



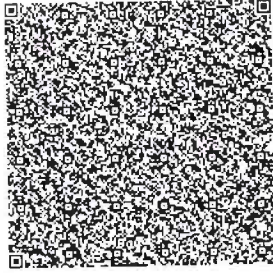
सत्यमेव जयते

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This e-Stamp forms an integral part of the Bipartite Memorandum of Undertaking dated 23rd February, 2017 executed amongst Ministry of Power, Government of India and Energy and Power Department (Electricity Department), Government of Sikkim at New Delhi.

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BIPARTITE MEMORANDUM OF UNDERSTANDING
AMONGST
Ministry of Power, Government of India
AND
Government of Sikkim

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 **23rd day of February, 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 Sikkim (hereinafter referred to as “Government of Sikkim”) 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 Sikkim 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 Sikkim have entered into a bipartite MOU in order to improve the operational efficiency of the Energy & Power Department (Electricity Department) to enable the operational turnaround of the department.

The Energy & Power Department of Sikkim 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. 2.58 & per unit as on FY 2015 -16 and the AT & C losses stands at 37.13% as on 30/09/2016.

The Government of India and the Government of Sikkim (Name of State) 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) Facilitating through Ministry of Coal, increase in supply of domestic coal to Government of Sikkim.
- 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) Allocating 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 Sikkim, on meeting the operational milestones outlined in the Scheme.

1.2. The Govt. of Sikkim 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 Nagar Nigam/ Municipal Corporations.
- c) Improving the efficiency of State Generating Units.
- d) The Government of Sikkim shall endeavor to ensure that tariff hikes as reflected in Annexure-B are undertaken.
- e) The Government of Sikkim will endeavor to ensure that all operational targets as enumerated in Section 1.2 (I) are achieved.
- f) The Government of Sikkim will endeavor to reduce the transmission losses from 4% in 2014-15 to 3.5% by 2018-19.

YEAR	2015-16	2016-17	2017-18	2018-19
AT & C LOSS	37.13	29.50	25.94	15.00

- g) Government of Sikkim shall endeavor to reduce Aggregate Technical & Commercial losses (AT&C) from 37.13% in FY 2015-16 to 15.00% by FY 2018-19 as per the following trajectory:

However, if the target in a particular year is not met, then the Government of Sikkim shall strive to achieve the targets in the subsequent years so as to achieve the desired target of 15.00% AT&C losses by FY 2018-19. The Circle wise targets have been finalized as indicated in **Annexure-A**.

- h) Government of Sikkim shall increase hours of power supply in areas showing reduction in AT&C losses.
- i) Government of Sikkim 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 Sikkim shall submit the detailed action plan by December 2016 to achieve the projected trajectory for AT&C loss and ACS-ARR gap.
- k) Government of Sikkim shall achieve operational milestone as specified in DDUGJY and IPDS:
- l) Government of Sikkim 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 2018.
 - v. Achieving 100% feeder metering by 30th September 2017.
 - 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 2018.
 - viii. Undertaking Physical Feeder Segregation: Sikkim State 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.



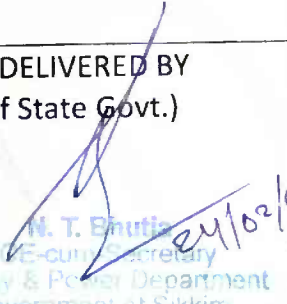
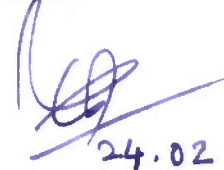
- ix. Installation of Smart Meters for all consumers other than agricultural consumers consuming above 500 units/month by 31st March 2019 and consumers consuming above 200 units/month by 31st March 2019.
 - x. Providing electricity access to all unconnected households as per trajectory finalized in the 24x7 power for all document by FY 19: All household of the state are electrified and shall ensure the same for all future consumers.
 - 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 Sikkim 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 Sikkim 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 Sikkim 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 Sikkim 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 collections vans, etc.
- q) Government of Sikkim shall procure power through the transparent process of competitive bidding.
- r) Government of Sikkim shall identify the key personnel for implementing the scheme (UDAY).
- s) Government of Sikkim 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 WITNESS Whereof the Parties hereto have executed these presents the day, month and year first herein above written.

