



The Registrar,
National Electric Power Regulatory Authority,
NEPRA Tower, Ataturk Avenue (East), G-5/1,
Islamabad

**Subject: APPLICATION FOR TARIFF MODIFICATION OF 7.64 MW MARALA HYDROPOWER PLANT
(MHP) OF PPDCL**

It is submitted that based on the reasons and grounds stated hereunder, this application is being filed with the National Electric Power Regulatory Authority (NEPRA) for the approval of modification of Reference Tariff of 7.64 MW Marala Hydropower Plant (MHP) of Punjab Power Development Company (PPDCL), pursuant to Section 17(3) of NEPRA Standards and Procedure Rules 1998.

1. GROUNDS FOR APPLICATION FOR TARIFF MODIFICATION

- i. The Authority granted Generation License No. IGSPL/42/2014 dated 27.06.2014 to Punjab Power Development Company Limited (PPDCL) for its Marala Hydropower Plant (MHP) assuming COD date of 14.11.2014 for the tenure of 30 years from COD. MHP was actually commissioned on 24.06.2019 on giving operational acceptance by PPDCL to the EPC Contractor. The Gujranwala Electric Power Company Limited (GEPCO) as Power Purchaser however, has notified formal COD date as 28.04.2023, which is effective date of signing of Energy Purchase Agreement (EPA) between PPDCL and GEPCO. Energy delivered from commissioning dated of 24.06.2019 to formal COD date of 27.04.2023 (3 years 10 months) was treated as pre-COD sales. Due to delays in construction period and declaration of formal COD from COD date estimated in Generation License, the Generation License will expire on given expiry date of 13.11.2044 i.e. 8 year & 5 months earlier than 30 years PPA period from formal COD date of 28.04.2023. Approval of Authority is required for determination of COD date and Generation License expiry date.
- ii. In its Determination dated 12.02.2015, based on annual energy benchmark of 49.995 GWh, the Authority determined Reference Tariff of Rs 8.8824/kWh for year 1-20 both for fixed charges and variable charges. For period of 21-30 years, Reference Tariff of Rs 5.6005/kWh was determined.
- iii. The Authority also determined that the power purchaser will be required to bear hydrological risk only to the extent of 43.392 GWh net annual energy generation. Payment on account of hydrology risk shall be made by the power purchaser, on the basis of benchmark monthly energy generation, based on the average historical hydrology for the particular month. Thus, fixed charges of tariff components should have been determined in terms of Rs/kW/hrs instead of Rs/kWh. Based on the Reference Tariff determined in terms of Rs/kWh, the Power Purchaser (GEPCO) has agreed in the EPA that tariff will be on "Take and Pay basis" means on the basis on which, the Power Purchaser will pay to the Seller, the tariff against the delivered kWh only. The Reference Tariff and PPA terms & Conditions are thus not matching each other on this account and this is

REGISTRAR OFFICE

Diary No: 656

Date: 24.5.25

1 | Page

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Forwarded please:

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For kind information, please.

1. Chairman 2. M (Tech)
3. M (Law) 4. M (Dev)

causing revenue loss to PPDCL on account of fixed charge tariff components of O&M cost, debt servicing and Return on Equity.

- iv. As part of fixed charges tariff component, Authority has determined insurance charge of Rs 0.9630/kWh with indexation of US\$/PKR. The Authority has also determined adjustment in Insurance Component that in case of insurance denominated in US\$, insurance cost component of tariff will be adjusted on account of US\$/PKR exchange rate variation on actual basis. Further insurance component of reference tariff will be adjusted as per actually incurred prudent costs, subject to the maximum ceiling of 1.35% of the approved EPC cost, on annual basis up on production of authentic documentary evidence by the petitioner. The adjustment in reference tariff component annually on actual basis is confusing and PPDCL is not able to recover actual incurred insurance cost from the power purchaser through billing on delivered kWh basis.

2. BASIS FOR TARIFF MODIFICATION

2.1 ACTUAL HYDROLOGY (WATER FLOWS)

The Punjab Irrigation Department has provided actual monthly water flows data from plant operation year 2019 to 2024, which shows significant drop in the water flows as compared to the average historical water flows data adopted in the Tender Design Report and SINOTECH Design Report. The summary of actual mean monthly water flows (m³/s) from 2019 to 2024 provided by Punjab Irrigation Department as compared to average historical water flows has been shown in the table below:

Month/Yr	2019	2020	2021	2022	2023	2024	6Y Avg	T.D Avg
Jan	2	11	-	-	2	15	5	54
Feb	126	144	124	32	137	127	115	192
Mar	159	157	170	151	181	179	166	235
Apr	177	182	171	185	219	185	187	270
May	235	235	221	248	270	275	247	342
Jun	318	300	289	275	341	349	312	420
Jul	339	364	324	300	317	351	333	420
Aug	343	318	362	327	367	331	341	420
Sep	389	326	294	353	359	288	335	403
Oct	234	280	242	280	267	221	254	329
Nov	175	143	237	162	147	159	171	200
Dec	145	119	106	88	122	85	111	202

2.2 ACTUAL GENERATION

After connecting 11 KV transmission network of GEPCO, the commissioning tests of Marala HPP were started in 2018. PPDCL gave operational acceptance to EPC Contractor on 24.06.2019 on successfully completing all the defined commissioning tests. As stated above, the GEPCO has however, notified formal COD effective from 28.04.2023. The energy delivered in kWh terms to GEPCO during FY 2018-19 to FY 2023-24 has been shown in the table below:

Month	Year 2018	Year 2019	Year 2020	Year 2021	Year 2022	Year 2023	Year 2024
January	(76,080)	(11,950)	111,530	(18,816)	(15,738)	(20,515)	99,358
February	(65,280)	2,020,978	2,028,551	1,483,792	106,109	1,411,860	1,189,370
March	114,000	2,565,550	2,460,459	3,149,897	1,201,786	3,185,380	1,142,566
April	322,000	2,632,550	2,849,180	3,083,461	2,445,178	3,387,580	1,107,753
May	11,000	3,614,400	3,757,262	3,925,704	2,653,362	3,855,119	1,332,223
June	(61,000)	3,676,018	4,063,069	3,824,720	2,474,072	3,614,621	1,082,685
July	5,650	2,823,647	4,198,695	3,920,079	2,135,137	2,077,374	250,497
August	(10,100)	2,290,742	3,893,233	2,995,931	1,249,913	1,123,781	474,418
September	(4,400)	3,596,289	3,925,072	2,556,454	1,145,934	2,855,709	1,111,976
October	61,000	3,672,010	4,596,105	2,513,317	(12,457)	3,285,991	2,559,571
November	2,323,000	2,312,275	2,425,340	2,402,174	1,248,457	2,043,768	2,180,405
December	1,204,200	1,815,459	2,022,004	1,663,007	1,570,293	1,701,900	
Total	3,823,990	31,007,968	36,330,500	31,499,720	16,202,046	28,522,568	12,530,822
		kWh	kWh	kWh	kWh	kWh	kWh
		FY 2018-19	FY 2019-20	FY 2020-21	FY 2021-22	FY 2022-23	FY 2023-24
	168,040	18,076,896	31,780,473	36,509,207	24,915,731	22,771,322	19,042,478

2.3 FINANCIAL LOSS SUSTAINED

Due delays in declaring formal COD and owing to billing Energy on actual kWh delivered basis instead of billing based on monthly energy benchmark calculated on average historical data, PPDCL has sustained a substantial financial loss as shown in the table below:

Financial Year	2019-20	2020-21	2021-22	2022-23	2023-24
Energy delivered (GWh)	31.780	36.509	24.916	22.771	19.042
Fixed charge rate (Rs/kWh)	7.4316	7.4316	7.4316	7.4316	7.4316
Power sale Revenue (Mln.Rs)	236.18	271.32	185.16	169.23	141.52
Less: O&M expenses (Mln.Rs)	50.66	50.66	50.66	50.66	50.66
Less: Debt Servicing cost (Mln.Rs)	164.08	164.08	164.08	164.08	164.08
Total expenses (Mln.Rs)	214.75	214.75	214.75	214.75	214.75
Revenue surplus/(short) (Mln.Rs)	21.43	56.58	(29.58)	(45.52)	(73.23)
Equity Invested (USD 8.961 Mln)	922.36	922.36	922.36	922.36	922.36
Return on Equity (%)	2.32%	6.13%	-3.21%	-4.93%	-7.94%

2.4 REFERENCE TARIFF HYDROLOGY AND GENERATION

Based on Tender Design Report, NEPRA has assessed annual generation benchmark of 49.995 GWh for MHP with following details:

Installed Capacity (MW)	7.640
Auxiliary load	1.0%
Net capacity (MW)	7.564
Annual Capacity Factor	75.5%
Net Generation (GWh)	49.995

It may be noted that the installed capacity of 7.64 MW was proposed in Tender Design Report - 2010 considering the future remodeling of UCC. Based on average historical water flows, it was

estimated that proposed installed capacity of 7.64 MW will generate an average annual energy of about 50 GWh at a plant factor of 75% as shown in the table below:

MONTH	FLOWS (m3/s)	TURBINES (no.)	POWER (MW)	ENERGY (GWh)	Cum.
Jan	53.8	1.0	0.565	0.420	0.420
Feb	191.6	2.0	3.959	2.661	3.081
Mar	235.3	2.0	4.887	3.636	6.717
Apr	269.7	3.0	5.706	4.108	10.825
May	341.7	3.0	7.600	5.436	16.261
Jun	420.0	4.0	7.640	5.472	21.733
Jul	420.0	4.0	7.640	5.654	27.387
Aug	420.0	4.0	7.640	5.654	33.041
Sep	402.9	4.0	7.600	5.456	38.497
Oct	328.5	3.0	6.629	4.865	43.362
Nov	199.6	2.0	4.828	3.476	46.838
Dec	201.9	2.0	4.627	3.442	50.280

