



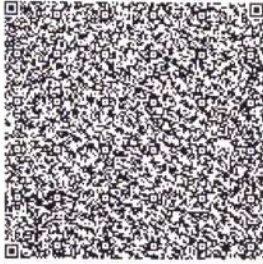
सत्यमेव जयते

## INDIA NON JUDICIAL

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This e-stamp paper forms an integral part of Bipartite Memorandum of understanding amongst Ministry of Power, Government of India and, Government of Nagaland executed on 20<sup>th</sup> Nov. 2017 for achieving operational efficiencies in Distribution of Power in the state of Nagaland.

#### Statutory Alert:

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**MEMORANDUM OF UNDERSTANDING  
AMONGST  
Ministry of Power, Government of India  
AND  
Government of Nagaland**

**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 **10<sup>th</sup> day of November, 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 Nagaland (hereinafter referred to as "Government of Nagaland") 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 Nagaland 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 Nagaland have entered into a bipartite MOU in order to improve the operational efficiency of Department of Power, Govt. of Nagaland to enable the operational turnaround of the department.

Department of Power, Government of Nagaland 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. 3.10 per unit (on input energy basis) as on FY 2016 -17 and the AT & C losses stands at 70%

The Government of India and the Government of Nagaland 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:

**1. Obligations/Commitments:**

**1.1. The Government of India to take following measures:**

- a) Faster completion of ISTN lines.
- b) 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 Nagaland, on meeting the operational milestones outlined in the Scheme.



## 1.2. The Govt. of Nagaland 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.
- c) Improving the efficiency of State Generating Units.
- d) The Government of Nagaland shall endeavor to ensure that tariff hikes as reflected in Annexure-B are undertaken.
- e) The Government of Nagaland will endeavor to ensure that all operational targets as enumerated in Section 1.2 (I) are achieved.
- f) The Government of Nagaland will endeavor to reduce the transmission losses from 6% in 2016-17 to 5% by 2019-20.
- g) Government of Nagaland shall endeavor to reduce Aggregate Technical & Commercial losses (AT&C) from 70% in FY 2016-17 to 15% by FY 2020-21 as per the following trajectory:

YEAR	2016-17	2017-18	2018-19	2019-20	2020-21
AT&C LOSS	70%	39%	32%	24%	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 Nagaland 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 Division wise targets have been finalized as indicated in **Annexure-A**.

- h) Government of Nagaland shall increase hours of power supply in areas showing reduction in AT&C losses.
- i) Government of Nagaland shall take necessary steps to decrease the gap between ACS and ARR. Currently, the gap is zero, considering state government subsidy/OFR. Government of Nagaland shall strive to maintain the same. Detailed computation of year wise ACS-ARR gap along with financial projections has been attached as **Annexure-B**.
- j) Government of Nagaland shall submit the detailed action plan by December, 2017 to achieve the projected trajectory for AT&C loss and ACS-ARR gap.


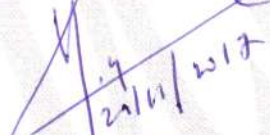
- k) Government of Nagaland shall achieve operational milestone as specified in DDUGJY and IPDS:
- l) Government of Nagaland shall take the following measures for Loss Reduction;
- i. Undertaking name and shame campaign to control power theft from time to time.
  - ii. Preparing loss reduction targets as subdivisions/ divisions/ circle/zonal level and making concerned officers responsible for achieving the loss reduction targets; the loss reduction targets at the Division 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 **30<sup>th</sup> September 2020**.
  - v. Achieving 100% feeder metering by **31<sup>st</sup> March 2020**.
  - vi. Undertaking energy audit up-to 11 KV level in rural areas by **30<sup>th</sup> September 2020**.
  - vii. Undertaking Feeder Improvement Program for network strengthening and optimization, to be completed by **30<sup>th</sup> September 2020**.
  - viii. Undertaking Physical Feeder Segregation: Government of Nagaland 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 **31<sup>st</sup> March 2020** and consumers consuming above 200units/month by **31<sup>st</sup> March 2020**
  - x. Providing electricity access to 1,41,049 unconnected households as per trajectory finalized in the 24x7 power for all document by **31<sup>st</sup> March 2019**
  - xi. Implementing ERP system for better and effective inventory management, personnel management, accounts management etc. to reduce costs and increase efficiencies by **31<sup>st</sup> March 2019**
- m) Government of Nagaland 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 Nagaland 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 Nagaland shall undertake the following measures to increase employee engagement.
  - i. 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 Nagaland shall implement the following Consumer Service Strategy:
  - i. 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 Nagaland shall procure power through the transparent process of competitive bidding.
- r) Government of Nagaland shall identify the key personnel for implementing the scheme (UDAY).
- s) Government of Nagaland 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 10th 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.

