

**HYDRO POWER DEVELOPMENT
CORPORATION OF ARUNACHAL
PRADESH LIMITED**

APPLICATION

FOR

APPROVAL OF CAPITAL COST

&

TARIFF

**SUMBACHU SMALL HYDRO POWER
PROJECT**

(2 X 1.5 MW)

GENERAL HEADINGS OF PROCEEDINGS

**BEFORE THE ARUNACHAL PRADESH STATE ELECTRICITY REGULATORY
COMMISSION (APSERC), ITANAGAR**

Filing No.....

Case No.....

IN THE MATTER OF:

APPLICATION FOR APPROVAL OF CAPITAL COST
& TARIFF OF SUMBACHU SHP IN ACCORDANCE
WITH THE APSERC (TERMS & CONDITIONS FOR
TARIFF DETERMINATION FROM RENEWABLE
ENERGY SOURCES) REGULATIONS, 2018

AND

IN THE MATTER OF:

HYDRO POWER DEVELOPMENT CORPORATION
OF ARUNACHAL PRADESH LIMITED (A GOVT. OF
ARUNACHAL PRADESH ENTERPRISE)
(HEREINAFTER REFERRED TO AS HPDCAPL),
PARKVIEW APARTMENT, LOWER NITI VIHAR,
ITANAGAR -791111, ARUNACHAL PRADESH.

..... PETITIONER

s/No. 1343
25/11/2020



अरुणाचल प्रदेश ARUNACHAL PRADESH

965862

AFFIDAVIT

BEFORE HON'BLE ELECTRICITY REGULATORY COMMISSION

FOR THE STATE OF ARUNACHAL PRADESH

FILE No: _____

CASE No: _____

IN THE MATTER OF : Petition for Approval of Capital Cost & Tariff of Sumbachu SHP under Sections 61, 62 and 64 of The Electricity Act 2003

AND

IN THE MATTER OF :

Hydro Power Development Corporation of Arunachal Pradesh Limited (A Govt. Of Arunachal Pradesh Enterprise) (hereinafter referred to as HPDCAPL), Parkview Apartment, Lower NitiVihar, Itanagar-791111, Arunachal Pradesh

.....Petitioner

I Shri Toko Onujson of late Toko Toguraged 47 years residing at Mob-II, Itanagar and District Papum Pare Arunachal Pradesh-791111 serving as Chairman cum Managing Director of Hydro Power Development Corporation of Arunachal Pradesh Limited under Government of Arunachal Pradesh, the deponent named above do hereby solemnly affirm and state on oath as under:-

2. I, the deponent named above do hereby verify that the contents of the accompanying petition are based on the records of Hydro Power Development Corporation of Arunachal Pradesh Limited maintained in the ordinary course of business and believed by them to be true and I believe that no part of it is false and no material has been concealed there from.

Details of enclosures:

a) Proposal for Determination of Tariff of 3 MW Sumbachu SHP

b) Petition Fee - Rs. 500000/- (Rupees only), vide DD No. 780904... dated 04/12/2020



Hydro Power Development Corporation of Arunachal Pradesh Limited.

Petitioner

Place: Itanagar

Dated: , 2020

I, Abelam Liji, Itanagar, do hereby declare that the person making this affidavit is known to me through the perusal of records and I am satisfied that he is the same person alleging to be deponent himself.

Magistrate

Solemnly affirmed before me on this 25th day of November, 2020 at 2:30 a.m./p.m. by the deponent who has been identified by the aforesaid magistrate. I have satisfied myself by examining the deponent that he understood the contents of the affidavit which has been read over and explained to him. He has also been explained about section 193 of Indian Penal Code that whoever intentionally gives false evidence in any of the proceedings of the Commission or fabricates evidence for purpose of being used in any of the proceedings shall be liable for punishment as per law.

Abelam Liji
Magistrate
Executive Magistrate
Itanagar Capital Region
ITANAGAR

SL. NO.	TABLE OF CONTENT	Page No.
1	INTRODUCTION	1
1.1	BACKGROUND	1
1.2	DETAILED PROJECT REPORT	2
2	DETERMINATION OF TARIFF FOR THE HEPs	3
2.1	CAPITAL COST	5
2.2	DEBT-EQUITY RATIO	7
2.3	RETURN ON EQUITY	7
2.4	INTEREST ON LOAN CAPITAL	8
2.5	DEPRECIATION	10
2.6	O&M EXPENSES	11
2.7	INTEREST ON WORKING CAPITAL	12
2.8	ANNUAL FIXED CHARGE	15
2.9	CAPACITY UTILISATION FACTOR (CUF)	17
2.10	AUXILIARY POWER CONSUMPTION	17
3	TARIFF DESIGN	18
3.1	LEVELLISED TARIFF PROPOSED FOR THE SUMBACHU SHP	18

LIST OF ABBREVIATIONS

A&G	Administration & General
ARR	Annual Revenue Requirement
Crs	Crore
D/E	Debt Equity
FY	Financial Year
GFA	Gross Fixed Assets
APSERC	Arunachal Pradesh State Electricity Regulatory Commission
KWh	Kilo Watt hour
MU	Million Units
MW	Mega Watt
O&M	Operation & Maintenance
CUF	Capacity Utilisation Factor
MCLR	Marginal cost of fund based Lending Rate
R&M	Repairs and Maintenance
RoE	Return on Equity
Rs.	Rupees
SBI	State Bank of India
T&D	Transmission & Distribution

1. INTRODUCTION

1.1. BACKGROUND

Hydro Power Development Corporation of Arunachal Pradesh Limited (A Govt. of Arunachal Pradesh Enterprise) is entrusted with the design and construction of the power projects in the state of Arunachal Pradesh. Hydro Power Development Corporation of Arunachal Pradesh Limited has taken up the development of 3 MW Sumbachu SHP.

Sumbachu small hydroelectric project is located in Tawang District in the state of Arunachal Pradesh and envisages utilization of the flow of Sumbachu Nallah for generation of power. The project envisages a generation capacity of 3 MW of power by utilizing the available head between the Nallah elevations at EI 2678.5 m & EI 2389.5m. The project comprises a Trench weir which diverts the water into an intake placed on the right bank of the river. The diverted water passes through Desilting basin. Desilted water enters into water conductor system, forebay and the steel pressure shaft. A surface powerhouse is suitably located on a terrace at right bank of the river. Tail water from the powerhouse is discharged back into the nallah. The project utilises a net head of about 271.0 m.

Location

Sumbachu Small Hydel Project is located on the Sumbachu Nallah near Zemithang village in Tawang District of Arunachal Pradesh. The Project site is connected to Tawang by all-weather road which is 90 kms away from Zemithang. There is Pucca all-weather road between Tawang and Zemithang. The project site is located about 430 kms from Tezpur.

Access

The project area is accessible from Tawang and Zemithang, through all-weather pucca road and through Railway upto Bhalukpong which is 370 kms from Zemithang.

By Road	:	90 kms from Tawang District Headquarter 430 kms from Tezpur
Nearest Rail Head	:	Bhalukpong 370 km from site
Nearest Airport	:	Tejpur - 430 kms from Zemithang.

1.2 DETAILED PROJECT REPORT

The detailed project report had been prepared by Alternate Hydro Energy Centre, Indian Institute of Technology, Roorkee (AHEC) in the year 2009. The detailed Engineering design and drawing works was also done by AHEC, Roorkee. The project construction work was awarded as a Turn – key EPC contract to M/s Nortech Power Projects (P) Ltd, Kolkata on 28th February 2009.

Recasting of DPR Cost Estimate

M/s Concept Green Energy Pvt. Ltd., New Delhi was assigned to assess the works already executed and to further assess balance works, preparation of drawings for any revision required and prepare a revised cost estimate of project based on actual condition. M/s Concept Green Energy Pvt. Ltd., New Delhi submitted its report on Dec. 2013.

