

**PUNJAB POWER DEVELOPMENT COMPANY LIMITED**

Government of the Punjab, Energy Department

2-A Zafar Ali Road Gulberg-V, Lahore

Dated: 25 / Jun / 2025

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

Subject: APPLICATION FOR TARIFF MODIFICATION OF 2.82 MW PAKPATTAN HYDROPOWER PLANT (PHP) 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 2.82 MW Pakpattan Hydropower Plant (PHP) 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. IGSP/43/2014 dated 27.06.2014 to Punjab Power Development Company Limited (PPDCL) for its Pakpattan Hydropower Plant (PHP) assuming COD date of 30.10.2014 for the tenure of 30 years from COD. PHP was actually commissioned on 28.04.2018 on giving operational acceptance by PPDCL to the EPC Contractor (SINOTEC). The Multan Electric Power Company Limited (MEPCO) as Power Purchaser however, has notified formal COD date as 15.09.2023, which is effective date of signing of Energy Purchase Agreement (EPA) between PPDCL and MEPCO. Energy delivered from commissioning dated of 28.04.2018 to formal COD date of 15.09.2023 (5 years 4.5 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 29.10.2044 i.e. 8 year & 11 months earlier than 30 years PPA period from formal COD date of 15.09.2023. Approval of Authority is required for determination of COD date and Generation License expiry date.
- ii. In its Determination dated 04.02.2015, based on annual energy benchmark of 21.671 GWh, the Authority determined Reference Tariff of Rs 7.4566/kWh for year 1-20 both for fixed charges and variable charges. For period of 21-30 years, Reference Tariff of Rs 4.6840/kWh was determined.

The Authority also determined that the power purchaser will be required to bear hydrological risk to the extent of 21.671 GWh for the year. 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 (MEPCO) 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 causing revenue

REGISTRAR OFFICE
Diary No: 2582
Date: 27/6/25

Forwarded please:

☒ For nec. action ☐ For Information

☐ DG (Lic.)	☐ DG (Admn/HR)
☐ DG (M&E)	☐ DG (CAD)
☐ DG (Tech.)	☐ DG (ATC)
☐ ADG (Trf.)	☐ ADG (Fin.)
☐ SLA	☐ Dir. (I.T)
☐ Consult (Tech.)	☐ Consult (CTBCM)

For kind information, please.

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



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 0.7584/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 commissioning year 2017 to 2024, which shows around 20% drop in the water flows as compared to the average historical water flows data adopted in the Tender Design Report and SINOTECH's Plant Design Report. The summary of actual mean monthly water flows (m³/s) from 2017 to 2024 provided by Punjab Irrigation Department as compared to average historical water flows has been shown in the table below:

Discharge Data of Upper Pakpattan Canal

Monthly Avg Flow (cumecs) m³/s

Month	2017	2018	2019	2020	2021	2022	2023	2024	8 y Avg	TD Avg	Act-TD
Jan	-	-	-	0.6	1.2	-	-	-	0.2	9.1	(8.9)
Feb	31.9	32.7	46.6	52.4	55.2	41.0	43.2	48.1	43.9	61.7	(17.8)
Mar	71.4	35.9	64.4	22.8	55.6	64.0	56.1	64.8	54.4	80.0	(25.6)
Apr	48.4	53.6	60.5	59.1	60.1	60.8	56.6	61.2	57.5	75.1	(17.6)
May	75.2	53.9	70.8	70.7	62.8	69.7	62.2	64.2	66.2	78.0	(11.8)
Jun	74.0	64.5	68.6	70.0	68.4	71.1	62.4	68.1	68.4	76.0	(7.6)
Jul	73.3	67.8	65.5	65.4	69.3	59.4	35.6	60.7	62.1	76.5	(14.4)
Aug	76.0	75.7	56.6	68.3	67.2	52.7	52.3	61.8	63.8	76.9	(13.1)
Sep	69.2	75.3	68.3	68.5	64.1	68.3	69.0	60.6	67.9	78.7	(10.8)
Oct	38.7	47.1	50.6	68.4	66.6	68.1	68.5	65.7	59.2	74.1	(14.9)
Nov	64.8	66.6	66.7	65.6	67.7	65.7	65.5	64.9	65.9	73.4	(7.5)
Dec	51.1	49.5	62.7	60.2	56.0	52.2	63.0	59.7	56.8	73.1	(16.3)

Yearly Avg 55.5 69.4 -20%

Actual water discharges from 2017 to 2024 remained 20% low than the adopted in Tender Design

2.2 ACTUAL GENERATION

After connecting 11 KV transmission network of MEPCO, the commissioning tests of Pakpattan HPP were started in 2018. PPDCL gave operational acceptance to EPC Contractor on 28.04.2018 on successfully completing all the defined commissioning tests. As stated above, the MEPCO has



however, notified formal COD effective from 15.09.2023. The energy delivered in kWh terms to MEPCO during FY 2018-19 to FY 2023-24 has been shown in the table below:

Month	2018	2019	2020	2021	2022	2023	2024
January	-	(7,320)	(9,680)	(8,855)	(7,211)	(6,070)	(6,397)
February	389,480	687,280	812,040	928,866	555,208	702,996	605,866
March	395,120	988,640	252,280	1,072,495	1,225,009	1,236,268	827,692
April	690,160	663,800	1,321,120	1,265,119	1,125,467	1,190,468	649,299
May	581,600	1,184,520	1,582,280	1,310,924	1,174,433	1,170,627	964,365
June	706,000	752,680	1,423,960	1,166,401	657,550	1,061,241	647,626
July	794,200	822,840	1,026,600	1,088,974	951,264	494,075	308,552
August	829,440	844,440	627,800	1,244,678	1,007,474	783,454	319,311
September	842,480	1,124,440	568,720	1,289,869	1,153,143	1,323,557	188,661
October	572,120	953,160	674,241	1,285,453	1,297,460	1,141,185	179,127
November	844,000	1,450,320	617,273	1,360,420	1,342,158	1,187,019	385,044
December	782,960	1,443,800	582,487	1,259,153	996,157	857,370	
Total	7,427,560	10,908,600	9,479,121	13,263,497	11,478,112	11,142,190	5,069,146

FY	2018	2019	2020	2021	2022	2023	2024
NEO (kWh)	9,698,840	8,934,800	12,021,000	9,832,071	12,259,003	12,103,186	9,475,111

