GENERAL HEADINGS OF PROCEDINGS

BEFORE HON'BLE ELECTRICITY REGULATORY COMMISSION FOR THE STATE OF ARUNACHAL PRADESH

FILE No:	
CASE No:	

IN THE MATTER OF: Submission in respect of Directives issued by the Hon'ble

Commission vide Order Dt. 20.12.2019 in Petition No. TP 05 of 2019 and re – issued vide Order Dt 31.12.2024 in Petition

No. TP 11 of 2024 to TP-17 of 2024.

AND

IN THE MATTER OF : Department of Hydro Power Development, Jal Vidyut

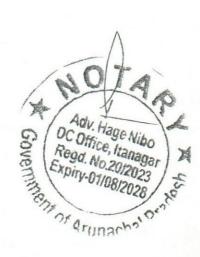
Bhawan, Itanagar, Arunachal Pradesh

.....Petitioner

Chief Engineer (WZ)

Deptt. of Hydro Power Development

Itanagar (A.P.)



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SUBIN-ARARSHCIL0100732430539413X

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DEPTT OF HYDROPOWER DEVELOPMENT GOVT OF AP

Description of Document

: Article 4 Affidavit

Property Description

AFFIDAVIT IN SUPPORT OF TARIFF PETITION FY 25-26

(COMPLIANCE OF DIRECTIVES)

Consideration Price (Rs.)

(Zero)

First Party

DEPTT OF HYDROPOWER DEVELOPMENT GOVT OF AP

Second Party

: AP STATE ELECTRICITY REGULATORY COMMISSION

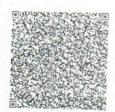
Stamp Duty Paid By

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BEFORE HON'BLE ELECTRICITY REGULATORY COMMISSION FOR THE STATE OF ARUNACHAL PRADESH

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Submission in respect of Directives issued by the Hon'ble Commission vide order Dt. 20.12.2019 in Petition No. TP 05 of 2019 and re – issued vide Order Dt. 31.12.2024 in Petition

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AND

IN THE MATTER OF:

Department of Hydro Power Development, Jal Vidyut

Bhawan, Itanagar, Arunachal Pradesh

.....Petitioner

AFFIDAVIT

- I <u>Shri Jummar Kamdak</u>, son of <u>Lt. Tojum Kamdak</u> (aged 59 years), residing at Kamdak Apartment, 'D' Sector, Itanagar A.P, do hereby solemnly affirm and state as follows:-
- 1. That I am the <u>Chief Engineer (WZ)</u> of the Department of Hydro Power Development, Government of Arunachal Pradesh, the petitioner in the above matter and am duly authorized by the said petitioner to make this affidavit on its behalf.
- 2. That the statements submitted as action taken on the directions issued by the commission vide order dated 20-12-2019 in petition No TP 05 of 2019 and re issued vide Order Dt. 31.12.2024 in Petition No. TP 11 of 2024 to TP-17 of 2024 are true to the best of my knowledge and belief and nothing material has been concealed there from.

Chief Engineer (WZ)
Deptt. of Hydro Power Development
Itanagar (A.C.)

Deponent

Verification

I, the deponent above named do hereby verify that the contents of my above affidavit are true to my knowledge; no part of it is false and nothing material has been concealed there from

in agrion the day of 6 May 2025 Verified at

Place:

Date:

Adv. Hage Nibo

OC Office, Itanagar Regd. No.20/2023 Expiry-07/08/2028

Expiry-Un.

Cept. of Hydro Power Development

Deponent

Solemnly atterned and or celeg before me by the deponent at Itanagar on

Notary,

Adv. Hage Nibo Advocate & Notary Public, Govt. of A.P. D.C Office, Chandra Megar, Itanagar Regd. No: 20/2023

Expiry: 01/08/2028



ACTION TAKEN REPORT ON THE COMPLIANCE OF DIRECTIVES WITH REGARDS TO TARIFF ORDER (FY 2019-20) ISSUED ON 20-12-2019 AND RE-ISSUED VIDE TARIFF ORDER (FY 2024-25) ON 31-12-2024 BY APSERC

1. Electricity Regulatory Cell

DHPD shall create an Electricity Regulatory Cell (under a senior Officer) from the existing staff strength. The Cell so created shall be provided with necessary authority and resources so as to look after all the Tariff and Regulatory matters primarily to keep a vigil on the parameters approved and directives issued by the Commission and also to provide correct and timely information to the Commission. The said officer shall be the primary source of all data and submissions being field before the Commission, to ensure consistency and timelines of the data submitted and proper co-ordination with the Commission in the tariff determination process.

As per DHPD due to lack of officers Electricity Regulatory Cell is still under process. However, the Commission direct DHPD it is very urgent to have this cell headed by some senior officials from DHPD and furnish details of Concern officer, their phone nos. and email IDs for faster and efficient working.

Reply: It is submitted that DHPD was bifurcated from DoP and created as a new department on 12-11-2003 under a single Chief Engineer. However, overtime it was diversified and three more Chief Engineer namely Monitoring, Eastern Zone and Planning & Design was created. Despite more creation of CE office under DHPD, no additional post for supporting staff's have been created till date, partly due to austerity measures adopted by GoAP. Hence there is insufficient staff from the present work force that could be assigned for the regulatory cell works. However, the regulatory matter is somehow managed through Electromechanical Section under DHPD despite the shortages of officers and supporting staffs. Additional posts for officers and supporting staff shall be projected in BE 2025-26 for regulatory cell.

2. Unbundling and transfer of Asset

Electricity functions covering Generation is being performed by the DHPD as a Government functionary as of now. As per the provisions of the Electricity Act 2003, the functions are to be separate and entrusted to reorganized entities that have to function as independent bodies.

DHPD is once again directed to take urgent steps for complete restructuring and get transferred of asset as per Govt. transfer scheme section 131-33 of the power sector in Arunachal Pradesh.