The EPC Contractor (SINOTECH) in its Plant Design Report-2012 noted that UCC is a perennial canal with variation in discharges in Rabi and Kharif seasons. UCC remained closed normally from 26th December to 14th January (20 days) each year for annual maintenance purpose. Therefore, adopting almost same historical water flows (1984-2011), SINOTECH estimated 43.83 GWh annual energy at a plant factor of 65.5%, as shown in the table below:

MONTH	FLOWS (m3/s)	TURBINES (no.)	POWER (MW)	ENERGY (GWh)	Cum.
Jan	53.8	0.6	0.477	0.355	0.355
Feb	191.6	1.9	3.448	2.317	2.671
Mar	235.3	2.3	4.210	3.132	5.804
Apr	269.7	2.6	4.796	3.453	9.257
May	341.7	3.3	6.254	4.653	13.910
Jun	420.5	4.0	6.534	4.704	18.614
Jul	434.2	4.0	6.884	5.122	23.736
Aug	420.9	4.0	7.017	5.221	28.957
Sep	402.9	3.9	6.707	4.829	33.786
Oct	328.5	3.2	5.295	3.940	37.726
Nov	199.6	2.0	4.282	3.083	40.809
Dec	201.9	2.0	4.056	3.018	43.826

Authority in its Determination has referred both above mentioned annual energy numbers, but preferred to adopt higher number of annual energy 49.995 GWh with 75.5% plant factor of 7.64 MW capacity.

2.5 STATUS OF REMOLDING OF UCC

In its Determination dated 12.02.2015, the Authority directed that after re-modelling of the canal, the petitioner shall apply to the Authority with full authentic documentary evidence for reconsideration of hydrological risk mechanism allowed to it through this determination.

In the meeting held on 26.09.2013 of the co-ordination committee for implementation of hydel projects on Canals/Barrages in Punjab, regarding designing of Marala HPP, it was discussed that based on satisfactory discharge of 555 Cumics (19,600 Cusics) **on model**, Spillway crest of the Marala HPP has been proposed to be designed. As was reflected in the Tender Design Report, to meet with the future requirement, the Punjab Irrigation Department desired to enhance the discharge capacity up to 27,000 Cusics. It was however, concluded that probability of future requirement for UCC beyond 21,500 is very low as well as assured availability of water beyond that capacity is also uncertain. Therefore, NOC was issued to proceed with the spillway design as proposed by the EPC Contractor (SINOTECH).

The Punjab Irrigation Department through letter dated 07.04.2025 has now confirmed that no feasibility study of remodeling has so far carried out and their office has no such plan to conduct any feasibility study to remodel or increase the capacity of UCC from sanctioned design capacity 16,850 Cs. Hence, annual energy of about 50 GWh at plant factor of 75%, as conceived in Tender Design Report, is unlikely. It is therefore advisable, annual Energy benchmark of 43.826 GWh calculated by SINOTEC (EPC Contractor) may be adopted, subject to making following adjustments.

2.6 CANAL CLOSURE DAYS

Each year in routine, the Punjab Irrigation Department issues notice for annual canal closer for maintenance purposes effective from 26th December to 14th January (20 days), but it is later extended for further days. Daily water flows data provided by the Punjab Irrigation Department from Jul 2018 to Feb 2025 shows that UCC remained closed for more than 20 days each years as shown in the table below;

From	To	Days
26.12.2018	30.01.2019	36
26.12.2019	27.01.2020	33
26.12.2020	31.01.2021	37
31.12.2021	07.02.2022	39
26.12.2022	27.01.2023	33
26.12.2023	24.01.2024	30
26.12.2024	25.01.2025	31
Average		34

The table shows that on average, from year 2019 to 2025, UCC remained closed for 34 days as against annual scheduled 20 days closure for maintenance purposes. Therefore, annual energy benchmark needs to be adjusted for the additional 14 days canal closure each year.

2.7 SCHEDULED AND FORCED OUTAGES DAYS OF POWER PLANTS

In the Tender design report and EPC Contractor design Report, no allowance for schedule outage for maintenance and forced outage for unexpected events have been accounted for. But it is customary allowed to the power producers in the commercial EPA. NTDC/CPPA-G has signed Power Purchase Agreement (PPA) dated 24.01.2011 amended later from time to time, with WAPDA for its Hydel power plants. The Schedule-2 Annexure-1 of said PPA contains the table indicating the forced and scheduled outages days for each Hydel power Plant. Hydel power plants of Nandipur and Chichoki are located on UCC for which 900 hours in a year has been allowed. This comprises of 528 hours for annual maintenance, 48 hours for monthly maintenance, 224 hour for other scheduled maintenance and 100 hours for forced outages. It is therefore proposed, on the analogy of WAPDA hydel power plants on UCC, 900 hour (37.5 days) annual forced and scheduled outage may be allowed for Marala Hydropower Plant.

2.8 REVISED ANNUAL ENERGY BENCHMARK FOR MARALA HPP

As stated above, annual generation of about 50 GWh at 75% plant factor for 7.64 MW capacity as conceived in Tender Design Report based on remodeling of UCC is not likely as it was just a theoretical calculation.

The SINOTECH (EPC Contractor) in its design report has calculated annual energy of 43.83 at 65% plant factor for 7.64 MW capacity of Marala HPP. The SINOTECH while calculating the annual energy has taken into consideration of average water flows including 20 days prescribed closure of canal for annual maintenance purpose. SINOTECH however, has not taken into account factors of auxiliary consumption and forced & scheduled maintenance of Marala HPP, which is generally allowed for determining Reference Tariff of a power plant. In view of above, annual energy benchmark calculated by SINOTECH (EPC Contractor) need to be adjusted by taking into account;

- i. 1% auxiliary consumption,
- ii. Actual average annual canal closure days of 34 days as against 20 days and
- iii. 900 hours (37.5 days) for annual forced and schedule maintenance of MHP.

After adjusting the aforesaid factors, the adjusted annual energy is worked out as 33.682 GWh as shown in the table below:

	Tender Design	SINOTECH Design	Revised Energy
Installed Capacity (MW)	7.64	7.64	7.64
Auxiliary Load (Consumption)	0%	0%	1%
Net Capacity (MW)	7.64	7.64	7.56
Average Annual Outages			
Low Water flows standby (days)	77.34	105.95	105.95
Canal closure standby (days)	15.00	20.00	34.00
Scheduled & Forced outage (days)	-	-	37.50
Total average annual outages	92.34	125.95	179.45
Low Water flows standby capacity factor (%)	21.2%	29.0%	29.0%
Canal closure standby capacity factor (%)	4.1%	5.5%	9.3%

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Scheduled & Forced outage capacity factor (%)	0.0%	0.0%	10.3%
Total average annual outages	25.3%	34.5%	48.6%
Net operating hours plant capacity factor	74.7%	65.5%	51.4%
Annual Energy Benchmark (GWh)	49.995	43.832	34.045

It is therefore, proposed revised annual energy benchmark of 34.045 GWh may be adopted for determining revised Reference Tariff of Marala HPP by the Authority as against 49.995 GWh.

2.9 ANNUAL REVENUE REQUIREMENT

In its Determination dated 12.02.2015, Authority has assessed annual revenue requirement of Marala HPP in indexing fixed charges tariff components based on 49.995 GWh annual energy benchmark as shown below;

Tariff Components	Yrs 1-20		Yrs 21-30		Indexation
	Rs/kWh	Mln.Rs	Rs/kWh	Mln.Rs	
Fixed Charge					
O&M- Fixed- Local	0.8107	40.53	0.8107	40.53	CPI- General
O&M- Fixed- Foreign	0.2027	10.13	0.2027	10.13	US\$/PKR & US CPI
Debt Servicing	3.2820	164.08	-	-	JPY/PKR & LIBOR
Return on ROEDC	0.5603	28.01	0.5603	28.01	USD/PKR
Return on Equity	2.5760	128.79	2.5760	128.79	USD/PKR
Total fixed charge	7.4316	371.54	4.1497	207.46	

2.10 ONE-TIME ADJUSTMENTS ON COD

PPDCL has submitted Application dated 14.07.2023 to the Authority for approving One-time adjustments in the Reference Tariff on COD. In the said Application, PPDCL has requested to approve actual project cost (excluding IDC) of Rs 4,009.2 million (equal to USD 40.9 million as against project cost of USD 36.8 million assessed by the Authority in the determination of Reference Tariff of MHP. Owing to increase in actual project cost, the tariff components of debt servicing, ROE and ROEDC have been increased. The decision of the Authority is however awaited on the said application of PPDCL. The Authority is also requested to approve COD date of MHP.

