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GOVERNMENT OF ARUNACHAL PRADESH

Article, 5 General Agreement

Not Applicable

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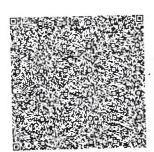
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GOVERNMENT OF ARUNACHAL PRADESH

GOVERNMENT OF INDIA

GOVERNMENT OF ARUNACHAL PRADESH

(One Hundred And Fifty only)



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This e-stamp forms an integral part of the Bipartite memorandum of Understanding dated 29th March, 2017 executed amongst Ministry of Power, Government of India and Government of Arunachal Pradesh at New Delhi

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# BIPARTITE MEMORANDUM OF UNDERSTANDING AMONGST

# Ministry of Power, Government of India AND

Government of Arunachal Pradesh

For achieving improvement in operational efficiencies in Distribution of Power.



This BIPARTITE MEMORANDUM OF UNDERSTANDING (Hereinafter referred to as the "Bipartite MOU" is made this day of 29th March, 2017.

#### BY AND AMONGST

Ministry of Power, Government of India, having its Office at Rafi Marg, Sansad Marg Area, New Delhi- 110001 which expression shall unless it be repugnant to the subject or context thereof, include its successors and assigns, of the FIRST PART:

#### AND

Government of Arunachal Pradesh (hereinafter referred to as "Government of Arunachal Pradesh") which expression shall unless it be repugnant to the subject or context thereof, include its successors and assigns, of the SECOND PART

The Government of India and the Government of Arunachal Pradesh is hereinafter also referred to collectively as the "Parties" and individually as the "Party"

#### Definitions:

"Effective Date" means the date of signing of the MOU

#### Preamble:

The Ministry of Power, Government of India and Government of Arunachal Pradesh have entered into a bipartite MOU in order to improve the operational efficiency of Department of Power, Govt. of Arunachal Pradesh to enable the operational turnaround of the department.

Department of Power, Government of Arunachal Pradesh does not have any outstanding liabilities at the end of September 2015. The Average Cost of Supply (ACS) and Average Revenue Realized (ARR) Gap stands at Rs. 3.2 per unit (on input energy basis) as on FY 2015 -16 and the AT &C losses stands at 57.74%.

The Government of India and the Government of Arunachal Pradesh have entered into a bipartite MOU in order to improve the operational parameters.

NOW IT IS HEREBY AGREED BY AND AMONG THE PARTIES HERETO as follows:

# Obligations/Commitments:

- 1.1. The Government of India to take following measures:
  - a) Facilitating through Ministry of Coal, increase in supply of domestic coal to Government of Arunachal Pradesh.
  - b) Ensuring rationalization of coal linkages.
  - c) Liberally allowing coal swaps from inefficient plants to efficient plants and from plant situated away from mines to pithead plants:
  - d) Rationalizing coal prices based on Gross Calorific Value (GCV);
  - e) Ensuring correction of coal glade slippages through re-assessment of each mine;



- f) Directing Coal India to supply 100% washed coal for G10 Grade and above by 1st October 2018.
- g) Ensuring supply of 100% crushed coal from Coal India 1st April, 2016.
- h) Faster completion of ISTN lines.
- i) Allocation linkages to State at notified price based on which the State will go for tariff based bidding. This help in getting cheaper power and revive stressed assets;
- j) Additional / Priority Funding through Deen Dayal Upadhyaya Gram Jyoti Yojana (DDUGJY), Integrated Power Development Scheme (IPDS), Power Sector Development Fund (PSDF) or other such schemes of Ministry of Power and Ministry of New and Renewable Energy, will be extended to the Government of Arunachal Pradesh, on meeting the operational milestones outlined in the Scheme.