Reply: It is submitted that the restructuring of the Department into separate entity independent from the Government is a policy matter to be decided by the Government of Arunachal Pradesh. As directed by the Hon'ble Commission, the DHPD shall take up the matter for consideration of the Government.

Chief Engineer (WZ)
Deptt. of Hydro Power Development
Itanagar (A.P.)

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3. Generation

DHPD has generated and supplied only 46.50 MU (up to Dec 2018) during FY 2018-19 against saleable energy of 198.48 MU, which is quite low. It indicates that the Performance is poor. DHPD shall take necessary steps to improve the performance of the stations and generate additional power. The DHPD shall make an all-out effort to increase the present generation at least by 19.85 MU (i.e. 10 % of saleable energy 198.48 MU) more in the present generation energy. This will facilitate the additional generation with non-conventional source within the state. Further, this low-cost energy shall not only reduce the burden of APDOP of buying energy at higher cost but shall also give relief to the consumers of the state. The DHPD shall submit a report to the Commission on the steps proposed to be taken in this regard with improvements carried out, within Six months.

Reply:

- It is submitted that DHPD is making all efforts to maximise generation, however, there are technical and operational constraints as a result of which the HEPs are not operating at desired capacity.
- ii) Most of the HEPs are operating in isolation mode on need basis and not connected to grid. The energy generated from the HEPs are catering to the energy requirement of local area. Hence, generation depends on the load demand of the connected area.
- iii) Further, there are redundant capacities to meet the energy requirement in case of failure of any unit.
- iv) The availability of water discharge has reduced due to deforestation, global warming apart from the water diversion by PHE & Irrigation Departments.
- v) Frequent landslides damage the HEPs and disrupt generation.

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- vi) Steps are being taken to connect the HEPs to the grid to improve generation. Hydel stations namely Nuranang (3 x 2000 kW), Kitpi Ph-I (3 x 500 kW), Kitpi Ph-II (2 x 500 kW), Mukto (3 x 2000 kW) and Nuranang Ph-II (2 x 500 kW) have been syrchronised to Grid since 2023. Also Kambang hydel is being tried to synch with DC Office, Itanagas onnections of potential hydel stations are being studied for further action. Besides Expiry-01/08/2028 R&M works and Special repair have been taken up at various hydel stations. Also, AOMC is being proposed for Tago and Kambang at govt. level.
 - vii) Meanwhile during the review meeting held at zonal office, Field Officers have been directed to take steps for increment of the present generation of their respective hydel station by at least 10% from the generation data of last financial year and they have also been directed to study the Feasibility of Grid Connection within their concerned jurisdiction as reflected in the Minutes of Meeting (MoM) being enclosed for your reference.
 - 4. The Commission hereby also directs the Petitioner/ DHPD to keep project wise data's such as all ongoing projects updated as estimated cost, revised Capital cost if any, progress physical & financial, O&M expenses (Employees, R&M and AG), Additional capitalization etc. that shall have to be submitted along with the petition supported by documents.

Reply: It is submitted that DHPD will collect and compile regulatory details regarding the ongoing hydel stations and will be submitting its detail particularly for hydel stations above one MW as and when it is filed at commission's office. The field officers have been asked to provide Project wise data's such as all ongoing project's updated estimated cost, revised Capital cost if any, progress (physical & financial), O&M expenses (Employees, R&M and AG), Additional capitalization etc. supported by documents in the review meeting held at zonal office.

5. For newly Hydro Electric Plant to be commissioned

For newly Hydro Electric Plants below 1 MW, the petitioner should get tariff fixed for entire useful life of plant on levellised basis by adopting the Generic tariff order published by the Commissioned whose COD is March, 2018 or by filling separate for project specific tariff as per APSERC RE Regulation, 2018 and its amendment time to time. For 1 MW and above upto 25 MW project specific Tariff. Petitioner is hereby directed to keep all data updated like estimated & completed cost, Equity, Debt, O&M expenses (Employees, R&M and AG), Additional capitalization etc. and to be submitted along with the petition. Also it has been informed to the department that no tariff has been determine for the following SHP commissioned in FY 18-19, whose project data not available with the Commission, a) Payu MHS at Koloriang; b) Mukto MHS; c) Subbung.

Reply: It is submitted that the details for the above observation has already been met and tariff order for the hydel stations named above have been issued by commission on 31/12/2024. Further it was also discussed in the review meeting, as may be perused from the MoM and decided that for 1 MW and above project specific levellised Tariff is required. Therefore Field Officers are to prepare and submit the tariff petition for all such projects themselves in consultation with the consultants. In this regard all field officers have been directed to maintain the prescribed amount as notified by APSERC from time to time which can be viewed from their website (https://apserc.nic.in) as petition fee, as and when tariff petition for hydel stations above 1 MW is being filled at APSERC.

Accounting of O&M expenses

Adv. Hage Nibo6 OC Office, Itanagar ego. No. 20/2023

The Deptt. is directed to maintain project wise accounting of expenses in respect of the following:

- (a) Expenses on salary and wages of the staff working in the generating station.
- (b) Expenses incurred on repair & maintenance of that generating station.
- (c) Any other general expenses incurred on the staff of that generating station.

These project wise details should be provided in the tariff Petition from next year onwards as these are regulatory requirements.

Reply: It is submitted that all divisional offices have been directed vide letter no HPD-WZ-11029/1/2021/307-32 Dtd 10-01-2025 to maintain project wise details henceforth. Further the matter was discussed in the review meeting held at zonal

Chief Engineer (WZ) Deptt. of Hydro Power Development Itanagar (A.P.)

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office under Western Zone on 17th April 2025 and under Eastern Zone on 22nd April 2025 as may be observed and perused from MoM being enclosed respectively.