3. PROPOSED TARIFF MODIFICATION

Pending approval of the Authority of One-time adjustment on COD, the PPDCL has proposed modification in the Reference Tariff based on revised annual energy benchmark of 34.045 GWh as against 49.995 GWh. Proposed revised fixed charges components in comparison of determined rates and change in rates has been shown in the table below:

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Tariff Components	Yrs 1-20 (Rs/kWh)		Yrs 21-30 (Rs/kWh)		Rate Change	
	Ref.Tariff	Rev. Ref Tariff	Ref.Tariff	Rev. Ref Tariff	Rs/kWh	Indexation
Fixed Charge					(Year 1-20)	
O&M- Fixed- Local	0.8107	1.1905	0.8107	1.1905	0.3798	CPI- General/NCPI
O&M- Fixed- Foreign	0.2027	0.2977	0.2027	0.2977	0.0950	US\$/PKR & US CPI
Debt Servicing	3.2820	4.8195			1.5375	JPY/PKR & LIBOR
Return on ROEDC	0.5603	0.8228	0.5603	0.8228	0.2625	USD/PKR
Return on Equity	2.5760	3.7828	2.5760	3.7828	1.2068	USD/PKR
Total fixed charge	7.4316	10.9132	4.1497	6.0937	3.4816	
Fixed Charge Change (yrs 21-30)					1.9441	

The above revision in fixed charge tariff component has been proposed based on the annual revenue requirement already approved by the Authority in the said tariff component as shown hereunder:

	Ref. Tariff	Rev Ref.Tariff	Change
Annual Energy benchmark (GWh)	49.995	34.045	(15.95)
Fixed Charge tariff (Rs/kWh)	7.4316	10.9132	3.4816
Revenue (Mln.Rs)	371.54	371.54	-
Less: O&M Cost (Mln.Rs)	50.66	50.66	-
Less: Debt servicing cost (Mln.Rs)	164.08	164.08	-
Total deductions	214.75	214.75	-
Revenue surplus (Mln.Rs)	156.80	156.80	-
Equity Invested (USD 8.961 Mln)	922.36	922.36	-
Return on Equity (%)	17.0%	17.0%	-

4. PASS-THROUGH ITEMS

The Authority is requested to approve following costs on actual basis as pass-through items:

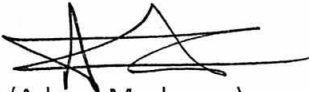
- Insurance Component shall be Pass-Through Item as per the provision of EPA, subject to a maximum limit to be capped at 1.35% of EPC cost.
- Effective from COD, Governmental impositions such as Income Tax, Sales Tax, Excise Duty or other Duty, levy, charge, surcharge wherever and whenever payable on the sale of Electricity by the Seller to the Purchaser during the term.
- Effective from COD, income tax withheld at the prescribed rates on the payments of dividends by the Seller during the term.

5. DETERMINATION SOUGHT

The learned Authority is kindly requested to approve the Company's requested modified Reference Tariff, along-with the pertinent adjustments, indexations, in accordance with the grounds, parameters and assumptions mentioned above. The Petitioner would be pleased to provide any further information, clarification, or explanation that may be required by the Authority during its evaluation process.

Copy of PPDCL BOD's authorizing the CEO PPDCL to file tariff modification petition of Marala HPP, ABL bank cheque No. 8061387900 amounting Rs 340,239(Rs 373,889- WHT Rs 33,650) in original as tariff modification fee and affidavit has been attached.

For and on behalf of PPDCL



(Adnan Mudassar)
Chief Executive Office



Annexures

Description	Annexure#	Pages
BOD resolution authorizing CEO to file tariff modification petition in NEPRA	1	1
Affidavit signed by CEO	2	2
Tariff modification Petition filing fee cheque	3	3
Actual monthly Water flows data Upper Chenab Canal from Jul 2018 to Jun 2023 provided by Punjab Irrigation Department	4-A	4-10
Actual monthly Water flows data Upper Chenab Canal from Jul 2023 to Feb 2025 provided by Punjab Irrigation Department	4-B	11-14
Upper Chenab Canal closure notifications issued by Punjab Irrigation Department for 2024-25	5	15-19
Extracts of Power Purchase Agreement dated 24.01.2011 signed between WAPDA and NTDC/CPPA-G	6	20-24
Minutes of the Coordination committee dated 28.10.2013 for implementation of hydel power plants on canal/barrages in Punjab	7	25-29
Punjab Irrigation Department letter dated 07.04.2025	8	30-31




Annexure 1



PUNJAB POWER DEVELOPMENT COMPANY LIMITED
ENERGY DEPARTMENT
GOVERNMENT OF THE PUNJAB

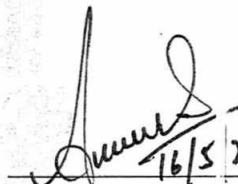
Board Resolution
of Punjab Power Development Company Limited

Agenda Item 3: Approval of Filing of Tariff Modification Petitions of MHP, PHP and CHP

The aforementioned agenda was presented in the 82nd Meeting of Board of Directors of Punjab Power Development Company Limited (PPDCL) held 24th April 2025 at 2:30 PM in conference Room of PPDCL, 2-A Zafar Ali Road, Gulberg-V, Lahore.

After the due deliberation and discussion, the Board unanimously:

RESOLVED to authorize the CEO to file tariff modification petitions of MHP, PHP and CHP in NEPRA based on true-up tariff (modified) along with payment of Rs. 373,889/- as modification fee for each application to the Authority


16/5/2025
Company Secretary
PPDCL


Annexure 2

E-STAMP



ID : PB-LHR-EA84066162D8E61E
Type : Low Denomination
Amount : Rs 100/-



Scan for online verification



Description : CERTIFICATE OR OTHER DOCUMENT- 19
Applicant : ADNAN MUDASSAR [35202-1294375-9]
S/O : GHULAM RASOOL TARIQ BHATTI
Agent : MUHAMMAD SHABBIR [00000-0000000-0]
Address : LAHORE
Issue Date : 15-May-2025 3:31:10 PM
Delisted On/Validity : 22-May-2025
Amount in Words : One Hundred Rupees Only
Reason : AFFIDAVIT
Vendor Information : Ali | PB-LHR-147 | Raja Cetnre Gulberg

نوٹ: یہ سرٹیفکیٹ تاریخ اجرا سے سات دنوں تک کے لیے قابل استعمال ہے، ای اسٹامپ کی تصدیق بذریعہ ویب سائٹ، کیو آر کوڈ سے کی جا سکتی ہے۔

BEFORE NATIONAL ELECTRIC POWER REGULATORY AUTHORITY,

ISLAMABAD

Application for Tariff Modification

Punjab Power Development Company Ltd (PPDCL)/ Applicant/ Petitioner

AFFIDAVIT

I Adnan Mudassar Chief Executive Officer Punjab Power Development Company Limited, do hereby solemnly affirm and declare that the contents of the above captioned Application for modification in Reference Tariff of Marla Hydropower Plant Distt. Sialkot, are true and correct to the best of my knowledge and belief and nothing has been concealed therein.


DEPONENT

VERIFICATION

Verified on oath 15th May 2025 that the content of the Affidavit are true and correct to the best of my knowledge and belief and nothing has been concealed therein.


DEPONENT

ATTESTED
SYED DANISH BUKHARI ADVOCATE
HIGH COURT
Oath Commissioner District Court, Lahore
Licence No. 278/General 5.96/11
Renewal Date: 17-12-2022 Expiry Date: 16-12-2025
Office # 15-G, Main Market, Raja Centre, G. Marg-II, Lahore
Cell No. 0333-4636126

Annexure 3



Payee's Account only

PLS100



Cheque No 8061387900

THE BANK OF PUNJAB
TRICON CENTER BRANCH LAHORE 73-E TRICON
CENTER MAIN JAIL ROAD

Date 1 6 0 5 2 0 2 5

Pay to National Electric Power Regulatory Authority or bearer
Rupees Three Hundred Forty Thousand Two Hundred Thirty-Nine Only

PKR 340,239/-

PK10 BPUN 6580 0397 5250 0018
PUNJAB POWER DEVELOPMENT COMPANY LT
Please do not write below this line.



[Signature]

Authorized Signatory

[Signature]

Authorized Signatory

⑈61387900⑈0830069⑈6580039752500018⑈000⑈

Annexure 4-A

Annex-4-A



GOVERNMENT OF THE PUNJAB
IRRIGATION DEPARTMENT

MARALA DIVISION UCC, MARALA
Ph: 92-52-3502102
Fax: 92-52-3502102
E-Mail: xenmrlbrg@yahoo.com

To

The General Manager (Hydel)-PPDCL,
Punjab Power Development Co. LTD,
Energy Department Government of the Punjab,
Lahore.

No. 1745/9.R

Dated: 28-12-2023

Subject:-

REQUIREMENT OF THE CANAL DISCHARGE DATA DURING THE
PERIOD OF JULY 2018 TO JUNE 2022.

Kindly refer to your office letter No. PPDCL/670/2023 dated 23.11.2023,
the requisite information i.e. average daily discharge of Upper Chenab Canal Main Line
Upper for the period July 2018 to June 2023 is attached for information.

D.A.
As Above

Executive Engineer,
Marala Division UCC,
Marala.



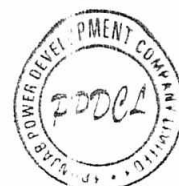
**DISCHARGE DATA OF UPPER CHENAB CANAL (MLU) AT MARALA
BARRAGE**

July 2018 to December 2018

DISCHARGE IN CUSEC

DATE	Jul-18	Aug-18	Sep-18	Oct-18	Nov-18	Dec-18
1	12800	12950	13875	14510	6900	4375
2	12800	13050	13875	14050	5574	4774
3	13000	13400	13875	12518	5840	4375
4	10700	13423	13875	11983	8000	4109
5	10700	13423	13900	13321	8000	4109
6	10750	13423	13900	12652	7700	3842
7	11500	13200	13875	11582	7700	3842
8	13050	13100	13875	11448	7700	3842
9	13100	12300	14075	10379	7041	4109
10	13123	13600	14175	10379	6640	5840
11	13123	13623	14100	9845	7307	3842
12	13000	13500	14100	9978	7174	3842
13	13075	13600	14100	9845	6507	3842
14	13123	13500	14100	9845	6640	4000
15	13123	12405	14100	8509	6507	4000
16	13123	13723	14100	7441	6640	3500
17	13050	13723	14000	7441	6640	4109
18	13050	13723	14000	7174	6640	4109
19	13300	13723	14510	6907	6507	4109
20	13423	13723	14000	6507	6507	4109
21	12923	12500	14000	5000	6507	3044
22	12923	12600	13187	5000	6507	2513
23	13423	12600	14124	5000	6507	3177
24	13300	12650	12700	5000	5840	3177
25	13200	12650	13588	5000	5174	3177
26	13250	12750	14100	5000	5174	Nil
27	13300	13800	14250	5000	5574	Nil
28	13200	13900	14350	6900	5574	Nil
29	12050	13900	14400	6900	5574	Nil
30	10900	13875	14510	6900	4375	Nil
31	11000	13875		6900		Nil