2.3 FINANCIAL LOSS SUSTAINED

Due to 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	2018-19	2019-20	2020-21	2021-22	2022-23	2023-24
Energy delivered (GWh)	8.935	12.021	9.832	12.259	12.103	9.475
Fixed charge rate (Rs/kWh)	6.2628	6.2628	6.2628	6.2628	6.2628	6.2628
Power sale Revenue (Mln.Rs)	55.96	75.29	61.58	76.78	75.80	59.34
Less: O&M expenses (Mln.Rs)	18.55	18.55	18.55	18.55	18.55	18.55
Less: Debt Servicing cost (Mln.Rs)	60.09	60.09	60.09	60.09	60.09	60.09
Total expenses (Mln.Rs)	78.64	78.64	78.64	78.64	78.64	78.64
Revenue surplus/(short) (Mln.Rs)	(22.68)	(3.35)	(17.06)	(1.86)	(2.84)	(19.30)
Equity Invested (USD 3.2623 Mln)	335.79	335.79	335.79	335.79	335.79	335.79
Return on Equity (%)	-6.75%	-1.00%	-5.08%	-0.55%	-0.85%	-5.75%

2.4 REFERENCE TARIFF HYDROLOGY AND GENERATION

Based on Tender Design Report, NEPRA has assessed annual generation benchmark of 21.671 GWh for PHP with following details:

Installed Capacity (MW)	2.82
Auxiliary load	1.0%
Net capacity (MW)	2.792
Annual Capacity Factor	88.6
Net Generation (GWh)	21.671



In the Tender design report of May 2010, based on average historical water flows, it was estimated that proposed installed capacity of 2.82 MW will generate an average annual energy of about 21.894 GWh at a capacity factor of 88.6% as shown in the table below:

MONTH	FLOWS	TURBINES	POWER	ENERGY	
	(m3/s)	(no.)	(MW)	(GWh)	Cum
Jan	9.1	0.0	0.226	0.168	0.168
Feb	61.7	2.0	2.339	1.572	1.740
Mar	80.0	2.0	2.788	2.066	3.806
Apr	75.1	2.0	2.748	1.978	5.784
May	78.0	2.0	2.797	2.076	7.860
Jun	76.0	2.0	2.763	1.985	9.845
Jul	76.5	2.0	2.777	2.061	11.906
Aug	76.9	2.0	2.770	2.056	13.962
Sep	78.7	2.0	2.790	2.003	15.965
Oct	74.1	2.0	2.694	2.001	17.966
Nov	73.4	2.0	2.708	1.949	19.915
Dec	73.1	2.0	2.664	1.979	21.894

The Pakpattan canal is perennial and closed for about one month during December and January each year for annual maintenance. The EPC Contractor (SINOTECH) in its Plant Design Report-July 2012 discounted the annual canal closure period and adopted same water charges. At an average capacity factor of 84.38% of proposed installed capacity of 2.82 MW, SINOTECH calculated annual energy of 20.86 GWh, which was 5% lower than the annual energy as was calculated in the Tender design report.

Authority in its Determination dated 04.02.2015 allowing 1% auxiliary consumption to installed capacity of 2.82 MW, applying 88.6% capacity factor as was adopted in Tender design report, calculated annual energy of 21.671 GWh and the same was applied to determine fixed charge tariff components in terms of Rs/kWh.

2.5 CANAL CLOSURE DAYS

Daily water flows data provided by the Punjab Irrigation Department from Jan 2016 to Feb 2025 shows that Pakpattan canal remained closed for more than one month each year as shown in the table below;

From	To	Days
30.12.2016	09.02.2017	41
01.01.2017	08.02.2018	39
31.12.2018	02.02.2019	34
31.12.2019	29.01.2020	30
01.01.2021	29.01.2021	29
27.12.2021	01.02.2022	36
01.01.2023	07.02.2023	38
31.12.2023	04.02.2024	36
Average		35



The table shows that on average, from year 2017 to 2025, Pakpattan canal remained closed for 35 days as against annual scheduled one month closure for maintenance purposes. Therefore, annual energy benchmark needs to be adjusted for the additional 5 days canal closure each year.

2.6 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. For Renala Khurd hydropower plant, total outages of 1100 hours has been allowed. It is therefore proposed, on the analogy of WAPDA hydel power plants, 900 hour (37.5 days) annual forced and scheduled outage may be allowed for Pakpattan Hydropower Plant.

2.7 REVISED ANNUAL ENERGY BENCHMARK FOR PAKPATTAN HPP

As stated above, while determining the fixed charge tariff component, Authority has calculated annual energy of 21.671 GWh at an 88.6% capacity factor adopted in the Tender Design report. In the Tender design report, only one month annual canal closure and few days of intermittent canal closures during the year has been discounted. Thus adopted 88.6% capacity factor is very unrealistic.

Actual water discharges provided by Punjab Irrigation Department for the period from 2017 to 2025 shows that actual water discharges are even 20% lower than the water discharges adopted in the Tender design report. As against estimated one month canal closure for annual maintenance the actual average canal closure is worked out as 35 days.

In the Tender design report no discount for forced & scheduled maintenance of Pakpattan HPP has been provided, which is generally allowed for determining Reference Tariff of a power plant. In view of above, annual energy benchmark calculated by in Tender design report need to be adjusted by taking into account;

- i. 1% auxiliary consumption,
- ii. Actual average annual canal closure days of 35 days as against one month (30 days) and
- iii. 900 hours (37.5 days) for annual forced and schedule maintenance of PHP.

After adjusting the aforesaid factors, the adjusted annual energy is worked out as 14.707 GWh as shown in the table below. It is therefore, proposed revised annual energy benchmark of 14.707 GWh may be adopted for determining revised Reference Tariff of Pakpattan HPP by the Authority as against 21.671 GWh.



	Tender Design	SINOTECH Design	Revised Energy
Installed Capacity (MW)	2.82	2.82	2.82
Auxiliary Load (Consumption)	0%	0%	1%
Net Capacity (MW)	2.82	2.82	2.79
Average Annual Outages			
Low Water flows standby (days)	11.50	27.00	73.00
Annual Canal closure standby (days)	30.00	30.00	35.00
Scheduled & Forced outage (days)	-	-	37.50
Total average annual outages	41.50	57.00	145.50
Low Water flows standby capacity factor (%)	3.2%	7.4%	20.0%
Canal closure standby capacity factor (%)	8.2%	8.2%	9.6%
Scheduled & Forced outage capacity factor (%)	0.0%	0.0%	10.3%
Total average annual outages	11.4%	15.6%	39.9%
Net operating hours plant capacity factor	88.6%	84.4%	60.1%
Annual Energy Benchmark (GWh)	21.894	20.845	14.707

2.8 ANNUAL REVENUE REQUIREMENT

In its Determination dated 04.02.2015, Authority has assessed annual revenue requirement of Pakpattan HPP in indexing fixed charges tariff components based on 21.671 GWh annual energy benchmark as shown below;