7. O&M Activities

The Commission suggests that the O & M activities of major Power Station i.e. above one MW capacity may be carried out on PPP Model (Public Private Partnership Model). Initially one or two Power Plant of sizable capacity, which is under performing, may be taken up on experiment basis to carry out O&M activities and its performance shall be monitored. DHPD is requested to prepare a blue print of such PPP Model Project and furnish the same to APSERC for appraisal and comment.

Reply: It is submitted that there is no policy for PPP model for long term duration and that is why DHPD will partner with private party for AOMC for short term duration. DHPD has taken up the proposal of carrying out O&M activities of two hydel stations above one MW capacity viz Tago (4500 kW) and Kambang MHS (6000 kW) under AOMC (Annual Operation Maintenance Contract) with GoAP. In this regard, a committee was formed within DHPD by CE (EZ), DHPD vide No.HPD-EZ-14011/7/2022-CE(EZ)/DHPD/1640-44 Dtd 25/02/2025 with himself being the chairman along with six other senior officers as its members and SSW (EM/WZ) being the nodal officer to coordinate the discussion in the matter. The circles and/divisions were asked to prepare NIeT for respective hydel stations namely Tago and Kambang ensuring compliance of the points discussed during the meeting and submission to zonal office on or before 24th March 2025 vide No.HPD-EZ-14011/7/2022-CE(EZ)/DHPD/1762-72 Dtd 10/03/2025.

8. Reassessment of the value of the existing assets of DHPD

The Deptt. is directed to reassess the value of its assets and provide the correct asset value to the Commission in the next petition. If the Deptt. feels proper and necessary, it is suggested that Deptt. may seek the services of professional valuers & estimators in this field for assessing the proper value of the assets of the Deptt. as it is a one-time ercise and it is in the benefit of the Deptt. that it should be done with fair amount of accuracy. Project wise asset registers, containing land details, civil structures, dams, spill ways, power house buildings, office buildings, the machinery, and equipment together with costs shall be prepared in standards format and shall be submitted the same to the Commission.

Reply: It is submitted that as directed by commission, DHPD is making effort to seek the advice of professional valuers & estimators for assessing the proper value of the assets of the department. However since it will involve fund requirement for carrying out the exercise. Hence the proposal has been sent to GoAP for consideration vide e-file letter no_HPD-WZ-11029/1/2021/320760/2025 Dtd 19-03-25.

9. Hydro Power Stations with "Nil" Power Generation

The Commission received a status sheet from DHPD (Refer Annexure 1) where it is observed that 4l numbers of plant totalling to an installed capacity of about 14.25 MW has been shown to be generating nil energy over the past few years. Hence, the



DC Office, Itanaga,



Commission observe an urgency to recover at least those plants which has nil generation or operating below its rated capacity due to some minor repair/ replacement/refurbishment of components/parts/works etc. The Commission hereby directs DHPD to take up the recovery of those plants and present it to the Commission along with the commercial justification, sources of funding, annual targets, and time lines of restoration of generation.

Reply: It is submitted that often times due to natural calamities like landslides, Flash Floods, reduction in discharge and flooding of river, power house and hydel equipment's are damaged beyond economical repair. The action taken on the noted 41 no's of hydel stations in the Tariff Order FY 2019-20 is hereby annexed as (A, B, C & D) listed as (A) Hydel Station renovated and put into operation – 9 No's, (B) Hydel Station under R&M, Derating & Augmentation – 11 No's. (C) Hydel Stations proposed for write off sanction - 7 No's and (D) Hydel Station which has been accorded write off sanction - 14 No's. DHPD is making all efforts to make the plants operational in technically & economically feasible cases. However, those plants which are beyond economical repairs are processed for write off sanction from the competent authority. Meanwhile the field officers have been directed to submit estimates to repair plants which has nil generation or operating below its rated capacity due to some minor repair/ replacement/refurbishment of components/parts/works etc during the review meeting as may be seen from MoM being enclosed.

10. Reassessment of Installed Capacity of the existing stations

It is felt that the generation from the hydro stations does not commensurate with the installed capacity of the projects. As clarified by the DHPD on various occasions, one of the reasons stated for this was that many of the projects are very old and the capacity of the machinery has got de-rated due to ageing. Moreover, over a period of time the hydrology of the project has also changed leading to reduction in water discharge and hence reduction in the generating capacity. It was also stated that during earlier days one machine in the station used to be only as standby but whose capacity is added in the installed capacity. In view of the above the DHPD is directed to reassess the actual enerating capacity of all such projects afresh and re-fix the installed capacity afresh and get it approved.

Reply: It is submitted that DHPD has directed all the field officers to re assess the Condition of the hydel stations vide letter no HPD-WZ-11029/1/2021/307-32 Dtd 10-01-2025. It may be noted that 14 no's of hydel station under chief engineer (EZ) had already been approved for write off sanction during the tariff petition filed for FY 2024-25 and further 4 no's of additional hydel stations has been sanctioned for write off as on date (Annexure - E). Efforts are being made to obtain write off sanction for further 7 no's of hydel station under chief engineer (WZ) (Annexure - C) as these plants are not in operation since many years due to various reasons like flood damage, electromechanical units defect, low discharge due to tapping of water by other govt. agency etc and hence beyond economical repair. Meanwhile during the review meeting as may be perused from the MoM enclosed, the Field Officers were directed to reassess



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egd. No.20/2023

the actual generating capacity of all of their concerned projects and if required re-rate the installed capacity and submit a report with such proposal through proper channel for obtaining approval from GoAP. They are also directed to submit list of defunct hydel stations for write off sanction with factual justification.

