



**National Electric Power Regulatory Authority**  
**Islamic Republic of Pakistan**

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**Registrar**

No.NEPRA/R/ADG(Tariff)/TRF-583/WAPDA-2022/ 843-19

June 06, 2024

Subject: **DECISION OF THE AUTHORITY IN THE MATTER OF MOTION FOR LEAVE FOR REVIEW FILED BY WAPDA HYDROELECTRIC AGAINST TARIFF DETERMINATION OF THE AUTHORITY IN THE MATTER OF WAPDA HYDROELECTRIC TARIFF PETITION FOR FY 2022-23 [CASE NO NEPRAITRF-583/WAPDA-2022]**

Dear Sir,

Please find enclosed herewith the Decision of the Authority alongwith **Annex-I** (total 28 Pages) in the matter of Motion for Leave for Review filed by WAPDA Hydroelectric against Tariff determination of the Authority dated September 06, 2023 in the matter of WAPDA Hydroelectric Tariff Petition for FY 2022-23 in Case No NEPRA/TRF-583/WAPDA-2022.

2. The Decision is being intimated to the Federal Government for the purpose of notification in the official Gazette pursuant to Section 31(7) of the Regulation of Generation, Transmission and Distribution of Electric Power Act, 1997 within 30 days from the intimation of this Decision. In the event the Federal Government fails to notify the subject tariff Decision, within the time period specified in Section 31(7), then the Authority shall notify the same in the official Gazette pursuant to Section 31(7) of NEPRA Act.

Enclosure: As above

  
(Engr. Mazhar Iqbal Ranjha)

Secretary  
Ministry of Energy (Power Division)  
'A' Block, Pak Secretariat,  
Islamabad

CC:

1. Secretary, Cabinet Division, Cabinet Secretariat, Islamabad.
2. Secretary, Ministry of Finance, 'Q' Block, Pak Secretariat, Islamabad
3. Secretary, Energy and Power Department Government of Khyber Pakhtunkhwa, First Floor, A-Block, Abdul Wali Khan Multiplex, Civil Secretariat, Peshawar
4. Secretary, Energy Department. Government of the Punjab 8<sup>th</sup> Floor, EFU House, Main Gulberg, Jail Road, Lahore
5. Chief Executive Officer, Central Power Purchasing Agency Guarantee Limited (CPPA-G) Shaheen Plaza, 73-West, Fazl-e-Haq Road, Islamabad
6. Chairman Water and Power Development Authority, WAPDA House Shahrah-e-Quaid-e-Azam Lahore



**DECISION OF AUTHORITY IN THE MATTER OF MOTION FOR LEAVE FOR REVIEW FILED BY WAPDA  
HYDROELECTRIC AGAINST TARIFF DETERMINATION OF THE AUTHORITY IN THE MATTER OF WAPDA  
HYDROELECTRIC TARIFF PETITION FOR FY 2022-23**

**Preamble:**

The Authority issued its tariff determination on September 06, 2023 ("Impugned Tariff Determination" or "TD") against the bulk supply tariff petition filed by WAPDA Hydroelectric ("WAPDA" or "the Petitioner") for the FY 2022-23, wherein the Authority approved 21 plants' individual tariffs the average of which based on estimated energy of 31,255 GWh for FY 2023 worked out as Rs. 4.9587/kWh. WAPDA being aggrieved with the aforementioned tariff determination of the Authority filed motion for leave for review ("Review Motion") on September 18, 2023 under Regulation of Generation, Transmission and Distribution of Electric Power Act, 1997 (as amended, the "NEPRA Act"), read with Rule 16(6) of NEPRA (Tariff Standard and Procedures) Rules 1998 ("Rules"), Regulation 3 of NEPRA (Review Procedure) Regulations, 2009 ("Regulations") and all other applicable provisions of NEPRA laws.

**Brief Background:**

- WAPDA was established under the Water and Power Development Authority Act 1958 ("WAPDA Act") as an autonomous body for the development and use of the water and power resources of Pakistan on a unified and multipurpose basis. As a result of structural reforms introduced by Federal Government in power sector, WAPDA Power Wing Hydroelectric emerged, which since then has been responsible for operation, maintenance, up-gradation and expansion of its operational hydel power stations and construction of new projects for generation of power using hydel sources on built, own and operate basis in accordance with the provisions of Section 8 of the WAPDA Act.

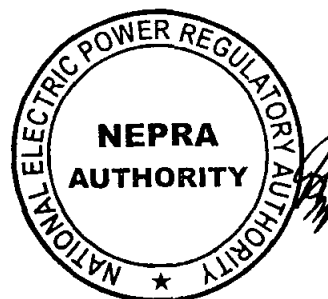
**Proceedings:**

- The subject Review Motion was admitted by the Authority on September 26, 2023 and the hearing in the matter was fixed for November 29, 2023 at 01:30 PM. Accordingly, the notices of the hearing to the relevant parties were issued on November 7, 2023. The hearing was held as per the schedule which was attended by the representatives of WAPDA, RIAA Barker representing the Petitioner and Central Power Purchasing Agency ("CPPA-G"). During the hearing, the Petitioner submitted its detailed reasoning on the grounds raised in the Review Motion.
- Subsequently, WAPDA vide letter dated February 21, 2024 submitted its revised claim for the FY 2022-23 based on the audited financial statement of the same year.

**Grounds for Motion for Leave for Review:**

- WAPDA has taken the following grounds in its Review Motion and submitted that in the Impugned Tariff Determination the Authority has:
  - Ignored statutory mandate and role of WAPDA
  - Misinterpreted conflict of interest
  - Overlooked project benefits and posed threats to financial viability of WAPDA
  - Disregarded protocol compliance by WAPDA
  - Disregarded audited accounts of WAPDA
  - Disregarded delayed payment and WAPDA's leniency for not charging delayed payment interest on these outstanding amounts.

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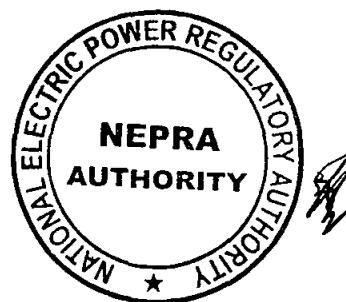
- g. Unilaterally altered Tariff Structure
  - h. Ignored force majeure
  - i. Reopened past and closed transactions
  - j. Incorrectly applied the principles of private sector on WAPDA
  - k. Misconceived benchmarking
6. Based on above grounds WAPDA has requested the Authority to review the decision to the extent of following:
- a. Operation & Maintenance Cost:
    - i. Employee's salaries and benefits
    - ii. Post-retirement benefits
    - iii. Administration Cost
    - iv. Benchmarking
  - b. Depreciation Cost
  - c. Return on investment
  - d. Provision for future development:
    - i. Reduction in CWIP
    - ii. Debt to equity ratio
    - iii. Reduction in DASU HPP cost and construction period
    - iv. Fixing for development period for Manga rehabilitation and Warsak rehabilitation
    - v. Essential post COD cost incurred on Tarbela 4<sup>th</sup> extension and Golen Gol HPP
  - e. Reduction in license capacity
  - f. Take & pay basis
  - g. Regulatory Revenue Gap
  - h. Net Hydel Profit
7. The Authority in the Impugned Tariff Determination, approved WAPDA's revenue requirement for FY 2023 on a provisional basis, relying on projected and budgeted figures for FY 2023 as submitted by WAPDA. This approval was contingent upon adjustments based on the submission of audited accounts. Subsequently, in the Review Motion, WAPDA has furnished the final audited accounts for the fiscal year 2022-23, which have been duly considered by the Authority. The cost/expense actually incurred in FY 2023 as per the audited accounts and claimed in the Review Motion on overall basis are more than what was requested in the original tariff petition.
8. The comparison of the costs claimed in the tariff petition, allowed in the tariff determination, submissions of the WAPDA in the Review Motion, findings and decision of the Authority on each head is provided in the ensuing paragraphs.

**A. Operation and Maintenance Cost:**

**Tariff Determination:**

9. The Authority in the Impugned Tariff Determination allowed following O&M cost for the FY 2019-20 till 2022-23 as against the claimed O&M costs for the relevant period:

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DECISION OF THE AUTHORITY IN THE MATTER OF  
MOTION FOR LEAVE FOR REVIEW FILED BY WAPDA HYDROELECTRIC  
AGAINST TARIFF DETERMINATION OF AUTHORITY FOR FY 2022-23

| Description                      | 2019-20        |               | 2020-21 |               | 2021-22 |               | 2022-23 |               |                          |
|----------------------------------|----------------|---------------|---------|---------------|---------|---------------|---------|---------------|--------------------------|
|                                  | Claimed        | Allowed in TD | Claimed | Allowed in TD | Claimed | Allowed in TD | Claimed | Allowed in TD | Claimed in Review Motion |
|                                  | Rs. in million |               |         |               |         |               |         |               |                          |
| Employees' Salaries And Benefits | 5,787          | 4,998         | 5,296   | 5,104         | 6,319   | 5,558         | 7,972   | 6,053         | 7,411                    |
| Post-Retirement Benefits         | 8,886          | 8,886         | 7,891   | 7,891         | 9,211   | 9,211         | 11,514  | 10,031        | 10,804                   |
| Repair & Maintenance             | 976            | 976           | 1,460   | 1,460         | 1,912   | 1,912         | 2,389   | 2,077         | 1,207                    |
| Administration Cost              | 3,029          | 2,544         | 3,470   | 2,648         | 3,705   | 2,751         | 5,208   | 2,933         | 4,781                    |
| Benchmarked                      | -              | (211)         | -       | (66)          | -       | (222)         | -       | (133)         | -                        |
| Total O&M                        | 18,678         | 17,193        | 18,117  | 17,037        | 21,147  | 19,210        | 27,083  | 20,961        | 24,203                   |

**WAPDA's Submissions in Review Motion:**

10. WAPDA in its Review Motion has submitted that O&M costs were not fully approved by NEPRA in the Impugned Tariff Determination. WAPDA stated that despite presenting audited accounts supported by internal auditors, the Auditor General of Pakistan (AGP), and a private audit firm, NEPRA disregarded the same hence potentially compromising WAPDA's operational and financial stability. WAPDA asserted that its audited accounts accurately represent its financial needs and should be the basis for tariff determination. WAPDA further argued that NEPRA wrongly applied an inflation rate of 8.9% from the Asian Development Bank ("ADB") Report for the FY 2020-21 & 2021-23 and requested that NEPRA should use the ADB's expected inflation rate of 27.5% for FY 2022-2023 to compute projected costs and should allow all inflation-based costs accordingly.

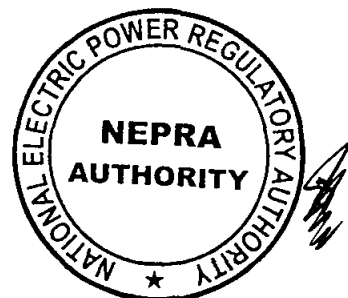
**a. Employee's Salaries and Benefits:**

**Tariff Determination:**

11. The Authority in the Impugned Tariff Determination allowed the following costs under this head for the FY 2019-20 till 2022-23 as against the claimed salaries and benefits for the said period:

| Description                   | 2019-20                  |         |               | 2020-21                  |         |               | 2021-22 |               | 2022-23 |               |                          |
|-------------------------------|--------------------------|---------|---------------|--------------------------|---------|---------------|---------|---------------|---------|---------------|--------------------------|
|                               | Determined on 05-04-2021 | Claimed | Allowed in TD | Determined on 05-04-2021 | Claimed | Allowed in TD | Claimed | Allowed in TD | Claimed | Allowed in TD | Claimed in Review Motion |
|                               | Rs. in million           |         |               |                          |         |               |         |               |         |               |                          |
| Employees' Salaries and Wages | 4,993                    | 4,210   | 4,204         | 5,243                    | 4,359   | 4,333         | 5,107   | 4,719         | 6,638   | 5,138         | 5,797                    |
| Employees' Benefits           | 798                      | 1,577   | 794           | 838                      | 937     | 771           | 1,212   | 840           | 1,334   | 914           | 1,614                    |
| Total                         | 5,791                    | 5,787   | 4,998         | 6,081                    | 5,296   | 5,104         | 6,319   | 5,558         | 7,972   | 6,053         | 7,411                    |

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12. The Authority approved plant wise salaries and benefits for the FY 2019-20 and FY 2020-21 considering the audited accounts of respective years and in line with the mechanism provided in the previous tariff determination dated April 5, 2021 which provided that the plant-wise salaries and wages projected for the FY 2019-20 and FY 2020-21 were subject to adjustment at actual on the basis of audited accounts of respective years provided the actual costs are less than the determined cost.
13. For the FY 2021-22 and FY 2022-23, the Authority approved plant wise costs under this head based on inflation rate of 8.9%, as reported by the ADB, as against the claimed 17% and 30% for salaries and wages and 29% and 10% for Employee Benefits for the FY 2021-22 & 2022-23 respectively.

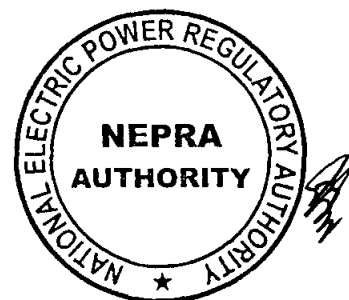
**WAPDA's Submissions in Review Motion:**

14. WAPDA in its Review Motion has submitted that it had made a legitimate request in its tariff petition for the recovery of all duly audited employees' salaries and benefits. However, in the Impugned Tariff Determination, NEPRA omitted to differentiate between 'sanctioned employees' and 'active employees.' WAPDA submitted that it is essential to note that the number of active employees may fluctuate throughout the year, whereas the sanctioned employees, those officially approved by the Government of Pakistan, remain constant. Therefore, if NEPRA sets a ceiling based on the actual number of employees, any additional employees hired by the Petitioner would not be factored into the tariff. To address this issue, WAPDA requested that a ceiling be established based on the number of "sanctioned employees", with costs subject to adjustment based on the actual number of employees as reflected in the respective year's audited accounts.
15. Additionally, WAPDA submitted that it has adopted the Federal pay scale for its employees, and any increases in salaries are beyond its control. Based on the above, WAPDA submitted that in the Impugned Tariff Determination, NEPRA calculated budgeted expenses using an irrational approach by ignoring this factor and by considering inflation at an incorrect rate. Stating above, WAPDA requested to allow the claimed differential amount to ensure that it can fulfill its obligations and effectively perform its functions while adhering to government-mandated salary increases and accurate expense calculations.

