

SOUTH ASIAN UTILIY STRATEGIES FOR RESTRUCTURING IN THE DISTRIBUTION SECTOR

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By

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CURRENT SITUATION

❖ State Owned Utilities :

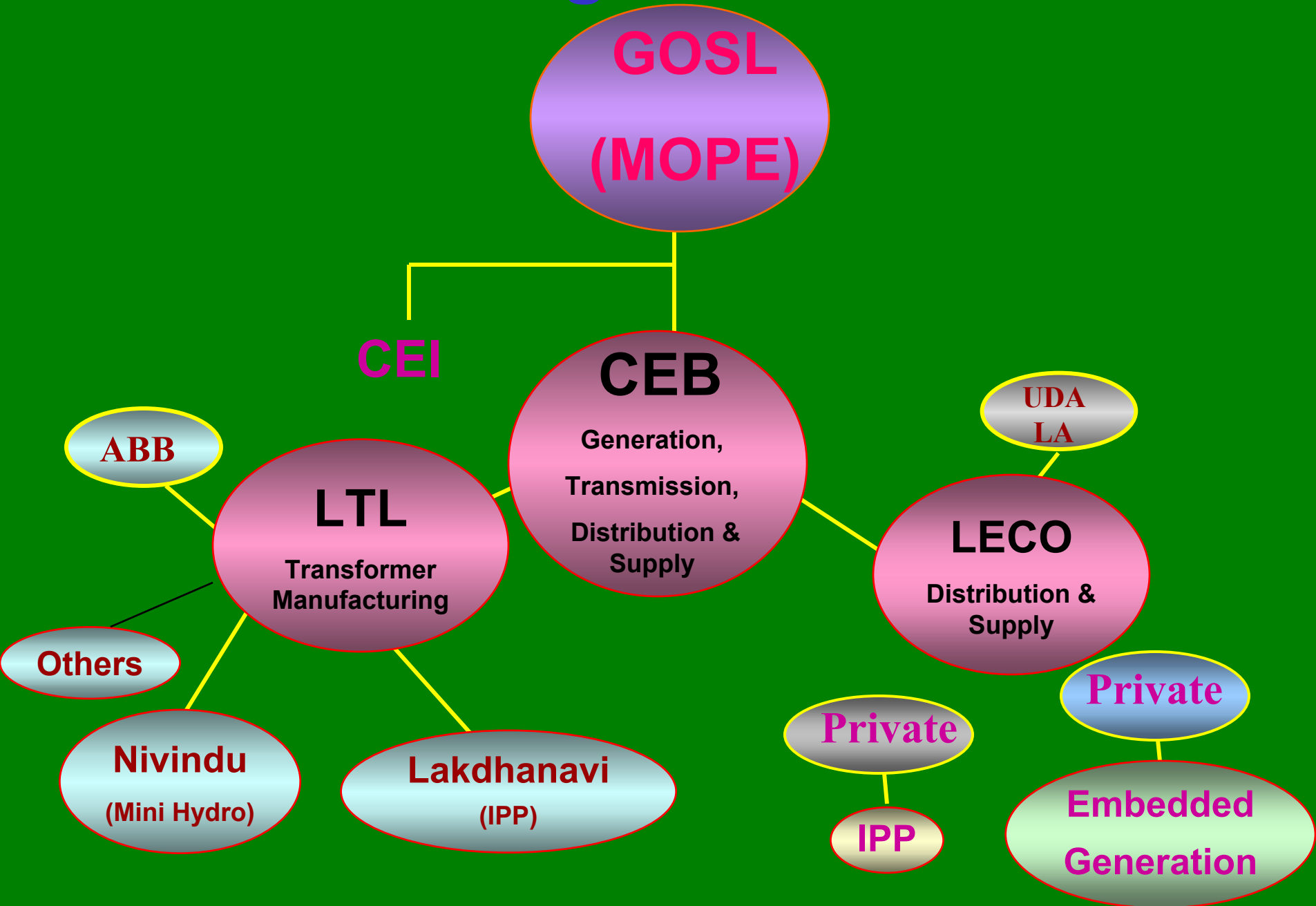
❖ Ceylon Electricity Board (CEB)