11. Depreciation for FY 2019-20

The Commission has been requesting the details of GFA from DHPD but didn't receive any input till date. Further, Commission has worked out depreciation based on limited data available with the Commission and accordingly approved the cost as calculated. The Commission hereby directs the DHPD to re-evaluate the project asset value by deploying the professional valuer and estimator for all the old plants whose capital is not available with the department so that a realistic depreciation can be calculated. The Commission also directs the DHPD to do re-valuation exercise of the old plants whose project life obtained more than thirty-five years and furnish the same to the Commission

Reply: It is submitted that as directed by commission, DHPD is making effort to seek the advice of professional valuers & estimators for assessing the proper value of the assets of the department. However since it will involve fund requirement for carrying out the exercise. Hence the proposal is being sent to GoAP for consideration as already enumerated in reply to query no 4 above.

12. Training and skill development of the employees of DHPD

The Deptt. is directed to give top most priority to training and skill development of O&M staff and the supervisory staff (JEs and AEs) of the generating stations so as to increase the longevity & efficiency of the machines. The Deptt. should work out a well thought plan of imparting training in phased manner and allocate necessary fund in its annual budget for the same. Further to the above, Commission also observes that DHPD may undertake training / skill development for technicians / un-skilled worker to improve plan availability and performance.

Reply: It is submitted that as already enumerated in reply for query no 7 above that DHPD has taken up the proposal of carrying out AOMC (Annual Operation Maintenance Contract) of certain hydel stations above one MW capacity viz Tago (4500 kW) and Kambang MHS (6000 kW) with GoAP. Once AOMC is approved by the Govt of AP, training & skill development of O&M staff and the supervisory staff will be incorporated in the agreement. At the same time this issue was discussed during the review meeting as may be seen from MoM enclosed and Field Officers concerned were directed to send their operator of non functioning hydel stations to new hydel stations which are on the verge of commissioning for training purposes within their jurisdiction so that the operator acquires skills which would be handy when the non functioning hydel station where he is originally posted is functional again.

Chief Engineer (WZ)
Deptt. of Hydro Power Development
Itanagar (A.P.)



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13. Scheduling of generation from the Deptt.'s Hydro Stations

The Deptt. is directed to start scheduling the generation from its generating stations for proper and optimum utilization of the generation by the Deptt. of Power. In this regard, the DHPD shall have to co-ordinate with SLDC which is being upgraded to have communication with the plants in Generation with SLDC. The DHPD need to update the Commission.

Reply: It is submitted that scheduling of generation for stand alone and isolated hydel stations is not feasible as these are primarily mini, micro hydel stations built for welfare aspect and hence the loading pattern is also not high due to which it is put into operation only on need basis for certain hours daily. Such hydel stations have no commercial ambition and are basically built to electrify border villages under various government programs. However in many places it is not feasible due to unrobust T&D system. Also due to absence of dedicated evacuation line, frequency of line fault is very high which hinders generation. Added to this, insufficient skilled operator and unavailability of readily available spares, ageing of plants etc leads to frequent plant outages and it takes time to restart the system. However scheduling of hydel stations connected or being connected to grid will be carried out after installation of metering and communication system which will be taken up during this financial year. Meanwhile during the review meeting, the field officers were asked to submit their proposal through proper channel for projection in BE 2025-26 for hydel stations feasible for scheduling but lacking in equipments for facilitating scheduling.

14. Fixing of project wise generation target

The Deptt. is also directed to fix monthly / quarterly target of generation project wise based on various factors like the seasonal availability of the water, condition of the machines etc. This will also help the Deptt. in self-assessment of its performance. Details of Project wise target and actual generation should be incorporated in the next tariff petition of the Deptt.

Reply: It is submitted that DHPD has conducted a review meeting Under CE (WZ) on 17th April 2025 and CE (EZ) on 22nd April 2025 wherein discussion regarding the fixing of project wise generation wherever feasible was discussed and subsequently field officers were directed to take steps for increment of the present generation of their respective hydel station by at least 10% from the generation data of last financial year as may be perused from the MoM enclosed.

15. Raising of bills to Deptt. of Power

The DHPD directed to immediately confirm if it is raising monthly bills to AP DOP for the energy consumed by them at the tariff fixed by the Commission w.e.f 2013-14 onwards. On the basis of joint meter readings or as mutually decided by both the department for such station where meter are not installed. Persons authorised to sign the joint meter reading, format of the bill etc. should be worked out between the Chief – Engineer's of DHPD and Chief Engineer's DOP to a definy kind of disputes.

Chief Engineer WZ; Deptt. of Hydro Power Development

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Reply: It is submitted that bills are being raised at the field level with their counterpart from DoP and JMR (Joint Meter Reading) is also being done at hydel stations where the provision exists. However for hydel stations which lack meters for carrying out JMR, the field officers concerned have been directed to frame estimates for the necessary meters required for carrying out the exercise.

The same was also discussed during the review meeting and it was reiterated to the field officers to raise the bill and to submit estimates for the metering system required for conducting JMR for hydel stations in case of non availability of these equipments.

16. Data Deficiencies and submission of Tariff Petition

(a) The Deptt. is directed to start scheduling the generation from its generating stations for proper and optimum utilization of the generation by the Deptt. of Power.

Reply: It is submitted that reply to this query is enumerated in query no 13 above.

(b) The Commission observed through the previous petition filled that the various activities are being taken by the petitioner / DHPD and listed in their petition as Annexure 'Outlays and Expenditure of On-Going Schedule and hydel Improvement, special repair (Hydel Improvement), R&M works etc. for different plants in operation. The petitioner did not furnish any proposal along with technical details, expenditure etc. for the said projects for information / accounting to the Commission.

Reply: It is submitted that the available records are being submitted herewith as (Annexure – F & G) consisting of 19 no of schemes under CE (WZ) and 29 no of schemes under CE (EZ) with its respective enclosures.

17. Filling of the Petition in time

Tariff petition with all the required data in the formats shall be submitted by 30th November of every year.

Reply: It is submitted that DHPD will make all effort to file tariff petition for FY 2026-27 by 30th November 2025.





