

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 : May-20
Name of Customer :- U.P. Power Corporation Ltd.
Shakti Bhawan, Extn.
14, Ashok Marg, Lucknow
GST Reg. No: 09AAACU5088M4ZM

Main Bill : UNL/Energy Bill (SG/ESO)/2019-05/01
Bill Date : 13/06/20
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 UPRVUNL 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 2020 n	Cum.Plant Availability		Capacity charges (Fixed Charges)					Energy Charge(E.C)		Total Energy Charges (Rs. Crs)	Total Amount Capacity Charges+ Energy Charges (Rs. Crs)
			Target by UPERC (%)	Actual till current month w.e.f April.2020 (%)	Total capacity charges approved by UPERC (Rs. Crs)	Percentage to be recovered (%)	Amount of annual capacity charges corresponding to Column 6 (ACC2) (Rs. Crs)	Amount of capacity charges payable for the month (Rs. Crs)	Annual Cumulative Capacity Charge billed till last month (Rs. Crs)	Scheduled Generation by SLDC/ Energy Sent Out by Plants (MU)	Rate of Energy Charges (REC) (Rs/kwh)		
			3	4 #	5	6##	7=(Col 5X6)/100	8###	9	10	11		
Anpara 'A'	630	2	85	73.79	306.96	86.81	266.4719760	22.1446060	267.2086800	294.037625	1.87	54.9850359	77.1296419
Anpara 'B'	1000	2	85	82.46	307.88	97.01	298.6743880	24.1223980	307.8800000	484.619518	1.62	78.5083619	102.6307599
Anpara 'D'	1000	2	85	46.22	1088.75	54.38	592.0622500	50.9716458	572.4647500	303.599588	1.44	43.7183407	94.6899865
Obra 'B'	1000	2	80	59.24	421.89	74.05	312.4095450	22.8664380	350.4218340	267.213265	1.52	40.6164163	63.4828543
Harduaganj Extn	500	2	85	76.31	532.38	89.78	477.9707640	35.2967940	532.3800000	122.556770	2.67	32.7226576	68.0194516
Parichha Extn.	420	2	85	62.46	333.66	73.48	245.1733680	24.5073270	196.2588120	75.715258	3.21	24.3045978	48.8119248
Pari.Extn. Stage2	500	2	85	96.81	498.79	100.00	498.7900000	41.5658333	498.7900000	200.654970	3.21	64.4102454	105.9760787
Harduaganj (U#7)	105	2	65	81.17	78.98	100.00	78.9800000	6.5816667	78.9800000	0.000000	3.47	0.0000000	6.5816667
	5155				3569.29		2770.5322910	228.0567088	2804.3840760	1748.3969940		339.2656556	567.3223644

Total Amount Payable

(Rs. Five hundred and sixty seven crore, thirty two lacs, twenty three thousand, six hundred and forty four only)

Rs Crs. 567.3223644

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=(nxACCn-(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
(Saurabh Grover)
EA (Comml.)

Sukesh Kr. Vij.
(Sukesh Kr. Vij.)
AE (Comml.)

Goga Pandey
(Goga Pandey)
Accountant

S.P. Yadav
(S.P. Yadav)
Dy CAO (F)

Sandeep Agrawal
(Sandeep Agrawal)
AE(Comml.)

Hari Shyam
(Hari Shyam)
SE(Comml.)

15.06.2020

Cumulative Availability for FY 2020-21

Month	Days	Cumulative 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.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-20	30	30	307.086000	12795	12795	73.99	632.033150	26335	26335	93.94	301.654625	12569	12569	44.69	432.018750	18001	18001	66.45
May-20	31	61	315.625750	13151	25946	73.79	496.153225	20673	47008	82.46	332.737250	13864	26433	46.22	351.065750	14628	32629	59.24
Jun-20	30	91																
Jul-20	31	122																
Aug-20	31	153																
Sep-20	30	183																
Oct-20	31	214																
Nov-20	30	244																
Dec-20	31	275																
Jan-21	31	306																
Feb-21	28	334																
Mar-21	31	365																
Total			622.711750				1128.186375				634.391875				783.084500			

Month	Days	Cumulative Days N	MW 105 AUXn 9.5				MW 500 AUXn 9.0				MW 420 AUXn 9.0				MW 500 AUXn 9.0			
			#Hardugani (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-20	30	30	68.414400	2851	2851	100.01	295.618750	12317	12317	90.23	137.589600	5733	5733	50.00	323.858125	13494	13494	98.86
May-20	31	61	44.493115	1854	4705	81.17	212.686375	8862	21179	76.31	211.889050	8829	14562	62.46	320.993750	13375	26869	96.81
Jun-20	30	91																
Jul-20	31	122																
Aug-20	31	153																
Sep-20	30	183																
Oct-20	31	214																
Nov-20	30	244																
Dec-20	31	275																
Jan-21	31	306																
Feb-21	28	334																
Mar-21	31	365																
Total			112.907515				508.305125				349.478650				644.851875			

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

DC_i = Average declared capacity for the ith day of the period in MW.
 N = Number of days during the period, and
 AUX_n = 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.

Somesh
 EA (Comml.)

[Signature]
 AE (Comml.)