<p>SIGNED BY DELIVERED BY (On behalf of MOP, Govt. of India)</p> <p>Signature : </p> <p><b>डा. अरुण कुमार वर्मा</b> <b>Dr. ARUN KUMAR VERMA</b> संयुक्त सचिव / Joint Secretary विद्युत मंत्रालय / Ministry of Power भारत सरकार / Government of India नई दिल्ली-110001 / New Delhi-110001</p> <p><b>Name &amp; Designation : Dr. A.K. Verma</b> Joint Secretary (Distribution)</p> <p><b>Address :</b> Ministry of Power, Shram Shakti Bhawan, Rafi Marg, Sansad Marg, New Delhi-110001.</p>	<p>In the presence of :</p> <p>Signature :</p> <p>Name &amp; Designation :</p> <p>Address :</p>
<p>SIGNED BY DELIVERED BY (On behalf of State Government)</p> <p>Signature : </p> <p><b>K. D. Vizo, ITS</b> <b>Commissioner &amp; Secretary</b> <b>Power Department</b> <b>Government of Nagaland</b></p> <p><b>Name &amp; Designation : _____</b> &lt;Designation&gt; <b>Address: _____</b></p>	<p>In the presence of :</p> <p>Signature :</p> <p>Name &amp; Designation :</p> <p>Address :</p>

### Division wise Loss Trajectory

### Annexure-A

Name of Division	FY 16-17 (Provisional Status)	FY 17-18	FY-18-19	FY-19-20	FY-20-21
	AT&C %	AT&C %	AT&C %	AT&C %	AT&C %
Diampur	64	36	29	22	14
Chumukedima	77	43	35	26	17
Kohima	31	17	14	11	7
Wokha	68	38	31	23	15
Peren	54	30	25	19	12
Phek	57	32	26	20	12
Mokokchung	59	33	27	20	13
Changtonya	70	39	32	24	15
Tuengsang	65	36	30	22	14
Mon	74	41	34	25	16
Zunheboto	72	40	33	25	15
Kipheri	49	27	22	17	11
<b>Total</b>	<b>70</b>	<b>39</b>	<b>32</b>	<b>24</b>	<b>15</b>



## **ANNEXURE: B**

### **FINANCIAL PROJECTIONS OF DEPARTMENT OF POWER (DoP), GOVT. OF NAGALAND (GoN).**

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

#### **Other Key Assumptions:**

##### **Tariff Hike:**

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

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:**

<b>DoP, GoN</b>	<b>FY 16-17</b>	<b>FY 17-18</b>	<b>FY 18-19</b>	<b>FY 19-20</b>	<b>FY 20-21</b>
AT&C losses	70%	39%	32%	24%	15%

##### **Billing Efficiency in%:**

<b>DoP, GoN</b>	<b>FY 16-17</b>	<b>FY 17-18</b>	<b>FY 18-19</b>	<b>FY 19-20</b>	<b>FY 20-21</b>
	51%	91%	92%	93%	95%

##### **Collection Efficiency in %:**

<b>DoP, GoN</b>	<b>FY 16-17</b>	<b>FY 17-18</b>	<b>FY 18-19</b>	<b>FY 19-20</b>	<b>FY 20-21</b>
	59%	67%	74%	82%	89%

**INCOME STATEMENT – DETAILED**
**Rs. Crores**

PARTICULARS	FY 17 (Provisional Status)	FY 18 Projected	FY 19 Projected	FY 20 Projected	FY 21 Projected
<b>INCOME</b>					
Revenue from Sale of Power	150.00	180.00	216.00	259.20	311.04
Other Income including revenue from Trading	9.39	9.86	10.35	10.87	11.97
<b>Total Income</b>	<b>159.39</b>	<b>189.86</b>	<b>226.35</b>	<b>270.07</b>	<b>323.01</b>
<b>COSTS</b>					
Power Purchase Cost	270.00	275.00	280.00	290.00	300.00
Repair and Maintenance (R&M) costs	25.00	30.00	30.00	35.00	35.00
Administration and General (A&G)	2.93	3.10	3.28	3.46	3.67
Employee Costs	96.29	101.80	107.62	113.78	120.61
Depreciation	0.00	0.00	0.00	0.00	0.00
Interest	0.00	0.00	0.00	0.00	0.00
<b>SUB-TOTAL COSTS</b>	<b>394.22</b>	<b>409.90</b>	<b>420.90</b>	<b>442.24</b>	<b>459.27</b>
less: Incidental expenses	-	-	-	-	-
<b>TOTAL COSTS</b>	<b>394.22</b>	<b>399.90</b>	<b>415.90</b>	<b>442.24</b>	<b>459.27</b>
Net income without <i>Subsidy</i>	-235	-210	-195	-172	-136
<i>Operational Funding from State Government</i>	-235	-210	-195	-172	-136