LIST OF EXISTING HYDEL UNDER DEPARTMENT OF HYDRO POWER DEVELOPMENT RENOVATED & PUT INTO OPERATION

					Annexure - A
Sl. No.	Name of Existing Hydel	Installed Capacity (in KW)	Firm capacity (in KW)	Year of Commissioning	Remarks
1	Khet	2 x 50	100	2009-10	Unit-I in Operation. Unit-II Shutdown due to gen, panel, transformer & switchyard component damage.
2	Dokumpani	1 x 30	30	2000-01	Plant in Operation
3	Domkhrong	2 x 1000	2000	2008-09	Unit-I Shutdown due to leakage from Nozzle. Unit-II in Operation.
4	Mai PH-II	2 x 500	500	1982 - 83	Unit-I Shutdown due to excitation panel defect. Unit-II in Operation.
5	Kamba MHS	3 x 2000	6000	2008-09	Plant is operated in Isolation mode supplying power to kamba, kaying and Darak.
6	Tah Ahfra Ph-I and Ph-II at Angolin	(1 x 50)+ (1 x 50)	50	2009-10	Shutdown since May 2024 due to flood damage of water conducting system.
7	Kibitho	1 x 30	30	2004-05	Due to low discharge, Kibithoo area is fed from Dichu Nallah MHS. Due to landslide on 29th June 2024, Power house has been washed away.
8	Maipani MHS	2 x 30	30	2010-11	Power channel is damaged. Plant shutdown.
9	Sumhok Nallah	2 x 50	100	2009-10	
<u>00-800-</u>	Total of WZ	9420	8840		

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Chief Engineer (WZ)
Deptt. of Hydro Power Development
Itanagar (A.P.)



LIST OF EXISTING HYDEL UNDER DEPARTMENT OF HYDRO POWER DEVELOPMENT UNDER R&M, DERATING AND AUGMENTATION

					Annexure - B
S1. No.	Name of Existing Hydel	Installed Capacity (in KW)	Firm capacity (in KW)	Year of Commissioning	Remarks
1	Saktangrong MHS	3 x 100	300	2011-12	Proposed under Renovation
2	Ankaling	1 x 30	30	2009-10	Proposed under Renovation
3	Khadiyabey •	2 x 100	200	2011-12	Proposed for derating from (2 x 100 kW) to (2 x 50 kW) vide SE/KB/HPD/W-59/22-23/1640-42 Dtd 17/01/23
4	Kade Nallah	1 x 50	50	2010-11	Proposed under Renovation
5	Pakke Kessang	1 x 30	30	2001-02	Plant shutdown for augmentation into 2 x 50 kW.
6	Koye	1 x 50	50	2009-10	Proposed under Renovation
7	Dumi Dutte	1 x 30	30	2017-18	Proposed under Renovation
8	Dulom (Daporijo)	4 x 100	300	1981 - 82	Hydel Station shutdown since 2008 and presently R&M works on EM is progress.
9	Pinto Karo	1 x 25	25	2011-12	Proposed under Renovation
10	Sinyum Koro	2 x 50	100	2011-12	Proposed under Renovation
11	Ayingmuri MHS	2 x 125	250	2012-13	Plant under augmentation of power from 250 to 500 kW.
	Total of WZ	1465	1365		

Chief Engineer WZ,
Depit of Hydro Power Development
Hanagar (A.B.)

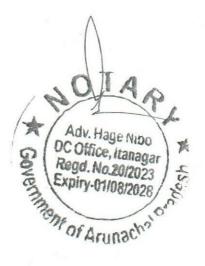
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OC Office, Itanager
Regd. No 2012023
Expiry-0110812028

L	IST OF EXISTING HYDEL UNDER DEPARTMENT OF HYDRO POWER DEVELOPMENT PROPOSED FOR
	WRITE OFF

					Annexure - C
Sl. No.	Name of Existing Hydel	Installed Capacity (in KW)	Firm capacity (in KW)	Year of Commissioning	Remarks
1	Bramdhongchung Ph-I	2 x 50	100	2008-09	Proposed for Write Off sanction
2	Sinchung	1 x 30	30	2008-09	Proposed for Write Off sanction
3	Seppa	3 x 100	200	1980 - 81	Proposed for Write Off sanction
4 *	Patte MHS at Tali	*1 x 30	30	2004-05	Proposed for Write Off sanction
5	Maro	1 x 30	30	2002-03	Proposed for Write Off sanction
6	Limeking MHS	1 X 30	30	2012-13	Proposed for Write Off sanction
7	Kojin Nallah	2 x 50	100	2011-12	Proposed for Write Off sanction
	Total of WZ	620	520		

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LIST OF EXISTING HYDEL UNDER DEPARTMENT OF HYDRO POWER DEVELOPMENT WITH WRITE OFF SANCTIONED