Techno-Economic Review Report

M/s Alternate Hydro Energy Centre, Indian Institute of Technology, Roorkee (AHEC) was assigned to undertake the techno-economic review of the Detailed Project Report (DPR) of this project vide letter no. HPDC/MD/cont-13/2017-18/119-23 Dated 16.04.2018. M/s Alternate Hydro Energy Centre, Indian Institute of Technology, Roorkee (AHEC) submitted its report on the techno-economic review of the DPR in November, 2018.

The Detailed Project report, report on recasting of the DPR cost estimate & the report on the techno-economic review of the DPR is attached as Annexure to the petition.

2. DETERMINATION OF TARIFF FOR THE HEPs

The Hon'ble Arunachal Pradesh State Electricity Regulatory Commission has issued the Arunachal Pradesh State Electricity Regulatory Commission (Terms and Conditions for Tariff Determination from Renewable Energy Sources) Regulations, 2018 to determine the Tariff of Renewable Energy projects in the state of Arunachal Pradesh.

Regulation 7 of Renewable Regulations, 2018 provides that project specific tariff is to be determined for SHPs of installed capacity of 1MW to 25MW.

Accordingly, HPDCAPL is submitting this petition in respect of 3 MW Sumbachu SHP for approval of Capital cost & determination of Tariff in accordance with the parameters as defined in the APsERC (Terms & Conditions for Tariff Determination from Renewable Energy Sources) Regulations, 2018.

The RE Regulations, 2018 provides that the tariff for sale of electricity from a hydro power station shall be aimed at recovering the Annual Fixed Charges and various components of AFC has been defined in Regulation 9. Accordingly, following has been considered for calculating Annual Fixed Charges for the SHP:

Annual Fixed Charges:

The Annual Fixed Charges (AFC) is determined based on following factors:-

- a) Project Cost
- b) Design Energy
- c) Interest on Loan Capital.
- d) Depreciation.
- e) Return on Equity.
- f) Operation & Maintenance Expenses.
- g) Interest on Working Capital.

Summary of the assumptions & parameters considered for proposing the various components of AFC is detailed in the table below.

Sl. No.	Particulars	Unit	Value	
1	Auxiliary Consumption	%	1	
2	O&M Expenses	Below 5MW – 38.06 Lakh/MW (FY 2018-19)		
	Escalation	%	5.72% per annum	
3	Depreciation		5.28% for the 1 st 13 years and balance spread over useful life of the SHP as per RE Regulations,2018	
	Plant Life	years	35	
	Residual	%	10	
4	Working Capital			
	Receivable (2 months Fixed Cost)	Months	2	
	O & M Expenses	Months	1	
	Spares for Maintenance	%	15	O&M Expenses
	Rate of Interest	%	SBI MCLR (One year Tenor) + 300 basis point	
5	Return on Equity	%	14, grossed up by applicable MAT	
6	Equity	%	30	Net Project Cost
	Loan	%	70	Net Project Cost
7	Interest	%	SBI MCLR	

			(One Year Tenor) + 200 basis point	
8	Moratorium		No moratorium after COD	

2.1 CAPITAL COST

Regulation 7 of Renewable Regulations, 2018 provides that project specific tariff is to be determined for SHPs of installed capacity of 1MW to 25MW. The Sumbachu SHP has installed capacity of 3 MW. Accordingly, actual project cost is submitted for consideration and approval of the Hon'ble Commission. The component wise details along with the technical & financial parameters and justifications are provided in the attached DPR/revised DPR.

The details of the Capital cost are provided below for the consideration of the Hon'ble Commission.

Summary of Capital Cost

Sl. No.	Particulars	Cost (Rs. Lakhs)
1	Civil works	1390.64
2	E&M works	1394.00
3	Other expenses	250.12
4	Project cost	3034.76
5	Installation cost (per kW)	1.01

Details of Capital Cost

Sl. No.	DESCRIPTION		AMOUNT (Rs. Lakhs)
A	DIRECT CHARGES		
	I	WORKS	
	A	Preliminary	21.33
	B	Land	35.25
	C	Works	
		C-1 Diversion Weir and Intake	104.8
		C-2 Feeder cum Power Channel	95.11
		C-3 Desilting cum Forebay Tank and Spillway Channel	133.7
		C-4 Penstock	805.57
		C-5 Power House and Tail Race	251.46
		Total of C- Works	1390.64
	D	Electro-Mechanical Works	1394
	E	Building	92.5
	F	Communication	80.5
	G	Loss on Stock (0.25 % of I-Works)	0
		TOTAL I-Works	3014.22
	II	Receipts & Recoveries (-)	5.81
		TOTAL (Direct Cost)	3008.41
B	INDIRECT COST		
		FI Upfront Fee @ 1.25% of loan	13.33
		Audit & Account Charges @ 1% of I-Works	13.02
		TOTAL (Indirect Charges)	26.35
		TOTAL OF DIRECT & INDIRECT CHARGES	3034.76

It is submitted that the Hon'ble Commission may kindly consider and approve the proposed capital cost of Rs. 3034.76 lakhs for the Sumbachu SHP.

2.2 DEBT-EQUITY RATIO

Clause 13 of the RE Regulations 2012, provides that the debt-equity ratio of 70:30 is to be considered for determination of tariff. Based on the debt equity-ratio of 70:30, the debt and equity components of the project cost for determination of tariff for the SHP have been worked out as under:

Particulars	%	Amount (Rs. Lakhs)
Debt	30%	2124.33
Equity	70%	910.43

2.3 RETURN ON EQUITY

Sub-Regulation (1) of Regulation 16 of the RE Tariff Regulations, 2018 provides that the value base for the equity shall be 30% of the capital cost for tariff determination. Sub-Regulation (2) of the said Regulation stipulates the normative Return on Equity (ROE) as 14%, to be grossed up by prevailing Minimum Alternate Tax (MAT) as on 1st April of previous year for the entire useful life of the project.

In terms of the above Regulation, Return on Equity has been considered @ 14% per annum grossed up by MAT as on 1st April of 2020 i.e 17.16%. Accordingly, Return on Equity has been considered at 16.40%. The calculation of the grossed up rate of RoE is provided below.

Particulars	Rate (%)
Base rate of RoE	14%
Tax Rate	17.16%
Grossed up Rate of RoE	16.40%

The Return on Equity of each year of the life of the project i.e 35 years has been calculated based on the Equity base and rate as submitted above. The Return on Equity considered for each year of the project life is provided below.

(Rs. Lakhs)

Sl. No.	Capital cost	Equity	RoE
		30%	14% Grossed up with MAT of 16.40%
1	3034.76	910.43	149.33

It is submitted that the Hon'ble Commission may kindly consider and approve the Return on Equity as proposed above.

2.4 INTEREST ON LOAN CAPITAL

Regulation 14 of the RE Tariff Regulations, 2018 provides for the Interest on Loan.

The provisions of the Regulation are provided below.

"1. Loan Tenure for the purpose of determination of tariff, loan tenure of 13 years shall be considered.

2. Interest Rate

(a) The loans arrived at in the manner indicated in Regulation 13 shall be considered as gross normative loan for calculation for interest on loan. The normative loan outstanding as on April 1st of every year shall be worked out by deducting the cumulative repayment up to March 31st of previous year from the gross normative loan.

(b) For the purpose of computation of tariff, normative interest rate of two hundred (200) basis points above the average State Bank of India Marginal Cost of Funds based Lending Rate . (MCLR) (one-year tenor) prevalent during the last available six months shall be considered.

(c) Notwithstanding any moratorium period availed by the generating company, the repayment of loan shall be considered from the first year of commercial operation of the project and shall be equal to the annual depreciation allowed."