(Signature)
Sub Divisional Officer
Headworks Sub. Division
Marala Distt. Sialkot



DISCHARGE DATA OF UPPER CHENAB CANAL (MLU) AT MARALA BARRAGE

January 2019 to December 2019

DISCHARGE IN CUSEC

DATE	Jan-19	Feb-19	Mar-19	Apr-19	May-19	Jun-19	Jul-19	Aug-19	Sep-19	Oct-19	Nov-19	Dec-19
1	Nil	3400	6000	5500	7000	9200	12523	10200	13400	12750	4700	6400
2	Nil	3400	6000	5500	7000	9200	12723	10200	13450	12750	5840	6400
3	Nil	3400	6100	5500	7000	9200	12723	10200	13700	13300	5041	6400
4	Nil	3400	6100	5500	7000	9200	12723	10350	13700	13250	4700	6550
5	Nil	3400	6100	5500	7500	9250	12723	11100	13700	12300	5840	6550
6	Nil	3400	6100	5500	8000	9250	13323	12050	13700	10900	4774	6550
7	Nil	3400	6100	5500	8700	9200	13323	12050	13650	11150	5440	6550
8	Nil	4000	6100	5500	8800	9400	13323	12050	13650	9845	6800	6550
9	Nil	5000	6100	5700	8800	10650	13323	12080	13650	9978	6800	6550
10	Nil	4500	6100	6500	8300	10675	13323	12080	13700	9978	6800	4774
11	Nil	4500	6100	6500	8300	10850	13300	12000	13700	11047	6800	5307
12	Nil	4500	6100	7000	8300	10950	13150	12000	13730	9444	6800	5440
13	Nil	4500	6100	7000	8300	11150	13750	12000	13730	8776	6800	5440
14	Nil	4500	6100	7000	8300	11225	13150	12000	13730	8242	6800	6600
15	Nil	4500	6100	7000	8300	11875	12800	12050	13750	9444	6700	6600
16	Nil	4500	6100	7000	8300	11875	12750	12300	13750	9577	6700	6600
17	Nil	4500	6100	7000	8300	11875	10500	12400	13700	9310	6550	6600
18	Nil	4000	6100	5900	8300	12100	10500	12400	13700	9177	6550	6600
19	Nil	5000	5000	5900	8300	12200	10750	12500	13750	7574	6550	6600
20	Nil	5000	5000	5900	8300	12300	11500	12600	13800	9577	6550	6600
21	Nil	5000	5000	5700	8300	12400	11500	12600	13850	4700	6550	6600
22	Nil	5300	5000	5700	8300	12523	11530	12650	13900	4700	6550	6600
23	Nil	5300	5000	5700	8500	12523	11780	10450	13900	4700	6550	6600
24	Nil	5300	5000	6200	8600	12523	12280	10480	13950	4700	5174	6600
25	Nil	5000	5000	6900	8600	12523	12000	13321	13950	4700	5174	6600
26	Nil	5000	5000	7000	8700	12523	9950	13380	13950	4700	6450	Nil
27	Nil	5000	5000	7000	8900	12523	9950	13380	14100	3177	6450	Nil
28	Nil	6000	5000	7000	9000	12523	10400	13350	14100	2513	6400	Nil
29	Nil		5000	7000	9150	12523	9700	13350	13800	4700	6400	Nil
30	Nil		5000	7000	9150	12523	9700	13350	13200	4700	6400	Nil
31	2000		5000		9150		10200	13250		4700		Nil

Sub. Divisional Officer
Headworks Sub. Division
Marala Distt. Sialkot



DISCHARGE DATA OF UPPER CHENAB CANAL (MLU) AT MARALA BARRAGE

January 2020 to December 2020

DISCHARGE IN CUSEC

DATE	Jan-20	Feb-20	Mar-20	Apr-20	May-20	Jun-20	Jul-20	Aug-20	Sep-20	Oct-20	Nov-20	Dec-20
1	Nil	2900	7200	4400	7600	9600	12723	13223	5700	13725	4774	5174
2	Nil	2900	7400	5200	7600	9600	12973	13223	5650	13187	5041	5174
3	Nil	2900	6507	5200	7700	9600	13223	13123	8250	13187	5174	5307
4	Nil	2900	7400	5400	7700	9650	13223	13223	8300	12251	5174	5307
5	Nil	2900	7400	5900	7700	9800	12175	13223	6200	12251	4907	5174
6	Nil	2900	7400	6100	7700	9800	12700	13323	6250	12251	4907	5174
7	Nil	2900	6400	6400	7700	9900	12723	13323	6350	11850	4907	5307
8	Nil	2900	4900	6400	7700	9900	12923	13323	10050	11983	4907	5307
9	Nil	2900	4900	6400	7700	10000	13023	13323	11400	11983	4907	5307
10	Nil	2900	4900	6600	7900	10050	13023	13323	12150	11850	4907	5174
11	Nil	2900	4900	6700	7900	10050	13023	13323	12650	11716	4907	5174
12	Nil	2900	4900	6700	7900	10080	12800	13023	12650	11716	5307	5174
13	Nil	5400	5500	6700	7900	10350	13123	13023	12650	11716	5307	5174
14	Nil	5400	5500	6700	7900	10400	13223	13023	13150	11716	5041	5174
15	Nil	5900	5500	6700	8000	10500	13223	12923	13250	11047	5041	5174
16	Nil	5900	5500	6700	8000	10600	13223	12923	13300	9400	4907	5174
17	Nil	6700	6000	6700	8000	10600	13223	12923	13300	7900	4907	5174
18	Nil	6700	6000	6600	8000	10800	13223	12923	13250	7901	4907	5174
19	Nil	6900	6000	6600	8000	11000	13223	12523	13250	7902	5041	5174
20	Nil	7100	5000	6400	8000	11025	13200	11700	13300	7903	5041	5174
21	Nil	7100	5100	6400	8000	11050	12100	10200	13300	7904	5041	5174
22	Nil	7200	5100	6400	8000	11075	12100	10100	13300	7905	4774	5174
23	Nil	6507	5100	6400	9300	11075	12123	10100	13300	7906	4774	5174
24	Nil	6507	5100	7000	9300	11075	12123	10100	13600	7907	5174	5174
25	Nil	6700	5600	7000	9400	11075	12123	10300	13600	7907	5174	5174
26	Nil	6640	5500	7000	9400	11075	12223	5000	13575	7907	5174	Nil
27	Nil	7200	5500	7000	9500	11400	12723	9300	13625	7907	5174	Nil
28	2900	7200	3900	7000	9500	11800	13223	5000	13650	7907	5440	Nil
29	2900	7200	3900	7200	9500	12060	13223	5650	13600	7800	5174	Nil
30	2900		3900	7200	9550	12610	13223	5700	12518	6640	5174	Nil
31	2900		3900		9550		13223	5700		5174		Nil

Sub. Divisional Officer
Headworks Sub. Division
Marala Dist. Sialkot



DISCHARGE DATA OF UPPER CHENAB CANAL (MLU) AT MARALA BARRAGE

January 2021 to December 2021

DISCHARGE IN CUSEC

DATE	Jan-21	Feb-21	Mar-21	Apr-21	May-21	Jun-21	Jul-21	Aug-21	Sep-21	Oct-21	Nov-21	Dec-21
1	Nil	3000	5000	5950	7400	8600	11900	11200	13275	11500	11500	4774
2	Nil	3700	6500	5950	7500	8700	11900	11250	13275	11750	11750	4508
3	Nil	3700	6500	5950	7600	8800	11900	12300	13275	10750	10750	4508
4	Nil	3700	6500	5950	7600	8900	11900	12300	13275	10500	10500	4508
5	Nil	3700	6500	5950	7600	9000	11900	12300	13275	9700	9700	4508
6	Nil	3700	6500	5950	7600	9150	11900	12400	13275	9000	9000	4508
7	Nil	3700	6500	5950	7600	8350	11900	12400	13275	9000	9000	4508
8	Nil	3700	6500	5950	7600	9600	11923	12400	13275	9200	9200	4375
9	Nil	3700	5574	5950	7600	9750	11923	12400	12500	9200	9200	4375
10	Nil	3700	5174	5950	7600	9775	11923	12400	12900	9650	9650	4375
11	Nil	4200	5840	5950	7600	10050	11923	12330	9700	9750	9750	4375
12	Nil	4200	5840	5950	7600	9450	11923	12400	6650	9750	9750	4375
13	Nil	4500	5574	5950	7600	9550	10425	12400	6650	9750	9750	4375
14	Nil	4500	6374	5950	7600	9650	11725	12430	6700	9750	9750	3576
15	Nil	4500	6700	5950	7600	10250	11725	12450	8250	9750	9750	4774
16	Nil	4500	6700	5950	7600	10400	11725	12450	9100	7700	7700	4375
17	Nil	4500	6700	5950	7600	10500	11775	12950	9100	7700	7700	4375
18	Nil	5000	6700	5950	7600	10500	11825	13775	9100	7174	7174	4375
19	Nil	5000	5307	5950	7650	10650	12425	13775	9100	7700	7700	3576
20	Nil	5000	5307	6050	7650	10700	11975	13775	9100	7700	7700	2513
21	Nil	5000	5307	6200	8150	10800	9750	13775	9100	7174	7174	2513
22	Nil	5000	5307	6300	8150	10850	9750	13275	8525	7174	7174	3576
23	Nil	5000	6200	5900	8150	10950	10750	13275	8525	6907	6907	2513
24	Nil	5000	6200	6000	8150	11075	10850	13275	8325	7300	7300	3177
25	Nil	5000	5800	6000	8150	11075	11100	13275	8975	7300	7300	3177
26	Nil	5000	5800	6000	8150	11800	11250	13275	9725	7300	7300	3177
27	Nil	5000	5800	6200	8250	11800	11250	13275	10225	7300	7300	3177
28	Nil	5000	5800	6400	8350	11800	11150	13275	10750	7200	7200	2911
29	Nil		5800	6600	8300	11800	10600	13275	10950	7200	7200	2911
30	Nil		5800	6800	8350	11800	10600	13275	11500	7200	7200	2911
31	Nil		5800		8500		10650	13275		7200	7200	Nil

