SOUTH ASIA REGIONAL ENERGY PARTNERSHIP PROGRAMME

PRESENTATION

ON

"POWER SECTOR RESTRUCTURING & IT'S IMPACT"

Presented By

Sh. Krishna Shenoy

OVERVIEW OF BSES MANAGED DISCOMS (NESCO, WESCO & SOUTHCO) IN ORISSA, INDIA

BACK GROUND

Orissa State Electricity Board was constituted in the year 1961 taking all the 13 Districts of the State (Now 30 Districts) in it's territory with an aim.

" to provide dependable Electricity to the people of the State at a reasonable cost & the profit should not be more than 3%."

- State Electricity Board rendered 35 years Services to the State by carrying out States post Independent Development Activities in Generation, Transmission & Distribution Sector i.e. towards a good Infrastructure for modernisation of the State.

- STATE OF ORISSA WAS THE FIRST TO INITIATE POWER REFORM IN THE COUNTRY & REFORM ACT PASSED IN JAN 1996.
- REGULATORY COMMISSION SET UP IN 1996.
- BSES (Bombay Sub-urban Electricity Supply Company) was selected for three Companies i.e. NESCO,WESCO & SOUTHCO as joint venture partner through Internal Bidding.

ORISSA JOINT VENTURE

- BSES WAS SELECTED FOR THREE COMPANIES AS JOINT VENTURE PARTNER THROUGH INTERNATIONAL COMPETITIVE BIDDING.

- ON 1ST APRIL 1999 BSES WITH 51% STAKE ALONGWITH THE JOINT VENTURE PARTNER, GRIDCO HAS ACQUIRED THE THREE COMPANIES

DISTCOS - BRIEF PROFILE

PARTICULARS	NESCO	WESCO	SOUTHCO
CONSUMER BASE	0.404 MN.	0.409 MN.	0.427 MN.
POPULATION	9.18 MN.	9.40 MN.	8.71 MN.
AREA COVERED (SQ. KM.)	28000	48000	47000
ENERGY INPUT (MU'S)	2396	3353	1560

PRIMARY SUB-STATIONS DISTCO WISE

	Primary Sub-stations (33/11KV)		Distribution S/S (11KV/400V)	
	Nos.	Capacity	Nos.	Capacity
NESCO	104	464.31MVA	9735	571.63MVA
WESCO	108	560.0MVA	9515	611.89MVA
SOUTHCO	115	415.0MVA	8253	479.00MVA

***In Distribution Network Transformers of rating 500KVA, 250KVA, 200KVA, 100KVA, 63KVA, 25KVA, 16KVA, 10KVA are generally in operation.**

•**PRIMARY Sub-Station**.

Having power Transformers (33/11KV)
1.6MVA, 3.15MVA, 5MVA, 8.00MVA.

•**Distribution Transformer**.