In view of the above Regulation, Debt has been considered as 70% of the capital cost as detailed in para 2.2 above. Further, interest rate has been considered at the average State Bank of India Marginal Cost of Funds based Lending Rate plus 2%. The average SBI MCLR for 6 months (May,20 to October,20) was 7.08%. Accordingly, interest rate of 9.08% (7.08%+2%) has been considered for calculating the interest on loan. The details of interest on loan over the project life of 35 years is provided below.

(Rs. Lakhs)

Sl. No.	Capital cost	Loan	(%)	FY 2020-21 (1st Year)	2nd Year	3rd Year	4th Year	5th Year
1	3034.76	Opening balance	70%	2124.33	1960.92	1797.51	1634.10	1470.69
2		Repayment		163.41	163.41	163.41	163.41	163.41
3		Closing Balance		1960.92	1797.51	1634.10	1470.69	1307.28
4		Average Loan		2042.63	1879.22	1715.81	1552.40	1388.99
5		Interest	9.08%	185.54	170.70	155.85	141.01	126.17

(Rs. Lakhs)

Sl. No.	Capital cost	Loan	(%)	6th Year	7th Year	8th Year	9th Year	10th Year
1	3034.76	Opening balance	70%	1307.28	1143.87	980.46	817.05	653.64
2		Repayment		163.41	163.41	163.41	163.41	163.41
3		Closing Balance		1143.87	980.46	817.05	653.64	490.23
4		Average Loan		1225.58	1062.17	898.76	735.35	571.94
5		Interest	9.08%	111.32	96.48	81.64	66.79	51.95

(Rs. Lakhs)

Sl. No.	Capital cost	Loan	(%)	11th Year	12th Year	13th Year
1	3034.76	Opening balance	70%	490.23	326.82	163.41
2		Repayment		163.41	163.41	163.41
3		Closing Balance		326.82	163.41	0.00
4		Average Loan		408.53	245.12	81.71
5		Interest	9.08%	37.11	22.26	7.42

It is submitted that the Hon'ble Commission may kindly consider and approve the Interest on Loan as proposed above.

2.5 DEPRECIATION

The DHPD has proposed depreciation as per clause 15 of RE regulations, 2018. The Regulation provides as follows:

“The value base for the purpose of depreciation shall be the Capital Cost of the asset admitted by the Commission. The Salvage value of the asset shall be considered as 10% and depreciation shall be allowed up to maximum of 90% of the Capital Cost of the asset.

Depreciation rate of 5.28% per annum for first 13 years and remaining depreciation to be spread during remaining useful life of the RE projects considering the salvage value of the project as 10% of project cost shall be considered. “

The depreciation rate considered over the life of the SHP is provided in the Table below.

Particulars	Details
Useful life in years	35
Rate of Depreciation – 1st 13 Years (%)	5.28
Rate of Depreciation – after 13 Years (%)	1.43

Based on the above principle, year wise depreciation for the 35 years is provided below.

(Rs. Lakhs)							
Sl. No.	Name of Station	Date of COD (Assumed)	Capital Cost (Rs. Lakhs)	No. of Years since COD	Balance Useful Life	Depreciation /year up-to 13th Year	Depreciation from 14th Year
1	Sumbachu SHP	01.04.2020	3034.76	0	35	144.21	38.93

It is submitted that the Hon'ble Commission may kindly consider and approve the Depreciation as proposed above.

2.6 O&M EXPENSES

As per clause 29 of RE Regulations, 2018, the normative O&M expenses for the first year of the control period (i.e. FY 2018-19) shall be as follows:-

Region	Project Size	O&M Expenses (Rs. Lakh/MW)
Arunachal Pradesh	Below 5 MW	38.06
	5 MW to 25 MW	28.54

The Regulation further provides that the normative O&M expenses allowed under these Regulations shall be escalated at the rate of 5.72% per annum for the Tariff Period for the purpose of determination of levelised tariff.

The Installed capacity of the Project being 3 MW, the applicable normative O&M expenses is Rs. 38.06 Lakhs/MW for the FY 2018-19 (base year). The normative O&M expenses for the FY 2018-19 has been escalated @ 5.72% year on year to arrive at the normative O&M expenses of Rs. 42.54 Lakhs/MW for the FY 2020-21.

The O&M expenses for each subsequent year has been calculated based on the above principle. The O&M expenses for the 35 years is provided below.

Sl. No.	Name of Station	Capacity (MW)	Normative O&M Expense (Rs. Lakhs/MW)	Normative O&M Expense (Rs. Lakhs)	Escalation Rate / Annum
				At base FY 2020-21	
1	Sumbachu SHP	3.00	42.54	127.62	5.72%

(Rs. Lakhs)

FY 2020-21 (1st Year)	2nd Year	3rd Year	4th Year	5th Year	6th Year	7th Year	8th Year	9th Year	10th Year
127.62	134.92	142.63	150.79	159.42	168.54	178.18	188.37	199.14	210.53

(Rs. Lakhs)									
11th Year	12th Year	13th Year	14th Year	15th Year	16th Year	17th Year	18th Year	19th Year	20th Year
222.57	235.31	248.77	262.99	278.04	293.94	310.76	328.53	347.32	367.19

(Rs. Lakhs)									
21st Year	22nd Year	23rd Year	24th Year	25th Year	26th Year	27th Year	28th Year	29th Year	30th Year
388.19	410.40	433.87	458.69	484.93	512.66	541.99	572.99	605.77	640.42

(Rs. Lakhs)				
31st Year	32nd Year	33rd Year	34th Year	35th Year
677.05	715.77	756.72	800.00	845.76

It is submitted that the Hon'ble Commission may kindly consider and approve the O&M expenses as proposed above.

2.7 INTEREST ON WORKING CAPITAL

The Working Capital requirement has been calculated in accordance with the clause 17(1) of the APERC RE Regulation, 2018, with the following:

- a) Operation & Maintenance expenses for one month;
- b) Receivables equivalent to 2 (Two) months of energy charges for sale of electricity calculated on the normative CUF;
- c) Maintenance spare @ 15% of operation and maintenance expenses.

Further, clause 17(3) of the APERC RE Regulation, 2018 provides as follows:

“Interest on Working Capital shall be at interest rate equivalent to the normative interest rate of three hundred (300) basis points above the average State Bank of India MCLR (One Year Tenor) prevalent during the last available six months for the determination of tariff.”

Interest rate has been considered as average of State Bank of India MCLR (One Year Tenor) prevalent during the last available six months of the previous year plus 300 basis points.

Accordingly, Interest @ 10.08 % per annum on working capital has been considered which is 300 basis points above the SBI MCLR (One year tenor) for last six months. The average SBI MCLR(One year tenor) for last six months is 7.08%.

The Interest on Working Capital for 35 years of the life of the SHP is provided below.