**Findings and Decision of the Authority:**

16. The Authority in the Impugned Tariff Determination allowed plant wise cost for the FY 2019-20 & 2020-21 as per the approved mechanism in the previous tariff determination therefore cost approved for these periods are in line with the previous tariff determination. During the proceeding of the Impugned Tariff Determination, Petitioner forecasted salaries and wages and employees benefit by 25% and 38% respectively for FY 2022 and 30% and 10% for FY 2023. This forecast was considered to be on the higher side. Hence, Inflation factor as reported by ADB was used to forecast FY 2022 and FY 2023 cost. However, the Authority noted that since the actual accounts have now been submitted there may not be need to apply an inflation factor to make any projections on account of employees' salaries & wages and benefits. Therefore, the Authority decided to allow the salaries and benefits for the FY 2022 and 2023 as per the submitted audited accounts of the respective years. Based on above, the allowed salaries and benefits for the FY 2020-2023 are tabulated as under:

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DECISION OF THE AUTHORITY IN THE MATTER OF  
MOTION FOR LEAVE FOR REVIEW FILED BY WAPDA HYDROELECTRIC  
AGAINST TARIFF DETERMINATION OF AUTHORITY FOR FY 2022-23

| Description                   | 2019-20                  |         |               | 2020-21                  |         |               | 2021-22 |          | 2022-23 |          |
|-------------------------------|--------------------------|---------|---------------|--------------------------|---------|---------------|---------|----------|---------|----------|
|                               | Determined on 05-04-2021 | Claimed | Allowed in TD | Determined on 05-04-2021 | Claimed | Allowed in TD | Claimed | Approved | Claimed | Approved |
| Rs. In million                |                          |         |               |                          |         |               |         |          |         |          |
| Employees' Salaries and Wages | 4,993                    | 4,210   | 4,204         | 5,243                    | 4,359   | 4,333         | 5,107   | 5,107    | 5,797   | 5,797    |
| Employees' Benefits           | 798                      | 1,577   | 794           | 838                      | 937     | 771           | 1,212   | 1,212    | 1,614   | 1,614    |
| Total                         | 5,791                    | 5,787   | 4,998         | 6,081                    | 5,296   | 5,104         | 6,319   | 6,319    | 7,411   | 7,411    |

**b. Post-Retirement Benefits:**

**Tariff Determination:**

17. The Authority in the Impugned Tariff Determination allowed following costs under this head for the FY 2019-20 till 2022-23 as against the claimed post-retirement benefits for the said period:

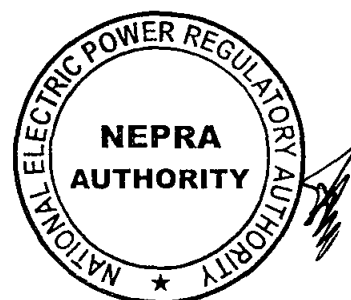
| Description              | 2019-20                  |         |               | 2020-21                  |         |               | 2021-22 |               | 2022-23 |               |                          |
|--------------------------|--------------------------|---------|---------------|--------------------------|---------|---------------|---------|---------------|---------|---------------|--------------------------|
|                          | Determined on 05-04-2021 | Claimed | Allowed in TD | Determined on 05-04-2021 | Claimed | Allowed in TD | Claimed | Allowed in TD | Claimed | Allowed in TD | Claimed in Review Motion |
| Rs. In million           |                          |         |               |                          |         |               |         |               |         |               |                          |
| Post-Retirement Benefits | 6,700                    | 8,886   | 8,886         | 8,009                    | 7,891   | 7,891         | 9,211   | 9,211         | 11,514  | 10,031        | 10,804                   |

18. The Authority approved plant wise post-retirement benefits for the FY 2019-20, FY 2020-21 and FY 2021-22 as per actual considering the audited accounts of respective years and in line with the mechanism provided in the previous tariff determination dated April 5, 2021. For FY 2022-23, the Authority approved plant wise costs under this head based on an inflation rate of 8.9%, as reported by the ADB, as against the claimed inflation rate of 27.5%.
19. Further, the Authority in the Impugned Tariff Determination deducted Rs. 5,788 million (Rs. 6,049 million inclusive of interest) till FY 2020-21 being the difference between provision allowed to the Petitioner vs. the actual payment made by the Petitioner on this account.

**WAPDA's Submissions in Review Motion:**

20. WAPDA in its Review Motion has submitted that in the Tariff petition, it had requested for the allowance of post-retirement benefit for FY 2022-23, with an increase of 27.5% based on the audited report of FY 2021-22. However, NEPRA relied excessively on the ADB Report and applied an inflation rate of 8.9%. The Petitioner submitted that the Impugned Tariff Determination, if upheld, would impose severe difficulties on the Petitioner, making it unviable to discharge its mandate.
21. Furthermore, WAPDA has submitted that in the Impugned Tariff Determination, NEPRA denied an amount of Rs. 5,788 million on account of post-retirement benefits, asserting that WAPDA had received such funds. The Petitioner submitted that NEPRA needs to distinguish between funds that have been received and retained by the Petitioner and those that are yet to be received or retained.

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22. Subsequently, vide letter dated February 19, 2024, WAPDA submitted that in its tariff petition for FY 2022-23 dated May 14, 2022 it has already apprised that pension fund could not be established due to less and erratic payments from CPPAGL against power sale invoices. However, to comply with NEPRA directions, WAPDA, despite its crunch financial position, initiated making investments in the shape of TDRs for payment of post- retirement benefits. The Petitioner further stated that despite of the fact that Rs. 204,071 million are still receivable from CPPAGL against power sale Invoices as on June 06, 2023, WAPDA is determined to institute and maintain exclusive pension fund for its NEPRA regulated business and is making sure to sustain Plan Assets/TDRs as per actuarial reports for this purpose. Accordingly, WAPDA has enhanced the amount of TDRs to match the desired amount for post-retirement benefits as on June 30, 2023 according to Actuarial Valuation Report for FY 2022-23.
23. In light of the foregoing, the Petitioner requested to allow the differential claim.

**Analysis and decision the Authority:**

24. The post-retirement benefits are allowed to WAPDA as per actual based on the basis of audited financial statement since the audited statements for the FY 2022-23 has now been submitted by the Petitioner based on which the allowed post-retirement benefits for the FY 2020-23 are tabulated as under:

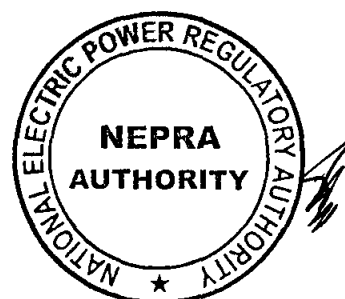
| Description                 | 2019-20                     |         |                  | 2020-21                     |         |                  | 2021-22 |                  | 2022-23 |          |
|-----------------------------|-----------------------------|---------|------------------|-----------------------------|---------|------------------|---------|------------------|---------|----------|
|                             | Determined on<br>05-04-2021 | Claimed | Allowed<br>in TD | Determined on<br>05-04-2021 | Claimed | Allowed<br>in TD | Claimed | Allowed<br>in TD | Claimed | Approved |
|                             | Rs. In million              |         |                  |                             |         |                  |         |                  |         |          |
| Post-Retirement<br>Benefits | 6,700                       | 8,886   | 8,886            | 8,009                       | 7,891   | 7,891            | 9,211   | 9,211            | 10,804  | 10,804   |

25. Further the Authority in the earlier tariff determination dated April 05, 2021 stated that:

*"Since the Authority has been allowing provision for the post-retirement benefit to the Petitioner, since FY 2016-17 therefore, the Authority is of the opinion that the Petitioner shall ensure to deposit the differential of the amount of provision allowed to the Petitioner vs. the actual payment made by the Petitioner on this account in the post-retirement benefit created by the Petitioner. In case of failure, the Authority may while determining the next tariff petition deduct the differential amount of provision vs. the actual payment and may also charge a certain financial cost as a penalty for the amount retained by the Petitioner. "*

26. It is observed that the Petitioner has now submitted signed actuarial report dated August 28, 2023 for the Pension Scheme of WAPDA Hydroelectric for the year 2022-23 which shows that WAPDA has dedicated a total of Rs. 26,744 million (against Rs. 25,809 million till FY 2022-23) as its contribution for post-retirement benefits.
27. The Authority has noted that the provision for post-retirement benefit has been allowed to WAPDA since 2017 and it was required to plan this future liability towards its employees as being done in case of Ex-WAPDA DISCOs i.e. to maintain a separate bank account. However, no such account has yet been created by WAPDA citing the cash flows issues and payment of Rs. 204,071 million being receivable from CPPAGL. In this regard, the Authority considered that cash flow issue is a genuine power sector issue, but it is a systemic issue especially concerning WAPDA. WAPDA is not charging late payment surcharge ("LPS") to CPPA-G as a result, CPPA-G may be encouraged to accumulate payable to WAPDA. The Authority in the case of Discos, has consistently decided the matter on the basis of creation of a separate account for post-retirement benefit which all Discos have consistently complied with. Though in the case of Discos, being a collector of bills, they have a cash flow advantage over WAPDA.

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28. In view of the foregoing, the Authority has decided to reverse the disallowed amount of Rs. 6,049 million on account of post-retirement benefits with following directions:

- The Petitioner must maintain a dedicated bank account and deposit the differential amount between the provision allowed to the Petitioner and the actual payment made by the Petitioner into this account. Failure to do so may result in the Authority deducting the differential amount from the next tariff petition and imposing a financial penalty for the amount retained by the Petitioner.
- WAPDA and CPPAGL to develop a mechanism that prioritizes directing available cash flows to credit the dedicated account first, enabling WAPDA to fulfill its future employee liabilities.
- In the event of failure to comply, the Authority may revert to the old practice of allowing paid post-retirement benefits without any provision based on audited accounts, with the difference between the previously allowed and paid amounts being deducted.

**c. Repair and maintenance:**

**Tariff Determination:**

29. The Authority in the Impugned Tariff Determination allowed following costs under this head for the FY 2019-20 till 2022-23 as against the claimed repair and maintenance cost for the said period:

| Description               | 2019-20                     |            |                  | 2020-21                     |              |                  | 2021-22      |                  | 2022-23               |                  |                  |
|---------------------------|-----------------------------|------------|------------------|-----------------------------|--------------|------------------|--------------|------------------|-----------------------|------------------|------------------|
|                           | Determined on<br>05-04-2021 | Claimed    | Allowed<br>in TD | Determined on<br>05-04-2021 | Claimed      | Allowed in<br>TD | Claimed      | Allowed in<br>TD | Claimed/<br>Projected | Allowed in<br>TD | Claimed<br>in RM |
|                           | Rs. in million              |            |                  |                             |              |                  |              |                  |                       |                  |                  |
| Fuel Charges              | 22                          | 22         | 22               | 23                          | 19           | 19               | 19           | 19               | 20                    | 20               | 41               |
| Repair and<br>Maintenance | 913                         | 904        | 904              | 958                         | 1,241        | 1,241            | 1,776        | 1,776            | 2,138                 | 1,934            | 1,010            |
| Insurance                 | 53                          | 49         | 49               | 56                          | 199          | 199              | 116          | 116              | 122                   | 22               | 156              |
| Consultancy               | 1                           | 0          | 0                | 1                           | 1            | 1                | 2            | 2                | 109                   | 2                | 0                |
| <b>Total</b>              | <b>989</b>                  | <b>975</b> | <b>975</b>       | <b>1,038</b>                | <b>1,460</b> | <b>1,460</b>     | <b>1,913</b> | <b>1,913</b>     | <b>2,389</b>          | <b>2,077</b>     | <b>1,207</b>     |

30. The approved plant wise repair and maintenance cost for the FY 2019-20, FY 2020-21 and FY 2021-22 were subject to adjustment as per actual based on respective year financial accounts. For the FY 2022-23 projections, the Authority approved plant wise costs under this head based on an inflation rate of 8.9%.

**Findings and Decision of the Authority:**

31. WAPDA has not requested review of this cost head in its Review Motion. However, based on the audited accounts submitted for the FY 2022-23 it has been noted that the actual cost incurred under this head for the FY 2022-23 is Rs. 1,207 million as against the allowed Rs. 2,077 million which was based on projections. Accordingly, the actual cost verified from the audited financial statements has been considered for this cost head for FY 2022-23 also.