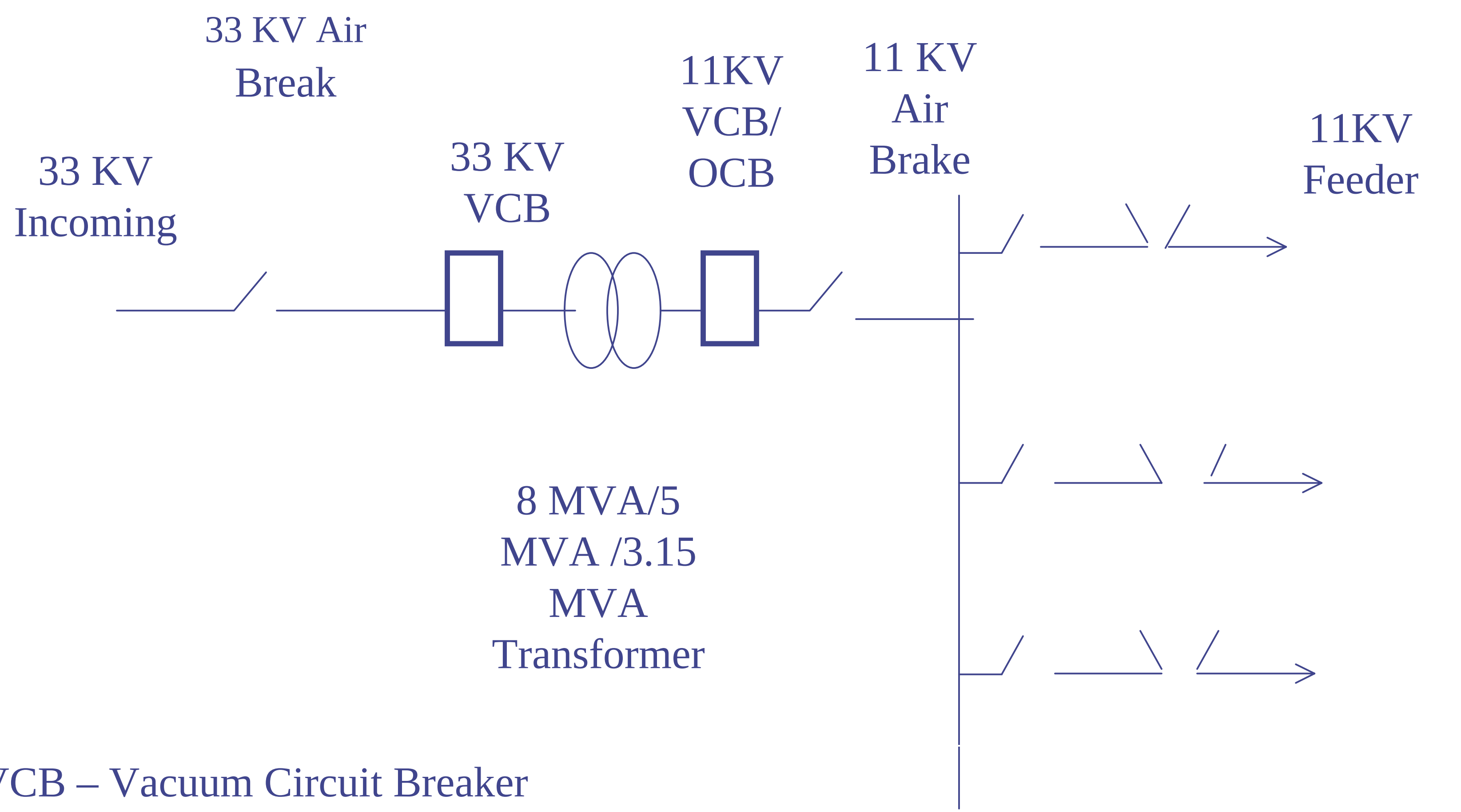
10KVA, 16KVA(1Ø), 25KVA, 63KVA,
100KVA, 250KVA, 500KVA.

•**All the distribution Networks are over head in nature.**

•**Conductor size**.

$22mm^2$, $34mm^2$, $50mm^2$, $100mm^2$
(All Aluminum Alloy Conductor)

SINGLE LINE DIAGRAM OF ONE SAMPLE PRIMARY SUB-STATION



VCB – Vacuum Circuit Breaker

OCB – Oil Circuit Breaker

- Most of the Sub-Stations are not having the protection in the 33 KV side
- In 11 KV , only Group Control protection is provided in many Primary Sub-Stations.

POWER SYSTEM IN ORISSA

DISCOM’s (Distribution Companies)

Receive power at 33 KV from Transmission Company of Orissa from it’s 220/ 132/ 33 KV Transformers.

It is stepped down to 220v/400v by Dist.Transformer scattered throughout the License Area at 50 Hz.

Monthly power bill is remitted to Transmission Company by DISCOM’s.