				SANCTION	ED
					Annexure - D
S1. No.	Name of Existing Hydel	Installed Capacity (in KW)	Firm capacity (in KW)	Year of Commissioning	Remarks
1	Yomcha	1 x 50	50	2001-02	Write-off sanctioned vide Memo No. HPD-EZ-14012/2/2021- CE(EZ)DHPD/38-43 Dtd. 24th April 2024
2	Angu MHS	1 x 50	50	2010-11	Write-off sanctioned vide Memo No. HPD-EZ-14012/2/2021- CE(EZ)DHPD/38-43 Dtd. 24th April 2024
3	Beye	1 x 30	30	2004-05	Write-off sanctioned vide Memo No. HPD-EZ-14012/2/2021- CE(EZ)DHPD/38-43 Dtd. 24th April 2024
4	Deopani Ph-I MHS	3 x 250	500	1986-87	Write-off sanctioned vide Memo No. HPD-EZ-14012/2/2021- CE(EZ)DHPD/38-43 Dtd. 24th April 2024
5	Deopani Ph-II MHS	3 x 250	500	2004-05	Write-off sanctioned vide Memo No. HPD-EZ-14012/2/2021- CE(EZ)DHPD/38-43 Dtd. 24th April 2024
6	Abhapani MHS at Simari	(2 x 100) + (1 x 250)	350	1994-95	Write-off sanctioned vide Memo No. HPD-EZ-14012/2/2021- CE(EZ)DHPD/38-43 Dtd. 24th April 2024
7	Awapani Ph-I at LG	3 x 50	50	1994-95	Write-off sanctioned vide Memo No. HPD-EZ-14012/2/2021- CE(EZ)DHPD/38-43 Dtd. 24th April 2024
8	Sijen MHS at Adi Pasi	1 x 50	50	2011-12	Write-off sanctioned vide Memo No. HPD-EZ-14012/2/2021- CE(EZ)DHPD/38-43 Dtd. 24th April 2024
9	Tah Nallah	2 x 50	100		Write-off sanctioned vide Memo No. HPD-EZ-14012/2/2021- CE(EZ)DHPD/38-43 Dtd. 24th April 2024
10	Ashapani MHS	2 x 30	30	2011-12	Write-off sanctioned vide Memo No. HPD-EZ-14012/2/2021- CE(EZ)DHPD/38-43 Dtd. 24th April 2024
11	Hathipani MHS	2 x 50	100	2009-10	Write-off sanctioned vide Memo No. HPD-EZ-14012/2/2021-CE(EZ)DHPD/38-43 Dtd. 24th April 2024
12	Pyabung MHS	1 x 30	30	2011-12	Write-off sanctioned vide Memo No. HPD-EZ-14012/2/2021-CE(EZ)DHPD/38-43 Dtd. 24th April 2024
13	Ngonalo at Vijaynagar	2 x 50			Write-off sanctioned vide Memo No. HPD-EZ-14012/2/2021-CE(EZ)DHPD/38-43 Dtd. 24th April 2024
14	Tahin Nallah	2 x 50			Write-off sanctioned vide Memo No. HPD-EZ-14012/2/2021- CE(EZ)DHPD/38-43 Dtd. 24th April 2024
	Grand Total	2765	1840		

Chief Engineer (WZ)
Deptt. of Hydro Power Development
Itanagar (A.P.)



LIST OF EXISTING HYDEL UNDER DEPARTMENT OF HYDRO POWER DEVELOPMENT WITH WRITE OFF SANCTIONED

					Annexure - E
Sl. No.	Name of Existing Hydel	Installed Capacity (in KW)	Firm capacity (in KW)	Year of Commissioning	Remarks
1	Along	3 x 100	300	2015	Write-off sanctioned vide Memo No. HPD-EZ- 14012/2/2021-CE(EZ)DHPD/38-43 Dtd. 24th April 2024
2	Mechuka	(6 x 25) + (1 x 250)	150	2015	Write-off sanctioned vide Memo No. 12015/21/2023/2084-90 Dtd. 15/06/2023
3	Kote	1 x 50	50	2013	Write-off sanctioned vide Memo No. HPD-EZ-14012/2/2021-CE(EZ)DHPD/38-43 Dtd. 24th April 2024
4	Sika MHS at Likor	1 x 15	15	2010	Write-off sanctioned vide Memo No. HPD-EZ-14012/2/2021-CE(EZ)DHPD/38-43 Dtd. 24th April 2024
	Grand Total	745	515		

Chief Engineer (VV)

Deptt. of Hydro Powar Development

Hanagar (A.P.)

Adv. Hage Nibo
OC Office, Itanagar
Regd. No.20/2023
Expiry-01/08/2028

ARMEXURE-F

GOVERNMENT OF ARUNACHAL PRADESH OFFICE OF THE CHIEF ENGINEER (WZ) DEPARTMENT OF HYDRO POWER DEVELOPMENT

JAL VIDYUT BHAWAN: ITANAGAR

Near Indira Gandhi Park, Itanagar, Arunachal Pradesh

Telephone No: 0360-2217309(0ff), 0360-2291502(Fax)

email: cewzdhpd@gmail.com

Dtd.....

No.HPD-WZ-11029/1/2021/24-25/

To,

The Secretary

Arunachal Pradesh State Electricity Regulatory Commission, O.T Building, 2nd Floor, T.T Marg, Niti Vihar Market, Itanagar-791111, Arunachal Pradesh.

Sub: - Submission of various schemes under RE/BE 2023-24.
Ref: - Directive no 16 (b) issued under Tariff Order FY 2023-24

(e) issued ander Tailin Order 1 1 20

Sir,

With reference to the above mentioned subject and the referred letters, Please find herewith enclosed a list of projects under Western Zone under RE/BE 2023-24 under various activities such as special repair, hydel maintenance etc for further necessary action from your end.

This is for your information and further necessary action please.

Enclo: - As stated above.

Yours tenthruly.

Chief Engineer (WZ)

Department of Hydro Power Development,

Itanagar.