[Signature]
 SE (Comml.)
 15.6.2020

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: May, 2020
Name of Customer :- U.P. Power Corporation Ltd.
Shakti Bhawan, Extn.
14, Ashok Marg, Lucknow
GST Reg. No: 09AAACU5088M4ZM

FCA Bill No.- UNL/FCA/2020-05/02
Bill Date- 29.06.2020
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 & GCV of fuel of various TPS of UPRVUNL for the month of May'2020 raised to UPCL 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	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	
A	Energy Exported & Billed (ESO)	ESO	MU	294.037625	484.619518	303.599588	267.213265	122.556770	75.715258	200.654970	1748.396994
Normative Operating Parameters											
B	Gross Station Heat Rate (GSHR)	H	Kcal/kwh	2430	2390	2374	2755	2430	2430	2430	
C	Sp. Oil Cons.	(Qs)n	ml/kwh	0.50	0.50	0.50	2.10	0.50	0.50	0.50	
D	Auxiliary Energy Consumption	AUXn	%	8.50	6.55	6.25	9.70	9.00	9.00	9.00	
Fuel Data for the month											
E	Price of Primary fuel (Coal)	Pp	Rs. kg	2.28833	2.43427	2.41216	2.85920	4.67150	4.63516	4.63516	
F	Price of Secondary fuel (Oil)	Ps	Rs. ml	0.05112037	0.05112037	0.05112037	0.04593756	0.05272075	0.05173467	0.05173467	
G	Gross Calorific Value of Primary fuel (Coal)	Cp	Kcal kg	3395.00	3602.00	3611.00	3928.00	3705.00	3536.00	3536.00	
H	Gross Calorific Value of Primary fuel (Coal) less 85 Kcal/kg on account of variation during storage (Cp= Cp-85)	Cp1	Kcal kg	3310.00	3517.00	3526.00	3843.00	3620.00	3451.00	3451.00	
I	Gross Calorific Value of Secondary fuel (oil)	Cs	Kcal lit	9639.63	9639.63	9639.63	8982.00	9482.00	9611.41	9508.70	
Formula of REC				$REC = 100 \{ Pp * (H - (Qs)n * Cs / 1000) / Cp + Ps * (Qs)n \} / (100 - AUXn)$							
J	Rate of Energy Charge for the month (REC)	REC	Rs./kwh	1.8603	1.7940	1.7561	2.3612	3.4682	3.6079	3.6080	
K	Already claimed rate of energy charge (REC1)	REC1	Rs./kwh	1.8700	1.6200	1.4400	1.5200	2.6700	3.2100	3.2100	
L	Diff in REC (J-K)	REC2	Rs./kwh	-0.0097	0.1740	0.3161	0.8412	0.7982	0.3979	0.3980	
M	Amt. of Energy Charge due to variation in fuel data (AxL)/10		Rs.Crs	-0.2852165	8.4323796	9.5967830	22.4779799	9.7824814	3.0127101	7.9860678	61.0031853

61.0031853

Total Amount Payable (Cr)

(Rs Sixty one crore, thirty one thousand, eight hundred and fifty three 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.)

Sukesh Kr. Vij
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Goga Pandey
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S.P. Yadav
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S.K. Yadav
29.6.20
(S.K. Yadav)
AE(Comml.)

Abhishek Srivastava
(Abhishek Srivastava)
EE(Comml.)

Rate of Variable Cost for MOD of the month July'20 as per UPERC Order dt. 21.06.2016 against Petition no.- 1070/2015 according to Energy/FCA Bill of the month May-2020

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 Out by Plants*	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)	(Rs. Crs)	(MU)
	1	2	3	4	5	6	7=(Col. 4X6)/100	8=(Col. 7/12)	9=(Col. 5X6)/100	10=(Col. 9/12)	11=(Col. 8-10)	12	13	14=(Col. 12+13-11)	15	16=(Col 14/Col 15)*10	
Anpara 'A'	630	2	85	73.79	339.55	306.96	86.81	294.7633550	24.4957029	266.4719760	22.1446060	2.3510969	54.9850359	-0.2852165	52.3487225	294.037625	1.780
Anpara 'B'	1000	2	85	82.46	485.68	307.88	97.01	471.1581680	38.0530280	298.6743880	24.1223980	13.9306300	78.5083619	8.4323796	73.0101115	484.619518	1.507
Anpara 'D'	1000	2	85	46.22	1323.02	1088.75	54.38	719.458276	61.9393863	592.0622500	50.9716458	10.9677405	43.7183407	9.5967830	42.3473832	303.5995880	1.395
Obra 'B'	1000	2	80	59.24	453.56	421.89	74.05	335.8611800	24.5829520	312.4095450	22.8664380	1.7165140	40.6164163	22.4779799	61.3778822	267.213265	2.297
H'dnj. Extn	500	2	85	76.31	658.65	532.38	89.78	591.3359700	43.6684950	477.9707640	35.2967940	8.3717010	32.7226576	9.7824814	34.1334380	122.5567700	2.785
Pari.Extn.	420	2	85	62.46	381.95	333.66	73.48	280.6568600	28.0542275	245.1733680	24.5073270	3.5469005	24.3045978	3.0127101	23.7704074	75.715258	3.139
Pari.Extn. Stage-2	500	2	85	96.81	607.06	498.79	100.00	607.0600000	50.5883333	498.7900000	41.5658333	9.0225000	64.4102454	7.9860678	63.3738132	200.654970	3.158
TOTAL					4249.47	3490.31		3300.2938090	275.0244841	2691.5522910	221.4750421	49.9070829	339.2656556	61.0031853	350.3617580	1748.3969940	

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 2014, dt. 16.12.2014 para 34(iv), for n month=(nxACCn-(n-1)xACCn-1)/12

Sawahl
EA (Comml.)

Sawahl
29.06.2020
AE (Comml.)

Abhishek
EE (Commercial), UPRVUNL