Regulatory Commission monitor’s/ regulates the Activities of the Licensees in all spheres.

CONSUMER STRENGTH/ IMPROVEMENT

DISCOM	1998-99	2002-03	% Increase
NESCO	214000	404352	89%
WESCO	257000	409699	59%
SOUTHCO	290000	426960	47%

PART-II

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1. DISTRIBUTION RESTRUCTURING
2. GOVERNMENTS INVOLVEMENT
3. IMPACT ON TARIFF
4. STRATEGIES FOR IMPROVEMENT
5. CUSTOMER SERVICE STANDARDS
6. CONCLUSION

DISTRIBUTION RESTRUCTURING

- DURING APRIL, 1996, EARSTWHILE OSEB WAS UNBUNDELED TO DISTRIBUTION, TRANSMISSION & GENERATION.

- DURING AUGUST, 1996, ORISSA ELECTRICITY REGULATORY COMMISSION CAME INTO PICTURE TO MONITOR THE ACTIVITIES OF THE COMPANIES WITH THREE MEMBER COMMISSION.

- DURING NOVEMBER, 1997, THE ORISSA DISTRIBUTION WAS DISINTEGRATED INTO FOUR DISTRIBUTION ZONES (Viz. NESCO, WESCO, CESCO & SOUTHCO).

- BSES TOOK OVER THE MANAGEMENT CONTROL OVER THE THREE DISCOMS (Viz. NESCO, WESCO & SOUTHCO) UNDER ICB.

CORPORATE MISSION

- COMMITMENT TOWARDS SUCCESSFUL & EFFICIENT OF ELECTRIC COMPANY
- GIVING RELIABLE ELECTRICITY NETWORK.
- STREAMLINING BILLING SYSTEM , REVENUE COLLECTION & OTHER SERVICES FOR THE CONSUMERS.
- STRENGTHENING OF SAFETY & LOSS REDUCTION ACTIVITIES.
- CONSUMERS SATISFACTION

STRATEGIES FOR ACHIVING CORPORATE MISSION

1. Addition of New Sub-Stations.
2. Putting of AB Conductors in place of naked over head lines (Funding from WB).
3. Feeder Metering (Funding through WB)

   More accountability will be given starting from the lineman level to JE & SDO level, so that input, billing can be effectively monitored & each section will be taken as profit centre.

Contd..

4. QUICK REDRESSAL OF GRIEVANCES OF THE CONSUMERS.
5. INTRODUCTION OF SPOT BILLING MACHINES.
6. FORMATION OF VILLAGE COMMITTEE.
7. INTRODUCTION OF FRANCHISEE SYSTEM.
8. INDUCTION OF TRAINED & EFFICIENT MANPOWER IN THE SENIOR LEVEL OF THE MANAGEMENT.
9. ORIENTATION PROGRAMME FOR ALL THE EMPLOYEES.

COORDINATION WITH TRANSCO (GRIDCO)

- TRANSCO (GRIDCO) STILL HOLDS 49% STAKE IN THE DISCOMS.
- THE CMD, TRANSCO HOLDS THE CHAIR OF THE BOARD.
- TRANSCO PROVIDES ALL SORTS OF SUPPORT IN ACHIVING THE CORPORATE MISSION OF THE DISCOMS.
- FACILITATING DISCOMS IN OVERCOMING FINANCIAL CRISIS.
- FACILITATING DISCOMS IN ARRANGING FOR UPGRADATION OF POWER TRANSFORMERS INSTALLED IN THEIR CONTROL TO CATER THE ADDITIONAL LOAD GROWTH.