32. The comparison of repair and maintenance cost for the relevant years is tabulated as under:

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DECISION OF THE AUTHORITY IN THE MATTER OF  
MOTION FOR LEAVE FOR REVIEW FILED BY WAPDA HYDROELECTRIC  
AGAINST TARIFF DETERMINATION OF AUTHORITY FOR FY 2022-23

| Description            | 2019-20                  |                  |               | 2020-21                  |                  |               | 2021-22          |               | 2022-23 |         |          |
|------------------------|--------------------------|------------------|---------------|--------------------------|------------------|---------------|------------------|---------------|---------|---------|----------|
|                        | Determined on 05-04-2021 | Claimed/ Audited | Allowed in TD | Determined on 05-04-2021 | Claimed/ Audited | Allowed in TD | Claimed/ Audited | Allowed in TD | Claimed | Audited | Approved |
|                        | Rs. in million           |                  |               |                          |                  |               |                  |               |         |         |          |
| Fuel Charges           | 22                       | 22               | 22            | 23                       | 19               | 19            | 19               | 19            | 20      | 41      | 41       |
| Repair and Maintenance | 913                      | 904              | 904           | 958                      | 1,241            | 1,241         | 1,776            | 1,776         | 2,138   | 1,010   | 1,010    |
| Insurance              | 53                       | 49               | 49            | 56                       | 199              | 199           | 116              | 116           | 122     | 156     | 156      |
| Consultancy            | 1                        | 0                | 0             | 1                        | 1                | 1             | 2                | 2             | 109     | 0       | 0        |
| Total                  | 989                      | 975              | 975           | 1,038                    | 1,460            | 1,460         | 1,913            | 1,913         | 2,389   | 1,207   | 1,207    |

d. Administration cost:

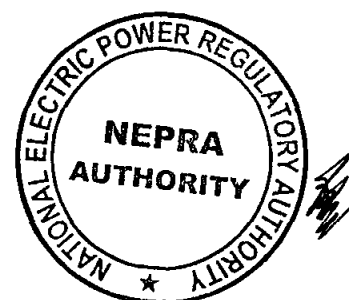
Tariff Determination:

33. The Authority in the Impugned Tariff Determination allowed following costs under this head for the FY 2019-20 till 2022-23 as against the claimed administration cost for the said period:

| Description                        | 2019-20                  |         |               | 2020-21                  |         |               | 2021-22 |               | 2022-23            |               |               |
|------------------------------------|--------------------------|---------|---------------|--------------------------|---------|---------------|---------|---------------|--------------------|---------------|---------------|
|                                    | Determined on 05-04-2021 | Claimed | Allowed in TD | Determined on 05-04-2021 | Claimed | Allowed in TD | Claimed | Allowed in TD | Claimed/ Projected | Allowed in TD | Claimed in RM |
|                                    | Rs. in million           |         |               |                          |         |               |         |               |                    |               |               |
| Dams and Hydrology Monitoring Cost | 689                      | 702     | 689           | 689                      | 944     | 687           | 689     | 689           | 689                | 689           | 1,088         |
| Survey and Experiment              | 291                      | 292     | 291           | 305                      | 350     | 305           | 372     | 323           | 391                | 340           | 470           |
| Power, Gas and Water               | 432                      | 432     | 318           | 454                      | 413     | 413           | 592     | 450           | 626                | 477           | 674           |
| Management/ Authority Overheads    | 806                      | 993     | 645           | 846                      | 1,138   | 645           | 1,359   | 645           | 2,435              | 645           | 1,543         |
| Vehicle Running Expenses           | 221                      | 222     | 221           | 232                      | 206     | 204           | 271     | 223           | 295                | 242           | 451           |
| NEPRA Fees                         | 141                      | 141     | 141           | 148                      | 157     | 146           | 169     | 169           | 436                | 205           | 204           |
| Other Operating Expenses           | 251                      | 247     | 239           | 324                      | 261     | 248           | 254     | 252           | 336                | 335           | 352           |
| Total                              | 2,831                    | 3,029   | 2,544         | 2,998                    | 3,469   | 2,648         | 3,706   | 2,751         | 5,208              | 2,933         | 4,782         |

34. The approved plant wise administration cost for the FY 2019-20 and FY 2020-21 was subject to adjustment at actual provided the actual cost reflected in the audited accounts of the respective year is less than the determined cost. For the FY 2021-22 and FY 2022-23, the Authority projected plant wise costs under this head based on an inflation rate of 8.9% where the claimed rates were higher than 8.9%.

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35. Further, the Authority, rationalized Management Authority Overheads as the claimed cost in the range of Rs. 993 million to Rs. 1,543 million (FY 2020-23) was on the higher side and was lacking proper justification and thus allowed average of the audited figures of the past 5 years.

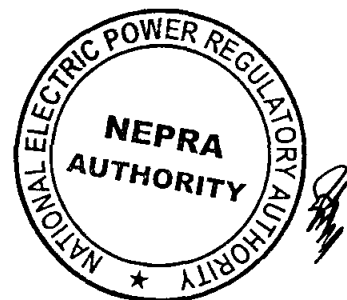
**WAPDA's Submissions in Review Motion:**

36. WAPDA in its Review Motion has submitted that despite high inflation rates, it had claimed a minimum increase in administration costs based on the approved audited accounts of FY 2021-22. However, NEPRA placed undue reliance on the ADB Report and applied an inflation rate of 8.9%, which is significantly lower than the actual expected inflation rate of 27.5% by ADB for FY 2022-2023.
37. The Petitioner in addition to the above has submitted that in the Impugned Tariff Determination, NEPRA inadvertently determined that the Petitioner had not provided the necessary information and documentary evidence regarding actual expenditures for management and authority overheads. Consequently, NEPRA based its decision on average audited figures for the preceding five years. Contrary to NEPRA's determination, the Petitioner maintains that it has indeed submitted comprehensive documentary evidence for the projected increase in administration and retired employees' pension costs. Copies of all supporting documents for the claimed administration costs have been furnished as well. Despite these justifications and the provided evidence, NEPRA significantly reduced overall administration costs by an amount of Rs. 4,536 million.
38. Stating above, the Petitioner requested to reconsider its evaluation of administration costs, as the current determinations would make it exceptionally challenging for the Petitioner to effectively manage and administer its projects.

**Findings and Decision of the Authority:**

39. The Authority in the Impugned Tariff Determination allowed plant wise administration cost for the FY 2019-20 & 2020-21 as per the approved mechanism in the previous tariff determination therefore cost approved for these periods are in line with the previous tariff determination except for management and authority overheads which has been allowed based on average revenue allowed for last 5 years. For the FY 2021-22 & 2022-23, the Authority projected plant wise cost based on 8.9% inflation rate of FY 2021 as reported by ADB where the claimed rates were higher.
40. The Authority noted that the inflation rates as reported by PBS, GoP for the FY 2021-22 and 2022-23 are 21.56% and 29.40% respectively accordingly, decided to consider same as a ceiling or actual wherever it is applicable. With regard to the management authority overheads clubbed under admin cost, the Petitioner informed that WAPDA Hydroelectric is required to pay this cost @ 5% of O&M Budget and 1% of Development Budget and 0.5% supervisory overhead in compliance of Ministry of Water & Power office order No. 4(4) / B&A dated 25.08.1996 and revised Notification No. 4(4)/2010-B&F dated 15.08.2011. The Petitioner further informed that the overheads collected are utilized by WAPDA's authority for meeting its expenses as well as expenses of offices under its control performing centralized functions of General & HR Administration. Accordingly, the management overhead as part of the admin expense has been allowed by the Authority based on the percentages for the FY 2021-22 & 2022-23.
41. The approved administration cost is tabulated as under:

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DECISION OF THE AUTHORITY IN THE MATTER OF  
MOTION FOR LEAVE FOR REVIEW FILED BY WAPDA HYDROELECTRIC  
AGAINST TARIFF DETERMINATION OF AUTHORITY FOR FY 2022-23

| Description                        | 2019-20                     |              |             | 2020-21                     |              |              | 2021-22      |              | 2022-23      |              |
|------------------------------------|-----------------------------|--------------|-------------|-----------------------------|--------------|--------------|--------------|--------------|--------------|--------------|
|                                    | Determined on<br>05-04-2021 | Claimed      | Approved    | Determined on<br>05-04-2021 | Claimed      | Approved     | Claimed      | Approved     | Claimed      | Approved     |
|                                    | Rs. in million              |              |             |                             |              |              |              |              |              |              |
| Dams and Hydrology Monitoring Cost | 689                         | 702          | 689         | 689                         | 944          | 687          | 689          | 666          | 1,088        | 1,001        |
| Survey and Experiment              | 291                         | 292          | 291         | 305                         | 350          | 305          | 372          | 371          | 470          | 469          |
| Power, Gas and Water               | 432                         | 432          | 318         | 454                         | 413          | 413          | 592          | 536          | 674          | 626          |
| Management/ Authority Overheads    | 806                         | 993          | 806         | 846                         | 1,138        | 846          | 1,359        | 1,339        | 1,543        | 1,543        |
| Vehicle Running Expenses           | 221                         | 222          | 221         | 232                         | 206          | 204          | 271          | 256          | 451          | 364          |
| NEPRA Fees                         | 141                         | 141          | 141         | 148                         | 157          | 157          | 169          | 169          | 204          | 204          |
| Other Operating Expenses           | 251                         | 247          | 239         | 324                         | 261          | 248          | 254          | 249          | 352          | 332          |
| <b>Total</b>                       | <b>2,831</b>                | <b>3,029</b> | <b>2705</b> | <b>2,998</b>                | <b>3,469</b> | <b>2,860</b> | <b>3,706</b> | <b>3,586</b> | <b>4,782</b> | <b>4,539</b> |

**e. Benchmarking:**

**Tariff Determination:**

42. The Authority applied benchmarking on the overall O&M cost of power station wise below 100MW for the first time in its decision dated April 05, 2021. The same practice was also applied in the Impugned Tariff Determination

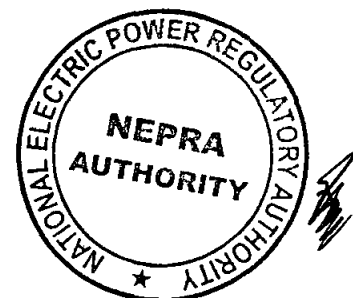
**WAPDA's Submissions in Review Motion:**

43. WAPDA being aggrieved with the NEPRA's benchmarks approach submitted that NEPRA in the Impugned Tariff Determination has not only disallowed legitimate O&M Costs but has also imposed a supercut by benchmarking these costs without providing a clear rationale or a component-wise breakdown. The Petitioner further submitted that the benchmarks imposed by NEPRA do not adequately consider the Petitioner's peculiar obligations, including those to retired employees and pensions, among other relevant factors. The benchmarking approach has had a detrimental impact on the viability of the Petitioner's projects. Stating above, the Petitioner requested to reconsider and not use benchmarking in this context, as it fails to account for essential obligations and intricacies associated with the Petitioner's operations.

**Findings and Decision of the Authority:**

44. The Authority has carefully considered the arguments submitted by WAPDA and is of the view that WAPDA being Government entity is faced with multiple layer of scrutiny i.e. internal, under the office of Audited General of Pakistan and through third party accounting firms. Further the Authority appreciate the fact that it is operating plants which are many decade old some even 100 years old. This has created an additional burden with regards to retired employee's pension and other obligations. For the reasons highlighted above because of this peculiar circumstance of WAPDA the Authority has decided not to continue scrutiny beyond the mechanism already laid

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down for the assessment of O&M expense. Therefore, the Authority has decided not to further benchmark the O&M cost.

45. Recapitulating the O&M cost being claimed and allowed for the FY 2019-20 till FY 2022-23.

| Description                      | 2019-20        |          | 2020-21 |          | 2021-22 |          | 2022-23 |          |
|----------------------------------|----------------|----------|---------|----------|---------|----------|---------|----------|
|                                  | Claimed        | Approved | Claimed | Approved | Claimed | Approved | Claimed | Approved |
|                                  | Rs. In million |          |         |          |         |          |         |          |
| Employees' Salaries And Benefits | 5,787          | 4,998    | 5,296   | 5,104    | 6,319   | 6,319    | 7,411   | 7,411    |
| Post-Retirement Benefits         | 8,886          | 8,886    | 7,891   | 7,891    | 9,211   | 9,211    | 10,804  | 10,804   |
| Repair & Maintenance             | 976            | 976      | 1,460   | 1,460    | 1,913   | 1,913    | 1,207   | 1,207    |
| Administration Cost              | 3,029          | 2,705    | 3,470   | 2,861    | 3,706   | 3,586    | 4,781   | 4,539    |
| Total O&M                        | 18,678         | 17,565   | 18,117  | 17,316   | 21,149  | 21,029   | 24,203  | 23,961   |

#### B. Depreciation Charge:

##### Tariff Determination:

46. The Authority in the Impugned Tariff Determination allowed following depreciation charge for the FY 2019-20 till 2022-23 as against the claimed cost:

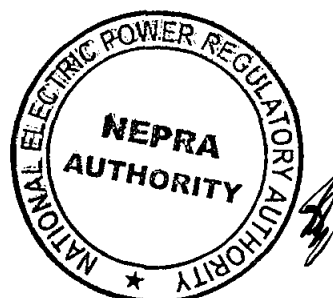
| Description         | 2019-20        |               | 2020-21 |               | 2021-22 |               | 2022-23            |               |                          |
|---------------------|----------------|---------------|---------|---------------|---------|---------------|--------------------|---------------|--------------------------|
|                     | Claimed        | Allowed in TD | Claimed | Allowed in TD | Claimed | Allowed in TD | Claimed/ Projected | Allowed in TD | Claimed in Review Motion |
|                     | Rs. In million |               |         |               |         |               |                    |               |                          |
| Depreciation Charge | 7,696          | 7,037         | 8,060   | 7,277         | 7,428   | 6,691         | 8,025              | 7,273         | 7,562                    |

47. The depreciation charge for the FY 2019-20, 2020-21 excluding the depreciation charge of transmission equipment and other assets was allowed based on actual cost as per the audited accounts, whereas for FY 2021-23 & FY 2022-23 the depreciation charge was allowed subject to adjustment as per actual.

##### WAPDA's Submissions in Review Motion:

48. WAPDA in its Review Motion has submitted that it carefully calculated depreciation charges using the straight-line method, based on the carrying costs of fixed assets at approved rates, projecting a depreciation charge of Rs. 8,025 million for FY 2022-23. However, NEPRA approved a lower amount of Rs. 7,273 million in the Impugned Tariff Determination.
49. The Petitioner further stated that NEPRA disallowed depreciation on transmission line equipment and corporate office assets, not recognizing that these are part of the Fixed Assets in Operation (FAIO). The Petitioner argued that these assets are similar to interconnection facilities in an Independent Power Producer (IPP) model, crucial for the power plant's operation, and thus should be allowed to calculate depreciation charges, especially since such costs are typically permitted for IPPs. Stating above, WAPDA requested to reconsider and adjust the depreciation charges to reflect these costs and ensure consistency with practice applied to all other power projects.