Sub. Divisional Officer
Headworks Sub. Division
Marala Distt. Sialkot



DISCHARGE DATA OF UPPER CHENAB CANAL (MLU) AT MARALA BARRAGE

January 2022 to December 2022

DISCHARGE IN CUSEC

DATE	Jan-22	Feb-22	Mar-22	Apr-22	May-22	Jun-22	Jul-22	Aug-22	Sep-22	Oct-22	Nov-22	Dec-22
1	Nil	Nil	2600	6250	7250	9100	11470	10150	12500	12450	6950	5863
2	Nil	Nil	2600	6250	7250	9100	11520	10200	12500	12475	5299	4584
3	Nil	Nil	3100	6250	7250	9100	11445	10450	12500	12475	6950	5485
4	Nil	Nil	3400	6250	7350	9100	11520	10750	12500	12475	4075	4936
5	Nil	Nil	3900	6250	7250	9100	11520	11850	12500	12475	6950	5299
6	Nil	Nil	4400	6250	7450	9100	11520	11750	12350	12500	5672	3282
7	Nil	Nil	4900	6250	7550	9100	11470	10750	12450	12500	6950	3749
8	Nil	Nil	4900	6250	7650	9150	11420	10700	12500	12500	6950	3749
9	Nil	700	4900	6250	7750	9200	11420	10850	12580	12500	6950	2984
10	Nil	1300	5000	6250	7850	9200	11420	10850	12580	12500	6056	3282
11	Nil	1300	5100	6250	7850	9600	11420	10850	12505	12500	6950	3131
12	Nil	1300	5100	6250	7850	9600	11320	12100	12430	12350	6950	3131
13	Nil	1300	5100	6300	7850	9650	11400	12200	12480	11250	6950	3749
14	Nil	1300	5100	6300	7850	9700	11550	12450	12480	10300	6950	3749
15	Nil	1200	5450	6300	10000	9900	10300	12450	12480	9100	6449	3749
16	Nil	1200	5450	6300	10000	9900	10050	12400	12530	8000	6850	4412
17	Nil	1200	6250	6500	10000	9900	10300	12500	12530	8000	5672	3749
18	Nil	1200	6250	6500	10000	9950	10500	12550	12480	7800	6850	3282
19	Nil	1200	6250	6500	10000	9950	10750	12550	12480	7800	5672	5117
20	Nil	1200	6250	6500	10000	9950	11250	9600	12505	7700	4584	3282
21	Nil	1400	6250	6500	10000	9950	11500	9600	12505	7700	4584	2697
22	Nil	1400	6250	6500	10000	9850	8900	9600	13505	7700	5672	3282
23	Nil	1400	6250	6900	10000	9850	9000	12375	12505	7700	4584	3282
24	Nil	1700	6250	6900	10000	10100	9000	12375	12430	7700	4584	3749
25	Nil	2200	6250	6900	10000	10350	9050	12300	12430	7650	4759	2984
26	Nil	2600	6250	6900	10000	10500	9150	12350	12250	7650	4584	Nil
27	Nil	2600	6250	7250	9100	10500	9450	12350	12250	7650	4075	Nil
28	Nil	2600	6250	7250	9100	10500	10000	12350	12450	7650	3911	Nil
29	Nil		6250	7250	9100	10500	9900	12350	12250	7650	3749	Nil
30	Nil		6250	7250	9100	10500	9950	12350	12250	7650	4936	Nil
31	Nil		6250		9100		10250	12500				Nil

Sub. Divisional Officer
Headworks Sub. Division
Marala Distt. Sialkot



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DISCHARGE DATA OF UPPER CHENAB CANAL (MLU) AT MARALA BARRAGE

January 2023 to June 2023

DISCHARGE IN CUSEC

DATE	Jan-23	Feb-23	Mar-23	Apr-23	May-23	Jun-23
1	Nil	1300	8050	7350	8500	11550
2	Nil	1300	7574	7350	8500	11550
3	Nil	1300	5840	7350	8650	11850
4	Nil	1300	4242	7350	8800	11850
5	Nil	1300	4907	7350	8900	11900
6	Nil	1800	5840	7350	8900	12000
7	Nil	3000	6240	7350	9000	12000
8	Nil	3200	4109	7350	9000	12000
9	Nil	3600	4109	7350	9000	12000
10	Nil	3600	4109	7350	9000	12000
11	Nil	3600	4508	7600	9000	12000
12	Nil	3600	6440	7600	9000	12000
13	Nil	3600	6240	7600	9200	12000
14	Nil	5850	6640	7307	9200	12000
15	Nil	5574	6640	7980	9200	12000
16	Nil	5974	6240	7900	9200	12000
17	Nil	6107	6640	7900	9200	12000
18	Nil	8050	6507	7900	9200	12000
19	Nil	8050	6640	8100	9200	12000
20	Nil	8050	6907	7800	9250	12000
21	Nil	8050	7574	7800	9330	12000
22	Nil	7574	7550	7800	9330	12000
23	Nil	7041	7041	7800	9430	12000
24	Nil	6507	7041	7800	9530	12000
25	Nil	5440	6507	8150	10030	12973
26	Nil	6507	7550	8150	11030	12650
27	Nil	6774	7550	8250	11130	12400
28	50	7841	7550	8350	11230	12200
29	600		7550	8450	11330	12200
30	600		7550	8500	11450	12200
31	800		7550		11450	

Sub Divisional Officer,
Headworks Sub Division UCC,
Marala.



Annexure 4-B



**GOVERNMENT OF THE PUNJAB
IRRIGATION DEPARTMENT**

MARALA DIVISION UCC, MARALA

Ph: 92-52-3502102

Fax: 92-52-3502102

E-Mail: xenmrlbrg@yahoo.com

Annex-1-B

To,

General Manager (Hydel),
Punjab Power Development Co. LTD,
Lahore.

No. 287/25-W

Dated: 27-02-2025

Subject: - **REQUIREMENT OF THE DAILY CANAL DISCHARGE DATA DURING
THE PERIOD OF JULY 2023 TO JANUARY 2025.**

Reference: - Your office letter No. PPDCL/348/2025 dated: 24.02.2025.

Please find requested data as per your letter.

D.A./As above

Executive Engineer,
Marala Division UCC,
Marala.

Inward mail	
PPDCL CEO	
Diary No.	232
Dated:	28-2-25
Time:	
CFO	
CS	
GM (Hydel)	
GM (P&C)	
M (HR&A)	
M (Hydel)	
M (Finance)	
M (Renewable)	
AM (Hydel)	✓
AM (IT)	
AM (Legal)	
Other	

A-MP. (FA)

28/02/25



DISCHARGE DATA OF UPPER CHENAB CANAL (MLU) AT MARALA BARRAGE

July 2023 to December 2023

DISCHARGE IN CUSEC

DATE	Jan-23						Jul-23	Aug-23	Sep-23	Oct-23	Nov-23	Dec-23
1	Nil						12200	10123	13300	11975	5000	6000
2	Nil						12350	11923	13300	12150	5000	6000
3	Nil						12450	12723	13300	12150	5000	5707
4	Nil						12473	12923	13300	12250	5000	5840
5	Nil						12223	12923	13300	12250	5000	5574
6	Nil						11425	12923	13323	12117	5000	5840
7	Nil						11075	12900	13323	11047	5000	5574
8	Nil						11075	12850	13323	11047	5000	5707
9	Nil						10800	12850	13323	11315	5000	5440
10	Nil						11050	12850	13123	11047	5000	5140
11	Nil						11050	12900	13123	11100	5000	5140
12	Nil						13000	12900	13123	10900	5000	4907
13	Nil						13150	12900	13123	10700	5000	5140
14	Nil						13150	12900	13123	8509	5000	5440
15	Nil						13250	12900	13123	7841	5000	5174
16	Nil						13250	13000	13123	8375	5000	5040
17	Nil						13250	13250	13075	8100	5574	5840
18	Nil						13250	13400	13025	8100	5840	5434
19	Nil						13273	13400	12575	8100	5840	5440
20	Nil						13023	13423	12275	8100	6000	5174
21	Nil						13173	13223	12325	8100	6000	5040
22	Nil						3576	13223	12325	8100	6000	4907
23	Nil						5000	13223	12325	8100	6000	4907
24	Nil						8776	13223	11975	8100	6000	4774
25	Nil						10000	13223	11675	8100	6000	4907
26	Nil						12000	13223	11275	8100	6000	0
27	Nil						12000	13323	11275	8100	5440	0
28	50						12000	13323	11475	8100	5440	0
29	600						12000	13323	11675	8100	5440	0
30	600						12000	13300	12075	7174	5307	0
31	800						10123	13300		5000		0