GOVERNMENTS INVOLVEMENT

(PRE CORPORATISATION PERIOD)

- BEFORE CORPORATISATION GOVERNMENT WAS IN CHARGE OF GENERATION, TRANSMISSION & DISTRIBUTION OF POWER TO THE CONSUMERS.
- DURING PRE CORPORATISATION PERIOD, IT WAS NOT CONSCIOUS ABOUT THE COMMERCIAL ASPECTS, PROVIDING RELIABLE POWER SUPPLY TO THE ESTEEMED CONSUMERS.
- GOVERNMENT HAD FORMULATED SOME RULES, REGULATIONS, LAWS & CODES FOR SMOOTH OPERATION OF THE ORGANISATION.
- IN THE BUDGET, GOVERNMENT USED TO ALLOCATE A HUGE FINANCIAL PACKAGE/ SUBSIDY FOR THIS SECTOR.(AROUND 350 CRORES)
- DURING INVOLVEMENT OF GOVERNMENT, THIS SECTOR WAS FULLY POLITICISED & NO BODY WAS AWARE ABOUT THE FUTURE OF THIS SECTOR.

(POST CORPORATISATION PERIOD)

- SINCE APRIL 1999, GoO HAS NOT MADE ANY BUDGETARY PROVISION FOR THIS SECTOR.
- AGRICULTURAL SECTOR, BPL CONSUMERS ARE STILL ENJOING THE SUBSIDISED POWER BY THE PRIVATE FIRMS.
- VILLAGE ELECTRIFICATION IS IN FULL SWING & IS MADE FROM THE FUNDS AVAILABLE UNDER PMGY SCHEME. TARGET TO COMPLETE ALL VILLAGES BY THE YEAR 2007.
- REGULAR PRESS CLIPPINGS ARE GIVEN IN THE MEDIA FOR AWARENESS AMONG THE CONSUMERS ABOUT THE PRECIOUSNESS OF POWER.
- PRIVATE FIRMS ARE MORE SERIOUS ABOUT MEETING THE CONSUMER SERVICE STARDARDS FORMULATED/ APPROVED BY THE REGULATORY COMMISSION.

CONTD..

- REGULATORY COMMISSION PLAYS AN IMPORTANT ROLE IN POST CORPORATISATION PERIOD.
- IT IS THE LISENCING AUTHORITY & PLAYS AN WATCH DOG ROLE FOR THE ENTIRE SECTOR.
- IT SEES THE INTEREST OF ALL THE STAKE HOLDERS I.e.THE CONSUMERS, GOVERNMENT, DISCOM, GENCO, TRANSCO & BALANCES THE SECTOR UNDER THE PREVAILING RULES, REGULATION & GUIDELINES.
- IT RECEIVES THE GENUINE COMPLAINT OF THE CONSUMERS/ UTILITIES & DIRECTS THE RESPECTIVE AUTHORITY FOR REDRESSAL.
- IN EVERY QUARTER, IT REVIEWS THE PERFORMANCE OF THE LISENCEES & RECOMENDS THE LESENCEES FOR IMPROVEMENT.
- IT VISITS UTILITIES OF OTHER STATES/ COUNTRIES & SUGGESTS SOME NEW METHODS/ KNOWHOW FOR IMPLEMENTATION.

CONTD..

- DISCOM/ TRANSCO FILES REVENUE REQUIREMENT/ TARIFF APPLICATION EVERY YEAR AS PER GUIDELINE OF THE REGULATORY COMMISSION.
- COMMISSION FIXES SUITABLE DATE & TIME FOR HEARING OF THE OBJECTIONS RAISED BY INDIVISUALS/ ORGANISATIONS TO THE PROPOSED TARIFF APPLICATION.
- AFTER HEARING FROM ALL CONCERED, IT RELEASES TARIFF ORDER.
- IT SENDS IT'S AUTHORISED REPRESENTATIVES TO VERIFY ANY RECORDS.