(Rs. Lakhs)

Sl. No.	Particulars	Parameters	FY 2018-19 (1st Year)	2nd Year	3rd Year	4th Year	5th Year	6th Year
1	Operation & Maintenance Exp.	One month	10.6346	11.243	11.886	12.566	13.285	14.045
2	Receivables	Two Months	103.354	102.1	100.93	99.826	98.807	97.873
3	Maintenance Spares -	15% of O&M Expenses	19.1424	20.237	21.395	22.619	23.912	25.28
4	Total		133.131	133.58	134.21	135.01	136	137.2
5	Interest	10.08%	13.424	13.47	13.533	13.614	13.714	13.834

(Rs. Lakhs)

Sl. No.	Particulars	Parameters	7th Year	8th Year	9th Year	10th Year	11th Year	12th Year
1	Operation & Maintenance Exp.	One month	14.848	15.697	16.595	17.544	18.548	19.609
2	Receivables	Two Months	97.029	96.281	95.635	95.095	94.668	94.361
3	Maintenance Spares -	15% of O&M Expenses	26.726	28.255	29.871	31.58	33.386	35.296
4	Total		138.6	140.23	142.1	144.22	146.6	149.27
5	Interest	10.08%	13.976	14.14	14.329	14.542	14.782	15.051

(Rs. Lakhs)

Sl. No.	Particulars	Parameters	13th Year	14th Year	15th Year	16th Year	17th Year	18th Year
1	Operation & Maintenance Exp.	One month	20.73	21.916	23.17	24.495	25.896	27.378
2	Receivables	Two Months	94.18	77.544	80.155	82.914	85.831	88.915
3	Maintenance Spares -	15% of O&M Expenses	37.315	39.449	41.706	44.091	46.613	49.28
4	Total		152.23	138.91	145.03	151.5	158.34	165.57
5	Interest	10.08%	15.349	14.007	14.624	15.276	15.966	16.695

(Rs. Lakhs)

Sl. No.	Particulars	Parameters	19th Year	20th Year	21st Year	22nd Year	23rd Year	24th Year
1	Operation & Maintenance Exp.	One month	28.944	30.599	32.349	34.2	36.156	38.224
2	Receivables	Two Months	92.176	95.623	99.267	103.12	107.19	111.5
3	Maintenance Spares -	15% of O&M Expenses	52.098	55.078	58.229	61.56	65.081	68.803
4	Total		173.22	181.3	189.85	198.88	208.43	218.53
5	Interest	10.08%	17.466	18.281	19.143	20.054	21.017	22.035

(Rs. Lakhs)

Sl. No.	Particulars	Parameters	25th Year	26th Year	27th Year	28th Year	29th Year	30th Year
1	Operation & Maintenance Exp.	One month	40.411	42.722	45.166	47.749	50.48	53.368
2	Receivables	Two Months	116.05	120.86	125.95	131.33	137.02	143.03
3	Maintenance Spares -	15% of O&M Expenses	72.739	76.9	81.298	85.949	90.865	96.062
4	Total		229.2	240.48	252.42	265.03	278.36	292.46
5	Interest	10.08%	23.111	24.249	25.452	26.724	28.068	29.49

(Rs. Lakhs)

Sl. No.	Particulars	Parameters	31st Year	32nd Year	33rd Year	34th Year	35th Year
1	Operation & Maintenance Exp.	One month	56.421	59.648	63.06	66.667	70.48
2	Receivables	Two Months	149.38	156.1	163.21	170.72	178.66
3	Maintenance Spares -	15% of O&M Expenses	101.56	107.37	113.51	120	126.86
4	Total		307.36	323.12	339.77	357.38	376
5	Interest	10.08%	30.992	32.581	34.261	36.036	37.913

It is submitted that the Hon'ble Commission may kindly consider and approve the Interest on Working Capital as proposed above.

2.8 Annual Fixed Charges

The Annual Fixed Charges have been calculated based on the components of cost as detailed above. The year wise AFC of the SHP for 35 years is provided below.

(Rs. Lakhs)

Head of Expense	2020-21 (1st Year)	2nd Year	3rd Year	4th Year	5th Year	6th Year
O&M Expense	127.62	134.92	142.63	150.79	159.42	168.54
Return on Equity	149.33	149.33	149.33	149.33	149.33	149.33
Interest on Loan	185.54	170.70	155.85	141.01	126.17	111.32
Depreciation	144.21	144.21	144.21	144.21	144.21	144.21
Interest on Working Capital	13.42	13.47	13.53	13.61	13.71	13.83
Total	620.12	612.62	605.56	598.96	592.84	587.24

(Rs. Lakhs)

Head of Expense	7th Year	8th Year	9th Year	10th Year	11th Year	12th Year
O&M Expense	178.18	188.37	199.14	210.53	222.57	235.31
Return on Equity	149.33	149.33	149.33	149.33	149.33	149.33
Interest on Loan	96.48	81.64	66.79	51.95	37.11	22.26
Depreciation	144.21	144.21	144.21	144.21	144.21	144.21
Interest on Working Capital	13.98	14.14	14.33	14.54	14.78	15.05
Total	582.17	577.69	573.81	570.57	568.01	566.17

(Rs. Lakhs)

Head of Expense	13th Year	14th Year	15th Year	16th Year	17th Year	18th Year
O&M Expense	248.77	262.99	278.04	293.94	310.76	328.53
Return on Equity	149.33	149.33	149.33	149.33	149.33	149.33
Interest on Loan	7.42	0.00	0.00	0.00	0.00	0.00
Depreciation	144.21	38.93	38.93	38.93	38.93	38.93
Interest on Working Capital	15.35	14.01	14.62	15.28	15.97	16.70
Total	565.08	465.27	480.93	497.48	514.99	533.49

(Rs. Lakhs)

Head of Expense	19th Year	20th Year	21st Year	22nd Year	23rd Year	24th Year
O&M Expense	347.32	367.19	388.19	410.40	433.87	458.69
Return on Equity	149.33	149.33	149.33	149.33	149.33	149.33
Interest on Loan	0.00	0.00	0.00	0.00	0.00	0.00
Depreciation	38.93	38.93	38.93	38.93	38.93	38.93
Interest on Working Capital	17.47	18.28	19.14	20.05	21.02	22.03
Total	553.05	573.74	595.60	618.72	643.15	668.99

(Rs. Lakhs)

Head of Expense	25th Year	26th Year	27th Year	28th Year	29th Year	30th Year
O&M Expense	484.93	512.66	541.99	572.99	605.77	640.42
Return on Equity	149.33	149.33	149.33	149.33	149.33	149.33
Interest on Loan	0.00	0.00	0.00	0.00	0.00	0.00
Depreciation	38.93	38.93	38.93	38.93	38.93	38.93
Interest on Working Capital	23.11	24.25	25.45	26.72	28.07	29.49
Total	696.30	725.18	755.71	787.98	822.10	858.17

(Rs. Lakhs)

Head of Expense	31st Year	32nd Year	33rd Year	34th Year	35th Year
O&M Expense	677.05	715.77	756.72	800.00	845.76
Return on Equity	149.33	149.33	149.33	149.33	149.33
Interest on Loan	0.00	0.00	0.00	0.00	0.00
Depreciation	38.93	38.93	38.93	38.93	38.93
Interest on Working Capital	30.99	32.58	34.26	36.04	37.91
Total	896.30	936.62	979.24	1024.30	1071.94

It is submitted that the Hon'ble Commission may kindly consider and approve the Annual Fixed Charges as proposed above.

2.9 Capacity Utilisation Factor (CUF)

Clause 27 of the RE Regulations 2018, provides that CUF for the small hydro projects shall be 45%. Further, clause 18 of the RE Regulations 2018 provides as follows:

"The number of hours for calculation of CUF/PLF (wherever applicable) for various RE technologies shall be 8766."

CUF for the project has been considered as per the above Regulation.

2.10 Auxiliary Power Consumption

Regulations 28 of the RE Regulations 2018 provides as follows:

"Normative Auxiliary Consumption for the small hydro projects shall be 1 %"

The above CUF & rate of auxiliary consumption has been considered for calculation of saleable energy for the project. The calculation of Gross Generation, Auxiliary consumption & Saleable energy based on the above Regulations is provided below.

Installed Capacity (MW)	Hours	CUF (%)	Gross Generation (MUs)	Auxiliary Consumption @1%	Net Generation (MUs)
3.00	8766	45.00	11.83	0.12	11.72

It is submitted that the Hon'ble Commission may kindly consider and approve the CUF, Gross Generation, Auxiliary Consumption & Saleable energy as proposed above.

3. TARIFF DESIGN

Regulation 10 of the RE Regulations, 2018 provides for the tariff design & calculation of levellised tariff. The provisions of the Regulation are provided below.

"1. The generic tariff shall be determined considering the year of commissioning of the project, on levellised basis for the Tariff Period.

Provided that for renewable energy technologies having single part tariff with two components, tariff shall be determined on levellised basis considering the year of commissioning of the project for fixed cost component while the fuel cost component shall be specified on year of operation basis.