➤ Statuary Board

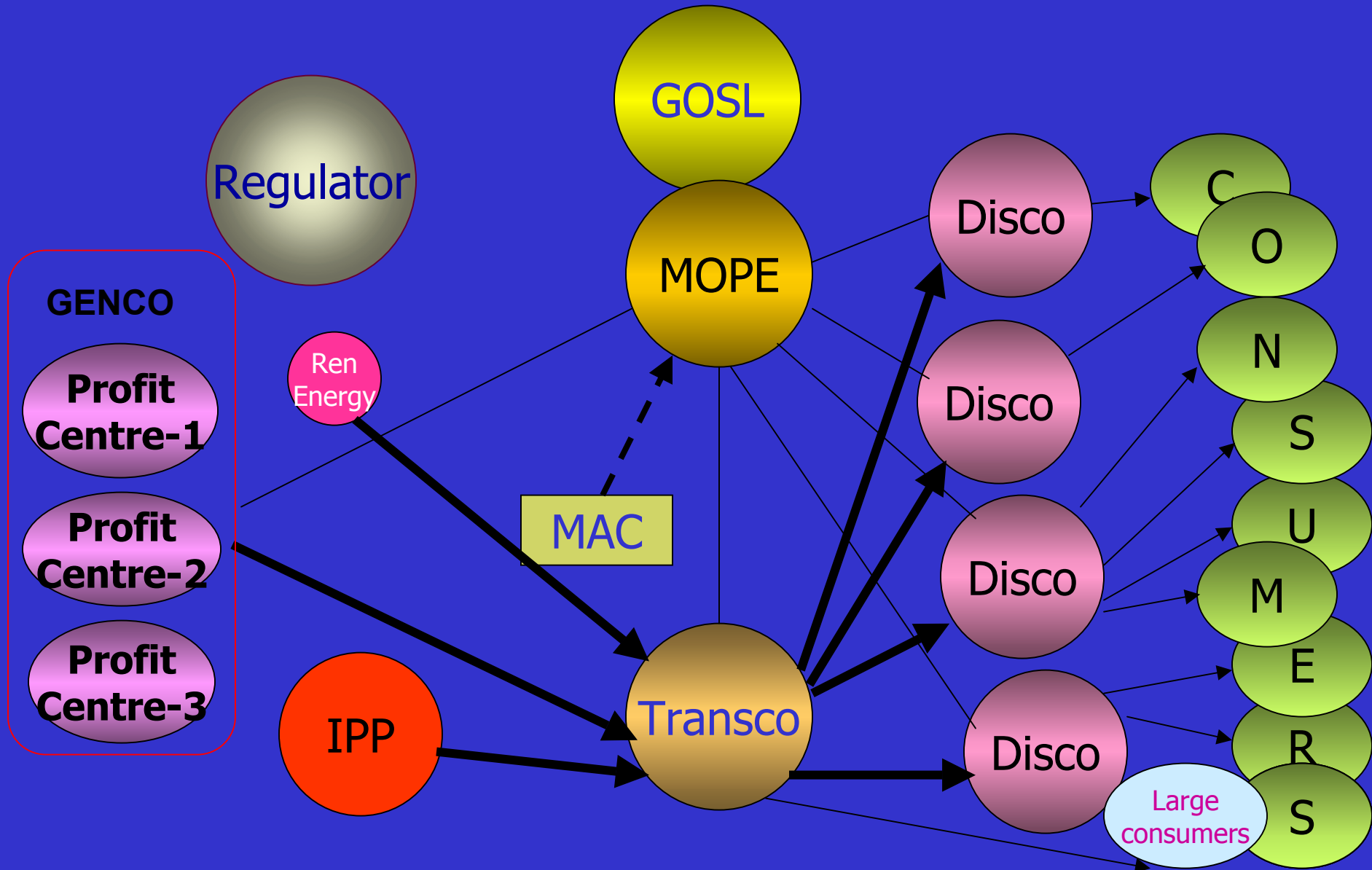
❖ Lanka Electricity Company (LECO)