# 1.2. The Govt. of Arunachal Pradesh to take the following measures:

- a) All outstanding dues from the State Government departments for supply of electricity shall be paid by quarter-to-quarter basis.
- b) Replacement of street lights with LEDs in all municipal towns through Arunachal Pradesh Energy Development Agency (APEDA).
- Improving the efficiency of State Generating Units.
- The Government of Arunachal Pradesh shall endeavor to ensure that tariff hikes as reflected in Annexure-B are undertaken.
- The Government of Arunachal Pradesh will endeavor to ensure that all operational targets as enumerated in Section(I) 1.2 are achieved.
- The Government of Arunachal Pradesh will endeavor to reduce the transmission losses from 4% in 2014-15 to 3.5% by 2018-19.
- Government of Arunachal Pradesh shall endeavor to reduce Aggregate Technical & Commercial losses (AT&C) from 57.74% in FY 2015-16 to 15% by FY 2020-21 as per the following trajectory:

YEAR	2015-16	2016-17	2017-18	2018-19	2019-20	2020-21
					050/	15%
AT&CLOSS	57.74%	52.41%	43%	39%	25%	15%

As per the UDAY, the AT&C losses are required to be brought down to 15% by 2018-19. However in view of late joining of the state and high level of current AT&C losses, the state has projected to bring AT&C losses to 15% by 2020-21. However efforts shall be made to bring down AT&C losses to 15% by 2018-19. If the target in a particular year is not met, then the Government of Arunachal Pradesh shall strive to achieve the targets



in the subsequent years so as to achieve the desired target of 15% AT&C losses by FY 2020-2021. The Circle wise targets have been finalized as indicated in **Annexure-A**.

- h) Government of Arunachal Pradesh shall increase hours of power supply in areas showing reduction in AT&C losses.
- i) Government of Arunachal Pradesh shall eliminate the gap between ACS and ARR by FY 2018-19. Detailed computation of year wise ACS-ARR gap along with financial projections has been attached as Annexure-B.
- j) Government of Arunachal Pradesh shall submit the detailed action plan by September,
   2017 to achieve the projected trajectory for AT&C loss and ACS-ARR gap.
- k) Government of Arunachal Pradesh shall achieve operational milestone as specified in DDUGJY and IPDS:
- Government of Arunachal Pradesh shall take the following measures for Loss Reduction;
  - i. Undertaking name and shame campaign to control power theft from time to time.
  - ii. Preparing loss reduction targets as subdivisions/ divisions/ circle/zonal level and making concerned officers responsible for achieving the loss reduction targets; the loss reduction targets at the Circle level have been attached as Annexure-A of MOU.
  - iii. Implementing performance monitoring and management system MIS for tracking the meter replacement, loss reduction and day-to-day progress for reporting to top management.
  - iv. Achieving 100% Distribution Transformer (DT) Metering by 31st March 2019.
  - v. Achieving 100% feeder metering by 30th September 2018.
  - vi. Undertaking energy audit up-to 11 KV level in rural areas by 31/03/2019.
  - vii. Undertaking Feeder Improvement Program for network strengthening and optimization, to be completed by 31st March 2019.
  - Undertaking Physical Feeder Segregation: Government of Arunachal Pradesh does not plan to segregate agriculture feeders as the total agriculture requirement is less than 1% of total consumption of the State and such requirement is presently being met through Rural or Mixed feeders.
  - ix. Installation of Smart Meters for all consumers other than agricultural consumers consuming above 500units/month by 31stMarch 2019 and consumers consuming above 200units/month by 31st March 2020
  - x. Providing electricity access to 75,128 unconnected households as per trajectory finalized in the 24x7 power for all document by FY 19.
  - xi. Implementing ERP system for better and effective inventory management, personnel management, accounts management etc. to reduce costs and increase efficiencies by 31st March 2019