	Yrs 1-20		Yrs 21-30		
Tariff Components	Rs/kWh	Mln.Rs	Rs/kWh	Mln.Rs	Indexation
Fixed Charge					
O&M- Fixed- Local	0.6849	14.84	0.6849	14.84	CPI- General
O&M- Fixed- Foreign	0.1712	3.71	0.1712	3.71	US\$/PKR & US CPI
Debt Servicing	2.7726	60.09	-	-	JPY/PKR & LIBOR
Return on ROEDC	0.4579	9.92	0.4579	9.92	USD/PKR
Return on Equity	2.1762	47.16	2.1762	47.16	USD/PKR
Total fixed charge	6.2628	135.72	3.4902	75.64	

2.9 ONE-TIME ADJUSTMENTS ON COD

PPDCL has submitted Application dated 18.09.2023 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 1,416.99 million (equal to USD 14.343 million as against project cost of USD 13.352 million assessed by the Authority in the determination of Reference Tariff of PHP. 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 PHP.

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 14.707 GWh



as against 21.671 GWh. Proposed revised fixed charges components in comparison of determined rates and change in rates has been shown in the table below:

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	0.6849	1.0092	0.6849	1.0092	0.3243	CPI- General/NCPI
O&M- Fixed- Foreign	0.1712	0.2523	0.1712	0.2523	0.0811	US\$/PKR & US CPI
Debt Servicing	2.7726	4.0854	-	-	1.3128	JPY/PKR & LIBOR
Return on ROEDC	0.4579	0.6747	0.4579	0.6747	0.2168	USD/PKR
Return on Equity	2.1762	3.2066	2.1762	3.2066	1.0304	USD/PKR
Total fixed charge	6.2628	9.2282	3.4902	5.1428	2.9654	
Fixed Charge Change (yrs 21-30)					1.6526	

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 Tariff	Change
Annual Energy benchmark (GWh)	21.671	14.707	(6.96)
Fixed Charge tariff (Rs/kWh)	6.2628	9.2282	2.9654
Revenue (Mln.Rs)	135.72	135.72	-
Less: O&M Cost (Mln.Rs)	18.55	18.55	-
Less: Debt servicing cost (Mln.Rs)	60.09	60.09	-
Total deductions	78.64	78.64	-
Revenue surplus (Mln.Rs)	57.08	57.08	-
Equity Invested (USD 3.2623 Mln)	335.79	335.79	-
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 Pakpattan HPP, BOP cheque No. 8061391188 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



BEFORE THE NATIONAL ELECTRIC POWER REGULATORY AUTHORITY

(Modification Jurisdiction)

Punjab Power Development Company Limited (PPDCL) through Chief Executive Officer

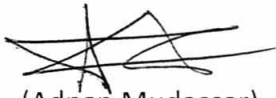
-----Petitioner

PETITION FOR MODIFICATION OF REFERENCE TARIFF OF 2.82 MW PAKPATTAN HYDROPOWER PLANT (PHP) OF PUNJAB POWER DEVELOPMENT COMPANY (PPDCL), PURSUANT TO SECTION 17(3) OF NEPRA STANDARDS AND PROCEDURE RULES 1998.

Summary of Evidences

Annexures

Description	Annexure#	Pages
Petition for tariff modification		
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 Jan 2016 to Feb 2025 provided by Punjab Irrigation Department	4	4-14
Extracts of Power Purchase Agreement dated 24.01.2011 signed between WAPDA and NTDC/CPPA-G	5	15-19



(Adnan Mudassar)
Chief Executive Officer



Annexure 1



PUNJAB POWER DEVELOPMENT COMPANY LIMITED
ENERGY DEPARTMENT
GOVERNMENT OF THE PUNJAB

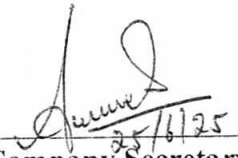
Board Resolution
of Punjab Power Development Company Limited

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


25/6/25
Company Secretary
PPDCL


Annexure 2



ID : PB-LHR-61BCC92423DEAAE1
 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 : Self
 Address : Lahore
 Issue Date : 25-Jun-2025 11:36:22 AM
 Delisted On/Validity : 2-Jul-2025
 Amount in Words : One Hundred Rupees Only
 Reason : Affidavit
 Vendor Information : Abdul Samad | PB-LHR-1363 | DHA Phase 6

ABDUL SAMAD
 LIC. # 1363 4588
 Sr. #
 DHA Phase VI, Lahore

نوٹ: یہ فراہم کردہ 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۔

ATTESTED
ARSLAN BABAR ADVOCATE
 Oath Commissioner Lahore

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 Pakpattan Hydropower Plant Distt. Pakpattan, are true and correct to the best of my knowledge and belief and nothing has been concealed therein.

DEPONENT

VERIFICATION



Verified on oath 25th June 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



Payee's Account only

PLS100



Cheque No 8061391188

Date 25/06/2025

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

Pay to the order of National Electric Power Regulatory Authority
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

⑈61391188⑈0830069⑈6580039752500018⑈000⑈

Annexure 3

Annexure 4



OFFICE OF THE
EXECUTIVE ENGINEER
EASTERN BAR DIVISION,
PAKPATTAN

Phone # 0457-921073

E-Mail: xeneasternbar@gmail.com

IRRIGATION DEPARTMENT

To,

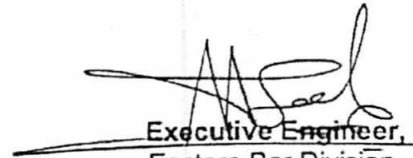
GENERAL MANAGER(PPDCL) PUNJAB.
POWER DEVELOPMENT COMPANY
LIMITED ENERGY DEPARTMENT
GOVERNMENT OF THE PUNJAB LAHORE.

No. 1291-94 /-

Dated. 13-06- /2025A.

Subject:- REQUIREMENT OF THE DAILY CANAL DISCHARGE DATA DURING
THE PERIOD JANUARY 2016 TO FEBRUARY 2025.

The requisite information cited as subject is submitted for further necessary action
please


Executive Engineer,
Eastern Bar Division,
Pakpattan.

C.C

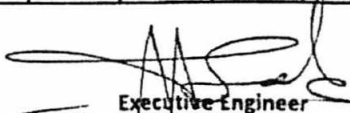
1. The chief Executive PPDCL Lahore.officer.
2. Assistant Manager (hydel) PPDCL Lahore.
3. Assistant Resident Engineer Pakpattan HPP for liaison with irrigation department the provision of
aforementioned data.
4. Assistant manager (E &M), Pakpattan HPP for liaison with irrigation department the provision of
aforementioned data.



