

Office of Chief Engineer  
Commercial Unit

cecommercialunl@gmail.com



24  
U.P. Rajya Vidyut Utpadan Nigam Ltd.  
14<sup>th</sup> Floor, Shakti bhawan Extn.  
Lucknow -226001  
Tel No.- 0522-2288056 / 2287030  
CIN : U 40101UP1980SGC005065  
gm.commercial@uprvunl.org

No. 56/UNL/CE(Comml.)/Energy Bill/FY (2021-22)

Date: 11, February, 2022

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

**Subject: Provisional Main Energy Bill of various TPS of UPRVUNL for the month January-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 **January, 2022** as detailed below, is being enclosed for payment:-

Main Bill No.:- UNL/Energy Bill(SG/ESO)/2022-01/01, dt. 11.02.2022

**Rs 738.9438966 Crs**

**(Rs Seven hundred thirty eight crore, ninety four lacs, thirty eight thousand, nine hundred and sixty six 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. 10.02.2022 for Parichha TPS.

(Arvind Kumar Singh)

Chief Engineer (Commercial)

Date: 11, February, 2022

No. 56/UNL/CE(Comml.)/Energy Bill/FY (2021-22)

Copy forwarded to the following for their kind information :-

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

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

1. CE (TO/Fuel), UPRVUNL, 14<sup>th</sup> floor, Shakti Bhawan Extn, Lucknow.
2. Chief Engineer (L-1), Anpara/Obra/Harduananj/Parichha TPS.
3. Dy CAO (Accounts), UPRVUNL, 9<sup>th</sup> floor, Shakti Bhawan Extn, Lucknow.
4. Dy CAO (Finance-1), UPRVUNL, 8<sup>th</sup> floor, Shakti Bhawan Extn, Lucknow.
5. Chief Manager (CMU), UPRVUNL, 7<sup>th</sup> floor, Shakti Bhawan Extn, Lucknow.

✓ Sr. 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 :  
Name of Customer :-

Jan-22  
U.P. Power Corporation Ltd.  
Shakti Bhawan, Extn.  
14, Ashok Marg, Lucknow  
09AAACU5088M4ZM

Bill No. :  
Bill Date :  
Due Date :  
Reference:-

U.NL/Energy Bill (SG/ESO)/2022-01/01

30 Days from the billing date  
(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.

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, Hariduagani & Hariduagani 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 Target by UPERC | Actual till current month w.e.f April 2021 | Total capacity charges approved by UPERC | Percentage to be recovered | Capacity charges (Fixed Charges) Amount of annual capacity charges corresponding to Column 6 (ACC2) | Amount of capacity charges payable for the month (Rs. Crs) 8## | Scheduled Generation by SLDC Energy Sent Out by Plants (MU) 9 | Energy Charge (E.C) Rate of Energy Charges (REC) (Rs./kwh) 10 | Total Energy Charges (Rs. Crs) 11-(Col 9x10)/10 | Total Amount Capacity Charges+ Energy Charges (Rs. Crs) 12-(Col 8+11) |
|--------------------|-------------------------------------------|--------------------------------|-----------------------------------------|--------------------------------------------|------------------------------------------|----------------------------|-----------------------------------------------------------------------------------------------------|----------------------------------------------------------------|---------------------------------------------------------------|---------------------------------------------------------------|-------------------------------------------------|-----------------------------------------------------------------------|
| Anpara 'A'         | 630                                       | 10                             | 85                                      | 70.98                                      | 306.96                                   | 83.51                      | 256.3422960                                                                                         | 24.3777400                                                     | 311.472125                                                    | 1.87                                                          | 58.2452874                                      | 82.6230274                                                            |
| Anpara 'B'         | 1000                                      | 10                             | 85                                      | 87.84                                      | 307.88                                   | 100.00                     | 307.8800000                                                                                         | 25.6566667                                                     | 585.576063                                                    | 1.62                                                          | 94.8633222                                      | 120.5199889                                                           |
| Anpara 'D'         | 1000                                      | 10                             | 85                                      | 68.00                                      | 1088.75                                  | 80.00                      | 871.0000000                                                                                         | 107.0422708                                                    | 661.005543                                                    | 1.44                                                          | 95.1847982                                      | 202.2270690                                                           |
| Obra 'B'           | 1000                                      | 10                             | 80                                      | 61.55                                      | 421.89                                   | 76.94                      | 324.6021660                                                                                         | 30.7206235                                                     | 392.472985                                                    | 1.52                                                          | 59.6558937                                      | 90.3765172                                                            |
| Hariduagani Extn   | 500                                       | 10                             | 85                                      | 74.91                                      | 532.38                                   | 88.13                      | 469.1864940                                                                                         | 52.3950650                                                     | 19.913320                                                     | 2.67                                                          | 53.168564                                       | 57.7119214                                                            |
| Parichha Extn.     | 420                                       | 10                             | 85                                      | 91.87                                      | 333.66                                   | 100.00                     | 333.6600000                                                                                         | 27.8050000                                                     | 157.288873                                                    | 3.21                                                          | 50.4897282                                      | 78.2947282                                                            |
| Pari. Extn. Stage2 | 500                                       | 10                             | 85                                      | 89.09                                      | 498.79                                   | 100.00                     | 498.7900000                                                                                         | 41.5658333                                                     | 172.727743                                                    | 3.21                                                          | 55.4456055                                      | 97.0114388                                                            |
| Hariduagani (U#7)  | 105                                       | 10                             | 65                                      | 63.91                                      | 78.98                                    | 98.32                      | 77.6531360                                                                                          | 10.1792057                                                     | 0.000000                                                      | 3.47                                                          | 0.0000000                                       | 10.1792057                                                            |
|                    | 5155                                      |                                |                                         |                                            | 3569.29                                  |                            | 3139.1140920                                                                                        | 319.7424050                                                    | 2300.4566520                                                  |                                                               | 419.2014916                                     | 738.9438966                                                           |