- m) Government of Arunachal Pradesh shall undertake the following measures for Demand Side Management and Energy Efficiency:
  - i. Providing LED for domestic and other category consumers under DELP program through EESL:
  - ii. Undertaking consumer awareness programs for optimum utilization of resources and to foster long term behavioral changes:
  - iii. The State does not have such category of consumers i.e., consumers using agricultural pumps.
  - iv. Implementing Perform Achieve and Trade (PAT) scheme of Bureau of Energy Efficiency (BEE) for improving energy efficiency in Industries.
- n) Government of Arunachal Pradesh shall undertake the following tariff measures.
  - i. Quarterly tariff revision particularly to offset fuel price increase.
  - ii. Timely filing of Tariff Petition before the SERC so that Tariff Order may be issued for the year as early as possible.
  - iii. Timely preparation of annual accounts / Resource Plan of the Electricity Department which shall also enable timely filing of the Tariff Petition.
- O) Government of Arunachal Pradesh shall undertake the following measures to increase employee engagement.
  - Initiating capacity building of employees to enhance technical, managerial and professional capabilities at induction level and in subsequent refresher trainings;
  - ii. Devising Key Performance Indicators (KPIs) for each officer in charge on area of AT&C loss reduction and improvement in metering/billing/collection efficiency. The performance of officer in- charge shall be linked to KPIs achieved and will attract incentive/ penalty.
- p) Government of Arunachal Pradesh shall implement the following Consumer Service Strategy.
  - Setting up of Centralized Consumer Call Centre for timely resolution of complaints related to no current and other technical complaints, harassment by official, reporting of theft and safety related complaints;
  - ii. Introducing more avenues to consumers for bill payment, which could be in terms of e-payment through net banking, credit/debit card, kiosks at banks and post offices, village panchayats, mobile collection vans, etc.
- q) Government of Arunachal Pradesh shall procure power through the transparent process of competitive bidding.
- r) Government of Arunachal Pradesh shall identify the key personnel for implementing the scheme (UDAY).



- s) Government of Arunachal Pradesh shall devise the mechanism to motivate and encourage the staff.
- t) Review of performance of State Power department shall be done on a monthly basis at State Government level in the presence of State finance representative.
- u). Monthly monitoring formats along with the targets shall be provided by  $10^{\text{th}}$  of every month.
- v) The Parties agree for making this MOU available in the public domain.

Details action plan for implementation of the targeted activities is attached as **Annexure**-C of the MOU.





IN WINTNESS Whereof the Parties hereto have executed these presents the day, month and year first therein above written.

SIGNED BY DELIVERED BY

(On behalf of MOP, Govt. of India)

Signature:

डा. अर्खण कुमार वर्मा Dr. ARUN KUMAR VERMA संयुक्त सचिव / Joint Secretary वियुत्त मंत्रालय / Ministry of Power भारत सरकार / Government of India भारत सरकार / Government of India नई विल्ली-110001 / New Delhi-110001 Name & Designation :Dr. A.K. Verma

Joint Secretary (Distribution)

Address: Ministry of Power, Shram Shakti

Bhawan, Rafi Marg, Sansad Marg,

New Delhi-110001.

In the presence of:

Signature:

Name & Designation: VISHAL KAPOOR

DIRECTOR (DIST) MOP, GOUT OF INDIA

Address :

SIGNED BY DELIVERED BY

(On behalf of State Government)

Signature:

Name & Designation : Mr. Navneet Kr.

Novement

Srivastava,

Additional Secretary-Power

Address: Arunachal Pradesh Government,

3rd Block, Civil Secretariat, Itanagar.

In the presence of :

Signature:

Name & Designation : SUBRATA A ICH.

Address: DGM(F9A)/NEF, RECLAD.

New Delli.

Circle wise Loss Trajectory

UDAU MoU-Arunachal Pradesh

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#### Annexure-A

Name of	AS ON F	Y 15-16 (Prov	visional	FY 15-16	FY	FY	FY-	FY-	FY-
Name of Circle	Status)	1 10 10 (110		(Provisio	16-17	17-18	18-19	19-20	20-21
Circle	Otatus)			nal			ļ.		
				Status)					4700
	Dist.	%	AT&C	AT&C %	AT&C	AT&C	AT&C %	AT&C %	AT&C
	Losses	Collection	%		%	%	70	/0	/0
	%	efficiency						10	14
APEC – I	40	65.08	60.95	60.95	43	30	23	18	14
Naharlagun					100		0.7	27	18
APEC - II	57	85.96	63.04	63.04	50	43	37	21	10
Pasighat						F0	45	33	22
APEC - III	50	59.85	70.07	70.07	66	52	45	33	22
Miao			-	9		20	26	17	10
APEC - IV	22	66.37	48.23	48.23	30	28	20	17	
Dirang				V: 101	07	53	45	33	20
APEC- V	61	43.19	83.15	83.15	67	53	45	33	20
Ziro					100	30	27	18	11
APEC - VI	33	88.79	40.51	40.51	32	30	21		
Aalo				05.40	69	54	45	32	20
APEC - VII	68	45.43	85.46	85.46	09	54	70	0.2	
Tezu				57.74	52.41	43	39	25	15
Total	52.82	89.57	57.74	57.74	52.41	45			

NB: APEC stands for Arunachal Pradesh Electrical Circle.