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**Findings and Decision of the Authority:**

50. During the processing of the case, the Petitioner informed that at the time of WAPDA unbundling, the transmission assets were transferred to unbundled entities NTDC/PESCO. However, subsequent to unbundling, WAPDA started constructing hydro plants for which it had to build transmission lines to timely evacuate power from T4, Tarbela, Golen Gol, Khan Khawar, Alai Khawar, Dubair Khawar, Jinnah, and Jabban.
51. The Authority further noted that the transmission line and related infrastructure cost is a genuine system cost that is to be borne by the consumers, regardless of whether it comes under the administrative/legal control of NTDC/concerned Discos or WAPDA. Due to WAPDA's Projects' significantly lower average WACC of ~10% against WACC allowed to NTDC/PESCO, the overall cost of such infrastructure currently booked under WAPDA's assets is much lower from the consumers' standpoint.
52. In view of the above, the Authority has decided to provisionally allow the cost of transmission assets in the revenue requirement of WAPDA. However, the Authority directs WAPDA and the concerned entities to establish a clear and well-defined mechanism for the transfer and operation of transmission networks pertaining to T4, Tarbela, Golen Gol, Khan Khawar, Alai Khawar, Dubair Khawar, Jinnah, and Jabban. While, it must be ensured that there is no duplication of transmission assets between WAPDA and the concerned entity.
53. With regard to the plant wise depreciation charge related to other assets, the Authority has noted that the plant wise breakup of this claim is not verifiable from audited accounts for FY 2022-23 despite Authority's direction in the earlier tariff determination dated April 21, 2021. Further, no evidence/ documentary evidence regarding the nature of this cost head has been submitted by Petitioner therefore this claim of the Petitioner is not maintainable.
54. Based on the audited accounts of the respective years excluding depreciation charge on other assets the allowed depreciation charge for the respective years is tabulated as under:

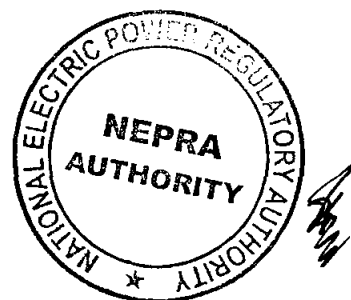
| Description         | 2019-20        |          | 2020-21 |          | 2021-22 |          | 2022-23 |          |
|---------------------|----------------|----------|---------|----------|---------|----------|---------|----------|
|                     | Claimed        | Approved | Claimed | Approved | Claimed | Approved | Claimed | Approved |
|                     | Rs. In million |          |         |          |         |          |         |          |
| Depreciation Charge | 7,696          | 7,635    | 8,060   | 7,953    | 7,428   | 7,368    | 7,562   | 7,494    |

**C. Return on investment of Power Stations:**

**Tariff Determination:**

55. The Authority allowed following year wise ROI on projects excluding the impact of transmission line equipment and other assets. The approved cost based on projections was subject to adjustment based on submission of audited financial statements:

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DECISION OF THE AUTHORITY IN THE MATTER OF  
MOTION FOR LEAVE FOR REVIEW FILED BY WAPDA HYDROELECTRIC  
AGAINST TARIFF DETERMINATION OF AUTHORITY FOR FY 2022-23

| Description                             | 2019-20        |                | 2020-21        |                | 2021-22        |                | 2022-23               |                  |                  |
|---|----------------|----------------|----------------|----------------|----------------|----------------|-----------------------|------------------|------------------|
|   | Claimed        | Allowed        | Claimed        | Allowed        | Claimed        | Allowed        | Claimed/<br>Projected | Allowed in<br>TD | Claimed in<br>RM |
|   | Rs. in million |                |                |                |                |                |                       |                  |                  |
| Average RAB                             | 265,141        | 249,972        | 260,689        | 244,015        | 253,923        | 237,898        | 247,024               | 231,666          | 249,491          |
| Less: Financing of RAB<br>through Grant | (6,055)        | (6,055)        | (6,266)        | (6,226)        | (5,982)        | (6,029)        | (5,860)               | (5,954)          | (5,738)          |
| <b>RAB for Return Purpose</b>           | <b>259,086</b> | <b>243,917</b> | <b>254,463</b> | <b>237,788</b> | <b>247,941</b> | <b>231,869</b> | <b>241,164</b>        | <b>225,712</b>   | <b>243,753</b>   |
| Cost of Debt (%age)                     | 13.54%         | 13.31%         | 13.56%         | 13.31%         | 13.50%         | 13.26%         | 13.50%                | 13.26%           | 13.98%           |
| RoE (%age)                              | 17%            | 17.00%         | 10%            | 10%            | 10%            | 10%            | 10%                   | 10%              | 10%              |
| Debt: Equity Ratio                      | 73:27          | 70:30          | 73:27          | 70:30          | 73:27          | 70:30          | 73:27                 | 70:30            | 73:27            |
| WACC (%age)                             | 14.46%         | 14.42%         | 12.61%         | 12.32%         | 12.57%         | 12.28%         | 12.57%                | 12.28%           | 12.92%           |
| ROI                                     | 37,464         | 35,159         | 32,086         | 29,284         | 31,155         | 28,472         | 30,311                | 27,728           | 31,491           |

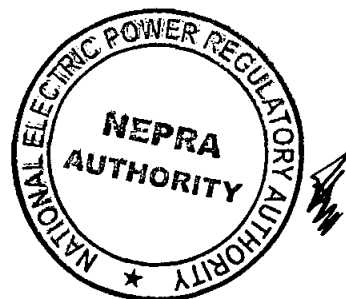
**WAPDA's Submissions in Review Motion:**

56. WAPDA in its Review Motion has submitted that in the Impugned Tariff Determination, NEPRA excluded Transmission Line Equipment and Corporate Office Assets from the Petitioner's RAB. The Petitioner further stated that this reduction in the audited figures of FAIO for the power stations and an increase in grant amounts led to a further reduction in RAB. As per WAPDA this substantial reduction significantly impacts the financial viability of WAPDA. Stating above, WAPDA requested to determine RAB based on the audited accounts (inclusive of transmission line equipment and other assets).
57. Additionally, the Petitioner submitted that it provided verifiable documents and audited accounts indicating that the debt-to-equity ratio for hydel power stations was 73:27. However, in the Impugned Tariff Determination NEPRA allowed a ratio of 70:30 which does not accurately reflect the financial position of the hydel power stations, as can be verified from the audited statements up to FY 2021-22.
58. In addition to above, the Petitioner submitted that it had originally claimed a debt-to-equity ratio of 80:20 for T-4 and Golen Gol HPPs, which was the assumption during the construction phase therefore NEPRA is requested to reconsider these ratios to align them with the actual financial assumptions and previous determinations of NEPRA.
59. Regarding NEPRA's directive to submit a request to the GoP to modify relending rates in order to reduce the cost of debt and pass on the benefits to customers, the Petitioner informed that it has already submitted such a request to the GoP. Nevertheless, the Petitioner requested NEPRA to appreciate the complexities and challenges involved in amending interest rates that are part of the binding contractual agreements.

**Findings and Decision of the Authority:**

60. The Authority has considered the submissions of the Petitioner and has now decided to include the transmission line assets for ROI purpose, the reason of which are already explained in para 48-51.

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61. With regard debt equity ratio no new argument has been submitted by the Petitioner therefore the approved 70:30 debt equity ratio does not warrant any change. However, the Authority considered that there is a need to adjust the cost of debt based on the audited accounts of the respective year.
62. Accordingly, based on above and considering the audited accounts submitted for the respective years the ROI for the relevant years works out as under:

| ROI Power Stations                   | FY 2019-20     |          | FY 2020-21 |          | FY 2021-22 |          | FY 2022-23 |          |
|--------------------------------------|----------------|----------|------------|----------|------------|----------|------------|----------|
|                                      | Claimed        | Approved | Claimed    | Approved | Claimed    | Approved | Claimed    | Approved |
|                                      | Rs. in million |          |            |          |            |          |            |          |
| Average RAB                          | 265,141        | 264,591  | 260,689    | 260,467  | 253,923    | 253,674  | 249,491    | 248,948  |
| Less: Financing of RAB through Grant | (6,055)        | (6,055)  | (6,266)    | 6,226    | (5,982)    | 5,982    | (5,738)    | 5,737    |
| RAB for Return Purpose               | 259,086        | 258,896  | 254,463    | 254,240  | 247,941    | 247,692  | 243,753    | 243,211  |
| Cost of Debt (%age)                  | 13.54%         | 13.62%   | 13.56%     | 13.47%   | 13.50%     | 13.41%   | 13.98%     | 13.01%   |
| RoE (%age)                           | 17%            | 17%      | 10%        | 10%      | 10%        | 10%      | 10%        | 10%      |
| Debt: Equity Ratio                   | 73:27          | 70:30    | 73:27      | 70:30    | 73:27      | 70:30    | 73:27      | 70:30    |
| WACC (%age)                          | 14.46%         | 14.63%   | 12.61%     | 12.43%   | 12.57%     | 12.39%   | 12.92%     | 12.11%   |
| ROI                                  | 37,464         | 37,883   | 32,086     | 31,605   | 31,155     | 30,685   | 31,491     | 29,453   |

**D. Provision for future development/ROI of Power Projects:**

**a. Reduction in CWIP:**

63. The Petitioner submitted that the reduction in the audited yearly Capital Works in Progress (CWIP) figures for development projects has a direct impact on the Regulatory Asset Base (RAB) for Power Projects. The Petitioner submitted that given the principles and grounds highlighted hereunder, NEPRA is requested to allow all costs that have been approved in PC-1 documents and the audited financial statements. This approach would ensure a fair and accurate assessment of RAB and its associated costs, aligning with the financial realities and obligations of the projects in question.

**b. Debt to Equity Ratio:**

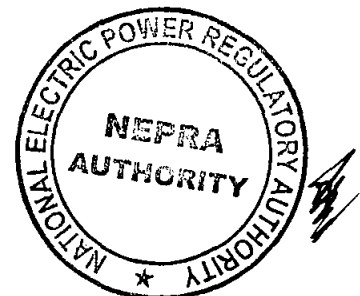
**Tariff Determination:**

64. The Authority in the Impugned Tariff Determination allowed WACC based on a 70:30 debt equity ratio for both operational plants and under construction projects for the sake of consistency.

**WAPDA's Submissions in Review Motion:**

65. WAPDA being aggrieved with the Impugned Tariff Determination submitted that NEPRA inadvertently relied upon a lower debt-to-equity ratio of 70:30 instead of 80:20 to arrive at the Return on Equity (ROI) figure of Rs. 35,431 million for FY 2022-2023. WAPDA submitted that this calculation error is evident on the face of the record and has consequential implications. The Petitioner further added that any attempt by NEPRA to unilaterally amend the Debt-to-Equity ratio, especially in light of the Government of Pakistan's previous reduction of the Return on Equity (ROE) by 10%, is deemed unjustified. Further distortion of this ratio will result in significant financial

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implications for the projects in question. Stating above, the Petitioner requested that NEPRA rectify this error in order to ensure the accuracy and fairness of the financial assessment.

**Analysis and decision the Authority:**

66. The Authority carefully considered the submission of the Petitioner on account of revision in capital structure for the projects and agreed with it. Accordingly, it has been decided to revise the capital structure from 70:30 to 80:20. The same capital structure of 80:20 was also approved in previous tariff determination dated April 05, 2021. The Authority further considered that there is a need to adjust the cost of debt based on the audited accounts of the respective years.

**c. Reduction in DASU HPP cost and construction period:**

**Tariff Determination:**

67. The Authority in the tariff determination considered the PC-I as submitted by the Petitioner and allowed a total cost of Rs 288.36 billion related to power generation plant and construction period of 68 months ending 2023 based on the documents submitted. Whereas, for the FY 2023, projections were made based on the submissions of WAPDA which was subject to adjustment at actual provided that the actual cost is within the allowed limit.

**WAPDA's Submissions in Review Motion:**

68. The Petitioner in its Review Motion has submitted that in the tariff application, it made a legitimate request for an extension in the Commercial Operation Date (COD) for the Dasu Hydropower Project. The project experienced unfortunate delays due to issues such as land acquisition problems, the COVID-19 pandemic, and terrorist attacks, all of which were beyond the control of the Petitioner. However, in the Impugned Tariff Determination NEPRA imposed restrictions on both the total costs and the construction period of the Dasu Hydropower Project, setting them at Rs. 288.36 billion and 68 months, respectively. The Petitioner submitted that NEPRA made these adjustments without considering the nature of public sector projects done fundamentally differently than the IPPs' model. As per the Petitioner the latter cannot be superimposed on projects done by a public sector entity like WAPDA. The Petitioner submitted that it is under an obligation to comply with the PC-1s from the GOP.
69. In addition to the above, the Petitioner also submitted that the World Bank is the primary financier for this project, and their involvement includes robust checks and balances. WAPDA further stated that the World Bank acknowledges the delay which is beyond the Petitioner's control which serves as a testament to the validity of the request for an extension in the COD.
70. Stating above, the Petitioner requested NEPRA to reconsider its decision and align it with the project's genuine circumstances and the requirements set by the GOP and the ADB.
71. Findings and Decision of the Authority:
72. The Authority allowed Rs. 288.36 billion related to cost pertaining to development of power generation plants and allowed a 68 months construction period based on review of PC-1/contracts awarded ending FY 2023. Now the Petitioner is aggrieved with restriction of project cost to 288.36 billion and construction period of 68 months which has lapsed.
73. The Authority has noted that as per accounts FY 2023, the amount incurred for Dasu so far is less than the total cost allowed, which means due to lack of progress the cost already incurred is within the range for which corresponding WACC based return is already included. With regards to amount to be incurred beyond June 2023 the Authority has noted that such period is beyond the scope of instant Petition which is restricted only upto 2023. If the Petitioner feels that due to circumstances beyond its control, the project is delayed then it will have

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to first justify the delay and cost overrun (if any) before government forums. Such escalation beyond a certain percentage (10-15%) requires revision in PC1 which the Petitioner has already informed is being pursued at government level.

74. At this stage, the Authority decided not change its decision in the matter. However, the Authority may consider the matter on merit once the revised PC1 is approved and submitted by the Petitioner along with other documentary evidence/justification in the next tariff petition.

**d. Fixing for Development period for Mangla Rehabilitation and Warsak Rehabilitation:**

**Tariff Determination:**

75. The Authority in the earlier tariff determination allowed ROI for these two projects based on actual cost incurred for the allowed construction period which in case of Mangla rehabilitation was Rs. 21,886 million for 10.8 year ending in FY 2022-23 and Warsak rehabilitation was Rs. 1,104 million for 5 years ending in FY 2019-20.

**WAPDA's Submissions in Review Motion:**

76. WAPDA in its Review Motion has submitted that in the Impugned Tariff Determination, NEPRA has restricted the ROI/WACC based return pertaining to Warsak till FY 2019-2020 and further restricted to allow ROI/WACC based return pertaining to Mangla Rehabilitation till FY 2022-2023 without providing any rationale. NEPRA is requested to kindly allow ROI/WACC strictly in accordance with and in line with PC-1 and the approvals of the GOP.

**Findings and Decision of the Authority:**

77. The Authority noted that the Petitioner has not submitted revised PC-I in support of its claim. In the absence of any justified reason and documentary evidence, the Petitioner's claim does not merit reconsideration. However, the Authority may consider the matter on merit once the revised PC1 is approved and submitted by the Petitioner along with other documentary evidence/justification in the next tariff petition.