**ACS- ARR GAP**
**Rs. Per kWh**

Amount in per kWh (On Input energy basis)	FY 16-17 (Provisional Status)	FY 17-18	FY 18-19	FY 19-20	FY 20-21
Power purchase cost	3.56	3.22	3.03	2.92	2.79
R & M costs	0.33	0.35	0.33	0.35	0.33
Administration & General costs	0.04	0.04	0.04	0.03	0.03
Employee Costs	1.27	1.19	1.17	1.14	1.12
Depreciation	0.00	0.00	0.00	0.00	0.00
Interest & Financial costs/ Other debits	0.00	0.00	0.00	0.00	0.00
<b>ACS</b>	<b>5.20</b>	<b>4.80</b>	<b>4.56</b>	<b>4.45</b>	<b>4.28</b>
ARR	2.10	2.22	2.45	2.72	3.01
<b>Gap (ACS-ARR)</b>	<b>3.10</b>	<b>2.57</b>	<b>2.11</b>	<b>1.73</b>	<b>1.27</b>
<b>Government support</b>	<b>3.10</b>	<b>2.57</b>	<b>2.11</b>	<b>1.73</b>	<b>1.27</b>
<b>Net Gap</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>

### Operational Indicators

Sl. No.	Heads	FY 16-17 (Provisional Status)	FY 17-18	FY 18-19	FY 19-20	FY 20-21
A.	Total Energy Purchased (MUs)	758.54	854.80	922.89	994.44	1074.00
B.	Energy Sold Within State (MUs)	361.86	752.87	824.06	899.83	995.30
C.	Energy Sold Outside State (MUs)	25.00	25.00	25.00	25.00	25.00
D.	Total Energy Sold (B+C)	386.86	777.87	849.06	924.83	1020.30
E.	Billing Efficiency	51%	91%	92%	93%	95%
F.	Revenue Billed in State (Rs. Cr.)	150.00	180.00	216.00	259.20	311.04
G.	Revenue from outside State (Rs. Cr.)	9.39	9.86	10.35	10.87	11.97
H.	Total Billed Revenue (Rs. Cr.) (F+G)	159.39	189.86	226.35	270.07	323.01
I.	Amount Collected (Rs. Cr.)	94.04	127.21	167.50	221.46	287.48
J.	Collection Efficiency	59%	67%	74%	82%	89%



### Annexure - C

Clause No	Activity	Unit	FY 16-17 (Provisional)	FY 17-18		FY 18-19		FY 19-20		FY 20-21		Officer Responsible	Resources in INR Crore.
1.2 (g)	AT&C loss reduction trajectory	%	70	39		32		24		15		Chief Engineer.	Resource Estimates are yet to be prepared by the Department
1.2 (I-vi)	11kv Feeder metering functional	%	15	30	55	65	80	90	100			Superintending Engineer	
1.2 (I-iv)	DT Metering	%	13	30	40	55	65	80	95	100			
1.2 (I-vii)	Feeder improvement Program on Feeders	%	10	20	35	60	70	85	90	100			
1.2 (I-viii)	Feeder separation (Separation of Ag load) on feeders	%	Nil										
1.2 (I-ix)	Installation of Smart meters/other than Ag. I) installation of Smart meters for consumption of more than 200 units	%	0	0	50	70	80	90	100			Superintending Engineer	~do~
	ii) installation of smart meters for consumption of more than 500 units.	%	0	0	50	70	80	90	100				~do~
1.2 (I-x)	Domestic connection (in lakhs) under 24x7 PFA	Nos	0.61	0.30	0.29	0.11	0.10						~do~
1.2 (I-xi)	Implementation of ERP System			Partial Implementation		Full Implementation & integration						Chief Engineer	~do~
1.2 (m-i)	Providing LED bulbs under DELP.	Nos in thsnd	33	50	50	50	50	50	50	50	50	Superintending Engineer	~do~

## ANNEXURE- D

### MONTHLY MONITORING FORMAT FOR STATES PARTICIPATING IN UDAY

Name of State: Nagaland

Status as on: 31<sup>st</sup> March 2017 (Provisional)

1	Outstanding electricity dues from the state government Departments (Rs. Crore)	9.00
2	Outstanding (Date) electricity dues from the state Government department paid on	

#### A. Operational Parameters

##### 1. AT&C loss (%)

Target	15% (By 2020-21)
Actual	70%

##### 2. Billing efficiency (%)

Target	95% (By 2020-21)
Actual	51%

##### 3. Collection Efficiency (%)

Target	89% (By 2020-21)
Actual	59%

#### B. Financial Parameter

##### 1. Gap ACS-ARR (Rs per unit)

Target	1.27 (By 2020-21)
Actual	3.67