#### ANNEXURE: B

# FINANCIALPROJECTIONS OF DEPARTMENT OF POWER (DoP), GOVT. OF ARUNACHAL PRADESH.

Scenario Highlights: (No Debt take over by Arunachal Pradesh Govt.)

#### Other Key Assumptions:

#### Tariff Hike:

	FY 16-17	FY 17-18	FY 18-19	FY 19-20	FY 20-21
<b>FY 15-16</b> 0%	0%	0%	5%	10%	10%
070	070				

Tariff hike is subject to the approval of SERC.

Note: However, fuel and power purchase cost variation surcharge shall be automatically increased or decreased every quarter as per approved formula.

#### AT&C LOSS TRAJECTORY:

				EV 40 40	FY19-20	FY20-21
DoP, AP	FY 15-16	FY 16-17	FY 17-18	FY 18-19	F113-20	
			43%	39%	25%	15%
AT&C losses	57.74%	32.4170	1070			

#### Billing Efficiency in%:

DoP, AP	FY 15-16	FY 16-17	FY 17-18	FY 18-19	FY 19-20	FY 20-21
DOP, AF	47.18%	56.65%	67%	71%	80%	88%
				7 1 70		

#### Collection Efficiency in %:

D.D.AD	EV 15-16	FY 16-17	FY 17-18	FY 18-19	FY 19-20	FY 20-21
DoP, AP	111310		0.004	94%	97%	
	89.57%	84%	85%	86%	94 /0	01.70



## INCOME STATEMENT – DETAILED

Rs. Crores

					13.010	100
PARTICULARS	FY – 16 (Provision al Status)	FY 17 Projected	FY 18 Projected	FY 19 Projected	FY 20 Projected	FY 21 Projected
INCOME				455.04	167.9	181.2
Revenue from Sale of Power	131.00	137.56	144.29	155.61		4.36
Other receipts	3.12	3.33	3.64	3.87	4.11	4.30
Other Income including revenue	18.24	21.9	26.34	35.60	48.1	65
from Trading  Total Income	152.36	162.79	174.27	195.08	220.11	250.56
COSTS		). 34				
	213.31	206.72	203.19	206.88	210.76	214.74
Power purchase cost	22.1	23.1	25.5	29	29.19	28.88
R &M costs	183.2	190.5	197.5	182.25	174.3	173.13
Employees costs	1.05	1.1	1.15	1.18	0.81	0.8
Administration & General costs		0	0	0	0	0
Depreciation	0		0	0	0	0
Interest &Financial costs	0 .	0	. 0	0	0	0
Other debits	0	0		418.13	415.06	417.55
SUB-TOTAL COSTS	419.66	421.42	427.34	410.13	415.00	417.00
less: Incidental expenses		76.	1 407 04	410 12	415.06	417.55
TOTAL COSTS	419.66	421.42	427.34	418.13	-195.05	-166.99
Net income without Subsidy	-267.30	-258.63	-253.07	-223.05		166.99
State Govt. Subsidy	267.30	258.63	253.07	223.05	195.05	0.00
NET INCOME WITH SUBSIDY	0.00	0.00	0.00	0.00	0.00	0.00



ACS- ARR GAP

Rs. Per kWh

	S- ARR GAP	FY 15-16	E)/				FY
Amount in per kWh (On Input energy basis)		(Provisional Status)	FY 16-17	FY 17-18	FY 18-19	FY 19-20	20-21
Power bi	urchase cost	2.61	2.60	2.60	2.60	2.60	2.60
R &M co		0.27	0.29	0.33	0.36	0.36	0.35
Administration & General costs		0.01	0.01	0.01	0.01	0.01	0.01
Employee Costs		2.25	2.40	2.48	2.30	2.15	2.10
Depreciation Interest &Financial costs/ Other debits		-	-	-	-	-	-
		-	- I	-	-	- 10	- 06
ACS		5.14	5.30	5.47	5.26	5.12	5.06
7,00	By Sales	1.87	2.05	2.23	2.45	2.70	3.10
ARR	By state government Subsidy	3.27	3.24	3.24	2.81	2.42	1.96
ARR (Subsidy received basis)		5.14	5.29	5.47	5.26	5.12	5.06
Gap (A	CS-ARR)	0.00	0.00	0.00	0.00	0.00	0.00