**Discharge Data of Upper Pakpattan Canal
January 2016 to February 2025**

Discharge Data

Date	Jan-16	Feb-16	Mar-16	Apr-16	May-16	Jun-16	Jul-16	Aug-16	Sep-16	Oct-16	Nov-16	Dec-16
1	-	-	2452	1376	2578	2627	2654	2601	2351	2048	0	2482
2	-	381	2452	1714	2280	2627	2697	2535	2455	1951	2073	2482
3	-	501	2507	2160	2207	2627	2589	2601	2377	2023	2325	2455
4	-	381	2507	2348	2022	2627	2551	2601	2325	1951	2455	2455
5	-	844	1888	2348	2416	2627	2482	2601	2455	2023	2377	2482
6	-	1151	2348	2401	2348	2627	2351	2601	2535	2325	2429	2508
7	-	2004	2507	2401	2578	2627	2299	2601	2508	2325	2325	2551
8	-	2004	2348	2401	2578	2627	2299	2601	2508	2248	2403	2551
9	-	2405	2443	1888	2578	2627	2325	2508	2508	2277	2482	2551
10	-	2004	2443	2023	2578	2627	2616	2535	2508	2508	2535	2551
11	-	2206	1800	1977	2578	2627	2616	2502	2377	2589	2604	2482
12	-	2301	1304	2253	2578	2654	2616	2502	2277	2508	2535	2551
13	-	2301	546	2348	2578	2654	2616	2502	2223	2508	2562	2551
14	-	2357	546	2348	2578	2670	2616	2502	2212	2455	2604	2551
15	-	2253	933	2501	2578	2654	2616	2502	2325	2535	2535	2508
16	-	2357	1888	2501	2578	2654	2616	2508	2508	2508	2535	2508
17	-	2253	2253	2540	2578	2654	2616	2508	2508	2508	2535	2589
18	-	2405	1629	2501	2578	2654	2482	2465	2508	2403	2535	2616
19	-	2452	2068	2501	2578	2654	2589	2482	2508	2508	2482	2643
20	-	1888	1226	2501	2578	2654	2616	2508	2508	2508	2482	2643
21	-	2348	1906	2501	2578	2654	2616	2508	2508	2274	2551	2643
22	-	2353	2301	2501	2578	2654	2601	2508	2508	-	2562	2670
23	-	2301	2301	2558	2540	2654	2601	2429	2508	-	2508	2589
24	-	2357	-	2558	2578	2654	2535	2502	2508	-	2429	2535
25	-	2357	-	2558	2578	2654	2562	2508	2508	-	2482	2551
26	-	2401	-	2558	2578	2654	2601	2429	2508	-	2482	2429
27	-	2401	-	2558	2501	2654	2616	2502	2508	-	2508	2697
28	-	2452	-	-	2576	2535	2616	1975	2508	-	2482	1304
29	-	2452	-	-	2535	2601	2616	1145	2508	-	2455	1223
30	-	-	153	-	2482	2654	2643	1346	2325	-	2455	783
31	-	-	-	-	2576	-	2616	2122	-	-	-	-

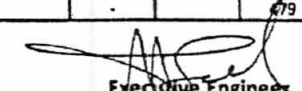

Executive Engineer
 Irrigation Department Pakpattan



**Discharge Data of Upper Pakpattan Canal
January 2016 to February 2025**

Discharge Data

Date	Jan-17	Feb-17	Mar-17	Apr-17	May-17	Jun-17	Jul-17	Aug-17	Sep-17	Oct-17	Nov-17	Dec-17
1	-	-	2551	2604	2654	2753	2351	2643	2429	2223	-	2697
2	-	-	2551	2508	2654	2725	2562	2703	2122	2122	1785	2670
3	-	-	2551	2604	2654	2753	2562	2670	2172	2023	1879	2697
4	-	-	2551	2455	2604	2753	2604	2703	2429	1785	1927	2697
5	-	-	2589	2482	2654	2697	2535	2589	2589	2073	2429	2535
6	-	-	2604	2482	2654	2753	2603	2670	2589	2023	2223	2429
7	-	-	2604	1387	2654	2725	2562	2643	2653	1927	2429	2172
8	-	-	2604	-	2654	2725	2604	2589	2697	1832	2403	2073
9	-	-	2604	-	2604	2753	2604	2670	2653	1809	2325	2172
10	-	1603	2604	-	2676	2753	2604	2643	2697	1832	2377	2122
11	-	1879	2604	-	2676	2589	2535	2640	2653	2048	2325	1927
12	-	1832	2535	-	2643	2703	2508	2670	2589	1648	2377	1832
13	-	1975	2535	-	2604	2703	2653	2808	2589	1927	2325	1739
14	-	1927	2535	-	2616	2725	2653	2753	2589	1472	2377	1832
15	-	2223	2535	-	2616	2616	2653	2601	2653	1559	2325	1659
16	-	2455	2604	-	2616	2653	2604	2643	2535	2377	2377	1603
17	-	2455	2604	1106	2616	2653	2653	2653	2589	2357	2377	1603
18	-	2502	2604	2377	2703	2589	2653	2697	2482	2377	2325	1603
19	-	2508	2604	2604	2654	2508	2653	2697	2325	2482	2429	1581
20	-	2551	2604	2604	2643	2482	2653	2653	2455	2325	2377	1648
21	-	2551	2604	2535	2697	2429	2535	2753	2274	1716	2482	1581
22	-	2551	2557	2654	2753	2601	2589	2697	2208	425	2429	1648
23	-	2551	2023	2654	2725	2653	2653	2697	2172	-	2377	1739
24	-	2551	2073	2604	2780	2697	2589	2653	1999	-	2274	1832
25	-	2551	2429	2604	2725	2589	2653	2753	2274	-	2589	1832
26	-	2551	2508	2604	2753	2535	2508	2735	2203	-	2535	1106
27	-	2551	2535	2604	2753	2508	2489	2697	2299	-	2429	1346
28	-	2551	2604	2508	2508	2508	2535	2697	2299	-	2725	1184
29	-		2489	2654	2508	1975	2616	2725	2535	-	2753	817
30	-		2325	2654	2535	2274	2562	2753	2535	-	2697	1106
31	-		2429		2725		2703	2603		-		179