<p style="text-align: center;">SIGNED AND DELIVERED BY (On behalf of MOP, Govt. Of India)</p> <p>Signature: </p> <p style="text-align: center;">डा. अरुण कुमार वर्मा Dr. ARUN KUMAR VERMA संयुक्त सचिव / Joint Secretary विद्युत मंत्रालय / Ministry of Power नई दिल्ली-110001 / New Delhi-110001</p> <p>Name & Designation: Dr. Arun Kumar Verma Joint Secretary (Distribution)</p> <p>Address: Ministry of Power, Sharm Shakti, Rafi Marg, Sansad Marg, New Delhi-110001</p>	<p style="text-align: center;">In the presence of:</p> <p>Signature: </p> <p>Name & Designation: VISHAL KAPOOR DIRECTOR (DISTRIBUTION) MOP.</p> <p>Address:</p>
<p style="text-align: center;">SIGNED AND DELIVERED BY (On behalf of State Govt.)</p> <p>Signature: </p> <p style="text-align: center;">P. T. Bhutia PCE-cum-Secretary Energy & Power Department Government of Sikkim Gangtok</p> <p>Name & Designation: N T Bhutia PCE –cum- Secretary</p> <p>Address: Energy & Power Department, Govt. of Sikkim, Power Secretariat, Gangtok, Sikkim</p>	<p style="text-align: center;">In the presence of:</p> <p>Signature: </p> <p style="text-align: center;">24.02.2017</p> <p>Name & Designation: P. T. BHUTIA CE cum NO (DDUGJY)</p> <p style="text-align: center;">P. T. BHUTIA Chief Engineer (HQ)-cum-N.O.(DDUGJY) Energy & Power Department Govt. of Sikkim, Gangtok</p>

Circle wise Loss Trajectory

Annexure-A

NAME OF CIRCLE	AS ON FY 15-16(Provisional status)			FY 15-16 (Provisional status)	FY 16-17	FY 17-18	FY 18-19
	Dist. Losses	% Collection efficiency	AT & C	AT & C	AT & C	AT & C	AT & C
North-I	62.77%	95.22%	64.55%	64.55%	44.50%	33.55%	16.00%
North-II	45.74%	99.23%	46.16%	46.16%	34.25%	29.25%	15.00%
East-I	30.39%	79.22%	44.86%	44.86%	29.00%	26.00%	16.00%
East-II	10.78%	88.79%	20.78%	20.78%	18.50%	18.50%	13.50%
South-I	41.80%	96.44%	43.87%	43.87%	31.00%	29.00%	15.00%
South-II	43.83%	93.45%	47.51%	47.51%	31.00%	28.00%	15.00%
West	50.86%	110.45%	45.72%	45.72%	31.00%	29.60%	15.50%
LLHP	28.36%	93.84%	32.77%	32.77%	28.77%	24.78%	15.00%
Rongli	45.90%	93.02%	49.67%	49.67%	31.00%	29.00%	15.50%
Pakyong	21.43%	86.43%	32.09%	32.09%	28.09%	25.00%	15.50%
Gtk HQ-I	13.63%	90.15%	22.14%	22.14%	20.00%	19.50%	13.50%
Gtk HQ-II	48.14%	95.45%	50.50%	50.50%	32.00%	25.00%	15.00%
Gtk HQ-III	24.16%	93.71%	28.94%	28.94%	24.95%	20.00%	14.00%
Gtk HQ-IV	29.87%	89.01%	37.58%	37.58%	29.00%	26.00%	15.50%
Consolidated	31.50%	91.78%	37.13%	37.13%	29.50%	25.94%	15.00%

NB: The figures indicated are tentative and the energy sold in other circles are not accounted. The same shall be analyzed after implementation of R-APDRP Part-A and feeder wise, subdivision wise energy received and sold are collected through DT metering and feeder metering and losses calculated.

ANNEXURE: B

FINANCIAL PROJECTIONS OF ELECTRICITY DEPARTMENT SIKKIM

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

Other Key Assumptions:

Tariff Hike:

FY 15-16 (Approved)	FY 16-17	FY 17-18	FY 18-19
9%	10	15	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:

E&PD	FY 15-16 (Provision Status)	FY 16-17	FY 17-18	FY 18-19
	37.13%	29.50%	25.90%	14.98%

Billing Efficiency in %:

E&PD	FY 15-16 (Provisional Status)	FY 16-17	FY 17-18	FY 18-19
	68.50%	75.00%	78.00%	87.65%

Collection Efficiency in %:

E&PD	FY 15-16 (Provisional Status)	FY 16-17	FY 17-18	FY 18-19
	91.78%	94%	97%	97%