➤ Government owned company

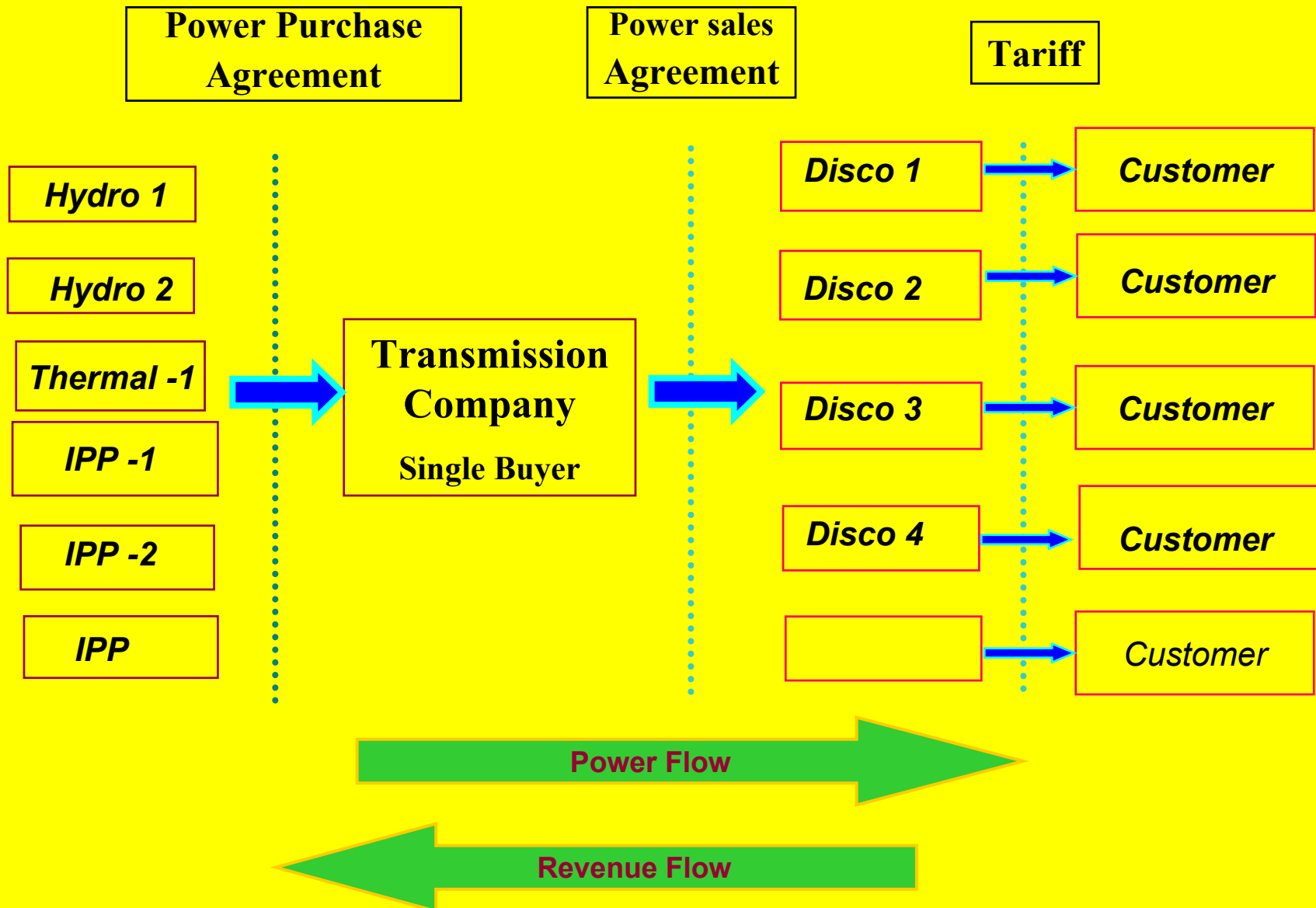
Existing Power Sector



Proposed Power Sector



Model Chosen for Sri Lanka



RESTRUCTURING IN THE DISRIBUTION SECTOR

❖ **Current Situation :**

Distribution by ;