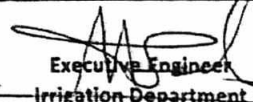

Executive Engineer
Irrigation Department
Pakpattan



Discharge Data of Upper Pakpattan Canal
January 2016 to February 2025

Discharge Data

Date	Jan-18	Feb-18	Mar-18	Apr-18	May-18	Jun-18	Jul-18	Aug-18	Sep-18	Oct-18	Nov-18	Dec-18
1	-	-	1068	1603	2325	1762	2397	2643	2753	2643	0	0
2	-	-	834	1879	2351	1927	2482	2643	2703	2753	1603	2429
3	-	-	748	1785	2429	1903	2482	2643	2753	2643	2127	2429
4	-	-	1164	1785	2429	1927	2535	2643	2703	2562	2429	2197
5	-	-	921	1785	2223	1975	1537	2643	2753	2535	2429	2248
6	-	-	1304	1855	2325	2023	1785	2601	2703	2601	2377	2403
7	-	-	1213	1785	2325	1975	2697	2653	2780	2670	2589	2403
8	-	-	1739	1875	2122	2023	2377	2601	2753	2697	2582	2325
9	-	1304	1879	1832	2172	1975	2482	2601	2753	2808	2589	2073
10	-	1559	1879	1927	1879	1999	2562	2697	2753	2274	2508	2429
11	-	1785	1387	1879	1648	2023	2589	2697	2753	2023	2535	2535
12	-	1785	1346	1879	2172	2122	2697	2725	2725	2023	2562	1903
13	-	1785	1325	1785	2601	2073	2482	2653	2725	1648	2589	1927
14	-	1927	1223	1855	2535	2073	2562	2697	2753	1927	2562	1927
15	-	1951	1264	1832	1559	2274	2482	2670	2725	1927	2562	1855
16	-	1879	1223	1716	1809	2429	2562	2670	2753	2325	2589	1975
17	-	1975	1146	1693	1903	2429	2274	2703	2753	2643	2589	1927
18	-	1879	1223	1693	2122	2455	2403	2703	2808	2753	2562	1927
19	-	1927	1244	1648	2023	2616	2377	2753	2643	2670	2589	1927
20	-	2048	1693	1693	2023	2653	2377	2753	2248	2643	2403	1927
21	-	1951	1785	1739	1648	2697	2535	2535	2351	2274	2429	1927
22	-	1999	1648	1739	1559	2725	2697	2482	2703	479	2482	1693
23	-	1951	1648	1785	1559	2172	2601	2508	2508	0	2455	1346
24	-	1603	1648	2172	1346	2122	2601	2703	2482	0	2482	1832
25	-	1264	1387	2223	1304	2589	2562	2703	2587	0	2482	1429
26	-	1264	1603	2274	1204	2653	2616	2753	2753	0	2429	1223
27	-	1068	1603	2274	1145	2753	2535	2780	2920	0	2073	1031
28	-	564	1648	2274	1204	2753	2697	2703	2482	0	2223	1648
29	-	-	479	2274	1648	2753	2643	2780	2223	0	2325	851
30	-	-	-	2197	1832	2482	2643	2725	2429	0	2455	479
31			-		1559		0	2838		0		0


Executive Engineer
Irrigation Department
Pakpattan



Discharge Data of Upper Pakpattan Canal
January 2016 to February 2025
Discharge Data

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	-	-	2122	2482	2325	2325	2482	2073	2429	2482	2274	2351
2	-	-	1879	2429	2325	2351	2429	1927	2377	2482	2304	2351
3	-	817	1223	2429	2325	2351	2455	1999	2223	2562	2377	2351
4	-	1346	1223	2403	2325	2351	2429	1975	2403	2508	2351	2351
5	-	1559	1785	2429	2562	2325	2482	2223	2429	2429	2351	2325
6	-	1603	2023	2455	2643	2299	2482	2172	2325	2455	2455	2325
7	-	1879	2223	2429	2643	2274	2482	2152	2429	2274	2482	2351
8	-	1603	2325	2429	2616	2429	2455	2073	2482	2248	2482	2351
9	-	1927	2325	2403	2643	2429	2482	2122	2377	2325	2482	2403
10	-	1951	2325	2351	2643	2429	2482	2122	2325	2325	2429	2351
11	-	1871	2403	2403	2643	2429	2429	2223	2377	2377	2403	2351
12	-	2197	2429	2508	2643	2429	2482	2274	2403	2429	2482	2403
13	-	2223	2377	2429	2647	2482	2482	2223	2377	2455	2429	1879
14	-	2325	2377	2274	2647	2377	2482	2122	2403	2429	2403	2223
15	-	2325	2403	2377	2429	2455	2429	2073	2403	2335	2403	2223
16	-	2325	2377	1559	2429	2482	2482	2197	2440	2238	2429	2223
17	-	2325	2429	452	2482	2482	2482	2172	2455	2223	2377	2172
18	-	2325	2429	783	2274	2455	2403	2223	2492	2535	2403	2325
19	-	2325	2429	750	2429	2482	1716	2248	2502	2535	2429	2325
20	-	2403	2482	939	2429	2455	2274	2223	2477	2455	2377	2274
21	-	1785	2429	2023	2535	2482	2403	2223	2508	1346	2377	2403
22	-	817	2455	2274	2589	2424	2224	2455	2562	0	2023	2429
23	-	976	2429	2122	2589	2403	2325	1387	2508	0	1927	2403
24	-	851	2429	2562	2535	2429	2429	0	2535	0	2172	2351
25	-	1387	2455	2403	2589	2455	2403	0	2535	0	2325	2403
26	-	1648	2455	2589	2482	2429	2429	1785	2535	0	2325	2429
27	-	1264	2429	2429	2482	2482	1855	2223	2508	0	2325	2403
28	-	1903	2455	2325	2482	2508	1739	2122	2202	0	2325	2403
29	-	-	2482	2325	2403	2482	1559	2325	2157	1975	2325	2403
30	-	-	2455	2325	2403	2482	2023	2304	2177	1809	2377	1145
31	-	-	2429	-	2351	-	2023	2325	-	2202	-	0

(Signature)
Executive Engineer
Irrigation Department
Pakpattan



Discharge Data of Upper Pakpattan Canal
January 2016 to February 2025
Discharge Data

