



गोवा GOA

DATE 15/06/16 SER.No. 3535 VALUE 100/-

717286

NAME OF PURCHASER.....

RESIDENT OF.....PURPOSE.....

PLACE OF VENDOR PANAJI.

*DM*

Sign. Of stamp Vendor

Shri Deelip Raghvendra Shetye

Lic. No. AC-STP-VEN-09-2009

SIG. PURCHASER

Dt. 31-08-2010

This stamp paper forms an integral part of the Bipartite Memorandum of Understanding dated 16 June 2016, executed amongst Ministry of Power, Government of India and Government of Goa at Goa.



**BIPARTITE MEMORANDUM OF UNDERSTANDING  
AMONGST**

**Ministry of Power, Government of India**

**AND**

**Government of Goa**

**For achieving improvement in operational efficiencies in Distribution  
of Power**

**This BIPARTITE MEMORANDUM OF UNDERSTANDING**  
(hereinafter referred to as the "Tripartite MOU" is made this -----  
- day of -----2016.



## 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 Goa (hereinafter referred to as “Government of Goa”) 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 Goa 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 Power department of Goa does not have any outstanding liabilities at the end of September, 2015. The ACS and ARR gap stands at Rs.0.88 per unit as on FY 2015-16 per unit and the AT&C losses stands at 21.6% as on 30/09/2015.

The Government of India and the Government of Goa (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 Goa
- 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 grade slippages through re-assessment of each mine;
- f) Directing Coal India to supply 100% washed coal for G10 Grade and above by 1<sup>st</sup> October 2018.
- g) Ensuring supply of 100% crushed coal from Coal India by 1<sup>st</sup> 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;

**1.2 The Govt. of Goa 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) Henceforth, Banks / FIs shall not advance short term debt to Power department for financing losses.
- c) Replacement of street lights with LEDs in all municipal towns through Nagar Nigam / Municipal Corporations.
- d) Improving the efficiency of State Generating Units.
- e) The Government of Goa shall endeavour to ensure that tariff hikes as reflected in Annexure-B are undertaken.
- f) The Government of Goa shall endeavour to ensure that all operational targets as enumerated in Section 1.2 (m) are achieved.
- g) The Government of Goa will endeavour to reduce the transmission losses from 4% in 2014-15 to 3.75% by 2018-19.
- h) Government of Goa shall endeavour to reduce AT&C losses from 21.06% in FY 2014-15 to 15% by FY 2018-19 as per the following trajectory:






Year	2015-16	2016-17	2017-18	2018-19
AT&C Loss	<b>21.06</b>	<b>18.75</b>	<b>16.59</b>	<b>15.00</b>

However, if the target in a particular year is not met, then the Government of Goa 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 Division wise targets have been finalized as indicated in **Annexure- A**.

- i) Government of Goa shall increase hours of power supply in areas showing reduction in AT&C losses.
- j) Government of Goa 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**.
- k) Government of Goa shall submit the detailed action plan by August 2016 to achieve the projected trajectory for AT&C loss and ACS-ARR gap.
- l) Government of Goa shall achieve operational milestones as specified in DDUGJY & IPDS.
- m) Government of Goa 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 at sub-divisions / 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 June 2017.
  - v) Achieving 100% feeder metering by 30 June 2016.
  - vi) Undertaking energy audit up-to 11 KV level in rural areas by 31.03.2017.



- vii) Undertaking Feeder Improvement Program for network strengthening and optimization, to be completed by March 2017;
- viii) Undertaking Physical Feeder Segregation: Goa State does <sup>not</sup> plan to Segregation of feeders since the total agricultural requirement is around 2% of total consumption of the state. 
- ix) Installation of Smart Meters for all consumers other than agricultural consumers consuming above 500 units/month by 31<sup>st</sup> December 2017 and consumers consuming above 200 units/month by 31<sup>st</sup> December 2019.
- x) Providing electricity access to all unconnected households as per trajectory finalized in the 24x7 power for all document by FY19: 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 March 2017.
- n) Government of Goa 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 behavioural changes;
  - iii) Replacing at least 10% of existing agriculture pumps with energy efficient pumps by March 2019.
  - iv) Implementing PAT scheme of BEE for improving energy efficiency in Industries.
- o) Government of Goa shall undertake the following tariff measures:
  - i) Quarterly tariff revision particularly to offset fuel price increase;
  - ii) Timely filing of Tariff Petition before the RERC so that Tariff Order may be issued for the year as early as possible.