2. For the purpose of levellised tariff computation, the discount factor equivalent to Post Tax weighted average cost of capital shall be considered.

3. Levellisation shall be carried out for the 'useful life' of the Renewable Energy project.

4. The above principles shall also apply for project specific tariff."

In accordance with the above Regulations, levellised tariff has been calculated for the life of the project i.e 35 years. Discounting factor equivalent to Post Tax weighted average cost of capital has been considered.

Particulars	Rate/Amount	
capital cost		3034.76
Debt	70%	2124.33
Equity	30%	910.43
Interest rate		9.08%
RoE		16.40%
Tax Rate		17.16%
Capital Cost - Loan		5.27%
Capital Cost - Equity		4.92%
Weighted Average Cost of Capital (WACC)/Discount Rate		10.19%

It is submitted that the Hon'ble Commission may kindly consider and approve the Discounting rate as proposed above.

3.1 LEVELLISED TARIFF PROPOSED FOR THE SUMBACHU SHP

The levellised tariff of the Sambachu SHP has been calculated on the basis of the component wise cost, saleable energy, discounting factor as detailed in the previous sections. The calculation of the levellised tariff for the project life of 35 years is provided in the tables below.

Sl. No.	Particulars	Discount Rate	FY 2020-21 (1st Year)	2nd Year	3rd Year	4th Year	5th Year	6th Year
1	ARR (in Lakhs)		620.12	612.62	605.56	598.96	592.84	587.24
2	Net Generation (In Mus)		11.72	11.72	11.72	11.72	11.72	11.72
3	Tariff (Rs./unit)		5.29	5.23	5.17	5.11	5.06	5.01
4			1.00	2.00	3.00	4.00	5.00	6.00
5	Discounting Factor	10.19%	1.00	0.90	0.81	0.72	0.65	0.58
6	Discounted Tariff (Rs./unit)		5.29	4.70	4.17	3.70	3.29	2.93

Sl. No.	Particulars	Discount Rate	7th Year	8th Year	9th Year	10th Year	11th Year	12th Year
1	ARR (in Lakhs)		582.17	577.69	573.81	570.57	568.01	566.17
2	Net Generation (In Mus)		11.72	11.72	11.72	11.72	11.72	11.72
3	Tariff (Rs./unit)		4.97	4.93	4.90	4.87	4.85	4.83
4			7.00	8.00	9.00	10.00	11.00	12.00
5	Discounting Factor	10.19%	0.52	0.47	0.42	0.38	0.34	0.31
6	Discounted Tariff (Rs./unit)		2.61	2.32	2.07	1.85	1.66	1.48

Sl. No.	Particulars	Discount Rate	13th Year	14th Year	15th Year	16th Year	17th Year	18th Year
1	ARR (in Lakhs)		565.08	465.27	480.93	497.48	514.99	533.49

Petition for Approval of Capital Cost & Tariff of Sumbachu SHP

Sl. No.	Particulars	Discount Rate	13th Year	14th Year	15th Year	16th Year	17th Year	18th Year
2	Net Generation (In Mus)		11.72	11.72	11.72	11.72	11.72	11.72
3	Tariff (Rs./unit)		4.82	3.97	4.10	4.25	4.40	4.55
4			13.00	14.00	15.00	16.00	17.00	18.00
5	Discounting Factor	10.19%	0.28	0.25	0.22	0.20	0.18	0.16
6	Discounted Tariff (Rs./unit)		1.33	0.98	0.91	0.85	0.79	0.73

Sl. No.	Particulars	Discount Rate	19th Year	20th Year	21st Year	22nd Year	23rd Year	24th Year
1	ARR (in Lakhs)		553.05	573.74	595.60	618.72	643.15	668.99
2	Net Generation (In Mus)		11.72	11.72	11.72	11.72	11.72	11.72
3	Tariff (Rs./unit)		4.72	4.90	5.08	5.28	5.49	5.71
4			19.00	20.00	21.00	22.00	23.00	24.00
5	Discounting Factor	10.19%	0.14	0.13	0.12	0.10	0.09	0.08
6	Discounted Tariff (Rs./unit)		0.68	0.64	0.59	0.55	0.52	0.48

Sl. No.	Particulars	Discount Rate	25th Year	26th Year	27th Year	28th Year	29th Year	30th Year
1	ARR (in Lakhs)		696.30	725.18	755.71	787.98	822.10	858.17
2	Net Generation (In Mus)		11.72	11.72	11.72	11.72	11.72	11.72
3	Tariff (Rs./unit)		5.94	6.19	6.45	6.73	7.02	7.32
4			25.00	26.00	27.00	28.00	29.00	30.00

Pétition for Approval of Capital Cost & Tariff of Sumbachu SHP

Sl. No.	Particulars	Discount Rate	25th Year	26th Year	27th Year	28th Year	29th Year	30th Year
5	Discounting Factor	10.19%	0.08	0.07	0.06	0.05	0.05	0.04
6	Discounted Tariff (Rs./unit)		0.45	0.42	0.39	0.37	0.35	0.32

Sl. No.	Particulars	Discount Rate	31st Year	32nd Year	33rd Year	34th Year	35th Year
1	ARR (in Lakhs)		896.30	936.62	979.24	1024.30	1071.94
2	Net Generation (In Mus)		11.72	11.72	11.72	11.72	11.72
3	Tariff (Rs./unit)		7.65	7.99	8.36	8.74	9.15
4			31.00	32.00	33.00	34.00	35.00
5	Discounting Factor	10.19%	0.04	0.04	0.03	0.03	0.03
6	Discounted Tariff (Rs./unit)		0.30	0.29	0.27	0.25	0.24

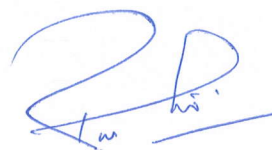
Particulars	Tariff
Total of Tariff	48.79
Total of Discounting Factor	9.59
Levellised tariff - 35 years - Rs./unit	5.09

It is submitted that the Hon'ble Commission may kindly consider and approve the Levellised Tariff of Rs. 5.09/unit for the Sambachu SHP as proposed above.

PRAYER

It is respectfully prayed that the Hon'ble Commission may be pleased to:

- (a) Approve the Capital cost, Annual Fixed Charges & Tariff as submitted in Para 2 & 3
- (b) Pass such other and further order(s) as are deemed fit and proper in the facts and circumstances of the case.



Authorised Signatory

Place: Itanagar

Date:

ANNEXURES

Annex-1

41

GOVERNMENT OF ARUNACHAL PRADESH
DEPARTMENT OF POWER
ITANAGAR

O R D E R

Dated Itanagar the 5th March 2008

No. PWRS/HPD/W-1618/2008 : The Governor of Arunachal Pradesh is pleased to allot / award the execution of the Sumbachu SHEP (3MW) at Zemitang Tawang District to Hydro Power Development Corporation of Arunachal Pradesh Limited, Itanagar with immediate effect.

Sd/-

(T. NORBU)

Secretary (Power)

Govt. of Arunachal Pradesh
Itanagar.

Memo No. PWRS/HPD/W-1618/2008/3886-90
Copy to :-

Dated Itanagar the 27th March 2008

1. The Secretary to Governor of Arunachal Pradesh, Itanagar.
2. The PPS to HCM, Arunachal Pradesh, Itanagar.
3. The PS to HM (Power), Arunachal Pradesh, Itanagar.
4. The PS to Chairman, HPDCL, A.P. Itanagar.
5. The PS to Chief Secretary, Govt. of Arunachal Pradesh, Itanagar.
6. The Chief Engineer (HPD), department of Hydro Power Development, Itanagar, A.P.
7. The Chief Engineer (Power), WEZ/PEZ, Deptt. of Power, Itanagar.
8. The MD, HPDCAPL, A.P. Itanagar.
9. All SE (Civil) under Deptt. of Hydro Power Development, Arunachal Pradesh.
10. All EE under Deptt. of Hydro Power Development, Arunachal Pradesh.
11. Office Copy.