**Total Amount Payable**

**Rs Crs. 738.9438966**

**(Rs. Seven hundred thirty eight crore, ninety four lacs, thirty eight thousand, nine hundred and sixty six only )**

DC up to Month: 26301.8892050 MU

SG up to Month: 20251.1762050 MU

# From Cumulative Availability Sheet

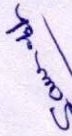
## Column No. 6. If Col No. 4 is less than Col No. 3, then (Col No. 4/Col No. 3)x100% else 100%

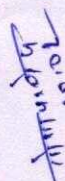
### Column No. 8. Computed as per UPERC Generation Regulation 2019, dt 11.09.2019 para 25, for n month - (n x ACCn - (n-1) x ACCn-1) / 12

Effective Annual Capacity charges on 2% RoE of Hariduagani (U#7) TPS having capacity 105 MW due to deletion of U#5 as per O.M. No. 592/CE(TO)/Hariduagani 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.

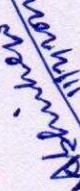
Prepared as per DC/SG received from ABT/SLDC & Bill from TPS

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

  
(Saurabh Grover)  
EA (Comml.)

  
(Goga Pandey)  
Accountant

  
(Raj Kumar Verma)  
AE (Comml.)

  
(Abhishek Srivastava)  
EE (Comml.)



# Cumulative Availability for FY 2021-22

| Month  | Days | Cumulative Days | 6.30              | AUXN              | 6.55        | 1000              | AUXN              | 6.75        | 1000              | AUXN              | 9.7         |
|--------|------|-----------------|-------------------|-------------------|-------------|-------------------|-------------------|-------------|-------------------|-------------------|-------------|
|        |      |                 | Declared Cap (MW) | Cum Deel Cap (MW) | Cum Ave (%) | Declared Cap (MW) | Cum Deel Cap (MW) | Cum Ave (%) | Declared Cap (MW) | Cum Deel Cap (MW) | Cum Ave (%) |
| Apr-21 | 30   | 30              | 363 188500        | 15133             | 87.51       | 496 417160        | 20684             | 73.78       | 337 428438        | 14060             | 49.99       |
| May-21 | 31   | 61              | 308 213750        | 12842             | 79.56       | 668 931000        | 27872             | 85.18       | 347 278063        | 14470             | 49.89       |
| Jun-21 | 30   | 91              | 259 967500        | 10832             | 73.98       | 609 271500        | 25386             | 86.95       | 297 92688         | 12413             | 40.943      |
| Jul-21 | 31   | 122             | 299 378000        | 12474             | 72.92       | 582 879580        | 24270             | 86.16       | 313 482125        | 13062             | 54.005      |
| Aug-21 | 31   | 153             | 316 303500        | 13179             | 64.660      | 581 752510        | 24240             | 85.66       | 329 571750        | 14930             | 68.935      |
| Sep-21 | 30   | 183             | 323 806000        | 13492             | 77.952      | 577 354460        | 24056             | 85.68       | 458 573875        | 17899             | 86.834      |
| Oct-21 | 31   | 214             | 298 451750        | 12435             | 73.27       | 629 183500        | 26216             | 86.38       | 619 916750        | 25830             | 112.664     |
| Nov-21 | 30   | 244             | 265 868500        | 11078             | 72.14       | 637 832750        | 26576             | 87.41       | 628 611188        | 26192             | 138.856     |
| Dec-21 | 31   | 275             | 223 219250        | 9301              | 110766      | 605 192750        | 25216             | 87.37       | 652 763875        | 27198             | 166.054     |
| Jan-22 | 31   | 306             | 346 440000        | 14435             | 125201      | 639 541000        | 26648             | 87.84       | 696 382000        | 29016             | 195.070     |
| Feb-22 | 28   | 334             |                   |                   |             |                   |                   |             |                   |                   |             |
| Mar-22 | 31   | 365             |                   |                   |             |                   |                   |             |                   |                   |             |
| Total  |      |                 | 3004.836750       |                   |             | 6028.356210       |                   |             | 4681.676502       |                   |             |