Sub. Divisional Officer
Headworks Sub. Division
Marala Dist. Sialkot



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DISCHARGE DATA OF UPPER CHENAB CANAL (MLU) AT MARALA BARRAGE

January 2024 to December 2024

DISCHARGE IN CUSEC

DATE	Jan-24	Feb-24	Mar-24	Apr-24	May-24	Jun-24	Jul-24	Aug-24	Sep-24	Oct-24	Nov-24	Dec-24
1	Nil	2600	5840	5700	9200	11400	12973	12400	11650	9600	6600	4242
2	Nil	2600	5174	5200	9200	11600	12873	11400	11750	9550	6600	4375
3	Nil	3300	6400	5200	9200	11700	12973	11400	12050	9550	6600	4109
4	Nil	3300	6400	5200	9200	11750	12973	11400	11750	9550	6600	4109
5	Nil	3300	6400	5200	9200	11750	12973	11300	11350	9550	6600	3709
6	Nil	3300	6400	5200	9200	12050	12850	11350	11250	9650	6600	4242
7	Nil	3600	6400	5200	9200	12100	12873	11450	11250	9650	6240	4508
8	Nil	3600	6400	5200	9200	12100	12825	11500	11050	9450	6600	4242
9	Nil	3600	6400	5200	9200	12300	12825	11500	11050	9650	6107	4375
10	Nil	3600	6400	6100	9200	12300	12873	11500	11500	8800	6400	3310
11	Nil	4300	6400	4600	9500	12300	12873	11500	11800	8700	6400	3576
12	Nil	4300	6400	4600	9500	12350	12873	11250	9000	8700	6400	2513
13	Nil	4300	6400	4900	9500	12350	12873	11300	9000	9300	6100	3842
14	Nil	4375	6400	4900	9500	12350	11000	11350	9000	7441	5707	2513
15	Nil	5300	6400	4900	9500	12350	11000	11400	9000	7174	5440	3044
16	Nil	5174	6400	4500	9600	12450	11000	11800	9000	6600	5440	3842
17	Nil	5300	6400	4500	9700	12450	11000	12150	9000	6600	5307	3310
18	Nil	5041	6400	7500	9700	12450	11000	11950	9000	6600	5307	3576
19	Nil	5500	6400	7500	9700	12450	12117	12000	9000	6600	5174	3842
20	Nil	5000	6400	8000	9700	12450	12117	12050	9000	6600	5041	3842
21	Nil	5700	6400	8000	9700	12500	12800	12050	9000	6600	5041	3576
22	Nil	5700	6400	8000	9800	12600	12800	12000	9000	6600	5174	3576
23	Nil	3707	6400	8000	10200	12600	12800	12050	9000	6600	5174	3443
24	Nil	6000	6400	8500	10300	12600	12550	12050	10000	6600	4907	3576
25	1800	6000	6400	8500	10500	12600	12550	11900	10000	6600	4641	3576
26	1800	5800	6400	8500	10500	12625	12700	11900	10000	6600	4242	-
27	2600	4500	6400	8500	10550	12673	12400	11900	10700	6600	4242	-
28	2600	5800	6400	8500	10550	12773	12250	11800	10300	6600	4109	-
29	2600	4907	6400	8500	10550	12973	12150	11800	9700	6600	4641	-
30	2600		6400	8500	11600	12972	12150	11900	9600	6600	4375	-
31	2600		5700		11400		12150	11400		6600		-

Sub. Divisional Officer
Headworks Sub. Division
Marala Distt. Sialkot



13

DISCHARGE DATA OF UPPER CHENAB CANAL (MLU) AT MARALA BARRAGE

January 2025 to Feb 2025

DISCHARGE IN CUSEC

DATE	Jan-25	Feb-25	Mar-25	Apr-25	May-25	Jun-25	Jul-25	Aug-25	Sep-25	Oct-25	Nov-25	Dec-25
1	-	2700										
2	-	2700										
3	-	4700										
4	-	4700										
5	-	3443										
6	-	4774										
7	-	4774										
8	-	4242										
9	-	4641										
10	-	3443										
11	-	4242										
12	-	5574										
13	-	5041										
14	-	5574										
15	-	5041										
16	-	5174										
17	-	5174										
18	-	4907										
19	-	3310										
20	-	2646										
21	-	4242										
22	-	4907										
23	-	6900										
24	-	5440										
25	-	4774										
26	3000	4907										
27	3842	5694										
28	3000											
29	2200											
30	2200											
31	2200											

Sub. Divisional Officer
Headworks Sub. Division
Marala Dist. Sialkot



14

Annexure 5

CANAL WIRENo. 2309

From

Director Regulation,
Punjab, Lahore.

To

C/ XEN MRL
XEN PSR
S.E UCC / DCC / LINK
C.E LHR

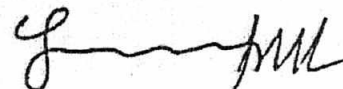
The annual closure of MRL may please be effected from ~~26.12.2024~~ to
12.01.2025 (.) UCC may be gradually closed according to R/R after morning gauges on
25.12.2024 (.)

DIRECTOR REGULATION

No. IWT&R/24/ _____ /

Dated: 11/12/2024

Copy by post in confirmation (.)



DIRECTOR
Indus Water Treaty & Regulation
Irrigation Department Punjab, Lahore



CANAL WIRE

No. 701

From
Director Regulation,
Punjab, Lahore.

To
C/ XEN MRL
XEN PSR / LHR / CKB
S.E UCC / LINK / DCC
C.E LHR

The ongoing canal closure of UCC is expected to conclude on 12.01.2025 (.) In anticipation of the reopening of the canals, it is requested to place the indent of this canal at the earliest to ensure that water supply arrangements can be made accordingly (.)

DIRECTOR REGULATION /

No. IWT&R/25/ / /

Dated: 07.01.2025

Copy by post in confirmation (.)


DIRECTOR
Indus Waters Treaty & Regulation,
Irrigation Department Punjab, Lahore. /



CANAL WIRE NO. 1111 DATED 11/01/2025

From,
SE, UCC, LHR

TO,
Director Regulation LHR
C/C CE (IRR) LHR
XEN MRL DIVN: UCC
XEN SKP DIVN: UCC
XEN GRW DIVN: UCC

With reference to your office Canal Wires No. 701 dated: 07.01.2025 and No. 903 dated: 09.01.2025, It is stated that Executive Engineer, Marala Division UCC Marala has reported vide his canal wire No. 1100 dated: 11.01.2025 that due to no demand of water received from Indenting officers of U.C.C and to complete on-going closure works at Marala barrage, ~~An extension in closure period at Marala barrage is required up to 26.01.2025.~~ In view of above, an extension in closure period at Marala barrage be granted up to 24.01.2025, being no demand of water in command area as well as to complete on-going closure works at Marala barrage and U.C.C canal.

Treat it as Most Urgent.

SE UCC, LHR

11/01/25

D:\word file\Canal Wire (Repaired) doc



17

CANAL WIRE

No. 1305

From

Director Regulation,
Punjab, Lahore.

To

C / C.E LHR
S. E UCC / LINK / DCC / LCC (E)
XEN MRL / PSR / GRW / LHR / KNK
C.E. FSD

Reference S.E. UCC Lahore Canal Wire No.1111, dated 11.01.2025 requesting for extension of closure period of Marala Barrage up to 24.01.2025 (.) Furthermore, S.E.LCC has requested to keep D/S Marala as NIL during Annual Canal Closure of LCC ensuing 13th January to 30th January due to emergent work at Khanki Barrage (.) Please review all the scenario / position in consultation with the local Agriculture Department and intimate the exact period for which the closure may be extended(.) An immediate response in the matter is requested(.)

DIRECTOR REGULATION

No. IWT&R/25/ _____/

Dated: 13.01.2025.

Copy by post in confirmation (.)

DIRECTOR

Indus Water Treaty & Regulation,
Irrigation Department Punjab, Lahore.



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Scanned with

CS CamScanner

CANAL WIRE

No. 2103

From
Director Regulation,

To

XEN MRL
C/ XEN PSR / LHR / CKB
S.E UCC / LINK / DCC
C.E. LHR

On expiry of closure period of MRL Barrage regulation at MRL
may please be adjusted as below before morning gauges on 25.01.2025 (.)

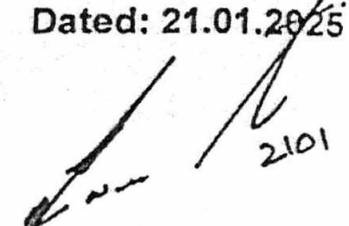
M-R Link	=Closed
UCC	=Upto 8.0
BRBD	=NIL
D/S MRL	=Fixed as NIL

DIRECTOR REGULATION

No. IWT&R/25/ _____ /

Dated: 21.01.2025

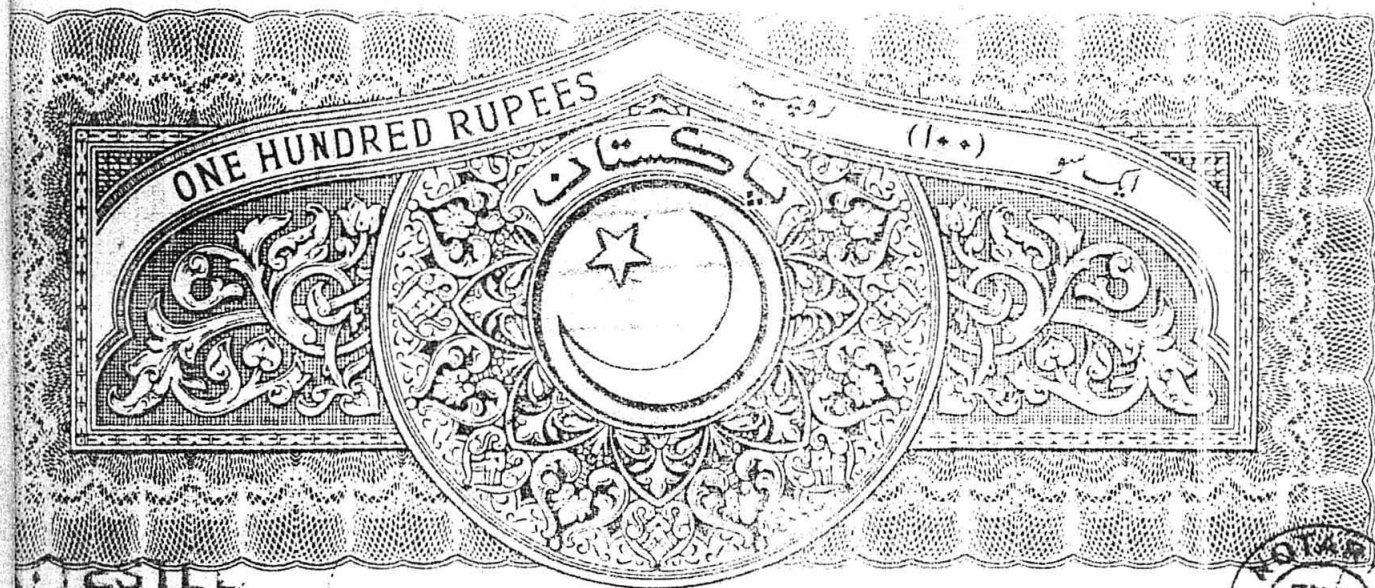
Copy by post in confirmation (.)