(V.B.S. KUMAR)

Under Secretary (Power)
Govt. of Arunachal Pradesh
Itanagar.

Copy No. 31/3/08
303
2/4
to MNR to

No.HPDC/MD/CONT-13/07-08/231-236

"TENDER NOTICE"

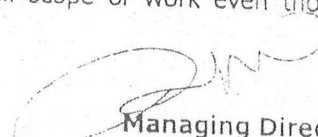
Dated: 18-02-08

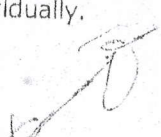
The Managing Director, Hydro Power Development Corporation of Arunachal Pradesh Limited, Itanagar, (A Govt. of Arunachal Pradesh undertaking) invites sealed tender in the form of Technical & Financial bid, for and on behalf of HPDCAPL from the reputed Contractors for Construction of Sumbachu SHP at Zemithang in Tawang District (3 X 1000 KW) to be executed on turnkey contract.

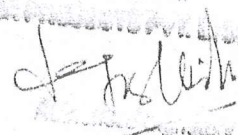
The tender paper containing broad scope of works, general specifications and terms and conditions can be had from the office of the undersigned on any working day between 10 AM to 3 PM on payment of Rs. 1,500/- (Rupees One thousand five hundred) only per tender in Cash (non refundable). The sale of Tender paper shall be closed on 20th March, 2008 at 3 PM. The Sealed tender documents shall be received upto 3 PM on 25th March, 2008 and will be opened on the same day at 3.30 PM in presence of the intending tenderer or their authorized representatives. The Managing Director, HPDCAPL, Itanagar, however is not bound to accept the lowest tender and reserves the right to cancel whole or part of any of the tender without assigning any reason thereof.

SPECIAL TERMS AND CONDITIONS :-

1. The firms/companies who have executed similar works or other works relating to hydraulic structures on a turnkey contract basis worth minimum Rs. 9.00 crores per annum in the last five years shall be eligible to participate in the tender. Accordingly intending tenderer shall produce satisfactory evidence / certificate of their technical & financial capability with list of works executed at the time of submission of application for purchase of tender documents.
2. Internal roads required for the purpose of implementation of the various components of the project shall be executed by the contractor. No separate claim on these accounts shall be entertained.
3. The Intending tenderer shall furnish latest Income tax, Sale tax clearance certificate from the competent authorities at the time of submission of application for purchase of tender documents.
4. The Department shall not take the responsibility for postal delay in receiving the tender documents and no time extension will be entertained on such account. Tender documents received after due date of opening will be returned unopened.
5. Combined efficiency of the TG sets shall not be in any case less than 85%. In the event of less generation, such losses shall be compensated by the turnkey contractor in terms of revenue loss during the entire life of commercial operation of the project.
6. The equipments shall be from reputed manufacturer of equipments. Equipments from Indigenous manufacturer shall be preferred subject to equal performance level.
7. Isolated and Grid mode :- The project shall be designed for isolated mode of operation as well as grid mode of operation, so that in the event of special requirement of either mode of operation, the project can be accordingly operationalised.
8. Delivery of Electro Mechanical equipments shall be accepted only after the different civil structures have been completed to a satisfactory level to be assessed by the Engineer-in-Charge and no running account bills shall be entertained till then.
9. Any Item/work required for successful commissioning and efficient operation of the plant shall be deemed to have been included in the overall scope of work even though not mentioned/specified individually.


Managing Director,
Hydro Power Development Corporation of Arunachal Pradesh Limited,
Itanagar.

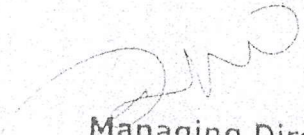


Managing Director,
Hydro Power Development
Corporation of Arunachal Pradesh Ltd.
Itanagar.

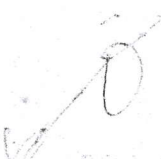


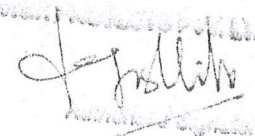
NOT TO BE PUBLISHED

Copy to:

1. The Chairman, HPDCAPL, Itanagar for kind information please.
2. Shri A.K.Chopra, Director (SHP), MNRE, 14, CGO Complex, Lodhi Road, New Delhi-3 for kind information.
3. The Secretary(Power), GoAP, Itanagar for kind information.
4. The Chief Engineer, DHPD, Itanagar for kind information.
5. The Director, IPR, Govt. of A.P, Naharlagun with a request to publish the above Tender Notice in one English National Daily and in one English local daily please.


Managing Director,
Hydro Power Development Corporation of
Arunachal Pradesh Limited,
Itanagar



Managing Director,
Hydro Power Development
Corporation of Arunachal Pradesh Ltd.
Itanagar


Managing Director,
Hydro Power Development Corporation of Arunachal Pradesh Ltd.
Itanagar

HYDRO POWER DEVELOPMENT CORPORATION OF
ARUNACHAL PRADESH LIMITED
(A Government of Arunachal Pradesh Enterprise)

OFFICE OF THE MANAGING DIRECTOR
TAHUNG TATAK BUILDING, NEAR A.P. P.S.C. M.L.A. COTTAGE ROAD
ITANAGAR- 791111, ARUNACHAL PRADESH

Phone - (0360) 2218323 (O), Fax - 2218326

HPDC/MD/Com-13(part-1)/2008-09/4

Itanagar, the 30th January, 2009

To

M/S Nortech Power Projects Limited
202, LORDS, 7/1, Lord Sinha Road
Kolkata-700071

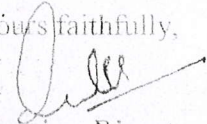
Sub: Letter of Intent for C/O Sumbachu SHP(3MW) on Turnkey Basis.

Dear Sir (s),

Your tender for Sumbachu SHP(3MW) Lump Sum fixed Tender on Turnkey Basis. (SH: 1 Execution of Civil Works including Planning & Design and SH: 2 Electro-Mechanical Works including Planning, Design, Supply, Erection, Testing & Commissioning complete) on Turnkey Basis has been accepted on behalf, the Hydro Power Development Corporation of Arunachal Pradesh Limited, at your negotiated amount of Rs.2596.00 lacs (Rupees two thousand five hundred and ninety six lacs) only as per rates and other terms and conditions laid down in the Agreement to be signed by both the parties.

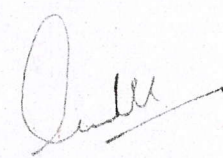
You are requested to attend this office within 15 days from the date of issue of this letter for signing of agreement and completion of all official formalities.

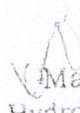
Yours faithfully,


Managing Director
HPDCAPL
Itanagar.

Copy to:

1. The Chairman, HPDCAPL, Itanagar.
2. The Secretary(Power), Govt. of A.P, Itanagar.


Managing Director
HPDCAPL
Itanagar.


Managing Director
Hydro Power Development
Corporation of Arunachal Pradesh Ltd.
Itanagar

**HYDRO POWER DEVELOPMENT CORPORATION OF
ARUNACHAL PRADESH LIMITED**
(A Government of Arunachal Pradesh Under taking)
Name of work: C/O Sumbachu SHP (2X1500)KW at Zeminthang, Tawang Dist.