| Month  | Days | Cumulative Days | 6.30              | AUXN              | 6.55        | 1000              | AUXN              | 6.75        | 1000              | AUXN              | 9.7         |
|--------|------|-----------------|-------------------|-------------------|-------------|-------------------|-------------------|-------------|-------------------|-------------------|-------------|
|        |      |                 | Declared Cap (MW) | Cum Deel Cap (MW) | Cum Ave (%) | Declared Cap (MW) | Cum Deel Cap (MW) | Cum Ave (%) | Declared Cap (MW) | Cum Deel Cap (MW) | Cum Ave (%) |
| Apr-21 | 30   | 30              | 41 406680         | 1725              | 60.51       | 153 008750        | 6375              | 46.70       | 273 987650        | 11416             | 99.56       |
| May-21 | 31   | 61              | 34 889485         | 1454              | 54.84       | 154 499000        | 6437              | 46.16       | 284 356800        | 11848             | 99.78       |
| Jun-21 | 30   | 91              | 59 594805         | 2483              | 56.62       | 159 230875        | 6635              | 46.97       | 264 003775        | 11000             | 98.52       |
| Jul-21 | 31   | 122             | 62 212910         | 2592              | 82.54       | 201 357000        | 8390              | 50.15       | 208 695160        | 8696              | 92.13       |
| Aug-21 | 31   | 153             | 24 407470         | 1017              | 63.77       | 317 127375        | 13214             | 58.97       | 269 433730        | 11226             | 92.66       |
| Sep-21 | 30   | 183             | 0 000000          | 0                 | 9271        | 267 770750        | 11157             | 62.70       | 251 271510        | 10470             | 92.44       |
| Oct-21 | 31   | 214             | 13 659120         | 569               | 98.40       | 245 570445        | 10332             | 64.13       | 184 678993        | 7695              | 72.351      |
| Nov-21 | 30   | 244             | 68 414400         | 2851              | 12.691      | 327 600000        | 13650             | 68.54       | 275 184000        | 11466             | 83.817      |
| Dec-21 | 31   | 275             | 70 694880         | 2946              | 15.637      | 338 520000        | 14105             | 90.195      | 283 278825        | 11803             | 95.620      |
| Jan-22 | 31   | 306             | 70 694880         | 2946              | 18.583      | 338 520000        | 14105             | 74.91       | 283 869100        | 11828             | 107.448     |
| Feb-22 | 28   | 334             |                   |                   |             |                   |                   |             |                   |                   |             |
| Mar-22 | 31   | 365             |                   |                   |             |                   |                   |             |                   |                   |             |
| Total  |      |                 | 445.974630        |                   |             | 2503.204195       |                   |             | 2578.761543       |                   |             |

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

DC = Average declared capacity for the 1<sup>st</sup> 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.

DC up to Month: 26301.8892050 MW

SG up to Month: 20251.1762050 MW

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 (Comml.)

EE (Comml.)



Office of Chief Engineer  
Commercial Unit

cecommercialunl@gmail.com



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

No. 75 /UNL/CE(Comm.) /FCA/FY (2021-22)

Date: 28, February, 2022

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

Subject: Provisional Bill of FCA of various TPS of UPRVUNL for January -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 **January, 2022**, is being enclosed herewith for payment :-

(1) FCA Bill No.: -UNL/FCA/2022-01/02, dt. 28.02.2022

**Rs 68.1194731 Crs**

**(Rs Sixty eight crore, eleven lacs, ninety four thousand, seven hundred and thirty one 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. 28.02.2022 of Harduaganj TPS.

Encl.: As above.