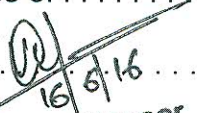


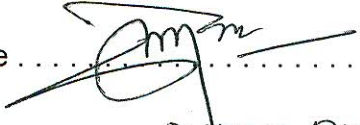


- iii) Timely preparation of annual accounts/Resource Plan of the Electricity Department which shall also enable timely filing of the Tariff Petition.
- p) Government of Goa shall undertake the following measures to increase employee engagement:
  - i) Initiating capacity building of employees to enhance 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 areas 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.
- q) Government of Goa shall implement the following Consumer Service Strategy:
  - i) Setting up of Centralized Customer 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.
- r) Government of Goa shall procure power through the transparent process of competitive bidding.
- s) Government of Goa shall identify the key personnel for implementing the scheme (UDAY)
- t) Government of Goa shall devise the mechanism to motivate and encourage the staff.
- u) 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.
- v) Monthly monitoring formats along with the targets shall be provided by 10<sup>th</sup> of every month.
- w) 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>SIGNED AND DELIVERED BY (on behalf of MOP, Govt. Of India)</p> <p>Signature ..... </p> <p>Name &amp; Designation .....</p> <p>डा. अरुण कुमार वर्मा Address .. Dr. ARUN KUMAR VERMA संयुक्त सचिव / Joint Secretary विद्युत मंत्रालय / Ministry of Power भारत सरकार / Government of India नई दिल्ली-110001 / New Delhi-110001</p>	<p>In the presence of .....</p> <p>Signature ..... </p> <p>Name &amp; Designation ..... J. K. Kapoor Director Ministry of Power Government of India New Delhi-110001</p> <p>Address .....</p>
<p>SIGNED AND DELIVERED BY (on behalf of State Govt.)</p> <p>Signature ..... </p> <p>Name &amp; Designation- Kunal. IAS Secretary (Power), Govt. of Goa, Secretariat, Porvorim-Goa.</p> <p>Address .....  Secretary (Power) Government of Goa Secretariat, Porvorim</p>	<p>In the presence of .....</p> <p>Signature ..... </p> <p>Name &amp; Designation ..... DIPAK BHASKAR Chief Electrical Engineer Government of Goa 3rd Floor, Vidhyut Bhawan Panaji 403001</p> <p>Address Vidhyut Bhawan Panaji, Goa.</p>

## Annexure-A

### Division wise Loss Trajectory

Name of Division	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
Division I, Panaji	13.50	89.60	22.5	22.5	20	17.5	15.5
Division III, Ponda	10.25	95.26	14.5	14.5	12.3	12.2	12.1
Division IV, Margao	14.5	87.13	25.5	25.5	22.5	19.5	15.7
Division V, Bicholim	15.5	91.72	22.5	22.5	20	18	15.9
Division VI- Mapusa	15.5	91.72	22.5	22.5	20	17.8	14.9
Division VII, Curchorem	18.5	97.18	20.8	20.8	18.5	16	15.8
Division X, Ponda	18.5	97.42	20.6	20.6	18.5	16	15.2
Division XI, Vasco	14.5	90.64	22.5	22.5	20	17.5	15
Division XIV, Verna	13.5	96.88	16.2	16.2	14.8	13	12.5
Division XVI, Margao	16.5	93.65	21.8	21.8	19.8	17.5	16.2
Division XVII, Mapusa	14.5	90.88	22.3	22.3	19.8	17.5	16.2
<b>Total</b>	<b>15.02</b>	<b>92.92</b>	<b>21.06</b>	<b>21.06</b>	<b>18.75</b>	<b>16.59</b>	<b>15.00</b>

Note: The figures indicated are tentative and the energy sold in other divisions are not accounted. The same shall be analysed 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.

*[Signature]*  
Secretary (Power)  
Govt of Goa  
Bipartite MOU Page 1 of 8



**Financial Projections of Electricity Department Goa**

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

Other Key Assumptions:

Tariff Hike:

FY 15-16 (Approved)	FY 16-17	FY 17-18	FY 18-19
14%	5%	Proposed 5%	Proposed 8%

Tariff hike is subject to the approval of JERC.

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:**

	FY 15-16 (Provisional status)	FY 16-17	FY 17-18	FY 18-19
GED	21.06	18.75	16.59	15.00

**Billing Efficiency in %:**

	FY 15-16 (Provisional status)	FY 16-17	FY 17-18	FY 18-19
GED	87.71	87.37	86.89	85

**Collection Efficiency in %:**

	FY 15-16 (Provisional status)	FY 16-17	FY 17-18	FY 18-19
GED	90	93	96	100

## Income Statement- Detailed

Rs. Crores

Particulars	FY16 (Provisional status)	FY17	FY18
<b>INCOME</b>			
Revenue from Sale of Power	1389.42	1575.60	1837.78*
other receipts	Nil	6.74	7.0*
Other Income including revenue from Trading	NIL		
<b>Total income</b>	1389.42	1582.34	1844.78
<b>COSTS</b>			
Power purchase costs	1103.63	1246.44	1359.26
R&M costs	37.95	47.33	53.05
Employees costs	273.8	257.18	261.2
Administration & General Costs	12.22	13.64	13.8
Depreciation	31.129	41.97	56.92
interest & Finance Costs	44.45	40	30
other debits	12.17	13.79	15.17
sub-total costs	1515.35	1660.35	1789.4
less: incidental expenses	0	5.08	4.34
<b>Total Costs</b>	1515.35	1655.27	1785.06
Net Income w/o Subsidy	-125.93	-72.93	59.72
committed state govt. Subsidy	100	80	10
Electricity Duty received from govt.	120	125	135
interest subsidy on IBRD loan			
cash subsidy			
others(compounding charges)			
total subsidy available			
<b>Net Income with Subsidy</b>	94.071	132.07	204.72

Note:\* Indicates the proposed hike/cross subsidy by Government and are tentative subject to confirmation of the finance department.