AGREEMENT

1. This agreement is made on this day the 28th of the February 2009 between M/S Nortech Power Projects (P) Ltd, Kolkata (hereinafter referred as "the Contractor" as one part represented and signed by Sri XXXXXX (Designation) and the Managing Director, Hydro Power Development Corporation of Arunachal Pradesh Ltd (hereinafter referred as "Corporation/ Client" on other part resented by Sri Tara Siga GM/MD.
2. M/S Nortech Power Project (P) Ltd Kolkata has agreed to execute Sumbachu SHP at Zeminthang (2X1500) KW on mutually agreed rate by the contractor and the Corporation for Rs.2596.00 (Rupees two thousand five hundred ninety six lakhs) only which has been resolved and approved by the 5th BOD meeting.
3. The scope of execution includes (a) detail survey & investigation - topography, hydrology, geology, Soil (b) Planning, designing, drawing of all civil structures required for the project, (c) Planning, designing, erection, commissioning & Testing of the all electromechanical works including its auxiliary & subsidiary items required for the successful completion of the project and (d) providing facilities for performance tests like the pressure, discharge, velocity at inlet of the turbines and outlet at draft tube, tailrace channel, tests for energy transfer to generator and panel boards providing facilities at generator casing & TTB at panel boards etc.
4. M/S Nortech Power Project (P) Ltd has agreed to execute the work in the spirit of turnkey project mode which thereby meaning to complete the project within the agreed cost whatsoever be the circumstances no deviation plus or minus shall be claimed except at war and devastating quake. Any item which is required to complete the project but not mentioned in the schedule or in the condition of contract & specification shall also be deemed to be mentioned in the agreement for which no extra cost will be claimed.
5. Time is the essence of the agreement and thereby agreed by the contractor to deliver the project in time within 24 months from the 15th day of date of award within agreed cost, quality and specifications as given in the agreement. On failure to deliver so penalty will be imposed as mentioned in the condition of contract.
6. Project will be executed as per the specifications described in the condition of the contract and thereby deliver to required quality and performance to the satisfaction of the client.
7. All drawings and design calculations shall be submitted both in soft as well as hard copies consisting of six copies.
8. Within 10 days of signing of this agreement contractor shall furnish its programme of execution "Time Schedule" as well as "Resource schedule" in MS Project for monitoring and tracking of progress of the project and progress report shall be submitted in MS project in soft and hard copies.
9. Contractor has agreed to furnish a security Deposit of Rs. 259.60 Lakhs (Rupees Two Hundred and Fifty Nine point Six Zero Lakhs) only @ 10% of the tender cost of Rs 2596 lakhs (Rupees two thousand five hundred ninety six lakhs) only in the form of Bank Guaranty from any nationalized bank of India within 30 days from the date of signing of agreement.

Memo No. - HPDC/MD/CONT-13/2009/Pa71-E/498
M/S Nortech Power Projects(P) Ltd

Memo No. :-

Managing Director
HPDC AP
Managing Director
Hydro Power Development
Corporation of Arunachal Pradesh Ltd.
Itanagar

Annex-V



**HYDRO POWER DEVELOPMENT CORPORATION OF
ARUNACHAL PRADESH LIMITED**

(A Government of Arunachal Pradesh Enterprise)

OFFICE OF THE MANAGING DIRECTOR

TAHUNG TATAR BUILDING, NEAR A.P. P.S.C. ALL A COTTAGE ROAD

ITANAGAR- 791111, ARUNACHAL PRADESH

Phone - (0360)2218323 (O), Fax - 2218326

No. HPDC/MD/Cont-13/Pt-I/2011-12/096-98

Dated Itanagar, the 30th Sept., 2011

To

The Secretary (Power)

Govt. of Arunachal Pradesh

Itanagar

Sub: Cost escalation of project (Sumbachu SHP 2x1500kw) under P.M. package.

Sir,

DPR in respect of Sumbachu SHP at Zemithang was prepared in Sept., 2007 by DHPD and accorded sanction in the year 2010 vide No. M-13048/2/Aru/2008-SP dtd 12/01/2010 (Copy attached as Annexure - I). The above project under P.M. package had been awarded to turn key contractor for an amount of Rs.25.96 crore vide No. 01/HPDCAPL/BOD/2008-09 dated 28-02-2009 (Copy of Agreement 1st page attached as Annexure - II) against the sanction amount of Rs.20.37 crore. There is fund gap between the cost of the project sanction and cost of work awarded

Detail of fund position is as follows.

DETAILS OF FUND REQUIREMENT

Sl. No	Original DPR		Revised DPR		Agreement		Short fall (Lacs)	Remarks
	Date of preparation	Project cost (Lacs)	Date of preparation	Project cost (Lacs)	Date of drawn	Cost (Lacs)		
1	09/2007	2037.23	01/2009	2497.29	02/2009	2596.00	559.00	

Physical progress of project is about 70% (Civil Work) and E&M equipment 85% and expected for completion in the month of March- April, 2011. Expenditure incurred is about Rs. 19.68 crore so far. DPR of the project was revised through AHEC, IIT, Roorkee for an amount of Rs.24.97 crore in the year 2009. The progress and schedule of completion is committed but

dc

there is resource constraint from completion project. There are other projects under PM package which are left out from execution due to some technical and other reasons and funds against those schemes are required to be re-appropriated to other projects that are being executed.

HPDCAPL is implementing a single project under PM package and there is no other alternative proposal to be considered for re-appropriation of fund and would like to propose for re-appropriation of 5.60 crore either from the scheme operated in power sector or from over all P.M. package in the State.

Therefore, it is requested to take up with the competent authorities for appropriation of Rs.5.60 crore to Sumbachu SHP (3MW), Tawang and allow us to complete the project to avoid further cost escalation.

Yours faithfully,

Encls. As above

(Takar Mara)

Managing Director
HPDCAPL
Itanagar.

Copy to:

1. The Director, Planning, Govt. of Arunachal Pradesh, Itanagar for information.
2. The Chief Engineer, DHPD, Itanagar for information.

(Takar Mara)

Managing Director
HPDCAPL
Itanagar.

o/c

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NORTECH POWER PROJECTS PVT. LTD.

(Formerly Nortech Power Projects Ltd.)

NORTECH

your god office. But it also had no precipitation. As a result, vehicle movement had to be restricted affecting the progress of work.

C. REALIGNMENT OF PENSTOCK PIPELINE:

Realignment of proposed penstock pipes due to excessive road crossing, which was not allowed by Border Roads, has caused delay in substantially which was required to be made during rainy season to match with the Schedule. As a result, the fore bay position had to be re-oriented to suitably match with the realigned Penstock.

DHPD has approved re-orientation of both Penstock piping layout and fore bay position in the meeting held on 16.06.2010.

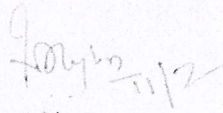
All these survey materials had to be sent to AHEC, IIT Roorkee, the consultant for review and issuance of the revised construction drawings.

We have worked out the actual time loss based on our site records for various hindrances as indicated above and the relevant format as Appendix-28 (Reference-para-28.9) with the title-"Form for Application by the Contractor for seeking extension of time-Para-I", will be duly filled in. The same shall be submitted after detail discussion with site In-charge of Department who is presently on leave.

I would now request your honour kindly to grant time extension of Sumbachu SHP for a period of 10 months w.e.f 14.02.2011 in terms of the clause no. 19 (P-19) of the agreement with the anticipation of utilising the full working days during lean hydro season and partially during rainy season.

Thanking you.

Yours faithfully,


AC Bhuyan
Director



Annex-vii

11/01/17 (8)

GOVERNMENT OF ARUNACHAL PRADESH
FINANCE, PLANNING & INVESTMENT DEPARTMENT
(PLANNING & INVESTMENT DIVISION)
A.P. CIVIL SECRETARIATE, ITANAGAR

No. PD (SPD)-02/2017-18

Dated, the 28th August, 2017

To
The Commissioner (Power),
Government of Arunachal Pradesh,
Itanagar.