2101
DIRECTOR

Indus Waters Treaty & Regulation,
Irrigation Department Punjab, Lahore.

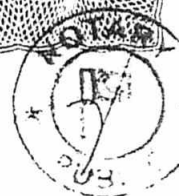


Annexure 6



TESTILL

AS HIF
Notary Public
in Court of Law



POWER PURCHASE AGREEMENT

BETWEEN

**NATIONAL TRANSMISSION
AND DESPATCH COMPANY LIMITED**

- AND -

**THE PAKISTAN WATER AND
POWER DEVELOPMENT AUTHORITY**

24th JANUARY, 2011



20

THIS POWER PURCHASE AGREEMENT (this "Agreement") is made at Lahore, Pakistan on January 24, 2011 between National Transmission And Despatch Company Limited ("NTDC") a public limited company incorporated under the Laws of Pakistan & The Pakistan Water And Power Development Authority ("WAPDA") a statutory corporation established pursuant to the Pakistan Water and Power Development Authority Act of 1958 and authorized licensee of generating hydroelectric power with their principal office located in Lahore, Pakistan. Both NTDC and WAPDA are herein referred to individually as a "Party" and collectively as the "Parties."

WHEREAS:

- (A) As on Agreement Date, WAPDA owns and operates thirteen (13) hydro electric power stations located at different places in Pakistan as per Schedule-1.
- (B) NTDC is responsible for the purchase, despatch, transmission and selling of power to distribution companies and bulk power consumers of Pakistan.
- (C) Consistent with the policies of GOP, NTDC and WAPDA have entered into an Agreement, pursuant to which NTDC wishes to purchase from WAPDA and WAPDA wishes to sell to NTDC, the Installed Capacity and Net Electrical Output of all WAPDA Power Stations, and any future power stations that may be developed and commissioned by WAPDA, pursuant to the terms and conditions set forth herein.

NOW, THEREFORE, in consideration of the mutual benefits to be derived and the conditions and promises herein contained, and intending to be legally bound, NTDC and WAPDA hereby agree as follows:



Parties in writing.

16.5 Successors and Assigns

This Agreement shall be binding upon, and inure to the benefit of, the Parties hereto and their respective successors and permitted assigns.

16.6 No Third Party Beneficiaries

This Agreement shall not confer any right of suit or action whatsoever on any third party.

IN WITNESS WHEREOF the Parties have executed and delivered this Agreement as of the date first above written.

WAPDA

NTDC

By: _____

Name: HAMDILLAH
Title: HAMDILLAH

G.M. (Hydel) OPR
185-Wapda House, Lahore.

By: _____

Name: (RANA MUHAMMAD AMJAD)
Title: General Manager (WPPO)
WAPDA House, Lahore.

Witnessed By:

Name: AHMAD SOHAIL
Title: Chief Engineer
Hydel Operation

Name: MUHAMMAD JAMIL
Title: Chief Engineer WPPO



TABLE-1 OF SCHEDULE-2

Scheduled Outage & Forced Outage (Hours)

Station	Total Annual Hours	Scheduled Outage	Forced Outage	Total Outage
Tarbela	8,760	800	100	900
Ghazi Barotha	8,760	800	100	900
Mangla	8,760	1,000	100	1,100
Warsak	8,760	1,900	200	2,100
Chashma	8,760	800	100	900
Dargai	8,760	1,000	100	1,100
Rasul	8,760	800	100	900
Shadiwal	8,760	800	100	900
Nandipur	8,760	800	100	900
Chichoki	8,760	800	100	900
Kurram Garhi	8,760	800	100	900
Renala	8,760	1,000	100	1,100
Chitral	8,760	800	100	900

Schedule Outage includes Maintenance Outage as per Annex-1 of Table-1 of Schedule-2

Note

The Outage hours (Scheduled, Forced or Total) as indicated in the above table, is the period allowed as if the full capacity in MW of Power Station (consisting of all the Units) remains out simultaneously. In case of the staged or staggered outage of individual generating Units (Scheduled or Forced), the outage time in hours will be worked out on weighted capacity basis.

Outage of a Unit or Power Station due to hydrology constraints of IRSA or Provincial Irrigation Department shall not be considered as Scheduled or Forced outage but shall be treated as available (standby).



Scheduled Outage, Forced Outage & Total Outage (Hours)
For WAPDA Hydel Power Stations

Station	Scheduled Outage (Hours)					Forced Outage (Hours)	Total Outage (Hours)
	Annual Mtce.	Major O.H	Monthly Mtce.	Maintenance Works	Total		
Tarbela	540	-	60	200	800	100	900
Ghazi Barotha	528	-	48	224	800	100	900
Mangla	360	432	48	160	1,000	100	1,100
Warsak	720	720	60	400	1,900	200	2,100
Chashma	528	-	48	224	800	100	900
Dargai	540	-	60	400	1,000	100	1,100
Rasul	528	-	48	224	800	100	900
Shadiwal	528	-	48	224	800	100	900
Nandipur	528	-	48	224	800	100	900
Chichoki	528	-	48	224	800	100	900
Kurram Garhi	528	-	48	224	800	100	900
Renala	528	-	48	224	1,000	100	1,100
Chitral	528	-	48	224	800	100	900

The above schedule is subject to review after 5 years.

Total outage is sum of Schedule Outage & Forced Outage during an Agreement Year.

[Handwritten signature]

h

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Annexure 7



No. PD-PPMU/ 370 /2013

PUNJAB POWER MANAGEMENT UNIT (PPMU)
ENERGY DEPARTMENT
77 SHAH JAMAL COLONY
LAHORE

Dated 28 /10 /2013

- | | |
|--|----------|
| 1. The Secretary,
Energy Department, Punjab. | Convener |
| 2. The Secretary,
Irrigation Department, Punjab. | Member |
| 3. The Chief SPRU/Additional Secretary (Tech),
Irrigation Department, Punjab. | Member |
| 4. The Chief Engineer, Lahore Zone,
Irrigation Department, Punjab. | Member |
| 5. The Chief Engineer, Multan Zone,
Irrigation Department, Punjab. | Member |
| ✓ 6. The Chief Research/Director CDO,
Irrigation Department, Punjab. | Member |
| 7. Director Regulation/Consultant Regulation,
Irrigation Department, Punjab. | Member |
| 8. The Chief Executive Officer/Advisor,
Punjab Power Development Company Ltd. | Member |
| 9. The Managing Director,
Punjab Power Development Board. | Member |

Sub: MINUTES OF THE MEETING OF THE CO-ORDINATION COMMITTEE FOR IMPLEMENTATION OF HYDEL PROJECTS ON CANALS/BARRAGE

Kindly refer to the meeting of Co-ordination Committee for Implementation of Hydel Projects on Canals/Barrage, held on September 26, 2013 at 10:00 Hours in the committee room of Energy Department. The minutes of the meeting are enclosed for your records and information please.


Project Director (PPMU)
Secretary Co-ordination Committee

Copy for information to:

1. PSO to Chairman P&D Board/Chairman Steering Committee for REDSIP, P&D Deptt. Punjab.
2. Team Leader/Project Manager, PHC Consultants, 13-L Model Town extension, Lahore.


Project Director (PPMU)
Secretary Co-ordination Committee



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Minutes of the Meeting of Co-ordination Committee for Implementation of Hydel Power Projects on Canals / Barrages in Punjab

The 2nd meeting of the Co-ordination Committee (CC) for Implementation of Hydel Power Projects on Canals/Barrages in Punjab was held on September 26, 2013 at 10:00 Hours in the committee room of Energy Department. The meeting, proceeded with recitation of Holy Quran, was convened by Secretary Energy and the list of participants is enclosed at Annex-A.

Marala HPP

2. It was briefed to the Co-ordination Committee that, after a series of the tests, the Final Model Test run for Marala HPP was made on September 04, 2013, where all the stakeholders were present. The issues, raised by Irrigation Department time to time, were resolved on the model, except the discharging capacity of the new spillway. The Director CDO proposed to lower down the crest of the new spillway by one foot for improving its discharging capacity to the level of existing H/R. The proposal was agreed by all the participants including the Authorized Representative of M/s SINOTEC-SHPE (JV) and minutes of meeting / site discussion were issued by IRI, mentioning various aspects including lowering the crest of the spillway, with same design by one foot.
3. The Project Director (PD) briefed that the said issue was again discussed in the Sub-Committee of the CC on September 23, 2013. Due to concurrence by M/s SINOTEC-SHPE (JV) to lower down the crest of spillway as proposed, the Contractors were required to submit the amended drawings and designs so that NOC from Irrigation Department could be issued.
4. It was further briefed to the Committee that in response to the minutes, M/s SINOTEC-SHPE (JV) later changed their stance and required revision in Employer's Requirements of the EPC Contract for lowering of spillway crest by one foot. The Contractor expressed that, since the proposed spillway passes the 555 cumec (19600 cusecs) discharge satisfactorily on the model as per Employer's Requirements of the Contract Agreement, therefore any change in Employer's Requirements necessitates "Variation Order" as per provision of the Contract and associated additional time for change in designs in Civil and specially in Mechanical works.
5. PD-PPMU expressed that during preparation of Tender Document of Marala HPP and at other stages of the bidding and EPC designs, the offices of concerned X.En, S.E and the Chief Engineer, Lahore Zone, Irrigation Department provided L-sections and always expressed the future requirement of UCC as 19600/19850 cusecs



(555 cumec) therefore the Employer's Requirements for spillway of Marala Power House were framed accordingly. However during last stage of the model test, Irrigation Department proposed that the discharge capacity of new spillway may be kept equal to the discharge capacity of H/R of UCC, which leads to Variation Order as well as delay in project timeline as expressed by Contractor.