**e. Essential post COD cost incurred on Tarbela 4th extension and Golen Gol HPP:**

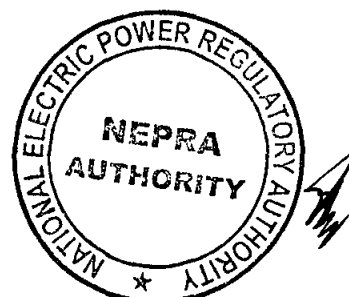
**Tariff Determination:**

78. In the Impugned Tariff Determination, the Authority did not allow the post COD costs i.e. beyond 2017-18 since the Petitioner did not submit any evidence that substantiates/justify its claim.

**WAPDA's Submissions in Review Motion:**

79. WAPDA in its Review Motion has submitted that it had made a request to NEPRA to allow essential post COD costs incurred on the Tarbela 4th Extension and Golen Gol HPPs. However, in the Impugned Tariff Determination, NEPRA did not permit these costs on the grounds that they were not adequately supported by documentary evidence.
80. The Petitioner further submitted that it has provided all necessary documentary evidence, including contract documents and details of all Interim Payment Certificates (IPCs), along with proof of payments, to substantiate these costs. Furthermore, the Petitioner stated that these post COD costs have been incurred in accordance with the PC-1 as approved by the Government of Pakistan (GOP), and this approval extends beyond the COD.
81. In addition to above, WAPDA also stated that it is imperative to recognize that the methodology for the Petitioner's projects differs from the IPP model, where costs are typically locked at the COD stage. In the case of the Petitioner's projects, costs are not locked, and they can extend beyond COD as per the PC-1 approval.

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82. Stating above, the Petitioner requested to reconsider its decision and take into account the provided documentary evidence and the unique nature of the Petitioner's projects in determining the allowance for essential post COD costs.

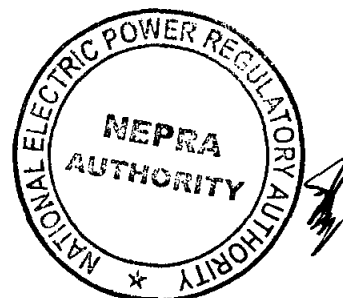
**Findings and Decision of the Authority:**

83. The Authority has noted that the as per the revised PC-1 the total cost approved is Rs. 122.98 billion that includes IDC of Rs. 31.47 million and the completion date was December 31, 2022. In compliance with the Authority's direction given in its decision dated November 22, 2017 with respect to allowed construction time period till June 30, 2018, the expenses incurred thus far i.e, Rs. 66.61 billion till June 2018 was transferred to fixed asset starting with next financial year that is July 01, 2018 to June 30, 2019.
84. The Petitioner has submitted additional detailed facts for T4 which revealed that cost of Rs 16.832 billion brief summary of which is that these incurred since 2018 pertains to delay in civil works of switchyard and low level outlet, change in contract design and purchase of additional spare parts which were considered either less or were not included in the contract.
85. Based on the above, the Authority has decided not to allow ROI on cost amounting to Rs 18.22 billion that has been incurred post FY 2018 at this stage however when such cost is transferred to fixed asset in future, WAPDA is directed to submit detailed breakdown of the cost justifying what percentage of cost has been incurred for delay in civil works of switchyard and low level outlet, change in contract design and purchase of additional spare parts beyond 2018.
86. With regard to the Golen Gol, the Authority considers that the damage as a result of natural calamities such as earthquake, GLOF are generally covered under insurances whereas WAPDA has not justified why the ROI on these expenses post COD has been claimed by it. Further, the Authority has noted that WAPDA has informed that the revised PC-I of the project is in the approval process. Therefore, in the absence of justified reason and relevant supporting evidence, this claim of the Petitioner does not merit consideration. However, the Authority may consider the matter on merit once the revised PC1 is approved and submitted by the Petitioner along with other documentary evidence/justification in the next tariff petition.

**Adjustment of Grant amount in the ROI of Diamer Basha Dam (DBD):**

87. The Authority in the earlier tariff determination dated April 05, 2021 for the FY 2020-21 assessed 49% of the cost of Diamer Basha Dam for power sector inclusive of adjustment of grant amount. In the tariff petition for the FY 2022-23 the Petitioner inadvertently requested ROI of DBD while adjusting 49% of the grant amount from already apportioned cost. Accordingly, the same was allowed. Now the Petitioner in the Review Motion has corrected this anomaly and the Authority has decided to consider the same so as to address double adjustment of grant amount.
88. In addition, the Authority has considered the cost of debt as per the audited accounts for the respective years.
89. The detailed comparison of the claimed vs allowed ROI of power plants is tabulated as under:

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DECISION OF THE AUTHORITY IN THE MATTER OF  
MOTION FOR LEAVE FOR REVIEW FILED BY WAPDA HYDROELECTRIC  
AGAINST TARIFF DETERMINATION OF AUTHORITY FOR FY 2022-23

| Description                          | FY 2019-20     |          | FY 2020-21 |          | FY 2021-22 |          | FY 2022-23 |          |
|--------------------------------------|----------------|----------|------------|----------|------------|----------|------------|----------|
|                                      | Claimed        | Approved | Claimed    | Approved | Claimed    | Approved | Claimed    | Approved |
|                                      | Rs. in million |          |            |          |            |          |            |          |
| Average RAB                          | 136,320        | 125,619  | 191,618    | 177,382  | 250,594    | 231,592  | 332,141    | 416,549  |
| Less: Financing of RAB through Grant | (6,539)        | (6,039)  | (12,138)   | (10,958) | (17,157)   | (15,376) | (18,642)   | (72,934) |
| RAB for Return Purpose               | 129,780        | 119,526  | 179,480    | 166,624  | 233,437    | 216,215  | 368,879    | 343,615  |
| Cost of Debt (%age)                  | 10.08%         | 9.78%    | 10.24%     | 9.97%    | 9.86%      | 9.54%    | 11.10%     | 10.89%   |
| RoE (%age)                           | 17%            | 17%      | 10%        | 10%      | 10%        | 10%      | 10%        | 10%      |
| Debt: Equity Ratio                   | 80:20          | 80:20    | 80:20      | 80:20    | 80:20      | 80:20    | 80:20      | 80:20    |
| WACC (%age)                          | 11.5%          | 11.23%   | 10.2%      | 9.97%    | 9.9%       | 9.63%    | 10.9%      | 10.72%   |
| ROI                                  | 14,873         | 13,419   | 18,291     | 16,599   | 23,081     | 20,818   | 39,915     | 36,819   |

**Take & Pay basis:**

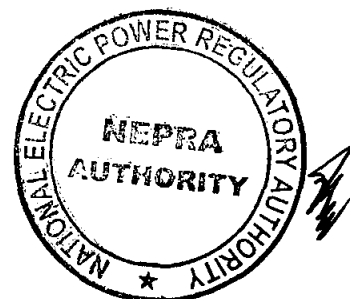
**Tariff Determination:**

90. The Authority in the tariff determination allowed the tariffs of 07 small and old non performing power plants namely Kurram Garhi, Chitral, Rasul, Nandipur, Shadiwal, Chichoki and Renala Kurd having aggregate capacity of 69 MW on take and pay basis.

**WAPDA's Submissions in Review Motion:**

91. WAPDA in its Review Motion has submitted that in the Impugned Tariff Determination NEPRA has unilaterally decided to convert the tariffs of seven small hydropower projects that have been in operation for a decade from "Take or Pay" to "Take and Pay" basis, citing a pretext of reduced efficiency. The Petitioner submitted that there has been no degradation or reduction in the efficiency of these projects. As per WAPDA, the capacity tests are regularly conducted by CPPA(G) in accordance with the relevant provisions of the respective power purchase agreements. Therefore, NEPRA's determination that these projects are non-performing and must be converted to "Take and Pay" is erroneous.
92. Additionally, the Petitioner submitted that the generation of hydropower projects is dependent on hydrological conditions. Shifting to a "Take and Pay" basis transfers the hydrological risk onto the Petitioner, which will compromise the cash inflow stream and hinder the recovery of fixed costs. Consequently, the Petitioner may need to secure additional loans to meet the working capital requirements of these projects.
93. The Petitioner further stated that a "Take and Pay" tariff mechanism is feasible for fuel-based thermal power plants, where a significant portion of costs is related to fuel expenses. However, in contrast, a "Take and Pay" tariff is not suitable for hydropower projects because generation variations are primarily due to hydrological conditions. The "Take and Pay" mechanism will render such projects financially unviable.
94. WAPDA stated that its tariff as well as the PPA are structured on a bulk tariff basis. Looking at these relatively small hydropower projects independent of all other hydropower projects of WAPDA would be in derogation of the previous tariff rulings and the PPA. Furthermore, attention is also drawn to WAPDA's generation license wherein the generation capability of WAPDA is contingent on hydrology and releases by IRSA – in other words, the hydrological risk is with the power purchaser.

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95. Stating above, WAPDA requested the Authority to review its decision to shift seven small hydropower stations to a "Take and Pay" tariff and reinstate their "Take or Pay" tariff, aligning with the tariffs awarded to other power stations operating under a unified generation license issued by NEPRA. This review is essential to ensure the viability of these hydropower projects.

**Findings and Decision of the Authority:**

96. After carefully considering the submissions made by WAPDA and taking into account WAPDA's tariff structure and the terms of the Power Purchase Agreement (PPA), the Authority finds merit in WAPDA's request to review its decision to shift the seven small hydropower stations to a "Take and Pay" tariff. Therefore, the Authority decides to allow individual plant-wise tariff on a "Take or Pay" basis for these projects.

**E. Reduction in license capacity:**

**Tariff Determination:**

97. The Authority in the Impugned Tariff Determination considered WAPDA's net licensed capacity of 8,411MW (excluding auxiliary consumption of 9.40MW) as allowed in the generation license.

**WAPDA's Submissions in Review Motion:**

98. WAPDA in its Review Motion has submitted that in the Impugned Tariff Determination, there is an error in the determination of the tariff for the licensed generation capacity of the Petitioner. As per Petitioner, NEPRA has incorrectly assumed a total net capacity of 8,413 MW, while the Petitioner's aggregate net generation capacity is, in fact, 8,420 MW. Stating above, WAPDA requested to correct the generation capacity to accurately reflect the licensed capacity awarded to the Petitioner, ensuring that the tariff determination is based on the correct capacity figures.

**Findings and Decision of the Authority:**

99. The Authority has issued its decision in the matter of VI & VII License proposed modification on March 01, 2023 as per which the installed capacity of WAPDA's operational power plants is 8,420 MW and net capacity is 8,400 MW. Accordingly, the Authority has decided to consider the net capacity of 8,400 MW as per the LPM.

**F. Regulatory Revenue Gap**

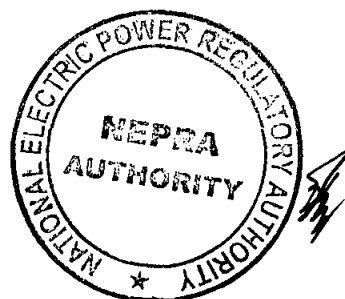
**Tariff Determination:**

100. In the Impugned Tariff Determination, the Authority approved a negative regulatory gap of Rs. 2,768 million that includes deduction of Rs. 6,049 million related to post retirement benefits as against the claimed revenue gap of Rs. 22,051 million.

**WAPDA's Submissions in Review Motion:**

101. WAPDA in its Review Motion has submitted that in the Impugned Tariff Determination, the Petitioner calculated the regulatory revenue gap by considering variations in the actual audited financial statements. The Petitioner stated that NEPRA approved a negative amount of Rs. 2,768 million as revenue gap without providing any clear rationale for this decision and did not take into account the audited financial statements from FY 2019-2020 to 2021-2022 when making this determination. As per the Petitioner, the approved amounts are inconsistent with previous determinations of NEPRA.
102. Stating above, the Petitioner requested to reconsider this matter and allow the full amount of Rs. 22,501 million which is based on the legitimate and prudently incurred costs as per the actual figures in audited financial statements from FY 2021-2022. As per WAPDA this adjustment is essential to ensure consistency and fairness in the determination of the regulatory revenue gap.

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103. Subsequently, vide letter dated February 21, 2024, WAPDA revised its claim of regulatory gap to Rs. 31,023 million.

**Analysis for the consideration of the Authority:**

104. Based on the decisions in above paragraphs, the revised regulatory gap for the FY from 2019 till 2021 works out to be Rs. 22,816 million.

**Net Hydel Profit:**

105. The Petitioner has submitted that in the Impugned Tariff Determination, there appears to be an error where NEPRA inadvertently included the NHP indexation arrears in the consolidated revenue requirement table under Annex 1. This inclusion is an apparent error on the face of the record. The Petitioner requested to rectify this error and remove the NHP indexation arrears from the consolidated revenue requirement table to ensure accuracy and consistency in the tariff determination.

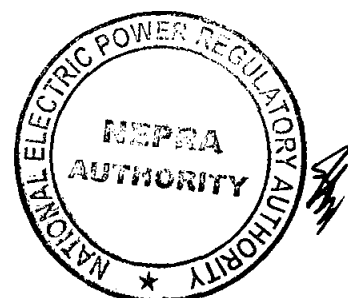
106. The Authority has noted that the issue raised by WAPDA pertains to only disclosure and bears no impact on overall tariffs. WAPDA requested that in the revenue requirement sheet including revenue gap there should be distinction between its own revenue and Hydel levies payable to provinces. The Authority has decided to provide such disclosure in the tariff table plant wise as per WAPDA's request.