IMPACT OF TERIFF ORDERS

- AFTER CORPORATISATION 4 TARIFF ORDERS HAVE BEEN ISSUED BY THE COMMISSION.
- THE DETAIL IMPACT ON DISCOMS WILL FOLLOW IN NEXT SLIDE.
- THOUGH 3 TIMES DISCOMS HAVE GOT NOMINAL INCREASE IN RST TO MEET THE REVENUE REQUIREMENT, IT HAS FINALLY GIVEN NOTHING TO DISCOMS AS SAME HAS BEEN COMPENSATED BY PROPORTIONATE OR, EVEN MORE INCREASE IN BST TO MEET THE REVENUE REQUIREMENT OF TRANSCO.
- ONLY IN LAST TARIFF ORDER ISSUED BY THE COMMISSION, DURING MARCH 2002, DISCOMS HAVE GOT SOME BENIFT BY REDUCTON OF BST.
- AFTER FOUR TARIFF ORDERS, STILL ORISSA SUPPLIES POWER TO DOMESTIC CONSUMERS AT VERY RESONABLE RATES AS COMPARED TO NABOURING STATES.

Tariff order	Adverse effect	Effect
Nov- 1998	Withdrawal of minimum charges	10% increase in RST nullified
Jan- 2000	Introduction of PF Incentive, Relaxation in incentive Tariff and rebate to HT and EHT Consumers.	4% increase in RST nullified
Jan- 2001	Increase in BST by 20%.	Only 8.3 % increase in RST not only nullified but left a huge gap.

PROGRESSIVE PERFORMANCE OF DISCOM

NESCO	FY 02 - 03	FY 01 - 02	FY 00 - 01	FY 99 - 00
Input Energy in MU				
LT	1533.18	1682.32	1537.42	1430.00
HT	380.60	327.30	418.19	367.00
EHT	481.36	293.00	487.51	461.00
Total	2395.14	2302.62	2443.11	2258.00
Total cost of input Energy (Rs. Crore)	298.24	319.72	315.55	280
Collection in Rs.Crore				
LT	84.58	69.29	64	49
HT	105.97	86.55	102	90
EHT	120.17	71.73	110	106
Total	310.72	227.57	276	244
Billing in MU				
LT	600.22	556.63	514.52	506.00
HT	323.51	279.69	355.46	312.00
EHT	481.36	291.99	487.50	461.00
Total	1405.08	1128.31	1357.48	1279.00
Billing in Rs. Crore				
LT	143.35	130.54	109	98
HT	108.83	98.95	110	96
EHT	122.26	108.78	98	133
Total	374.43	338.27	317.16	327
T& D Loss				
Total	41%	51%	44%	43%
Collection as a % of Billing				
Total	83%	67%	87%	75%

SOUTHCO	FY 02 - 03	FY 01 - 02	FY 00 - 01	FY 99 - 00
Input Energy in MU				
LT	1172.24	1165.75	1159	1087
HT	156.49	153.31	176.3	180
EHT	230.31	200.96	187.5	166
Total	1559.04	1520.02	1523	1433
Total cost of input Energy (Rs. Crore)	192.99	200.25	187.2	183
Collection in Rs.Crore				
LT	99.77	90.49	83	67
HT	47.79	45.90	45	47
EHT	80.50	69.50	62	54
Total	228.05	205.89	190	168
Billing in MU				
LT	585.25	576.01	538	514
HT	132.99	128.01	150	153
EHT	230.31	201.30	187	166
Total	948.55	905.32	875	833
Billing in Rs. Crore				
LT	149.45	140.72	110	95
HT	50.44	49.87	51	55
EHT	80.44	73.35	63	57
Total	280.33	263.94	225	207
T& D Loss				
Total	39.16%	40.44%	42.52%	41.87%
Collection as a % of Billing				
LT	67%	64%	75%	70%
HT	95%	92%	88%	85%
EHT	100%	95%	98%	94%

