Lucknow.
4. Dy CAO (Finance-1), UPRVUNL, 8th floor, Shakti Bhawan Extn, Lucknow.
5. Chief Manager (CMU), UPRVUNL, 7th floor, Shakti Bhawan Extn, Lucknow.

→ Summary file

(Arvind kumar Singh)
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 : Feb-22
Name of Customer :-

U.P. Power Corporation Ltd.
Shakti Bhawan, Extn.
14, Ashok Marg, Lucknow
09AAACU5088M4ZM

UNL/Energy Bill (SG/ESO)/2022-02/01

Bill No. : 09.03.22
Bill Date : 30 Days from the billing date
Due Date : (i) UPERC Tariff Order Dt.29.04.2016 & 18.01.2017
Reference- (ii) UPERC Gen Reg.'19 Dt. 11.09.2019
(iii) PPA for various Thermal Power Stations.

GST Reg. No.:

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

Projects	Approved Plant capacity as per UPERC T.O.	No. of Months w.e.f April 2021	Cum.Plant Availability		Total capacity charges approved by UPERC	Capacity charges (Fixed Charges)		Amount of capacity charges payable for the month	Scheduled Generation by SLDC/ Energy Sent Out by Plants (MU)	Energy Charge(E.C)		Total Amount Capacity Charges+ Energy Charges
			Target by UPERC	Actual till current month w.e.f April,2021		Percentage to be recovered	Amount of annual capacity charges corresponding to Column 6			Rate of Energy Charges (REC)	Total Energy Charges	
	(MW)	n	(%)	(%)	(Rs. Crs)	(%)	(Rs. Crs)	(Rs. Crs)	(Rs/kwh)	10	11=(Col 9x10)/10	(Rs. Crs)
	1	2	3	4 #	5	6##	7=(Col 5X6)/100	8###	9	10	11=(Col 9x10)/10	12=(Col 8+11)
Anpara 'A'	630	11	85	71.46	306.96	84.07	258.0612720	22.9375860	291.367290	1.87	54.4856832	77.4232692
Anpara 'B'	1000	11	85	88.11	307.88	100.00	307.8800000	25.6566667	564.360215	1.62	91.4263548	117.0830215
Anpara 'D'	1000	11	85	70.24	1088.75	82.64	899.7430000	98.9310833	592.875565	1.44	85.3740814	184.3051647
Obra 'B'	1000	11	80	60.99	421.89	76.24	321.6489360	24.3430530	295.1259375	1.52	44.8591425	69.2021955
Harduaganj Extn	500	11	85	77.02	532.38	90.61	482.3895180	51.2016465	0.000000	2.67	0.0000000	51.2016465
Parichha Extn.	420	11	85	92.53	333.66	100.00	333.6600000	27.8050000	118.3141025	3.21	37.9788269	65.7838269
Pari.Extn. Stage2	500	11	85	90.00	498.79	100.00	498.7900000	41.5658333	191.988855	3.21	61.6284225	103.1942558
Harduaganj (U#7)	105	11	65	66.93	78.98	100.00	78.9800000	7.6873867	0.000000	3.47	0.0000000	7.6873867
	5155				3569.29		3181.1527260	300.1282555	2054.0319650		375.7525113	675.8807668

Total Amount Payable

Rs Crs. 675.8807668

(Rs. Six hundred seventy five crore, eighty eight lacs, seven thousand, six hundred and sixty eight only)

From Cumulative 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=(nxACCn-(n-1)xACCn-1)/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

(Saurabh Grover)
EA (Comm.)

Raj Kumar Verma

(Raj Kumar Verma)
AE (Comm.)

Goga Pandey

(Goga Pandey)
Accountant

Raj Kumar Verma

(Raj Kumar Verma)
AE (Comm.)

Ritu Singh
09.03.22
EE(Comm.)

Cumulative Availability for FY 2021-22

Month	Days	Cumulative Days	MW	105 #Hardening (U/T)	AUXn		9.5	MW	500		AUXn		9.0	MW	420		AUXn		9.0	MW	500		AUXn
					Declared Cap.(MW)	Cum Ave Cap.(MW)			Declared Cap.(MW)	Cum Ave (%)	Declared Cap.(MW)	Cum Ave (%)			Declared Cap.(MW)	Cum Ave (%)	Declared Cap.(MW)	Cum Ave (%)			Declared Cap.(MW)	Cum Ave (%)	
Apr-21	30	30	41	406680	1725	1725	60.51	153.008750	6375	6375	46.70	273.987650	11416	99.56	278.025500	11584	84.86	81.82					
May-21	31	61	34	889485	1454	3179	54.84	154.499000	6437	12812	46.16	284.356800	11848	99.78	306.965000	12790	24374	87.38					
Jun-21	30	91	59	594805	2483	5662	65.48	159.230875	6635	19447	46.97	264.005775	11000	98.52	323.076500	13462	37836	91.38					
Jul-21	31	122	62	212910	2592	8254	71.20	201.357000	8390	27837	50.15	208.695160	8696	92.13	250.767500	10449	48285	86.98					
Aug-21	31	153	24	407470	1017	9271	63.77	317.127375	13214	41051	58.97	269.433730	11276	92.66	320.889375	13370	61655	88.57					
Sep-21	30	183	0	000000	0	9271	53.31	267.770750	11157	52208	62.70	251.271510	10470	92.44	298.592250	12441	74096	88.99					
Oct-21	31	214	13	659120	569	9840	48.39	345.570445	10232	62440	64.13	184.678993	7695	72.08	284.156750	10257	84353	86.63					
Nov-21	30	244	68	414400	2851	12691	54.74	327.600000	13650	76090	68.54	275.184000	11466	83817	327.600000	13650	98003	88.28					
Dec-21	31	275	70	694880	2946	15637	59.84	338.520000	14105	90195	72.08	283.278825	11803	90.98	314.519375	13105	111108	88.80					
Jan-22	31	306	70	694880	2946	18583	63.91	338.520000	14105	104300	74.91	283.869100	11828	107448	310.385625	12933	124041	89.09					
Feb-22	28	334	63	853440	2661	21244	66.93	305.760000	12740	117040	77.02	236.009100	10667	92.53	305.573750	12732	136773	90.00					
Mar-22	31	365																					
Total			509	828070				2808.964195				2834.770643		3292.551625									

$$\text{Cumulative Availability (\%)} = 10000 \sum_{i=1}^N \text{DC}_i / \{N \times \text{IC}_x(100 - \text{AUX}_n)\} \%$$

DC_i = Average declared capacity for the i^{th} day of the period in MW.