**ORDER:**

107. In accordance with Rule 16(6) of NEPRA (Tariff Standards & Procedure) Rules, 1998, read with 3(2) of the National Electric Power Regulatory Authority (Review Procedure) Regulations, 2009, the Authority hereby modifies Determination of the Authority in the matter of WAPDA Hydroelectric Tariff Petition for FY 2022-23 (Case No. NEPRA/TRF-583/WAPDA-2022) dated September 06, 2023 to the following extent. WAPDA is hereby allowed to charge the Central Power Purchasing Agency Guarantee Limited (CPPA-G) the following tariff of each plant at the bus bar of its hydroelectric power stations connected directly or indirectly to the transmission system of NTDC:

| Sr.No. | Power Stations   | Net Capacity | Wapda Tariff  |            |             | Hydel Levies |             |             |            |        |
|--------|------------------|--------------|---------------|------------|-------------|--------------|-------------|-------------|------------|--------|
|        |                  |              | Variable Rate | Fixed Rate | Revenue Gap | NHP Regular  | NHP Arrears | WUC Regular | WUC Arrear | IRSA   |
|        |                  | MW           | Rsk/Wh        | Rsk/W/M    | Rsk/W/M     | Rsk/Wh       | Rsk/W/M     | Rsk/Wh      | Rsk/W/M    | Rsk/Wh |
| 1      | Tarbela          | 3,474        | 0.0397        | 589.9101   | 27.9234     | 1.5480       | 282.7614    |             |            | 0.0050 |
| 2      | Warsak           | 242          | 0.1084        | 1,002.3204 | 70.9589     | 1.5480       | 282.7614    |             |            | 0.0050 |
| 3      | Duber Khawar     | 130          | 0.3229        | 2,319.0733 | 872.7149    | 1.5480       | 282.7614    |             |            | 0.0050 |
| 4      | Allai Khawar     | 121          | 0.2179        | 1,742.0916 | 261.3913    | 1.5480       | 282.7614    |             |            | 0.0050 |
| 5      | Khan Khawar      | 72           | 0.2915        | 2,062.4726 | 969.7232    | 1.5480       | 282.7614    |             |            | 0.0050 |
| 6      | Jabban           | 22           | 0.2759        | 2,869.8488 | (406.8527)  | 1.5480       | 282.7614    |             |            | 0.0050 |
| 7      | Dargai           | 20           | 0.1850        | 1,426.0610 | 602.4162    | 1.5480       | 282.7614    |             |            | 0.0050 |
| 8      | Kuram Garhi      | 4            | 0.5388        | 3,426.9773 | 1,394.1164  | 1.5480       | 282.7614    |             |            | 0.0050 |
| 9      | Chitral          | 1            | 1.3029        | 7,241.0049 | 9,160.6847  | 1.5480       | 282.7614    |             |            | 0.0050 |
| 10     | Tarbela 4th Ext. | 1,407        | 0.1231        | 978.0211   | 525.6353    | 1.5480       | 282.7614    |             |            | 0.0050 |
| 11     | Golen Gol        | 108          | 1.5974        | 3,464.6216 | 4,514.8545  | 1.5480       | 282.7614    |             |            | 0.0050 |
| 12     | Gomal Zam        | 17           | 1.2362        | 5,085.2842 | (425.3454)  | 1.5480       | 282.7614    |             |            | 0.0050 |
| 13     | Ghazi Barotha    | 1,447        | 0.0733        | 911.2906   | (24.6028)   | 1.4740       | 245.5361    |             |            | 0.0050 |
| 14     | Chashma          | 183          | 0.2038        | 1,908.7137 | 196.9666    | 1.4740       | 245.5361    |             |            | 0.0050 |
| 15     | Jinnah HPP       | 95           | 0.4172        | 1,798.0137 | 444.1412    | 1.4740       | 245.5361    |             |            | 0.0050 |
| 16     | Rasul            | 22           | 0.2291        | 1,271.6702 | 416.8069    | 1.4740       | 245.5361    |             |            | 0.0050 |
| 17     | Handipur         | 14           | 0.3070        | 1,660.9327 | 983.7737    | 1.4740       | 245.5361    |             |            | 0.0050 |
| 18     | Shadiwal         | 13           | 0.3030        | 1,527.7750 | 677.7077    | 1.4740       | 245.5361    |             |            | 0.0050 |
| 19     | Chichoki         | 13           | 0.2854        | 1,450.6897 | 622.8190    | 1.4740       | 245.5361    |             |            | 0.0050 |
| 20     | Renala Khurd     | 1            | 1.6635        | 5,632.4862 | 4,882.7467  | 1.4740       | 245.5361    |             |            | 0.0050 |
| 21     | Mangla           | 997          | 0.1070        | 1,017.2303 | 251.9115    |              |             | 1.1000      | 29.5921    | 0.0050 |

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108. The revenue requirement of WAPDA Hydroelectric and approved tariff for the FY 2022-23 is attached as **Annex-I**.

109. The Revenue Gap including NHP Arrears and WUC Arrear as indicated above shall be applicable one year from date of notification of this decision and henceforth cease to be applicable.

110. The Order along with Annex-I is to be intimated to the Federal Government for notification in the official gazette under section 31(7) of the Regulation of Generation, Transmission and Distribution of Electric Power Act, 1997.

### Authority

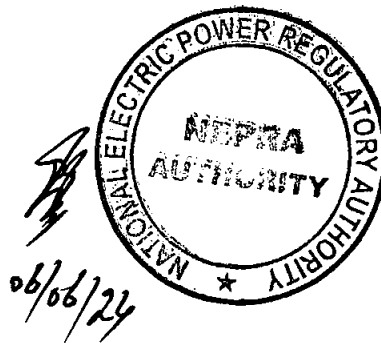
—  
(Mathar Niaz Rana (nsc))  
Member

—  
(Engr. Maqsood Anwar Khan)  
Member

—  
(Rafique Ahmed Shaikh)  
Member

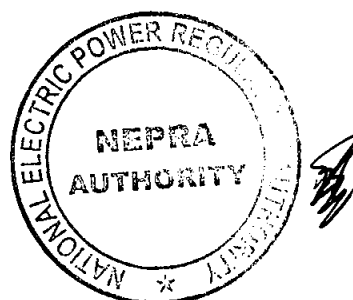
—  
(Amina Ahmed)  
Member

—  
(Waseem Mukhtar)  
Chairman

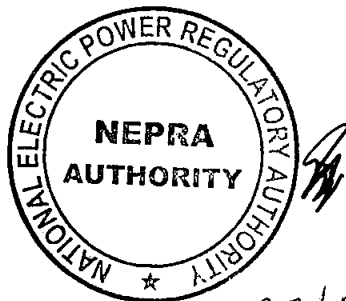


## Consolidated - Revenue Requirement

|  | FY 2019-20    | FY 2020-21    | FY 2021-22    | FY 2022-23     |
|--|---------------|---------------|---------------|----------------|
|  | (Mln Rs)      |               |               |                |
| <b>Block wise Bulk Supply Tariff</b>           |               |               |               |                |
| Installed Capacity                             | 8,400         | 8,400         | 8,400         | 8,400          |
| Est. Generation (Net Electrical Output)        | 32,295        | 32,073        | 28,903        | 31,286         |
| Plant Factor                                   | 44%           | 44%           | 39%           | 43%            |
| <b>Revenue Requirement (Mln Rs)</b>            |               |               |               |                |
| O&M  | 17,564        | 17,315        | 21,028        | 23,961         |
| Depreciation (At Carrying Cost)                | 7,635         | 7,953         | 7,368         | 7,494          |
| Ijara Rental                                   | 1,780         | 1,574         | 374           | -              |
| Return on Investment                           | 37,883        | 31,605        | 30,685        | 29,453         |
| Provision for Future Development               | 13,417        | 16,599        | 20,818        | 36,771         |
| Misc. Income                                   | (556.383)     | (797.458)     | (536)         | (535)          |
| <b>Total Revenue Requirement</b>               | <b>77,723</b> | <b>74,249</b> | <b>79,737</b> | <b>97,145</b>  |
| <b>Regulatory Revenue Gap</b>                  |               |               |               |                |
| FY - 2019-20 - Audited                         |               |               |               | 7,773          |
| FY - 2020-21 - Audited                         |               |               |               | 9,901          |
| FY - 2021-22 - Audited                         |               |               |               | 5,142          |
| <b>Total Revenue Gap</b>                       |               |               |               | <b>22,816</b>  |
| <b>Total Revenue Requirement with Rev. Gap</b> |               |               |               | <b>119,962</b> |
| <b>Hydel Levies</b>                            |               |               |               |                |
| <b>NHP Indexation Arrears</b>                  |               |               |               |                |
| Arrears of NHP - KP                            |               |               |               | 19,054         |
| Arrears of NHP - Punjab                        |               |               |               | 5,267          |
| Arrears of WUC                                 |               |               |               | 354            |
| NHP - Regular                                  |               |               |               | 41,894         |
| WUC  |               |               |               | 4,222          |
| IRSA Charges                                   |               |               |               | 156,4300       |
| Total Hydel Levies                             |               |               |               | 70,947         |
| <b>Total - With Hydel Levies</b>               |               |               |               | <b>190,909</b> |
| Generation                                     |               |               |               | 31,286         |
| <b>Average Tariff (Rs./kWh)</b>                |               |               |               | <b>6.1020</b>  |



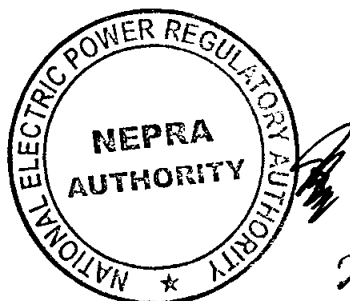
| Revenue Requirement                     |          | Tarbela    |            |                |            | Warsak     |            |                |            | Dubair     |            |                |            |
|---|----------|------------|------------|----------------|------------|------------|------------|----------------|------------|------------|------------|----------------|------------|
|   | Unit     | FY 2019-20 | FY 2020-21 | FY 2021-22     | FY 2022-23 | FY 2019-20 | FY 2020-21 | FY 2021-22     | FY 2022-23 | FY 2019-20 | FY 2020-21 | FY 2021-22     | FY 2022-23 |
|   |          | (Mln Rs)   | (Mln Rs)   | (Mln Rs)       | (Mln Rs)   | (Mln Rs)   | (Mln Rs)   | (Mln Rs)       | (Mln Rs)   | (Mln Rs)   | (Mln Rs)   | (Mln Rs)       | (Mln Rs)   |
| Operating Data                          |          |            |            |                |            |            |            |                |            |            |            |                |            |
| Installed Capacity                      | (MW)     | 3,474      | 3,474      | 3,474          | 3,474      | 242        | 242        | 242            | 242        | 130        | 130        | 130            | 130        |
| Generation (Net Electrical Output)      | (Gwh)    | 11,858     | 12,566     | 10,956         | 12,446     | 1,095      | 1,065      | 934            | 899        | 609        | 641        | 617            | 495        |
| Plant Factor                            | (%)      | 39%        | 41%        | 36%            | 41%        | 52%        | 50%        | 44%            | 42%        | 54%        | 57%        | 54%            | 44%        |
| Revenue Requirement                     |          |            |            |                |            |            |            |                |            |            |            |                |            |
| O&M                                     | (Mln Rs) | 6,315      | 5,804      | 7,154          | 8,601      | 1,376      | 1,263      | 1,524          | 1,782      | 160        | 196        | 239            | 497        |
| Depreciation (At Carrying Cost)         | (Mln Rs) | 412        | 409        | 376            | 312        | 70         | 69         | 64             | 51         | 343        | 377        | 351            | 351        |
| Ijara Rental                            | (Mln Rs) | 1,780      | 1,574      | 374            | -          |            |            |                |            |            |            |                |            |
| Return on Investment                    | (Mln Rs) | 1,130      | 1,011      | 994            | 1,111      | 180        | 148        | 139            | 135        | 3,175      | 2,733      | 2,679          | 2,349      |
| Provision for Future Development        | (Mln Rs) | 5,549      | 6,865      | 8,610          | 15,207     | 386        | 478        | 600            | 1,059      | 207        | 256        | 321            | 567        |
| Misc. Income                            | (Mln Rs) | (92)       | (169)      | (85)           | (145)      | (16)       | (10)       | (7)            | (20)       | (0)        | (5)        | (1)            | (0)        |
| Total Revenue Requirement w/o Rev. Gap  | (Mln Rs) | 15,094     | 15,494     | 17,423         | 25,086     | 1,996      | 1,948      | 2,319          | 3,008      | 3,885      | 3,557      | 3,589          | 3,764      |
| Regulatory Revenue Gap                  |          |            |            |                |            |            |            |                |            |            |            |                |            |
| FY - 2019-20 - Audited                  |          |            |            |                | 123        |            |            |                | 34         |            |            |                | 1,320      |
| FY - 2020-21 - Audited                  |          |            |            |                | 1,699      |            |            |                | 134        |            |            |                | (661)      |
| FY - 2021-22 - Provisional              |          |            |            |                | (658)      |            |            |                | 38         |            |            |                | 697        |
| Total Revenue Gap                       |          |            |            |                | 1,164      |            |            |                | 206        |            |            |                | 1,356      |
| Total Revenue Requirement with Rev. Gap |          |            |            |                | 26,250     |            |            |                | 3,214      |            |            |                | 5,120      |
|   |          |            |            |                |            |            |            |                |            |            |            |                |            |
|   |          | FY 2019-20 | FY 2020-21 | FY 2021-22     | FY 2022-23 | FY 2019-20 | FY 2020-21 | FY 2021-22     | FY 2022-23 | FY 2019-20 | FY 2020-21 | FY 2021-22     | FY 2022-23 |
|   |          | Audited    | Audited    | Actual/Audited | Projected  | Audited    | Audited    | Actual/Audited | Projected  | Audited    | Audited    | Actual/Audited | Projected  |
| Hydel Levies                            |          |            |            |                |            |            |            |                |            |            |            |                |            |
| NHP Indexation Arrears                  |          |            |            |                |            |            |            |                |            |            |            |                |            |
| Arrears of NHP - KP                     |          |            |            |                | 11,788     |            |            |                | 821        |            |            |                | 439        |
| Arrears of NHP - Punjab                 |          |            |            |                |            |            |            |                |            |            |            |                |            |
| Arrears of WUC                          |          |            |            |                |            |            |            |                |            |            |            |                |            |
| NHP - Regular                           |          |            |            |                | 19,266     |            |            |                | 1,392      |            |            |                | 766        |
| WUC                                     |          |            |            |                |            |            |            |                |            |            |            |                |            |
| IRSA Charges                            |          |            |            |                | 62         |            |            |                | 4          |            |            |                | 2          |
| Total Hydel Levies                      |          |            |            |                | 31,116     |            |            |                | 2,217      |            |            |                | 1,208      |
| Total - With Hydel Levies               |          |            |            |                | 57,367     |            |            |                | 5,431      |            |            |                | 6,328      |