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	-	250	2351	326	2535	2482	2482	2223	2274	2589	2455	2122
2	-	350	2377	281	2403	2482	2508	2274	2274	2552	2482	2122
3	-	350	2351	868	2429	2455	2551	2304	2248	2429	2482	2122
4	-	525	2351	1233	2455	2429	2482	2351	2122	2403	2455	2122
5	-	750	1832	2122	2455	2508	2508	2351	2325	1693	2429	2197
6	-	886	957	2122	2482	2455	2455	2403	2482	1785	2455	2248
7	-	1145	507	2101	2429	2429	2429	2403	2482	1762	2455	2274
8	-	1387	259	2048	2508	2482	2482	2403	2429	1999	2429	2325
9	-	1927	375	2147	2429	2455	2482	2377	2508	2172	2403	2304
10	-	2073	375	2147	2429	2429	2508	2403	2535	2429	2403	2122
11	-	1903	350	2202	2482	2482	2482	2351	2508	2562	2429	2223
12	-	2023	350	2223	2508	2482	2482	2429	2508	2562	2429	2122
13	-	2023	238	2304	2508	2455	2508	2429	2508	2643	2403	2223
14	-	2223	238	2377	2508	2429	2535	2429	2508	2643	2377	2223
15	-	2325	238	2377	2508	2429	2508	2429	2482	2643	2351	2253
16	-	2325	238	2455	2535	2403	2508	2482	2482	2325	2251	2253
17	-	2403	238	2482	2589	2455	2508	2552	2482	2429	2223	2253
18	-	2377	238	2073	2562	2455	2535	2562	2552	2508	2223	2253
19	-	2377	238	2247	2535	2455	2482	2377	2589	2552	2223	2253
20	-	2403	238	2482	2508	2455	2455	2325	2552	2552	2223	2253
21	-	2403	238	2403	2535	2455	2482	2325	2589	2552	2202	2253
22	-	2429	686	2403	2535	2377	1012	2508	2616	2552	2202	2253
23	-	2429	1429	2482	2535	2429	817	2535	2589	2482	2223	2304
24	-	2429	1648	2325	2508	2482	1387	2562	2562	2552	2223	2351
25	-	2403	921	2377	2508	2535	2102	2455	2589	2482	2223	2377
26	-	2455	921	2304	2535	2551	2325	2535	2589	2552	2223	2377
27	-	2325	750	2377	2535	2551	2325	2552	2589	2552	2223	2351
28	-	2351	718	2403	2482	2551	2325	2274	2643	2482	2172	2351
29	-	2429	238	2403	2482	2551	2325	2377	2589	2508	2122	1693
30	281		0	2535	2482	2551	2325	2429	2589	2508	2147	957
31	350		238		2482		2325	2177		2508		400

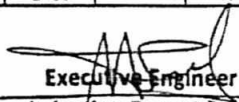
Executive Engineer
Irrigation Department
Pakpattan



**Discharge Data of Upper Pakpattan Canal
January 2016 to February 2025**

Discharge Data

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	-	535	2304	1917	2253	1975	2325	2299	2508	2403	2455	2403
2	-	718	2304	2223	2304	2223	2455	2325	2429	2377	2429	2403
3	-	1244	2304	2223	2325	2325	2551	2351	2248	2403	2223	2377
4	-	1223	2304	2172	2325	2377	2508	2377	2197	2403	2482	2403
5	-	1739	2304	1927	2304	2455	2551	2299	2325	2403	2508	2377
6	-	1559	2351	1951	2357	2482	2503	2274	2340	2403	2508	2403
7	-	1387	2325	957	2325	2551	2551	2197	2403	2403	2535	2325
8	-	1603	2351	1515	2304	2482	2562	2253	2403	2403	2508	2351
9	-	1716	2351	2122	2304	2351	2562	2325	2377	2403	2429	2403
10	-	1739	2325	2223	2304	2451	2616	2304	2274	2403	2455	2377
11	-	1999	2377	2147	2304	2429	2377	2299	2304	2403	2429	2377
12	-	2097	2325	2122	2304	2503	2299	2403	2202	2403	2429	2351
13	-	2223	2299	2172	2325	2377	2172	2377	2223	2429	2403	2377
14	-	2274	2277	2253	2304	2429	2429	2377	2299	2172	2403	2403
15	-	2253	2248	2325	2304	2508	2403	2429	2299	1879	2325	2377
16	-	2403	2248	2304	2304	2551	2562	2429	2223	2325	2325	2377
17	-	2325	2223	2304	2274	2551	2535	2429	2274	2325	2403	2274
18	-	2274	2223	2304	2274	2551	2535	2455	2274	2429	2403	2351
19	-	2299	2223	2274	2248	2616	2562	2335	2274	2403	2403	2377
20	-	2351	2197	2253	2073	2616	2429	2197	2274	2351	2351	2403
21	-	2351	2172	2152	1951	2429	2377	2083	2274	2351	2351	2403
22	-	2351	2023	2147	2073	2429	2122	2366	1927	2482	2351	2351
23	-	2325	1762	2202	1855	2097	2403	2482	1975	2429	2325	2172
24	-	2377	1304	2202	1927	2097	2455	2482	2147	2403	2325	2274
25	-	2304	1264	2172	2377	2482	2482	2482	2223	1879	2304	2403
26	-	2304	783	2202	2325	2535	2529	2482	2202	2325	2304	2223
27	-	2304	654	2202	2274	2455	2455	2455	2202	2325	2304	0
28	-	2304	783	2274	2274	2377	2429	2482	2223	2325	2304	0
29	-		921	2223	2073	2325	2377	2508	2248	2403	2351	0
30	594		1559	2253	1999	2429	2274	2508	2325	2429	2351	0
31	718		1739		1809		2274	2482		2455		0

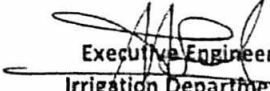

Executive Engineer
Irrigation Department
Pakpattan



**Discharge Data of Upper Pakpattan Canal
January 2016 to February 2025**

Discharge Data

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	-	-	2299	2223	2377	2703	2697	1304	2253	2535	2403	1429
2	-	303	2351	2325	2423	2703	2643	754	2304	2482	2403	1693
3	-	507	2253	2325	2325	2429	2274	507	2274	2535	2403	2325
4	-	507	2223	2325	2562	2643	2197	654	2304	2482	2429	2223
5	-	425	2197	2377	2616	2403	2377	904	2304	2482	2403	2223
6	-	507	2172	2325	2403	2429	2299	1559	2304	2429	2403	2122
7	-	718	2197	2351	2616	2377	2351	1603	2304	2427	2403	2122
8	-	750	2073	2325	2670	2377	2725	1693	2274	2274	2429	2122
9	-	957	2025	2351	2643	2248	2643	1762	2304	2122	2377	2122
10	-	1068	2048	2351	2508	2325	1903	1903	2304	2172	2429	2122
11	-	1184	2147	2325	2048	2616	2023	2023	2304	1879	2429	2122
12	-	1304	2223	2325	1951	2604	2223	2023	2403	2073	2377	2097
13	-	1472	2223	2325	1977	2677	2482	2023	2429	2274	2325	2325
14	-	1716	2248	2325	2429	2670	1975	1999	2482	2429	2403	2122
15	-	1809	2248	2325	2670	2643	2325	2023	2482	2535	2274	2122
16	-	1855	2304	2325	2643	2403	2223	2073	2455	2616	2304	2073
17	-	2053	2304	2325	2616	2197	1785	2274	2455	2482	2274	1927
18	-	1879	2304	2377	2697	2073	2299	1648	2455	2535	2274	2122
19	-	1927	2304	2325	2697	2482	2325	1903	2482	2482	2274	2048
20	-	2102	2351	2325	2697	2351	2429	2073	2455	2482	2274	1832
21	-	2048	2325	2023	2725	2325	2403	2197	2429	2482	2304	2097
22	-	2122	2351	1716	2725	2403	2197	2223	2482	2455	2304	1785
23	-	2172	2325	1264	2697	2508	1927	2274	2482	2482	2304	2274
24	-	2197	2351	1809	2589	2643	1809	2325	2508	2429	2274	1927
25	-	2253	2325	1809	2377	2703	1429	2274	2452	2403	2304	1472
26	-	2253	2325	1809	2325	2725	1366	2248	2535	2482	2325	1832
27	-	2253	2377	1494	2302	2616	1648	2274	2535	2403	2325	1346
28	-	2223	2325	1244	2377	2703	1739	2325	2535	2403	1975	1346
29	-		2223	2197	2172	2670	1855	2325	2508	2325	2223	783
30	-		2325	2429	2197	2703	1145	2253	2535	2429	1927	654
31	-		2325		2197		1304	2274		2429		375