Sl. No.	Name of Existing Hydel	Installed	Name of	RE 2023-24			Remarks
		Capacity (in kW)	District	Name of work	Estimated cost (₹ in lakhs)	Expenditure incurred (₹ in lakhs)	
1	2	ω	4	S	6	7	8
1	Thingbu	2 x 50	Tawang	Special Repair of Unit-II Thingbu MHS (2 x 50 kW)	13.58	4.07	
22	Khet	2 x 50	Tawang	Special Repair of Unit-II Khet MHS (2×50 kW)	16.87	5.06	
ω	Khinmey Gompa	2 x 50	Tawang	Khinmey Gonpa rain damage (SH: Intake Weir)	17.53	17.53	
4	Nuranang	3 × 2000	Tawang	1) Modification of OPU systems of Unit No. I & II by replacing of Solenoid valves, Direction valves, Proportional Valves and	57.00	28.00	
				Accomolators etc. of Nuranang MHS Ph-I (3 x 2000 kW)			
				2) C/o Special Repair and Maintenance of Weir and Intake Structure of Nuranang SHEP Ph-I (3 x 2000 kW) at Tawang	92.06	19.00	
ග	Bongleng	2 x 50	Tawang	Special Repair and Maintenance of Bongleng MHS (2 \times 50 kW)	25.46	7.64	
6	Nuranang Ph-II	2 x 500	Tawang	Replacement of damaged battery charger by 24 V, 200 AH Charger battery, 2 V 200 AH-12	23.45	23.45	
		103		Nos., replacement of breaker panel 1 and replacement of bottom Nozzle of Unit-2 of Nuranang Ph-II MHS (2 x 500 kW)			
7	Zhongdongrong	2 x 500	West Kameng				
				1) Additional Desilting tank for Zhangdongrong MHS (2 x 500 kW)	30.00	30.00	
				2) Restoration and Maintenance of Zhangdongrong MHS (2 x 500 kW) (SH: Trash Rack & Intake Chamber)	17.00	17.00	0

Chief Engineer (WZ)
Deptt. of Hydro Power Development
Itanagar (A.P.)

Adv may Nibo

DC Office, itanager
Regd. No.2012023
Regd. No.2012028

		10			9 Ru	8 Di	1		Sl. No.
		Domkhrong			Rupa	Ditchik	2		Name of Existing Hydel
		2x500			2 x 100	1 x 100	ω	Capacity (in kW)	Installed
		West Kameng			West Kameng	West Kameng	4	District	Name of
250 kVA station transformer 4) Replacement of complete battery bank of 110 V comprising of 55 nos. of 2 V. 200 AH dry battery cells of Amara Raja make with Exide make batteries including repairing of battery charger panel of Domkhrong MHS (2 x 500 kW)	2) Re alignment of TG set of Unit I along with testing and commissioning of Domkhrong MHS (2 x 500 kW) 3) Restoration of 3.3/33 kV switchyard of Domkhrong MHS (2 x 500 kW) (Replacement of defective equipments and overhauling of	1)Repairing and maintenance of OPU along with nitrogen accumulator including adjustment and re-alignment lower nozzle and deflector of Unit-I Domkhrong MHS (2 x 500 kW)	3) Replacement of defective set of 100 kW cross flow turbine of unit I (M/s Naveen Engineering make) of Rupa MHS (2 x 100 kW)	2) Restoration of 415/11 kV switchyard of Rupa MHS (2 x 100 kW) [repairing / replacement of defective equipment and overhauling of 400 kVA transformer]	1) Replacement of all the defective component of incoming and outgoing panels of both the Units and replacement of ELC system of Unit-I of Rupa MHS (2 x 100 kW) C/o Protection wall at Dikhang with approach road at Rupa	Restoration of Ditchik MHP (1 x 100 kW)	5	Name of work	RE 2023-24
35.00	25.00 30.00	25.00	25.00	25.00	25.00	21.00	6	Estimated cost (₹ in lakhs)	
17.50 Adv	12.50	12.50	12.50	12.50	12.50	21.00	7	Expenditure incurred (₹ in lakhs)	
Adv. Hage Nibo	s						00		Remarks

1	0	-
	7	-
	6	-
1	- 6	7

	443.97	932,58		2	10990	Total	
	20.00	94.48	1) Special Repair and Maintenance of Sinyum Koro (2 x 50 kW) (SH: Overhauling of EM Equipments, Extension of Spillway, Maintenance of Power Channel & Power House	Upper Subansiri	2 x 50	Sinyum Koro	19
	10.00	20.00	Restoration and reconstruction of damaged power channel of Dikshi Hydel Station (30 mtrs.)	West Kameng	2 x 30	Dikshi	
	50.00	50.00	C/o Overhauling of Dry Transformer 3.3/33 kV 2.5 MVA transformer, ACB of Sippi SHP (2 x 2000 kW) and Station Transformer GOAB gang of other Micro Hydro Plants, Upper Subansiri District	Upper Subansiri	2 x 2000	Sippi	17 S
	15.00	50.00	Special repair of Tago SHP (3 x 1500 kW)	Lower Subansiri	3 x 1500	Tago	16
	15.00	73.43	Extension and Strengthening of Spillway Channel of Mai Ph-II	Lower Subansiri	2 x 500	Mai PH-II	15
	25.00	50.00	Re-construction of rain damage Intake weir, Power Channel, Penstock pipe and Anchor Block of Payu MHS (2 x 500 kW) at Koloriang	Kurung Kumey	2 x 500	Payu MHS at Koloriang	14
	10.00	47.00	Re-construction of Rain damage works of Wari MHS (2 x 25 kW) at Khenewa Circle	East Kameng	2 x 25	Wari	13
	18.72	18.72	Special Repair and Maintenance of Watte- Mame MHS (1 x 50 kW) at Waii village	East Kameng	1 × 50	Watte Mame	
	12.50	25.00	Re winding of 30 kW alternator in complete and repairing of Panel to restore Angkaling MHS (1 x 30 kW)	West Kameng	1 x 30	Ankaling	
8	7	6	S	4	w	22	
	Expenditure incurred (₹ in lakhs)	Estimated cost (₹ in lakhs)	Name of work	District	(in kW)		
Remarks			RE 2023-24		Installed	Name of Existing Hydel	SI. No.