WESCO	FY 02 - 03	FY 01 - 02	FY 00 - 01	FY 99 - 00
Input Energy in MU				
LT	1992.46	2012.53	1884	1776
HT	352.84	334.00	399	402
EHT	1008.97	632.75	584	511
Total	3354.27	2979.29	2868	2688
Total cost of input Energy (Rs. Crore)	452.26	424.26	414	343
Collection in Rs.Crore				
LT	90.16	73.36	64.01	57.00
HT	114.86	103.88	111.68	110.00
EHT	321.49	222.35	188.41	183.00
Total	526.51	399.59	364.10	350.00
Billing in MU				
LT	759.98	679.11	705.46	649.24
HT	299.91	283.90	339.05	341.36
EHT	1008.97	632.76	584.38	510.67
Total	2068.86	1595.77	1628.89	1501.27
Billing in Rs. Crore				
LT	181.26	170.49	156.61	133.09
HT	117.99	110.67	116.97	118.45
EHT	321.13	227.37	198.69	175.67
Total	620.38	508.53	472.27	427.21
T& D Loss				
Total	38.32%	46.44%	43.20%	44.16%
Collection as a % of Billing				
LT	50%	43%	41%	43%
HT	97%	94%	95%	93%
EHT	100%	98%	95%	104%
Total	85%	79%	77%	82%

STRATEGIES FOR IMPROVEMENT

1. Addition of New Sub-Stations.

   (From WB/ APDRP Funding)

2. Putting of AB Conductors in place of naked over head lines. (Funding from WB/ APDRP)

3. Feeder Metering (Funding through WB)

   More accountability will be given starting from the lineman level to JE & SDO level, so that input, billing can be effectively monitored & each section will be taken as profit centre.

9. Spot Billing: More nos. of spot billing machines to be procured & used to reduce time gap in billing & bill distribution & also reduce billing problems.

10. Capacitor Banks to be installed for compensation of the VAR.

11. GIS system to be introduced with the help of funding received from APDRP.

4. Consumer Metering (To be funded by WB)
All the consumers have to be metered for assessing the exact consumption.
5. De Hooking Squad
Ex-Servicemen are to be deployed to have the vigilance activities in the rural areas to arrest the power theft. More emphasis will be given to regularise the hooking consumers.
6. One centralised vigilance team has been formed for the three Distribution Companies headed by a senior retired IPS officer. For the first time in Orissa a good nos. of illegal consumers stealing power have been arrested & sent to judicial custody.
7. Micro-privatisation: Micro Privatisation to be spreaded to other theft prone areas.

INTRODUCTION OF SPOT BILLING

- SPOT BILLING AT BALASORE IS PLANNED TO BE IMPLEMENTED DURING MARCH, 2003 FOR WHICH THE REQUIRED SPOT BILLING MACHINES HAVE BEEN PROCURED.

- WITH THE REMARKABLE RESULTS NOTICED (IMPROVEMENT IN BILLING, COLLECTION & CONSUMER SATISFACTION) INTRODUCED IN ANDHRA PRADESH, ORISSA IS PLANNING TO INTRODUCE THIS SYSTEM IN BSES, ORISSA DISTRIBUTION COMPANIES.

BENEFITS OF SPOT BILLING

- Bills can be issued on spot there by the consumers will be able to get benefit of due dates & for which the rush at collection center can be reduced.
- Reduction of billing complaints.
- Better Cash flow.
- Focus on attending the exceptional

MICRO PRIVATISATION IN RURAL AREA

- IN RURAL AREAS BECAUSE OF GEOGRAPHICAL DISPERSION FOCUSS ATTENTION FOR CUSTOMERS REDRESSAL AS WELL AS FOR COMMERCIAL SUSTAINABILITY IS ALMOST IMPOSSIBLE.
- APPOINTING “FRANCHISEES” FOR COMMERCIAL SUPPORT SERVICES IN BUNCH OF VILLAGES MAY BE THE IDEAL WAY IN THE LONG RUN FOR ECONOMIC VIABILITY OF THE RURAL AREAS.
- ENGAGED XAVIER INSTITUTE INITIALLY FOR IMPLEMENTATION
- THREE PHASE IMPLEMENTATION NEEDED WHICH CAN GRADUALLY COVER ALL THE RURAL AREA

REMUNERATION DETAILS

Rs. 1.50 PER CONSUMER FOR METER READING AND DISTRIBUTION OF BILLS (MONTHLY BILLING)

Rs. 2.00 PER CONSUMER FOR BILL COLLECTION. (NO. OF MONEY RECEIPTS)

INCENTIVE TO FRANCHISEE

FRANCHISEE EFFICIENCY= BILLING EFF. X COLLECTION EFF.