**Operational Indicators** 

SI. No.	Heads	FY 15-16 (Provisional Status)	FY 16-17	FY 17-18	FY 18-19	FY 19-20	FY 20-21
Α.	Total Energy Purchased (MUs)	816.01	794.55	780.96	795.68	810.8	825.3
B.	Energy Sold Within State (MUs)	346.9	364.25	382.23	412.23	444.7	479.76
C.	Energy Sold Outside State (MUs)	80.69	96.21	114.93	152.70	202.9	247.6
	(I) Bilateral Sale	59.96	73.40	89.94	126.60	150.7	187.4
	(II) UI	20.73	22.81	25.09	26,10	52.2	60.2
D.	T&D Loss (MUs)	388.42	334.09	283.80	230.75	163.2	99.93
E.	Total Energy Input (MUs)	816.01	794.55	780.96	795.68	810.8	825.3
F.	Revenue Billed in State (in Rs. Cr.)	131.00	137.56	144.29	155.61	167.9	181.2
G.	Revenue from outside State (in Rs. Cr.)	18.24	21.90	26.34	35.60	48.1	65
Н.	Other Receipt	3.12	3.33	3.64	3.87	4.11	4.36
	(I) Sale through Energy Exchange	14.83	18.15	22.22	31.31	38.7	42.2
	(II) Deviation Export	3.41	3.75	4.12	4.29	4.64	4.82
1.	Collection Efficiency	89.57%	84%	85%	86%	94%	97%



### Annexure - C

Clause No	Activity	Unit	FY 15- 16	FY 17		FY 18		FY 1	18- 9		FY 9-2		FY 20-2	1	Officer Responsible	Resources in INR Crore.
1.2 (g)	AT&C loss reduction trajectory	%	57.74	52.	41	4:	3	3	9		25		15	C	Chief Engineer.	Resource Estimates are
1.2 (k-v)	11kv Feeder metering functional	%	35	50	65	80	100	100	)						Ointending	yet to be prepared by the Department
1.2 (k- vi)	DT Metering in Rural areas	%	35	42	50	60	70	85	10						Superintending Engineer	Верантин
1.2 (k-vii)	Feeder improvement Program on Feeders	%	20	35	50	65	80	90	10	0						
1.2 (k-viii)	Feeder separation (Separation of Ag load) on feeders	%		Vn.				Nil								
1.2 (k-ix)	Installation of Smart meters/other than Ag. I) installation of Smart meters for consumption of more than 200 units	%	0	23	40	50	60	70	0 8	0 8	90	100				
	ii) installation of smart meters fo consumption of more than 500 units.	r	0	23	3 40	55	70	8	5 1	00						
1.2 (k-x)	Domestic connection (in lakhs) under 24x7 PFA	Nos	0	C	0 33	3 15	5 6			0. 12	0. 10	0.	0. 10	0. 10		
1.2 (k-xi)	Implementation of ERP System					C	ingaging of onsulant 8 award of ontra	f li ilt 6 k d i	mpleenta n 8 nteg ior	io rat					Chief Enginee	ır
1.2 (I-a)	Providing LED bulbs under DELP.	Nos thsr	/		5 1	0 1	5 2	25	50	50	50	5 50	50	50	Superintendin Engineer	g



#### ANNEXURE- D

# MONTHLY MONITORING FORMAT FOR STATES PARTICIPATING IN UDAY

Name of State: Arunachal Pradesh

Status as on: 28th February 2017

1	Outstanding electricity dues from the state government Departments (Rs. Crore)	5.00
2	Outstanding (Date) electricity dues from the state Government department paid on	13 <sup>th</sup> , February 2017

A. Operatio

1. AT&C loss (%)

Target

15 (By 2020-21)

Actual

57.74

2. Billing efficiency (%)

Target

88

Actual

47.18

3. Collection Efficiency (%)

Target

97

Actual

89.57

4. Gap ACS-ARR (Rs per unit)

Target (Without Subsidy)

1.96

Target (With subsidy)

0.00

Actual (Without Subsidy)

3.27

Actual (With Subsidy)

0.00