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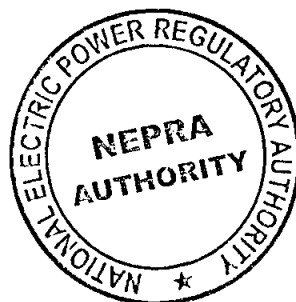


| Revenue Requirement                            |          | Allai        |              |                |              | Khan         |              |                |              | Jabban     |            |                |              |
|--|----------|--------------|--------------|----------------|--------------|--------------|--------------|----------------|--------------|------------|------------|----------------|--------------|
|  | Unit     | FY 2019-20   | FY 2020-21   | FY 2021-22     | FY 2022-23   | FY 2019-20   | FY 2020-21   | FY 2021-22     | FY 2022-23   | FY 2019-20 | FY 2020-21 | FY 2021-22     | FY 2022-23   |
|  |          | (Min Rs)     | (Min Rs)     | (Min Rs)       | (Min Rs)     | (Min Rs)     | (Min Rs)     | (Min Rs)       | (Min Rs)     | (Min Rs)   | (Min Rs)   | (Min Rs)       | (Min Rs)     |
| <b>Operating Data</b>                          |          |              |              |                |              |              |              |                |              |            |            |                |              |
| Installed Capacity                             | (MW)     | 121          | 121          | 121            | 121          | 72           | 72           | 72             | 72           | 22         | 22         | 22             | 22           |
| Generation (Net Electrical Output)             | (Gwh)    | 469          | 439          | 373            | 481          | 274          | 231          | 162            | 263          | 138        | 134        | 135            | 125          |
| Plant Factor                                   | (%)      | 44%          | 42%          | 35%            | 46%          | 44%          | 37%          | 26%            | 42%          | 72%        | 70%        | 71%            | 65%          |
| <b>Revenue Requirement</b>                     |          |              |              |                |              |              |              |                |              |            |            |                |              |
| O&M  | (Min Rs) | 173          | 340          | 290            | 291          | 241          | 254          | 374            | 339          | 143        | 130        | 301            | 193          |
| Depreciation (At Carrying Cost)                | (Min Rs) | 265          | 322          | 320            | 319          | 182          | 206          | 225            | 206          | 116        | 141        | 121            | 121          |
| Ijara Rental                                   | (Min Rs) |              |              |                |              |              |              |                |              |            |            |                |              |
| Return on Investment                           | (Min Rs) | 2,055        | 1,758        | 1,710          | 1,487        | 1,352        | 1,160        | 1,132          | 990          | 478        | 403        | 392            | 376          |
| Provision for Future Development               | (Min Rs) | 192          | 238          | 299            | 527          | 114          | 141          | 177            | 313          | 35         | 43         | 54             | 95           |
| Misc. Income                                   | (Min Rs) | (1)          | (2)          | (1)            | (0)          | (1)          | (7)          | (11)           | (2)          | (0)        | (0)        | (0)            | (0)          |
| <b>Total Revenue Requirement w/o Rev. Gap</b>  | (Min Rs) | <b>2,685</b> | <b>2,656</b> | <b>2,618</b>   | <b>2,624</b> | <b>1,888</b> | <b>1,754</b> | <b>1,898</b>   | <b>1,846</b> | <b>772</b> | <b>717</b> | <b>868</b>     | <b>785</b>   |
| <b>Regulatory Revenue Gap</b>                  |          |              |              |                |              |              |              |                |              |            |            |                |              |
| FY - 2019-20 - Audited                         |          |              |              |                | 391          |              |              |                | 597          |            |            |                | (71)         |
| FY - 2020-21 - Audited                         |          |              |              |                | (361)        |              |              |                | (253)        |            |            |                | (106)        |
| FY - 2021-22 - Provisional                     |          |              |              |                | 347          |              |              |                | 488          |            |            |                | 70           |
| <b>Total Revenue Gap</b>                       |          |              |              |                | <b>378</b>   |              |              |                | <b>832</b>   |            |            |                | <b>(106)</b> |
| <b>Total Revenue Requirement with Rev. Gap</b> |          |              |              |                | <b>3,002</b> |              |              |                | <b>2,678</b> |            |            |                | <b>679</b>   |
|  |          |              |              |                |              |              |              |                |              |            |            |                |              |
|  |          | FY 2019-20   | FY 2020-21   | FY 2021-22     | FY 2022-23   | FY 2019-20   | FY 2020-21   | FY 2021-22     | FY 2022-23   | FY 2019-20 | FY 2020-21 | FY 2021-22     | FY 2022-23   |
|  |          | Audited      | Audited      | Actual/Audited | Projected    | Audited      | Audited      | Actual/Audited | Projected    | Audited    | Audited    | Actual/Audited | Projected    |
| <b>Hydel Levies</b>                            |          |              |              |                |              |              |              |                |              |            |            |                |              |
| <b>NHP Indexation Arrears</b>                  |          |              |              |                |              |              |              |                |              |            |            |                |              |
| Arrears of NHP - KP                            |          |              |              |                | 409          |              |              |                | 243          |            |            |                | 74           |
| Arrears of NHP - Punjab                        |          |              |              |                |              |              |              |                |              |            |            |                |              |
| Arrears of WUC                                 |          |              |              |                | 745          |              |              |                | 407          |            |            |                | 194          |
| NHP - Regular                                  |          |              |              |                |              |              |              |                |              |            |            |                |              |
| WUC  |          |              |              |                | 2            |              |              |                | 1            |            |            |                | 1            |
| IRSA Charges                                   |          |              |              |                |              |              |              |                |              |            |            |                |              |
| Total Hydel Levies                             |          |              |              |                | 1,156        |              |              |                | 651          |            |            |                | 268          |
| <b>Total - With Hydel Levies</b>               |          |              |              |                | <b>4,158</b> |              |              |                | <b>3,329</b> |            |            |                | <b>947</b>   |



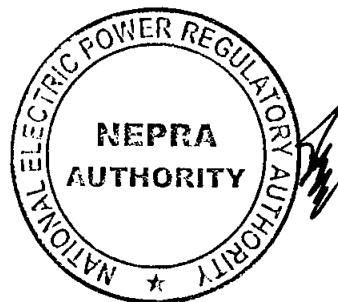
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| Revenue Requirement                            |          | Dargai                 |                        |                        |                        | Kurrm Garhi            |                        |                        |                        | Chitral                |                        |                        |                        |
|--|----------|------------------------|------------------------|------------------------|------------------------|------------------------|------------------------|------------------------|------------------------|------------------------|------------------------|------------------------|------------------------|
|  | Unit     | FY 2019-20<br>(Min Rs) | FY 2020-21<br>(Min Rs) | FY 2021-22<br>(Min Rs) | FY 2022-23<br>(Min Rs) | FY 2019-20<br>(Min Rs) | FY 2020-21<br>(Min Rs) | FY 2021-22<br>(Min Rs) | FY 2022-23<br>(Min Rs) | FY 2019-20<br>(Min Rs) | FY 2020-21<br>(Min Rs) | FY 2021-22<br>(Min Rs) | FY 2022-23<br>(Min Rs) |
| <b>Operating Data</b>                          |          |                        |                        |                        |                        |                        |                        |                        |                        |                        |                        |                        |                        |
| Installed Capacity                             | (MW)     | 20                     | 20                     | 20                     | 20                     | 4                      | 4                      | 4                      | 4                      | 1                      | 1                      | 1                      | 1                      |
| Generation (Net Electrical Output)             | (Gwh)    | 98                     | 109                    | 87                     | 71                     | 15                     | 20                     | 11                     | 14                     | 3                      | 3                      | 2                      | 3                      |
| Plant Factor                                   | (%)      | 57%                    | 63%                    | 51%                    | 41%                    | 44%                    | 59%                    | 32%                    | 41%                    | 38%                    | 38%                    | 25%                    | 38%                    |
| <b>Revenue Requirement</b>                     |          |                        |                        |                        |                        |                        |                        |                        |                        |                        |                        |                        |                        |
| O&M  | (Min Rs) | 191                    | 175                    | 217                    | 253                    | 92                     | 95                     | 110                    | 136                    | 59                     | 58                     | 65                     | 74                     |
| Depreciation (At Carrying Cost)                | (Min Rs) | 4                      | 4                      | 3                      | 3                      | 1                      | 2                      | 2                      | 3                      | 1                      | 2                      | 1                      | 1                      |
| Ijara Rental                                   | (Min Rs) |                        |                        |                        |                        |                        |                        |                        |                        |                        |                        |                        |                        |
| Return on Investment                           | (Min Rs) | 14                     | 11                     | 8                      | 8                      | 6                      | 5                      | 6                      | 13                     | 4                      | 3                      | 3                      | 3                      |
| Provision for Future Development               | (Min Rs) | 31                     | 39                     | 49                     | 86                     | 6                      | 8                      | 10                     | 17                     | 1                      | 2                      | 2                      | 4                      |
| Misc. Income                                   | (Min Rs) | (1)                    | (1)                    | (2)                    | (2)                    | (0)                    | (0)                    | (1)                    | (1)                    | (0)                    | (0)                    | (0)                    | (0)                    |
| <b>Total Revenue Requirement w/o Rev. Gap</b>  | (Min Rs) | <b>239</b>             | <b>227</b>             | <b>274</b>             | <b>349</b>             | <b>106</b>             | <b>110</b>             | <b>126</b>             | <b>168</b>             | <b>66</b>              | <b>64</b>              | <b>71</b>              | <b>82</b>              |
| <b>Regulatory Revenue Gap</b>                  |          |                        |                        |                        |                        |                        |                        |                        |                        |                        |                        |                        |                        |
| FY - 2019-20 - Audited                         |          |                        |                        |                        | 57                     |                        |                        |                        | 18                     |                        |                        |                        | 40                     |
| FY - 2020-21 - Audited                         |          |                        |                        |                        | 17                     |                        |                        |                        | 16                     |                        |                        |                        | 15                     |
| FY - 2021-22 - Provisional                     |          |                        |                        |                        | 68                     |                        |                        |                        | 31                     |                        |                        |                        | 44                     |
| <b>Total Revenue Gap</b>                       |          |                        |                        |                        | <b>142</b>             |                        |                        |                        | <b>65</b>              |                        |                        |                        | <b>99</b>              |
| <b>Total Revenue Requirement with Rev. Gap</b> |          |                        |                        |                        | <b>490</b>             |                        |                        |                        | <b>233</b>             |                        |                        |                        | <b>181</b>             |
|  |          |                        |                        |                        |                        |                        |                        |                        |                        |                        |                        |                        |                        |
|  |          | <b>Audited</b>         | <b>Audited</b>         | <b>Actual/Audited</b>  | <b>Projected</b>       | <b>Audited</b>         | <b>Audited</b>         | <b>Actual/Audited</b>  | <b>Projected</b>       | <b>Audited</b>         | <b>Audited</b>         | <b>Actual/Audited</b>  | <b>Projected</b>       |
| <b>Hydel Levies</b>                            |          |                        |                        |                        |                        |                        |                        |                        |                        |                        |                        |                        |                        |
| <b>NHP Indexation Arrears</b>                  |          |                        |                        |                        |                        |                        |                        |                        |                        |                        |                        |                        |                        |
| Arrears of NHP - KP                            |          |                        |                        |                        | 67                     |                        |                        |                        | 13                     |                        |                        |                        | 3                      |
| Arrears of NHP - Punjab                        |          |                        |                        |                        |                        |                        |                        |                        |                        |                        |                        |                        |                        |
| Arrears of WUC                                 |          |                        |                        |                        | 110                    |                        |                        |                        | 22                     |                        |                        |                        | 5                      |
| NHP - Regular                                  |          |                        |                        |                        |                        |                        |                        |                        |                        |                        |                        |                        |                        |
| WUC  |          |                        |                        |                        | 0                      |                        |                        |                        | 0                      |                        |                        |                        | 0                      |
| IRSA Charges                                   |          |                        |                        |                        |                        |                        |                        |                        |                        |                        |                        |                        |                        |
| Total Hydel Levies                             |          |                        |                        |                        | 177                    |                        |                        |                        | 35                     |                        |                        |                        | 8                      |
| <b>Total - With Hydel Levies</b>               |          |                        |                        |                        | <b>667</b>             |                        |                        |                        | <b>268</b>             |                        |                        |                        | <b>189</b>             |