6. PD expressed that Contractor is not willing to lower down the crest without additional time and cost whereas the Diversion of UCC, through MR Link is due by mid October and Spillway of Power House are essentially to be taken up immediately so that it could be completed up till mid April, 2014 for running of both the UCC and MR Link Canal. He added that any conflict at this stage may lead to cause delay in Diversion and consequently the overall project, hence he requested the Irrigation Department to confirm if re-designing the Spillway and associated Mechanical works are essential or otherwise to compromise the existing design for 19850 cusecs with 10% excess capacity to meet with the future requirements of UCC as conveyed to PPMU in writing.

7. The Director, Central Design Office, Irrigation Department explained that according to his calculations, the discharge capacity of Head Regulator of UCC is more than 27000 cusecs, since Marala HPP is planned on the head, its spillway capacity may be same of Head Regulator to meet with the future requirements. He further added that his office is unaware of the correspondence regarding future requirements of UCC.

8. The Secretary Energy was of the view that the requirement for 27000 cusecs capacity of the Spillway of Marala Power House, if necessary, was due to be informed to the PPMU before the International Competitive Bidding.

9. As desired by Secretary Irrigation, the Chief Engineer, Lahore Zone, expressed that he did not foresee any addition in CCA under UCC in future which requires increase in UCC flows beyond 19850 cusecs but he suggested that width of spillway if kept same as of Head Regulator of UCC, will be a better option. The Chief Engineer, Research Zone, Irrigation Department added that UCC also act as a conveyance channel to feed water at Balloki, therefore in future the flow requirement may increase.

10. The probability of future requirements for UCC beyond 21500 cusecs was discussed at length and was concluded that such a probability is very low as well as assured availability of water beyond that capacity is also uncertain. Finally the Convener, Secretary Irrigation and Mr. M.H Siddiqui, Advisor/Director Regulation concluded that if flow requirements in UCC beyond 21500 cusecs are established in



future and availability of water is assured then, whole the UCC system will require re-modeling as a Mega Project and one bay in the Spillway of Marala Power House can be added at that stage. All the participants agreed the proposal; however the Secretary Irrigation desired that the capacity of Power House Spillway may be confirmed for 21500 cusecs at Model and advised Mr. M.H Siddiqui alongwith CE, Lahore Zone, CE IRI and others to run the Model once again and to authenticate the same. Accordingly it was decided that a visit will be made to IRI, Nandipur on September 28, 2013 at 11:00 Hours.

In view of the discussions and limitations, the Irrigation Department, subject to confirmation of capacity of Power House Spillway as 21500 cusecs, expressed No Objection to the designs tested at model and to take up the construction of Power House Spillway on UCC, as a critical task.

Pakpattan HPP

12. The Committee was briefed that all the issues for Pakpattan Model Test have been resolved and final Model Test report has been issued by IRI. Due to limitation of the Geometry of existing Fall at RD 112+350 of Pakpattan Canal and H/R of Khadir branch, a minor head loss has to be compromised by Energy Department, in line with model test report by IRI. The S.E and X.En concerned proposed to avoid complete dismantling the existing structure or extending on one side the water-way of Fall RD 112+350 of Pakpattan Canal, after removal of Piers, which will cause eccentricity and may disturb the share of flow and sediment into the Pakpattan and Khadir branch Canals. The said observation as already been endorsed by IRI.

13. The Secretary Irrigation Department, also appointed Additional Secretary (Tech), Irrigation Department, as a focal person for all Hydel Projects of Energy Department being implementing on Canals/Barrages, so that all the data and correspondence will be conveyed to all concerned in Irrigation Department in future to avoid the conflict as observed in case of Marala Spillway capacity.

The meeting ended with a vote of Thanks to all the participants.



Meeting of the Coordination Committee for Implementation of Hydel Power Projects
on Canal / Barrage held on September 26, 2013 at 10:00 AM
in Committee Room of Energy Department, Lahore.

(List of Participants)

Sr. No.	Name	Designation
1	Usman Akhtar Bajwa	Secretary Energy
2	Capt(R) Zahid Saeed	Secretary Irrigation
3	Khalid Hussain Quraishi	Additional Secretary (Technical) Irrigation, Department.
4	M. H. Saddiqui	Consultant Irrigation, Department.
5	Nazir Ahmad Anjum	Chief Engineer, Lahore Irrigation, Department
6	Waqar Hussain	Chief Engineer, (IRI) Irrigation, Department
7	Muhammad Shahid	Principal Research Officer (Hydraulics), Irrigation Department
8	Sh. Muhammad Nawaz	SE Nili Bar, Canal Circle Representing Chief Engineer Multan, Irrigation Department.
9	Muhammad Hasnain Khan	Director Regulation Irrigation, Department
10	M Irshad Khan	Director Design Irrigation, Department
11	Liaqat Ali Iqbal	Project Director PPMU, Energy Department
12	Sikandar Khan	Punjab Hydropower Consultants (PHC)
13	Saqib Ashraf	Director Technical PPMU, Energy Department



Annexure 8



**GOVERNMENT OF THE PUNJAB,
IRRIGATION DEPARTMENT**

Superintending Engineer,
Upper Chenab Canal Circle, Lahore.
Phone: +92-42-99250333 Fax: +92-42-99250332
Email: seucc_seucc@yahoo.com

To

The General Manager (Hydropower),
Punjab Power Development Co. LTD,
Energy Department, Lahore.

No. 1641 / 362m / MPP Dated: 7-4-2025
H/P

Subject: - PROCUREMENT OF PLAN, DESIGN, SUPPLY & INSTALL OF 7.64 MW
MARALA HYDROPOWER PLANT UNDER REDSIP PROJECT IN PUNJAB.
---Update on Re-Modeling Status of Upper Chenab Canal (UCC).

Reference: - Your letter No. HMP-PPDCL/418/2025, dated: 18.03.2025.

This office has gone through the record related to Feasibility Study conducted for development of Hydropower at Marala Barrage. The record of this office shows that no feasibility study was conducted by the then Irrigation & Power Department in 2006. However, the L-Section of Main Line Upper UCC was revised and approved by Chief Engineer, Irrigation Lahore Zone, Lahore vide No. WI/LHR/20121/1805/28/99, dated: 02.02.20212 from 19,600 Cs to 16,850 Cs (copy attached).

It is further added that this office has no plan to conduct any feasibility study to remodel or increase the capacity of UCC from sanction Design Capacity i.e. 16,850 Cs.

However a proposal of Rehabilitation of Main Line Upper UCC to its design Discharge i.e. 16,850 Cs has been forwarded to Administrative Department to incorporate in next year ADP 2025-26.

Superintending Engineer
Upper Chenab Canal Circle,
Lahore

07/04/25

C.C

1. Chief Engineer, Irrigation Lahore Zone, Lahore with reference to his letter No. 455/Works-I/2025/5861/18/2008, dated: 21.03.2025.
2. Executive Engineer, Marala Division UCC



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The Chief Engineer,
Irrigation Lahore Zone,
Lahore.

To

The Superintending Engineer,
Upper Chenab Canal Circle,
Lahore

No *101/LHR/2012/1805-28/99*

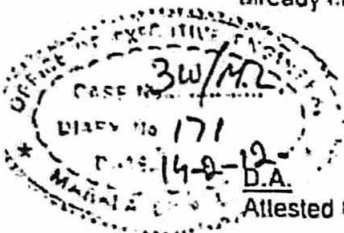
Dated *2* /02/2012

SUBJECT: REVISED LONG SECTION (SECOND) OF MAIN LINE UPPER (UCC) RD: 0+000 TO 133+296 (TAIL)

Reference: Your letter No. 62/362-W dated: 02.12.2012

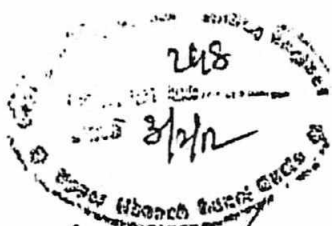
The 2nd revised L-Section cited as subject approved vide this office letter No Works(I)/99/22923 dated 26.10.1999 is hereby cancelled and L-Section already approved vide this office letter No Des/LHR/84/1138 dated 14.01.1984 already cancelled is hereby restored.

This is for your information and necessary action



Attested L-Section attached

[Signature]
CHIEF ENGINEER,
IRRIGATION, LAHORE ZONE,
LAHORE.



11/12 NO. 688-90/362-W DATED. 11-2-2012

Copy of above is forwarded to the Executive Engineers (3) Divisions, UCC for information and necessary action.

1	<i>[Signature]</i>
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[Signature]
Superintending Engineer,
Upper Chenab Canal Circle,
Lahore.

NO 28586/3/2/12
copy of above is enclst to
S.D.O H/W and Malhi for
information and N/A.



Executive Engineer
MALA DIVISION UCC
MARALA