INCOME STATEMENT-DETAILED

Rs. Crores

PARTICULARS	FY 16 (Provisional status)	FY-17 (projected)	FY-18 (projected)	FY-19 (projected)
INCOME				
Revenue from Sale of Power	131.01	184.00	232.00	265.00
Other receipts	109.60	136.00	138.00	144.00
Other Income including revenue from Trading	-	-	-	-
Total Income	240.61	320.00	370.00	409.00
COSTS				
Power purchase cost	172.49	184.00	184.00	194.00
R & M costs	24.05	20.00	20.00	25.00
Employees costs	96.86	114.48	105.32	99.32
Administration & General costs	2.37	2.17	2.17	2.17
Depreciation	26.80	20.00	30.00	34.00
Interest & Financial costs	99.36	28.00	43.00	50.00
Other debits	40.71	-	-	-
SUB-TOTAL COSTS	462.64	368.65	384.49	404.49
Less: Incidental expenses				
TOTAL COSTS	462.64	368.65	384.49	404.49
Net Income w/o Subsidy	-222.03	-48.65	-14.49	4.51
Committed State Govt. Subsidy	-	-	-	-
Electricity Duty received from govt.	-	-	-	-
Interest subsidy on IBRD loan	-	-	-	-
Cash subsidy	-	-	-	-
Others (Compounding charges)	-	-	-	-
Total subsidy available	-	-	-	-
NET INCOME WITH SUBSIDY	-222.03	-48.65	-14.49	4.51

ACS - ARR GAP

Amount in Rs. Crore	FY 15-16 (Provisional status)	FY 16- 17	FY 17-18	FY 18-19
COST COMPONENTS				
Power purchase cost (Crs)	172.49	184.00	184.00	194.00
Power Purchase Cost (Rs per KWH)	2.00	2.02	1.76	1.62
Total unit purchased (MUs)	850.74	911.90	1,046.41	1,195.40
Cost of energy lost (Crs)	24.68	22.92	22.83	22.64
Cost of Energy lost (Rs per KWH of Energy Sold)	0.33	0.31	0.31	0.31
PP per Unit sold (Rs)	2.37	2.17	2.17	2.17
O&M and Estt Cost (Rs per KWH)	1.43	1.39	1.21	1.06
Depreciation Cost (Rs per KWH)	0.31	0.33	0.30	0.28
Interest Cost (Rs per KWH)	1.15	0.31	0.41	0.42
Other Debits (Rs per KWH)	0.47	-	-	-
ACS (Rs)	5.37	4.04	3.67	3.38
ARR (Rs)	2.79	3.34	3.28	3.47
Gap (Rs)	(2.58)	(0.70)	(0.39)	0.09

Units Sold (Within State)	264.71	315.00	450.00	600.00
T&D Loss (Units)	121.72	121.50	121.01	120.00
Outside state sale	475.40	475.40	475.40	475.40
Total Input Energy (Units)	861.83	911.90	1,046.41	1,195.40

ANNEXURE - C

Clause No.	Activity	Unit	Status at the end of FY 15-16	FY 16-17		FY 17-18		FY 18-19		Officer responsible	Resource s in INR Crore
				H1	H2	H1	H2	H1	H2		
1.2 (g)	AT&C loss reduction trajectory	%	37.13	29.50		25.90		15.00		Chief Engineer	Resource Estimates are yet to be prepared by the Department
1.2 (k-v)	11 KV Feeder metering functional	%	70	80	85	100	-	-	-	Superintending Engineer	
1.2 (k-iv)	DT Metering in Rural areas	%	20	25	35	50	75	100	-		
	Dt Metering in Urban areas	%	30	35	45	60	100	-	-		
1.2 (k-vi)	11KV feeder audit	%	-	-	-	50	100	100	100		
1.2 (k-vii)	Feeder improvement Program on Feeders	%	20	30	50	75	100	-	-		
1.2 (k-viii)	Feeder separation (Separation of Ag load) on feeders	%	Nil as the agricultural load contribute less than 1%								
1.2 (k-ix)	Installation of Smart meters/ other than Ag. i) Installation of Smart meters for consumption of more than 200 units.	%	-	-	-	25	50	75	100		
	ii) Installation of Smart meters for consumption of more than 500 units.	%	5	-	10	15	30	50	100		
1.2 (k-x)	Domestic connection (in lakhs) under 24x7PFA	Nos	0.9								
1.2 (k-xi)	Implementati on of ERP System	-	-	-	-	Engaging of consultant & Award of contract		Implementati on & Integration		Chief Engineer	
1.2 (l-a)	Providing LED bulbs under DELP	Nos. in lacs	0.02	0.05	0.10	0.15	0.25	0.5	1.0	Superintending Engineer	

ANNEXURE - D

MONTHLY MONITORING FORMAT FOR STATES PARTICIPATING IN UDAY

Name of State: Sikkim

Status as on: 31st March 2016

1.	Outstanding electricity dues from the state government Departments (Rs. Crore)	25.46
2.	Outstanding (Date) electricity dues from the state Government department paid on	-

A. Operational Parameters

1.	AT&C loss (%)	Target	15.00
		Actual	37.13
2.	Billing efficiency (%)	Target	87.62
		Actual	68.50
3.	Collection Efficiency (%)	Target	97.00
		Actual	91.78
4.	Gap ACS-ARR (Rs per unit)	Target	00.09
		Actual	02.58
5.	Distribution loss (%)	Target	10.08
		Actual	31.50