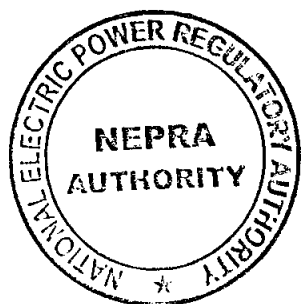
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| Revenue Requirement                            |          | T-4           |               |                |               | Golen Gol    |              |                |               | Gomal Zam  |            |                |              |
|--|----------|---------------|---------------|----------------|---------------|--------------|--------------|----------------|---------------|------------|------------|----------------|--------------|
|  | Unit     | FY 2019-20    | FY 2020-21    | FY 2021-22     | FY 2022-23    | FY 2019-20   | FY 2020-21   | FY 2021-22     | FY 2022-23    | FY 2019-20 | FY 2020-21 | FY 2021-22     | FY 2022-23   |
|  |          | (Min Rs)      | (Min Rs)      | (Min Rs)       | (Min Rs)      | (Min Rs)     | (Min Rs)     | (Min Rs)       | (Min Rs)      | (Min Rs)   | (Min Rs)   | (Min Rs)       | (Min Rs)     |
| <b>Operating Data</b>                          |          |               |               |                |               |              |              |                |               |            |            |                |              |
| Installed Capacity                             | (MW)     | 1,407         | 1,407         | 1,407          | 1,407         | 108          | 108          | 108            | 108           | 17         | 17         | 17             | 17           |
| Generation (Net Electrical Output)             | (Gwh)    | 5,486         | 3,419         | 3,276          | 4,427         | 86           | 82           | 138            | 132           | 54         | 62         | 57             | 41           |
| Plant Factor                                   | (%)      | 45%           | 28%           | 27%            | 36%           | 9%           | 9%           | 15%            | 14%           | 36%        | 42%        | 38%            | 28%          |
| <b>Revenue Requirement</b>                     |          |               |               |                |               |              |              |                |               |            |            |                |              |
| O&M  | (Min Rs) | 659           | 774           | 898            | 1,238         | 115          | 153          | 192            | 255           | 179        | 191        | 222            | 349          |
| Depreciation (At Carrying Cost)                | (Min Rs) | 2,265         | 2,246         | 1,682          | 1,899         | 675          | 812          | 806            | 806           | 146        | 124        | 114            | 116          |
| Ijara Rental                                   | (Min Rs) |               |               |                |               |              |              |                |               |            |            |                |              |
| Return on Investment                           | (Min Rs) | 9,851         | 8,219         | 7,967          | 7,764         | 3,961        | 3,521        | 3,414          | 3,307         | 666        | 604        | 641            | 643          |
| Provision for Future Development               | (Min Rs) | 2,247         | 2,780         | 3,487          | 6,159         | 172          | 213          | 267            | 471           | 27         | 34         | 42             | 74           |
| Misc. Income                                   | (Min Rs) | (1)           | (1)           | (1)            | (2)           | (151)        | (158)        | (149)          | (151)         | (96)       | (100)      | (94)           | (94)         |
| <b>Total Revenue Requirement w/o Rev. Gap</b>  | (Min Rs) | <b>15,021</b> | <b>14,019</b> | <b>14,033</b>  | <b>17,058</b> | <b>4,772</b> | <b>4,540</b> | <b>4,529</b>   | <b>4,689</b>  | <b>923</b> | <b>853</b> | <b>924</b>     | <b>1,088</b> |
| <b>Regulatory Revenue Gap</b>                  |          |               |               |                |               |              |              |                |               |            |            |                |              |
| FY - 2019-20 - Audited                         |          |               |               |                | 1,407         |              |              |                | 1,922         |            |            |                | 150          |
| FY - 2020-21 - Audited                         |          |               |               |                | 7,105         |              |              |                | 2,603         |            |            |                | (479)        |
| FY - 2021-22 - Provisional                     |          |               |               |                | 363           |              |              |                | 1,310         |            |            |                | 242          |
| <b>Total Revenue Gap</b>                       |          |               |               |                | <b>8,875</b>  |              |              |                | <b>5,835</b>  |            |            |                | <b>(87)</b>  |
| <b>Total Revenue Requirement with Rev. Gap</b> |          |               |               |                | <b>25,933</b> |              |              |                | <b>10,524</b> |            |            |                | <b>1,001</b> |
|  |          | FY 2019-20    | FY 2020-21    | FY 2021-22     | FY 2022-23    | FY 2019-20   | FY 2020-21   | FY 2021-22     | FY 2022-23    | FY 2019-20 | FY 2020-21 | FY 2021-22     | FY 2022-23   |
|  |          | Audited       | Audited       | Actual/Audited | Projected     | Audited      | Audited      | Actual/Audited | Projected     | Audited    | Audited    | Actual/Audited | Projected    |
| <b>Hydel Levies</b>                            |          |               |               |                |               |              |              |                |               |            |            |                |              |
| <b>NHP Indexation Arrears</b>                  |          |               |               |                |               |              |              |                |               |            |            |                |              |
| Arrears of NHP - KP                            |          |               |               |                | 4,774         |              |              |                | 365           |            |            |                | 58           |
| Arrears of NHP - Punjab                        |          |               |               |                |               |              |              |                |               |            |            |                |              |
| Arrears of WUC                                 |          |               |               |                | 6,853         |              |              |                | 204           |            |            |                | 63           |
| NHP - Regular                                  |          |               |               |                |               |              |              |                |               |            |            |                |              |
| WUC  |          |               |               |                | 22            |              |              |                | 1             |            |            |                | 0            |
| IRSA Charges                                   |          |               |               |                | 11,649        |              |              |                | 570           |            |            |                | 121          |
| <b>Total Hydel Levies</b>                      |          |               |               |                | <b>37,582</b> |              |              |                | <b>11,094</b> |            |            |                | <b>1,123</b> |
| <b>Total - With Hydel Levies</b>               |          |               |               |                |               |              |              |                |               |            |            |                |              |



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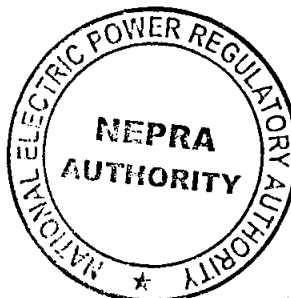
| Revenue Requirement                            |          | Ghazi Barotha |               |                |               | Chashma      |              |                |              | Jinnah       |              |                |              |
|--|----------|---------------|---------------|----------------|---------------|--------------|--------------|----------------|--------------|--------------|--------------|----------------|--------------|
|  | Unit     | FY 2019-20    | FY 2020-21    | FY 2021-22     | FY 2022-23    | FY 2019-20   | FY 2020-21   | FY 2021-22     | FY 2022-23   | FY 2019-20   | FY 2020-21   | FY 2021-22     | FY 2022-23   |
|  |          | (Mln Rs)      | (Mln Rs)      | (Mln Rs)       | (Mln Rs)      | (Mln Rs)     | (Mln Rs)     | (Mln Rs)       | (Mln Rs)     | (Mln Rs)     | (Mln Rs)     | (Mln Rs)       | (Mln Rs)     |
| <b>Operating Data</b>                          |          |               |               |                |               |              |              |                |              |              |              |                |              |
| Installed Capacity                             | (MW)     | 1,447         | 1,447         | 1,447          | 1,447         | 183          | 183          | 183            | 183          | 95           | 95           | 95             | 95           |
| Generation (Net Electrical Output)             | (Gwh)    | 6,482         | 6,811         | 6,762          | 6,813         | 747          | 772          | 796            | 876          | 177          | 235          | 256            | 207          |
| Plant Factor                                   | (%)      | 51%           | 54%           | 53%            | 54%           | 47%          | 48%          | 50%            | 55%          | 21%          | 28%          | 31%            | 25%          |
| <b>Revenue Requirement</b>                     |          |               |               |                |               |              |              |                |              |              |              |                |              |
| O&M  | (Mln Rs) | 2,397         | 2,348         | 2,936          | 2,523         | 1,359        | 1,348        | 1,870          | 1,857        | 418          | 396          | 455            | 364          |
| Depreciation (At Carrying Cost)                | (Mln Rs) | 1,631         | 1,643         | 1,657          | 1,654         | 457          | 488          | 587            | 617          | 436          | 449          | 413            | 412          |
| Ijara Rental                                   | (Mln Rs) |               |               |                |               |              |              |                |              |              |              |                |              |
| Return on Investment                           | (Mln Rs) | 8,083         | 6,388         | 6,138          | 5,868         | 1,376        | 1,121        | 1,075          | 1,116        | 1,363        | 1,010        | 985            | 958          |
| Provision for Future Development               | (Mln Rs) | 2,311         | 2,859         | 3,586          | 6,334         | 292          | 362          | 454            | 802          | 152          | 189          | 236            | 418          |
| Misc. Income                                   | (Mln Rs) | (25)          | (60)          | (62)           | (57)          | (27)         | (33)         | (71)           | (20)         | (3)          | (5)          | (6)            | (7)          |
| <b>Total Revenue Requirement w/o Rev. Gap</b>  | (Mln Rs) | <b>14,397</b> | <b>13,179</b> | <b>14,255</b>  | <b>16,323</b> | <b>3,458</b> | <b>3,286</b> | <b>3,915</b>   | <b>4,372</b> | <b>2,366</b> | <b>2,039</b> | <b>2,084</b>   | <b>2,145</b> |
| <b>Regulatory Revenue Gap</b>                  |          |               |               |                |               |              |              |                |              |              |              |                |              |
| FY - 2019-20 - Audited                         |          |               |               |                | 219           |              |              |                | 28           |              |              |                | 339          |
| FY - 2020-21 - Audited                         |          |               |               |                | (832)         |              |              |                | 8            |              |              |                | (93)         |
| FY - 2021-22 - Provisional                     |          |               |               |                | 186           |              |              |                | 397          |              |              |                | 263          |
| <b>Total Revenue Gap</b>                       |          |               |               |                | <b>(427)</b>  |              |              |                | <b>433</b>   |              |              |                | <b>508</b>   |
| <b>Total Revenue Requirement with Rev. Gap</b> |          |               |               |                | <b>15,896</b> |              |              |                | <b>4,805</b> |              |              |                | <b>2,653</b> |
|  |          | FY 2019-20    | FY 2020-21    | FY 2021-22     | FY 2022-23    | FY 2019-20   | FY 2020-21   | FY 2021-22     | FY 2022-23   | FY 2019-20   | FY 2020-21   | FY 2021-22     | FY 2022-23   |
|  |          | Audited       | Audited       | Actual/Audited | Projected     | Audited      | Audited      | Actual/Audited | Projected    | Audited      | Audited      | Actual/Audited | Projected    |
| <b>Hydel Levies</b>                            |          |               |               |                |               |              |              |                |              |              |              |                |              |
| <b>NHP Indexation Arrears</b>                  |          |               |               |                |               |              |              |                |              |              |              |                |              |
| Arrears of NHP - KP                            |          |               |               |                | 4,263         |              |              |                | 539          |              |              |                | 281          |
| Arrears of NHP - Punjab                        |          |               |               |                |               |              |              |                |              |              |              |                |              |
| Arrears of WUC                                 |          |               |               |                | 10,042        |              |              |                | 1,291        |              |              |                | 305          |
| NHP - Regular                                  |          |               |               |                |               |              |              |                |              |              |              |                |              |
| WUC  |          |               |               |                | 34            |              |              |                | 4            |              |              |                | 1            |
| IRSA Charges                                   |          |               |               |                | 14,340        |              |              |                | 1,835        |              |              |                | 587          |
| <b>Total Hydel Levies</b>                      |          |               |               |                | <b>14,340</b> |              |              |                | <b>1,835</b> |              |              |                | <b>587</b>   |
| <b>Total - With Hydel Levies</b>               |          |               |               |                | <b>30,236</b> |              |              |                | <b>6,640</b> |              |              |                | <b>3,240</b> |



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| Revenue Requirement                            |          | Rasul      |            |                |            | Nandipur   |            |                |            | Shadiwal   |            |                |            |
|--|----------|------------|------------|----------------|------------|------------|------------|----------------|------------|------------|------------|----------------|------------|
|  | Unit     | FY 2019-20 | FY 2020-21 | FY 2021-22     | FY 2022-23 | FY 2019-20 | FY 2020-21 | FY 2021-22     | FY 2022-23 | FY 2019-20 | FY 2020-21 | FY 2021-22     | FY 2022-23 |
|  |          | (Min Rs)   | (Min Rs)   | (Min Rs)       | (Min Rs)   | (Min Rs)   | (Min Rs)   | (Min Rs)       | (Min Rs)   | (Min Rs)   | (Min Rs)   | (Min Rs)       | (Min Rs)   |
| <b>Operating Data</b>                          |          |            |            |                |            |            |            |                |            |            |            |                |            |
| Installed Capacity                             | (MW)     | 22         | 22         | 22             | 22         | 14         | 14         | 14             | 14         | 13         | 13         | 13             | 13         |
| Generation (Net Electrical Output)             | (Gwh)    | 34         | 77         | 59             | 54         | 34         | 32         | 29             | 36         | 14         | 32         | 28             | 32         |
| Plant Factor                                   | (%)      | 18%        | 41%        | 31%            | 29%        | 29%        | 27%        | 25%            | 30%        | 12%        | 28%        | 24%            | 28%        |
| <b>Revenue Requirement</b>                     |          |            |            |                |            |            |            |                |            |            |            |                |            |
| O&M  | (Min Rs) | 161        | 159        | 197            | 203        | 166        | 161        | 182            | 211        | 151        | 123        | 145            | 180        |
| Depreciation (At Carrying Cost)                | (Min Rs) | 6          | 7          | 7              | 7          | 3          | 5          | 3              | 3          | 5          | 5          | 4              | 3          |
| Ijara Rental                                   | (Min Rs) |            |            |                |            |            |            |                |            |            |            |                |            |
| Return on Investment                           | (Min Rs) | 43         | 38         | 39             | 38         | 7          | 7          | 8              | 9          | 10         | 10         | 11             | 13         |
| Provision for Future Development               | (Min Rs) | 34         | 43         | 54             | 95         | 22         | 27         | 33             | 59         | 21         | 26         | 33             | 58         |
| Misc. Income                                   | (Min Rs) | (0)        | (0)        | (1)            | (1)        | (3)        | (3)        | (5)            | (2)        | (2)        | (1)        | (7)            | (3)        |
| <b>Total Revenue Requirement w/o Rev. Gap</b>  | (Min Rs) | <b>244</b> | <b>246</b> | <b>296</b>     | <b>342</b> | <b>195</b> | <b>196</b> | <b>222</b>     | <b>280</b> | <b>186</b> | <b>163</b> | <b>185</b>     | <b>252</b> |
| <b>Regulatory Revenue Gap</b>                  |          |            |            |                |            |            |            |                |            |            |            |                |            |
| FY - 2019-20 - Audited                         |          |            |            |                | 31         |            |            |                | 71         |            |            |                | 64         |
| FY - 2020-21 - Audited                         |          |            |            |                | 28         |            |            |                | 9          |            |            |                | (1)        |
| FY - 2021-22 - Provisional                     |          |            |            |                | 50         |            |            |                | 80         |            |            |                | 45         |
| <b>Total Revenue Gap</b>                       |          |            |            |                | <b>108</b> |            |            |                | <b>159</b> |            |            |                | <b>107</b> |
| <b>Total Revenue Requirement with Rev. Gap</b> |          |            |            |                | <b>450</b> |            |            |                | <b>439</b> |            |            |                | <b>359</b> |
|  |          |            |            |                |            |            |            |                |            |            |            |                |            |
|  |          | FY 2019-20 | FY 2020-21 | FY 2021-22     | FY 2022-23 | FY 2019-20 | FY 2020-21 | FY 2021-22     | FY 2022-23 | FY 2019-20 | FY 2020-21 | FY 2021-22     | FY 2022-23 |
|  |          | Audited    | Audited    | Actual/Audited | Projected  | Audited    | Audited    | Actual/Audited | Projected  | Audited    | Audited    | Actual/Audited | Projected  |
| <b>Hydel Levies</b>                            |          |            |            |                |            |            |            |                |            |            |            |                |            |
| <b>NHP Indexation Arrears</b>                  |          |            |            |                |            |            |            |                |            |            |            |                |            |
| Arrears of NHP - KP                            |          |            |            |                | 64         |            |            |                | 40         |            |            |                | 39         |
| Arrears of NHP - Punjab                        |          |            |            |                | 80         |            |            |                | 53         |            |            |                | 47         |
| Arrears of WUC                                 |          |            |            |                | 0          |            |            |                | 0.180      |            |            |                | 0          |
| NHP - Regular                                  |          |            |            |                |            |            |            |                |            |            |            |                |            |
| WUC  |          |            |            |                |            |            |            |                |            |            |            |                |            |
| IRSA Charges                                   |          |            |            |                | 144        |            |            |                | 93         |            |            |                | 86         |
| <b>Total Hydel Levies</b>                      |          |            |            |                | <b>594</b> |            |            |                | <b>533</b> |            |            |                | <b>445</b> |
| <b>Total - With Hydel Levies</b>               |          |            |            |                |            |            |            |                |            |            |            |                |            |



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