Number of days during the period, and

AUXn = Normative Auxiliary Energy Consumption as a percentage of gross generation.

850210584250 MD

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.

EA (Comml.)

AE (Comm.)

EE(CommL.)

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Tel No.- 0522-2288056 / 2287030
CIN : U 40101UP1980SGC005065
gm.commercial@uprvunl.org

No. 117/UNL/CE(Comm.) /FCA/FY (2021-22)

Date: 30, March, 2022

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

Subject: **Provisional Bill of FCA of various TPS of UPRVUNL for February -2022.**

The Provisional 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 **February, 2022**, is being enclosed herewith for payment :-

(1) FCA Bill No.: -UNL/FCA/2022-02/02, dt. 30.03.2022

Rs 78.2819958 Crs

(Rs Seventy eight crore, twenty eight lacs, nineteen thousand, nine hundred and fifty eight 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 UPPCI may kindly be ensured.

Last fuel data received on dt. 29.03.2022 of Harduaganj TPS.

Encl.: As above.

(Arvind Kumar Singh)
Chief Engineer (Commercial)
Date: 30, March, 2022

No. 117/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, Lucknow.
2. Chief Engineer (L-1), UPRVUNL, Anpara, Obra, Parichha, Harduaganj Projects.
3. Dy CAO (Finance-1), 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.

→ Summary file.

(Arvind Kumar Singh)
Chief Engineer (Commercial)

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

GST Reg. No.- 09AAACU4749D2Z9

February, 2022
U.P. Power Corporation Ltd.
Shakti Bhawan, Extn.
14, Ashok Marg, Lucknow
09AAACU5088M4ZM

UNL/FCA/2022-02/02

30.03.22

- 30 Days from the billing date
(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)

S.No.	Parameters	Unit No.	Unit	Symbol	Anpara A	Anpara B	Anpara D	Obra B	Harduaganj Extn.	Pari Extn.	Pari Extn. Stage-2	Harduaganj	Total
A	Energy Exported & Billed (ESO)		MU	ESO	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	
B	Normative Operating Parameters												
B	Gross Station Heat Rate (GSHR)		Kcal/Kwh	H	2430	2390	2374	2755	2430	2430	2430	2625	
C	Sp. Oil Cons.		(Qs)n ml/Kwh	(Qs)n	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	
E	Fuel Data for the month												
E	Price of Primary fuel (Coal)		Rs./Kg	Pp	2.33216	2.51814	2.40616	2.76235	4.49930	4.48158	4.48158	4.49930	
F	Price of Secondary fuel (Oil)		Rs./ml	Ps	0.06566795	0.06566795	0.06566795	0.06757750	0.05860960	0.07278476	0.07278476	0.05860960	
G	Gross Calorific Value of Primary fuel (Coal)		Kcal/Kg	Cp	3400.00	3515.00	3482.00	3545.00	3378.00	3600.00	3600.00	3378.00	
H	Gross Calorific Value of Primary fuel (Coal) less 85 Kcal/kg on account of variation during storage (Cp)- Cp-85)		Kcal/Kg	Cp1	3315.00	3430.00	3397.00	3460.00	3293.00	3515.00	3515.00	3293.00	
I	Gross Calorific Value of Secondary fuel (oil)		Kcal/Lit	Cs	9334.50	9334.50	9334.50	9139.26	10570.00	9404.57	9404.57	10570.00	
	Formula of ECR				$ECR = 100(Pp * (H - (Qs)n * Cs / 1000) / Cp + Ps * (Qs)n) / (100 - AUXn)$								
J	Energy Charge Rate for the month (ECR)		Rs./Kwh	ECR	1.9007	1.9091	1.8251	2.5760	3.6728	3.4380	3.4380	4.0851	
K	Already claimed energy charge rate (ECR1)		Rs./Kwh	ECR1	1.8700	1.6200	1.4400	1.5200	2.6700	3.2100	3.2100	3.4700	
L	Diff in ECR (J-K)		Rs./Kwh	ECR2	0.0307	0.2891	0.3851	1.0560	1.0028	0.2280	0.2280	0.6151	
M	Amt. of Energy Charge due to variation in fuel data (AxL)/10		Rs./Crs		0.8944976	16.3156538	22.8316380	31.1652990	0.0000000	2.6975615	4.3773459	0.0000000	78.2819958

Total Amount Payable (Cr)

(Rs Seventy eight crore, twenty eight lacs, nineteen thousand, nine hundred and fifty eight only)

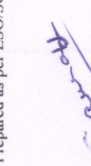
78.2819958

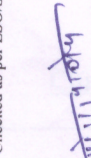
Normative Parameters have been taken as per UPERC Generation Tariff Regulation-2019, dt. 11.09.2019 for various TPS of UPRVUNL.

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)
EA (Comml.)


(Goga Pandey)
Accountant


(Raj Kumar Verma)
AE (Comml.)


(Ritu Singh)
EE (Comml.)