*[Signature]*  
Secretary (P&T)  
Govt. of Odisha  
Bipartite MOU | Page 3 of 8



## ACS-ARR Gap

Amount in Rs. Crore	FY 15-16 (provisional status)	FY16-17	FY17-18	FY18-19
<b>Cost Components</b>				
Power purchase cost(Crs)	1048.34	1245.03	1330.98	1417.92
Total unit purchased (MUs)	3838.55	3861.15	3998.32	4160
Cost of energy lost(Crs)	249.60	469.06	480.00	482
PP per Unit sold (Rs)	2.49	3.05	3.0	2.93
O&M and Estt Cost (Crs)	184.24	276.55	318.14	328.05
Depreciation Cost(Crs)	38.81	57.63	41.97	56.92
Interest Cost(Crs)	43.26	44.55	40	30
Other Debits (Crs)	15.82	0	0	0
ACS (Rs)	4.09	5.05	4.80	4.56
ARR(Rs)	1323.73	4.30	4.60	4.71
Gap (Rs)	185.43	0.75	0.20	-0.15

## Annexure C

### Detailed Action Plan for implementation of targeted activities

Clause No.	Activity	Unit	Status at the end of FY 15-16	FY16-17		FY17-18		FY18-19		Officer responsible	resources in INR crore
				H1	H2	H1	H2	H1	H2		
1.2 (h)	AT&C loss reduction trajectory	%	21.06	18.75		16.59		15.0		Chief Engineer	
1.2 (m-v)	11 KV Feeder metering functional	%	100							Chief Engineer	Resources Estimates are yet to be prepared by the Department
1.2 (m-iv)	DT Metering in Rural area	%	85	100						Chief Engineer	
	DT Metering in Urban area	%	90	100						Chief Engineer	
1.2 (m-vi)	11 KV feeder audit	%	90	100						Chief Engineer	
1.2 (m-vii)	Feeder Improvement Program on Feeders	%	65	100						Chief Engineer	
1.2 (m-viii)	Feeder separation/separation of Ag load) on feeders	%	Nil as the agricultural load contribute only 2%							Chief Engineer	



Clause No.	Activity	unit	Status at the end of FY 16	FY16-17		FY17-18		FY18-19		Officer responsible	resources in INR crore
				H1	H2	H1	H2	H1	H2		
1.2 (m-ix)	Installation of Smart meters/ other than Ag. i) Installation of Smart meters for consumption of more than 200 units.	%	0	40000	40000	40307				Chief Engineer	
	ii) Installation of Smart meters for consumption of more than 500 Units	%	0	16000	20163	0				Chief Engineer	
1.2 (m-x)	Domestic connections (in lakhs) under 24X7 PFA	nos.	10000	15000	25000	30000				Chief Engineer	
1.2 (m-xi)	Implementation of ERP System		To be implemented	Will be implemented	regular up dating	regular up dating				Chief Engineer	
1.2 (n-i)	Providing LED bulbs under DLP	Nos. in lacs	0	8.5	6.17	100%				Chief Engineer	

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 Secretary & Co-sec  
 C&C

## Annexure-D

### Monthly Monitoring Format for States Participating in UDAY

Name of the State: Goa

Status as on: 31 March 2016

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

#### A- Operational Parameters

- AT&C loss (%)
  - Target
  - Actual
- Billing efficiency (%)
  - Target
  - Actual
- Collection Efficiency (%)
  - Target
  - Actual
- Gap ACS-ARR (Rs per unit)
  - Target
  - Actual
- Distribution loss (%)
  - Target
  - Actual

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31.03.2016



6. Total number of un metered Feeders
- 6.1 Number of Feeders metered in the current month
7. Total number of un metered Distribution Transformers (DTs)
- 7.1 Number of Distribution Transformers (DTs) metered in the current month
8. Total Number of Smart Meters to be installed on the connection having consumption above 500 units per month
- 8.1 Number of Smart Meters installed in the current month
9. Total Number of Smart Meters to be installed on the connection having consumption above 200 units per month and up-to 500 units per month
- 9.1 Number of Smart Meters installed in the current month
10. Total number of LED Lamps to be replaced
11. Number of LED Lamps replaced in the current month
12. Total number of Ag pumps to be replaced
13. Number of Ag pumps replaced in the current month

Remarks: The monthly monitoring formats are likely to be updated for effective monitoring of parameter defined under MoU.

*Amrinder Singh*  
Secretary