Adv. Hage Nibo
OC Office, itanagar
Regd. No. 20/2023
Expiry-01/08/2028

Chief Engine chief Engineer (WZ)

Department of Hydro Power Development

('d'y) repeat

Chief Engineer (WZ)
Deptt. of Hydro Power Development

ARREXUGE - 9

21)

No.HPD-EZ- 14034/1/2021/ Z 9 GOVERNMENT OF ARUNACHAL PRADESH

DEPARTMENT OF HYDRO POWER DEVELOPMENT

OFFICE OF THE CHIEF ENGINEER EASTERN ZONE LOHIT DISTRCIT:: TEZU

Dated. 1 /...04/2025

To,

The Chief Engineer (WZ)
Department of Hydro Power Development
Itanagar

Sub:-

Submission of Estimate BE-2023-24.

Sir,

Enclosed please find herewith Xerox copy of estimate of BE 2023-24 under Chief Engineer (Eastern Zone), DHPD for further necessary action please.

Chief Engineer (EZ)

Department of Hydro Power Development

Tezu

SSA (FM)

Chief Engineer (WZ)
Deptt. of Hydro Power Development

J. F. Camb

Adv. Hage Nido
DC Office, Itanagar
Regd. No.20/2023
Expiry-01/08/2028

RE: 2023-24

Name of the Department: Hydro Power

		(Rs. in lakh)	
S1 No	Projects/ Schemes	Estimated cost	Allocation during BE / RE 2023-24
1	2	3	Structure, 5 States
(i)	SH: Hydel Improvement		
1	Improvement of Krawti Nallah MHS (Sub Head: Installation of New 100 kW Francis Turbine, Generator, Electronics Governor, Panel Board etc). Sub-Station etc.)	150.00	38.94
2	FDR of Subbung SHP (2 x 1500 kW)	489.00	28.00
3	Special repairing of Subbung SHP (2 x 1500 kW) (SH: Dynamic balancing / alignment of TG set of Unit-I, overhauling LOS system of both units, servicing of panel board & butterfly valve & DG set servicing)	75.00	50.00
4	Raising of power channel of Yingkiong Ph-I and Ph-II MHS	30.00	20.00
5	Reconstruction of Power channel at sinking area of Gossang MHS (2 x 250 kW) 70 mtr.	35.00	27.00
6	Replacement of penstock pipe at Selli MHS at Geku (2 x 250 kW)	95.00	85.00
7	Renoviation of Fire ravaged B/Barrack at Aalo Hydro Power Division Complex	20.00	15.00
8	Overhauling of Turbine of Awapani MHS at Alinye (2x250KW)	30.00	15.00
9	C/o Protection D/ Stream Apron of Diversion wier & Providing Cover Slab on Feeder of Pasighat MHS (2x100 kW)	30.00	25.00
10	Special repair of Silli MHS(1 x 30 kW) (SH: Renovation of damaged power channel, trench weir & protection structures of trench weir ,mainternance and protection along the power channel and forebay tank)	38.00	29.10
11	Replacement of OPU and power pack of Liromoba MHS (2X1000KW)	20.00	12.00
12	Complete overhauling and repair of Turbine of Unit-II Control Panels, Governor, VCB, modification of OPU etc of Sirikorong MHS (2x250 kw). complete. (SH:EM Works)	50.00	44.50
13	Overhauling of turbine including changing the bearings,	20.00	17.00
14	Special repair Feeder channel of Awapani MHS at Alinye (2X250 KW)	35,00	29.75

Chief Engineer (VVZ)
Deptt. of Hydro Power Development
Itanagar (A.P.)

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2		(Rs. in lakh)	
1	Projects/ Schemes	Estimated cost	Allocation during BE / RE 2023-24
1	2.2500000000000000000000000000000000000	3	5
	Complete repair of OPU, Governor of pentaflow make horizontal Francis TG set no.1 of Awapani MHS (2X250KW) at gepuline.	25.00	16.25
	Special repairing of Langpani MHS (2 x 200 kW) (SH: E&M works)	37.00	31.45
	Installation of additional 1 (one) Unit of Yapak Nallah MHS (SH: Installation of additional 1 (one) unit of 100 kW)	150.00	134.50
18	Special repair of Yapak Nallah MHS (2 x 100 kW) (SH: (i) Civil work (ii) SH: EM work weir / intake Overhauling of casing, runner, guide vane, MIV etc)	55.00*	46.75
19	Improvement of Sumhok Nallah MHS (2X50KW)	50.00	38.66
20	Installation/ construction of new switch yard with 75 kVA, 0.415/11 kV strp-up Transformer and its accessories i/c Civil works of Silli MHS (1 x 30 kW)	23.00	23.00
21	Special repair of Siru SHEP (3x2MW)at Goli Balek Kamba (SH: 1. Strengtheninng of By pass channel. 2. E&M works: Repair of burnt DE Bearing, Alternator terminal & rewinding of UAT and Procurement of Battery Bank,)	49.00	45.00
22	Complete overhauling of TG sets and commissioning work of incomplete (2 x 250 kVA) 0.415/11 kV Sub-station of Dali MHS (4 x 100 kW) (SH: E&M Works)	35.00	10.30
23	Maintenance of TG sets control panel of solegamang MHS (1x50 kw) (EM woks)	14.25	10.00
24	Complete repair / replacement of OPU, Governor and overhauling of TG set of Unit-I of Awapani MHS (2 x 250 kW) at Gepuline	30.00	15.00
25	Complete repair and overhauling of Gurgler make Horizontal Francis TG Set unit No. II of Awapani MHS (2 x 250 kW) at Alinye	30.00	15.00
	Sub-Total (i	1615.25	822.20
(ii)	Additional allocation over and above BE provision	-	
26	Kamba. (SH: Power Chainter Hear Porebay turn)	42.88	8.58
27	(KW)		547.36
28	Flood Damage restoration work of Sirikorang Ph-II MHS (2 x 150	544.22	544.22
29	under Yatdam Hydro Fower Division	40.00	40.00
	Sub Total (i	1174.46	1140.16
	Grand Teta	1 2789,71	1962.36

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Expiry-01/08/2028
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