1. ZERO IF COLLECTION/ INPUT IS LESS THAN 35%
2. 1% OF COLLECTED AMOUNT(EC COMPONENT ONLY) IF FRANCHISEE EFFICIENCY IS AT 35% LEVEL.
3. ITEM NO. 2 ABOVE PLUS 7% OF INCREASED COLLECTION FROM 35% EFFICIENCY LEVEL IF FRANCHISEE EFFICIENCY FALLS BETWEEN 35% TO 50% LEVEL.
4. ITEM NO. 3 ABOVE PLUS 7.5% OF INCREASED COLLECTION FROM 50% EFFICIENCY LEVEL IF FRANCHISEE EFFICIENCY FALLS BETWEEN 50% TO 60% LEVEL.
5. ITEM NO.4 ABOVE PLUS 8% OF INCREASED COLLECTION FROM 60% EFFICIENCY LEVEL IF FRANCHISEE EFFICIENCY EXCEEDS FROM 60% LEVEL.

ACHIEVEMENT MADE (DEC' 02 – MAY' 03)

GODBHAGA FEEDER (BARGARH DIVISION)	INPUT (MU)	BILLED UNITS (MU)	% LOSS	BILLING (Rs. In Lakhs)	COLL.(Rs. in Lakhs)	% COLL.
PRIOR TO FRANCHISEE (TILL DATE)	2.476	1.012	59%	25.62	15.21	59%
AFTER FRANCHISEE (TILL DATE)	2.139	1.206	44%	29.19	20.45	70%
% INCREASE/ DECREASE	-16%	16%	-15%	12%	26%	11%

COLLECTION EFFICIENCY DURING MAY 2003 TOUCHED 85%

CUSTOMER SERVICE STANDARD

- INTRODUCED SERVICE VAN EQUIPPED WITH MOBILE PHONE & LADDER FOR IMMEDIATE HANDLING OF THE CONSUMER COMPLAINT.
- PRIOR INTIMATAION IS BEING GIVEN FOR ANY PROPOSED POWER INTURRUPTION.
- INTRODUCED SPOT BILLING MACHINES.
- IMPLEMENTED CHECKING GROUP HEADED BY A CHARTED ACCOUNTANT FOR CHECKING OF THE BILLS GENERATED BY COMPUTER AGENCY.
- IMMEDIATE SERVICE CONNECTION TO NEW CONSUMERS.
- GRIEVANCES CELL FORMED AT CORPORATE LEVEL FOR COMPLANCE OF CONSUMER GRIAVANCES.
- FORMED VILLAGE COMMITTEE FOR INVOLVEMENT OF LOCAL PEOPLE.

CONCLUSION

- REFORM IS THE KEY TO SUCCESS.

1. TO AVOID MONOPOLY
2. TO GIVE RELIABLE, UNINTURRUPTED SUPPLY TO CONSUMERS.
3. TO GIVE BETTER SERVICE TO THE CONSUMERS.
4. TO ADOPT NEW TECHNOLOGY IN THIS FIELD.
5. TO GET POWER AT COMPETATIVE PRICE.
6. BEING ELECTRICITY BILL 2003 PASSED IN PARLIAMENT, IT WILL BRING MORE PRIVATE PARTICIPATION IN ENERGY SECTOR.

SAVE POWER MORE POWER