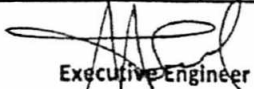

Executive Engineer
Irrigation Department
Pakpattan



**Discharge Data of Upper Pakpattan Canal
January 2016 to February 2025**

Discharge Data

Date	Jan-23	Feb-23	Mar-23	Apr-23	May-23	Jun-23	Jul-23	Aug-23	Sep-23	Oct-23	Nov-23	Dec-23
1	-	0	2,274	783	2,455	1,785	2,023	957	2,455	2,429	2,455	2,304
2	-	0	2,304	750	2,223	1,603	2,172	1,693	2,429	2,455	2,429	2,304
3	-	0	2,274	997	2,172	2,023	2,122	2,023	2,377	2,429	2,429	2,351
4	-	0	2,023	994	2,223	2,325	2,147	1,951	2,403	2,429	2,403	2,325
5	-	0	2,122	1,184	2,325	2,403	2,223	2,102	2,325	2,429	2,351	2,274
6	-	0	2,147	1,387	1,903	2,248	2,122	2,197	2,274	2,455	2,351	2,377
7	-	0	2,048	1,739	1,739	2,248	2,122	2,122	2,351	2,455	2,325	2,304
8	-	783	2,122	2,023	1,762	2,299	2,122	2,325	2,429	2,455	2,304	2,325
9	-	1,145	2,274	1,975	1,581	1,739	1,832	2,325	2,429	2,455	2,351	2,304
10	-	1,346	2,147	2,223	1,648	2,122	2,023	2,299	2,429	2,455	2,351	2,325
11	-	1,429	1,832	2,023	2,048	2,299	2,274	2,299	2,429	2,455	2,325	2,304
12	-	1,903	1,879	1,832	2,535	2,325	2,122	2,299	2,429	2,455	2,274	2,325
13	-	1,975	2,122	1,739	2,429	2,377	507	2,325	2,455	2,508	2,274	2,351
14	-	2,202	2,197	1,879	2,429	2,299	238	2,351	2,429	2,482	2,274	2,325
15	-	2,147	2,197	2,023	2,429	2,325	-	2,377	2,455	2,508	2,274	2,325
16	-	2,172	1,927	2,535	2,147	2,325	-	2,439	2,429	2,508	2,223	2,351
17	-	2,325	2,122	2,562	2,197	2,325	-	2,403	2,508	2,248	2,274	2,325
18	-	2,325	1,603	2,403	2,172	2,274	-	2,403	2,535	2,403	2,304	2,351
19	-	2,274	1,832	2,325	2,223	2,274	-	2,377	2,455	2,429	2,304	2,248
20	-	2,325	1,927	2,325	2,317	2,299	2,223	1,184	2,455	2,429	2,304	2,351
21	-	2,325	2,220	2,377	2,403	2,351	1,879	238	2,482	2,351	2,304	2,351
22	-	2,274	1,823	2,377	2,429	2,403	1,693	-	2,508	2,377	2,351	2,403
23	-	2,325	1,903	2,325	2,403	2,455	1,903	-	2,535	2,377	2,304	2,403
24	-	2,274	1,975	2,325	2,223	2,455	2,093	-	2,482	2,325	2,253	2,403
25	-	2,325	1,603	2,377	2,223	2,535	2,223	624	2,455	2,325	2,253	2,351
26	-	2,304	1,603	2,377	2,197	2,429	624	2,299	2,429	2,377	2,253	2,351
27	-	2,274	1,472	2,123	2,429	1,975	238	2,274	2,482	2,377	2,253	2,351
28	-	2,274	1,927	2,103	2,482	1,832	-	2,223	2,429	2,351	2,274	2,023
29	-		1,975	2,429	2,197	1,809	-	2,299	2,429	2,377	2,253	2,023
30	-		1,951	2,403	2,073	1,903	-	2,429	2,429	2,429	2,304	1,832
31	-		1,603		2,073		-	2,429		2,455		-