(Arvind Kumar Singh)  
Chief Engineer (Commercial)  
Date: 28, February, 2022

No. 75/UNL/CE(Comm.) /FCA/FY (2021-22)

Copy forwarded to the following for their kind information :-

1. PS to Managing Director, UPRVUNL, 7<sup>th</sup> floor, Shakti Bhawan, Lucknow.
2. Director (Project & Comm.), UPRVUNL, 8<sup>th</sup> floor, Shakti Bhawan Extn, Lucknow.
3. Director (Finance), UPRVUNL, 8<sup>th</sup> floor, Shakti Bhawan Extn, Lucknow.
4. Director (Technical), UPRVUNL, 8<sup>th</sup> 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, 8<sup>th</sup> floor, Shakti Bhawan Extn, Lucknow.
4. Dy CAO (Accounts), UPRVUNL, 9<sup>th</sup> floor, Shakti Bhawan Extn, Lucknow.
5. Chief Manager (CMU), UPRVUNL, 7<sup>th</sup> 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.- 09AAACU479DZ9

UNL/FCA/2022-01/02  
28/02/2022

FCA Bill No.-  
Bill Date-  
Due Date-  
Reference-

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

Bill of supply of Power for Month:  
Name of Customer :-

GST Reg. No:

(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                                                                                                      | Symbol | Unit     | Anpara A                                                 | Anpara B            | Anp D               | Obra B                  | Harduaganj Extn.   | Pari Extn.          | Pari Extn. Stage-2  | Harduaganj      | Total        |
|-------|-----------------------------------------------------------------------------------------------------------------|--------|----------|----------------------------------------------------------|---------------------|---------------------|-------------------------|--------------------|---------------------|---------------------|-----------------|--------------|
| A     | Unit No.                                                                                                        |        |          |                                                          |                     |                     |                         |                    |                     |                     |                 |              |
|       | Energy Exported & Billed (ESO)                                                                                  | ESO    | MU       | U#1,2&3<br>311.472125                                    | U#4&5<br>585.576063 | U#6&7<br>661.005543 | U#9 to 13<br>392.472985 | U#8&9<br>19.913320 | U#3&4<br>157.288873 | U#5&6<br>172.727743 | U#7<br>0.000000 | 2300.4566520 |
| B     | Normative Operating Parameters                                                                                  |        |          |                                                          |                     |                     |                         |                    |                     |                     |                 |              |
|       | 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            |              |
| E     | Fuel Data for the month                                                                                         |        |          |                                                          |                     |                     |                         |                    |                     |                     |                 |              |
|       | Price of Primary fuel (Coal)                                                                                    | Pp     | Rs./Kg   | 2.21305                                                  | 2.42281             | 2.43146             | 2.79725                 | 4.52115            | 4.39749             | 4.39749             | 4.52115         |              |
| F     | Price of Secondary fuel (Oil)                                                                                   | Pv     | Rs./ml   | 0.06566795                                               | 0.06566795          | 0.06566795          | 0.06744521              | 0.05860960         | 0.03469024          | 0.03469024          | 0.05860960      |              |
| G     | Gross Calorific Value of Primary fuel (Coal)                                                                    | Cp     | Kcal/Kg  | 3421.00                                                  | 3703.00             | 3645.00             | 3736.00                 | 3353.00            | 3680.00             | 3680.00             | 3353.00         |              |
| H     | Gross Calorific Value of Primary fuel (Coal) less 85 Kcal/kg on account of variation during storage (Cp)= Cp-85 | Cp1    | Kcal/Kg  | 3336.00                                                  | 3618.00             | 3560.00             | 3651.00                 | 3268.00            | 3595.00             | 3595.00             | 3268.00         |              |
| I     | Gross Calorific Value of Secondary fuel (oil)                                                                   | Cs     | Kcal/Lit | 9334.50                                                  | 9334.50             | 9334.50             | 9108.00                 | 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  | 1.7943                                                   | 1.7444              | 1.7611              | 2.4781                  | 3.7185             | 3.2790              | 3.2790              | 4.1343          |              |
| 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  | -0.0757                                                  | 0.1244              | 0.3211              | 0.9581                  | 1.0485             | 0.0690              | 0.0690              | 0.6643          |              |
| M     | Amt. of Energy Charge due to variation in fuel data (A*J)/10                                                    |        | Rs.Crs   | -2.3578440                                               | 7.2845662           | 21.2248880          | 37.6028367              | 2.0879116          | 1.0852932           | 1.1918214           | 0.0000000       | 68.1194731   |

Total Amount Payable (Cr)

(Rs Sixty eight crore, eleven lacs, ninety four thousand, seven hundred and thirty one 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)  
EA (Comml.)

(Raj Kumar Verma)  
AE (Comml.)

(Goga Pandey)  
Accountant

(Raj Kumar Verma)  
AE (Comml.)

(Ritu Singh)  
EE (Comml.)