Sub: Finalization of SADA, 2017-18

Sir,

I am to refer to this Department's letter of even number dated on 7th August 2017 the subject cited above and to say that following additional proposal have been approved for incorporating in the SADA proposals for the Year 2017-18

		(Rs. in lakhs)
Sl. No.	Particulars	Amount
1.	Gap-funding for Implementation of SUMBACHU 3 MW SHP, Tawang which was being funded under PM Packages. [Revised estimate: Rs. 3037.00 lakh (original sanction amount: Rs. 2037.00 MNRE subsidy: Rs. 656.00 lakhs)]	344.00
New Schemes		
2.	Taksang Chu SHP, Tawang	500.00
3.	Taksang Gompa SHP, Tawang	500.00
Total		1344.00

2. However, proposed additional expenditure shall be regularized at the time of finalization of RE, 2017-18. The Department shall observe all the nodal/codal formalities before implementation of schemes and Utilisation of fund. The expenditure shall be booked under the head of account 4801-80-800-01-00-35 under Demand No. 66.

3. The allocation is purely indicative in nature and this shall be utilized by the department only after verifying the actual requirement for which the implementing department shall be solely responsible. Further, the amount only as actually required should be used and the balance amount if any, should be surrendered.

4. With this proposed changes, the allocation of fund under SADA during 2017-18 now stands at Rs. 6344.00 lakh instead of Rs. 5000.00 lakhs communicated earlier. The modified SADA proposal for the year 2017-18 is at Annexure - A.

This is issued with the approval of Hon'ble Chief Minister, Arunachal Pradesh.

Yours faithfully,

(Dr. Joram Beda).IAS
Secretary (Planning & Investment)

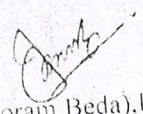
Enclor: As Stated above.

24 (7)



Dated, the 28th August, 2017.

1. PPS to Hon'ble Chief Minister, Arunachal Pradesh, Itanagar.
2. PS to Hon'ble Deputy Chief Minister, Arunachal Pradesh, Itanagar.
3. PS to Hon'ble Parliamentary Secretary (Planning), Arunachal Pradesh, Itanagar.
4. PS to the Chief Secretary, Govt. of Arunachal Pradesh, Itanagar.
5. PS to Development Commissioner (Finance, Planning & Investment) Govt. of Arunachal Pradesh, Itanagar.
6. The Chief Engineer (Hydro Power), Govt. of Arunachal Pradesh, Itanagar.
7. The Deputy Secretary (Budget), Govt. of Arunachal Pradesh, Itanagar.
8. The Deputy Secretary (Finance), Govt. of Arunachal Pradesh, Itanagar.
9. File No. PD(SPD)-02/2017-18


(Dr. Joram Beda), IAS
Secretary (Planning & Investment)

Annex-viii

Fax 011-243611

Telegram RENEWAL

Tele:- 24365496

Email:- pcpant@

Dr. P.C. Pant
Director

भारत सरकार
नवीन और नवीकरणीय ऊर्जा मंत्रालय
Government of India
MINISTRY OF NEW AND RENEWABLE ENERGY

ब्लॉक नं. 14, केन्द्रीय कार्यालय परिसर, लोदी रोड, नई दिल्ली-110003
BLOCK NO. 14, C.G.O. COMPLEX, LODI ROAD, NEW DELHI-110 003

D. O. No.

6/3/2013-SHP

Dated

21/09/2017

Please refer to the sanction of Central Financial Assistance of Rs.656.40 lakh for setting up Sumbachu-SHP (2x1500KW) as Zemithang in Tawang District of Arunachal Pradesh, an amount of Rs.529.74 lakh was released as follows:-

- | | | |
|------|---------------------------------------|----------------|
| (i) | Sanction of even no. dated 24/12/2014 | Rs.300 lakh |
| (ii) | Sanction of even no. dated 28/09/2016 | Rs.229.74 lakh |

2. At the time of requesting for Central Financial Assistance in January 2014, it was mentioned that the project was at the advanced stage of commissioning, as 80% of the physical progress of the project was already achieved by then.

3. As mentioned in the progress report received in March 2016, planning and civil works were almost complete, and the electro mechanical work was in progress. As such, the work of the project would have been completed by now and the commercial operation of the project would have taken place.

4. It is requested to kindly up-date the Ministry with the progress of the project as if commercial operation of the project have taken place or not. If the commercial operation of the project has yet not taken place, kindly indicate a firm date by when the commercial operation will start.

5. It would also be appreciated if the physical and financial progress of the project clearly indicating the utilization of funds received from the erstwhile Planning Commission now (NITI Aayog), MNRE and State Government. This is essential to settle the accounts of this project as well as for regular monitoring purposes.

6. It is also requested that quarterly progress report of this project (if COD has not taken place) be sent to the Ministry on regular basis. In case the COD has already taken place, the monthly generation data from the date of COD may be sent on regular basis.

Yours sincerely,

(P.C. Pant)

Shri Toko Onuj
Managing Director
Hydro Power Development Corporation of Arunachal Pradesh Limited
Park View Apartment T.T. Marg, Lower Niti Vihar
Itanagar-791111
Arunachal Pradesh

Copy to:-

1. Commissioner, Power, Government of Arunachal Pradesh, Itanagar
2. Shri Tungri Effa, Chairman, Hydro Power Development Corporation, Park View Apartment T.T. Marg, Lower Niti Vihar, Itanagar-791111, Arunachal Pradesh

with warm regards

Annex-ix
Page 107.

GOVERNMENT OF ARUNACHAL PRADESH
OFFICE OF THE EXECUTIVE ENGINEER::LHOU CIVIL DIVISION
DEPARTMENT OF HYDRO POWER DEVELOPMENT::LHOU

NO. LD/HPD/Cash-13/2017-18/1096-98

Dated Lhou the 28th March 2018

The Managing Director,
HPDCAPL,
Govt. of Arunachal Pradesh,
Itanagar.

Sub: - Release of Payment.

Sir,

Enclosed please find herewith the Cheque No. 0010331 Dated 27/03/2018 for an amounting to Rs. 537.60 lakhs against the following works as indicated below:-

Sl.No	Name of Works	Amount in lacs
1	Gap funding for Implementation of Sumbachu (3MW) SHP, Tawang which was being funded under PM Package (Revised Estimate Rs. 3037.00 Lakhs (original sanction amount Rs. 2037.00 + MNRE subsidy Rs. 656.00 Lakhs.	Rs. 337.60
2	Taksang Chu SHP, Tawang	Rs. 100.00
3	Tasang Gompa SHP, Tawang	Rs. 100.00
	Total	Rs. 537.60

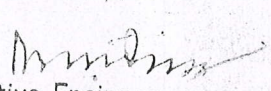
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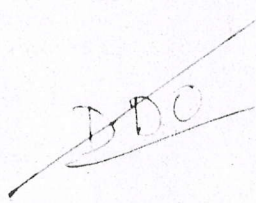
(Transferred through RIGS
IN BANK No. 0010331-18)

Further you are hereby requested to submit the UC within 10th of April, 2018 for onwards submission to the higher authority please.

Encl: - As stated above.

Yours faithfully,


Executive Engineer,
Lhou Civil Division,
Deptt. of HPD::Lhou (A.P)
NO. LD/HPD/Cash-13/2017-18/
Copy to:-


Dated Lhou the 28th March 2018

1. The Chief Engineer (WZ), Jal Vidyut Bhawan, Itanagar Deptt. of Hydro Power Dev. Itanagar for favour of your kind information please. With reference to his letter No.CE(WZ)/HPD/A-23/2017-18/3893-94. Dated March 26th 2018.
2. The Superintending Engineer, Kameng Basin, Deptt. of Hydro Power Dev. Bomdila for kind information please.
3. Office copy

Executive Engineer,
Lhou Civil Division,
Deptt. of HPD::Lhou (A.P)

Cheque 0010331
dt 27/03/2018 Rs. 537.60 Lakhs