Executive Engineer
Irrigation Department
Pakpattan



**Discharge Data of Upper Pakpattan Canal
January 2016 to February 2025**

Discharge Data

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	-	-	2,274	2,122	2,274	2,616	2,377	2,304	1,879	2,351	2,253	2,223
2	-	-	2,122	2,147	2,274	2,589	2,351	2,403	2,223	2,403	2,274	2,248
3	-	-	2,274	2,122	2,304	2,589	2,351	2,351	2,172	2,403	2,274	2,223
4	-	-	2,172	2,202	2,304	2,377	2,403	2,351	2,122	2,325	2,253	2,248
5	-	1031	2,223	2,202	2,274	2,325	2,455	2,403	2,073	2,325	2,377	2,274
6	-	1106	2,253	2,223	2,274	2,325	2,351	2,377	2,223	2,377	2,223	2,223
7	-	1346	2,304	2,223	2,274	2,589	2,299	2,377	2,248	2,377	2,325	2,223
8	-	1515	2,377	2,202	2,274	2,516	2,023	2,403	2,304	2,403	2,304	2,248
9	-	1648	2,403	2,152	2,304	2,643	2,351	2,482	2,325	2,325	2,304	2,248
10	-	1739	2,377	2,152	2,248	2,589	2,325	2,403	2,325	2,325	2,325	2,248
11	-	1975	2,325	2,202	2,248	2,535	2,325	2,455	2,304	2,274	2,325	2,248
12	-	2023	2,351	2,202	2,274	2,482	2,377	2,403	2,304	2,325	2,377	2,248
13	-	2023	2,325	2,223	2,274	2,562	2,223	2,377	2,248	2,299	2,351	2,248
14	-	2223	2,351	2,152	2,248	2,429	2,025	2,403	2,274	2,325	2,325	2,248
15	-	2274	2,377	2,202	2,223	1,832	2,073	2,455	2,274	2,274	2,351	2,274
16	-	2274	2,377	2,122	2,223	2,223	2,023	2,351	1,648	2,274	2,325	2,223
17	-	2299	2,403	2,013	2,248	2,274	2,122	2,274	1,762	2,325	2,325	2,325
18	-	2223	2,351	2,023	2,248	2,351	1,975	2,122	1,648	2,248	2,304	2,202
19	-	2274	2,304	2,053	2,248	2,351	1,903	2,223	1,429	2,274	2,304	2,299
20	-	2172	2,304	2,053	2,248	2,377	1,927	2,172	1,785	2,377	2,304	2,223
21	-	1975	2,304	2,053	2,073	2,274	2,073	2,097	2,172	2,325	2,304	2,248
22	-	1999	2,304	2,102	2,048	2,403	2,097	2,172	2,172	2,325	2,253	2,223
23	-	1832	2,304	2,223	2,122	2,351	2,097	2,203	2,172	2,325	2,253	2,274
24	-	2299	2,304	2,223	2,097	2,248	2,122	2,223	2,172	2,351	2,223	2,274
25	-	2274	2,274	2,223	2,073	2,325	2,248	2,274	2,304	2,325	2,253	2,325
26	-	1927	2,248	2,223	2,172	2,403	2,325	2,248	2,351	2,274	2,253	2,253
27	-	2172	2,223	2,202	2,299	2,377	2,304	2,248	2,274	2,325	2,223	2,073
28	-	2350	2,248	2,122	2,535	2,429	2,304	1,739	2,223	2,325	2,274	1,739
29	-	2299	2,248	2,172	2,335	2,377	2,304	702	2,351	2,325	2,202	1,559
30	-	-	2,223	2,325	2,643	2,403	2,325	1,223	2,429	2,172	2,274	783
31	-	-	2,048		2,589			1,451		2,274		654

(Signature)
Executive Engineer
Irrigation Department
Pakpattan



Discharge Data of Upper Pakpattan Canal
January 2016 to February 2025
Discharge Data

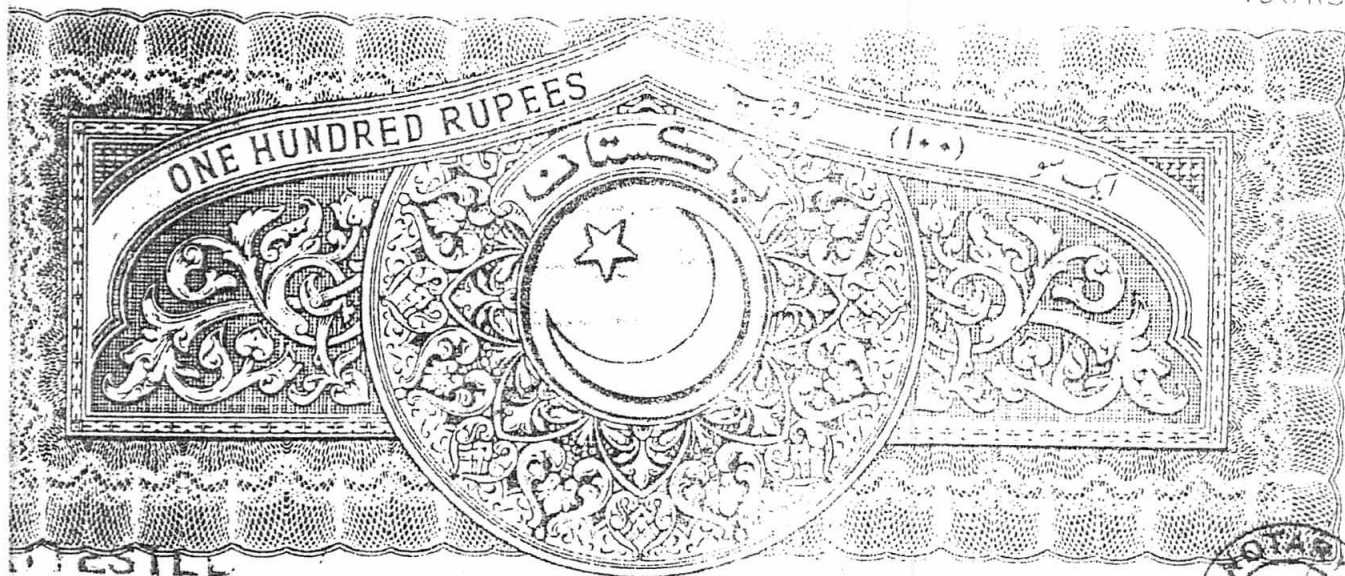
Date	Jan-25	Feb-25	Mar-25	Apr-25	May-25	Jun-25	Jul-25	Aug-25	Sep-25	Oct-25	Nov-25	Dec-25
1	-	350										
2	-	549										
3	-	702										
4	-	817										
5	-	1223										
6	-	1559										
7	-	1012										
8	-	957										
9	-	1031										
10	-	1031										
11	-	1264										
12	-	1145										
13	-	1739										
14	-	2122										
15	-	2147										
16	-	2223										
17	-	2223										
18	-	2274										
19	-	2325										
20	-	2172										
21	-	2223										
22	-	2223										
23	-	2223										
24	-	2223										
25	-	2253										
26	-	2197										
27	-	2122										
28	-	2073										
29	-											
30	-											
31	-											


Executive Engineer
 Irrigation Department
 Pakpattan

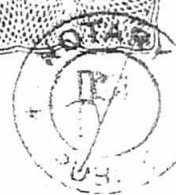


Annexure 5





TESTILL
RASHID
Notary Public
Court 1st



POWER PURCHASE AGREEMENT

BETWEEN

**NATIONAL TRANSMISSION
AND DESPATCH COMPANY LIMITED**

- AND -

**THE PAKISTAN WATER AND
POWER DEVELOPMENT AUTHORITY**

24th JANUARY, 2011



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
135 Wapda House, Lahore.

By: _____

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

Witnessed By:

Name: _____
Title: _____

AHMAD SOHAIL
Chief Engineer
Hydel Operation

Name: _____
Title: _____

MUHAMMAD JAMIL
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.