❖ **Ceylon Electricity board (CEB)**

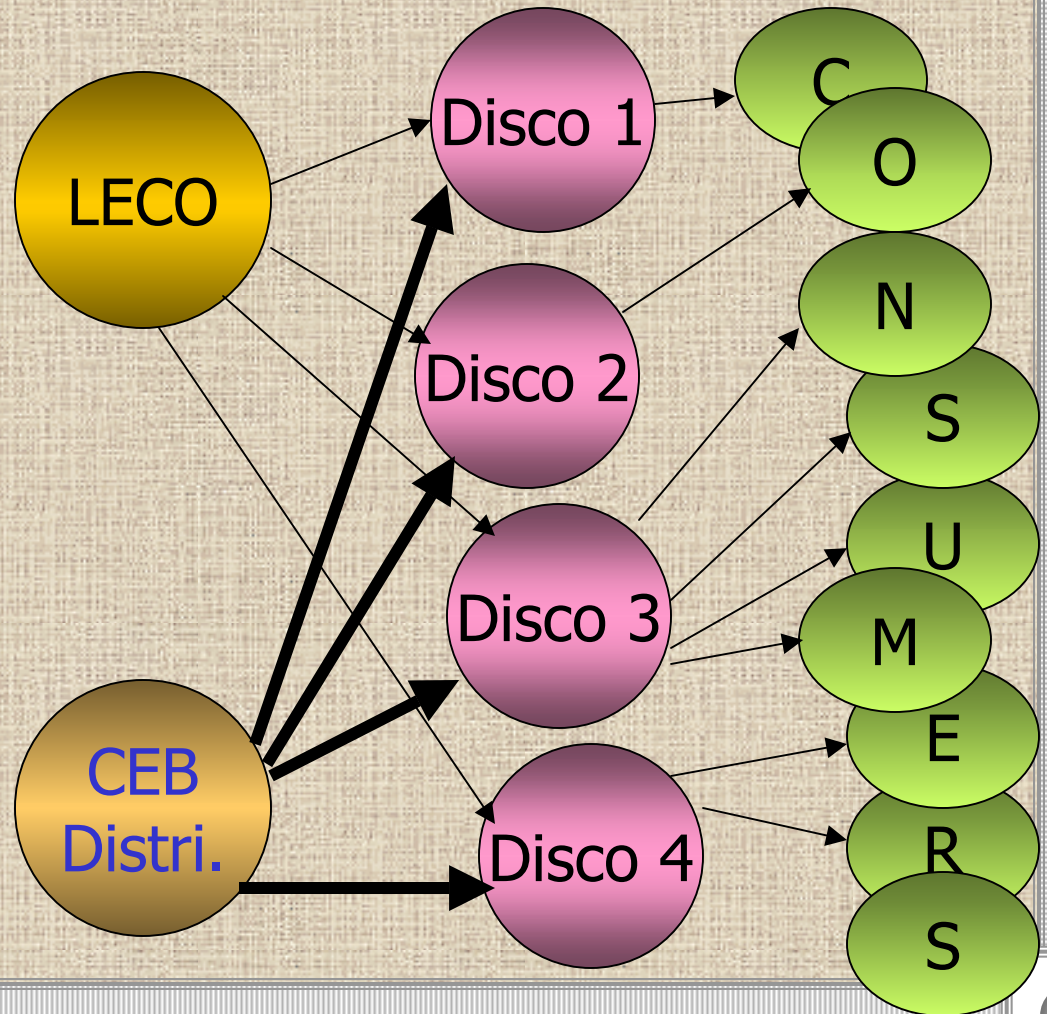
➤ **To 2,850,000 Consumers**

❖ **Lanka Electricity Company (LECO)**

➤ **To 366,000 Consumers**

PROPOSED RESTRUCTURED DISRIBUTION SECTOR

❖ **Four Distribution
Companies
amalgamating
CEB & LECO**





Objectives of the Restructuring

- ❖ *To make the power sector more efficient, more responsive to needs of the public, to enable quick responses*
- ❖ *To have the freedom to make decisions in relation to Recruitment, Procurement, access to finance etc*

CONCLUSION

If monopolistic structures are converted to competitive businesses,

Efficiencies could improve

Quality could improve

Prices would be lower

GOVERNMENT INVOLVEMENT IN THE RESTRUCTURING OF UTILITY

- *Electricity Reform Act No. 28 of 2002 has been passed by the Parliament in December 2002*
- *Public Utilities Commission (PUC) to be formed in July 2003*
 - *To act as the Economic, technical and safety regulator*
- *Monitoring & Advisory committee (MAC) to be Appointed*

Objectives of the Public Utilities Commission related to the Electricity Sector

- **to protect the interests of consumers in relation to the supply of electricity**
- **to secure that all reasonable demands for electricity are met**
- **to ensure that licensees acting efficiently**
- **to promote the efficient use of electricity**

Objectives of the Public Utilities Commission related to the Electricity Sector (contd.)

- **to protect the public from dangers**
- **to give effect to any guidance on environmental objectives**
- **to promote competition, where appropriate**

Functions of the Public Utilities Commission related to the Electricity Sector

- **to advise the Government**
- **to exercise licensing, regulatory and inspection functions**
- **to approve technical and operational codes and standards**
- **to regulate tariffs and other charges levied by licensees**
- **to publish a statement setting out the rights and obligations of consumers**

Functions of the Public Utilities Commission related to the Electricity Sector (contd.)

- **to collect and record information**
- **to set and enforce technical and other standards**
- **to promote the efficient use, and conservation, of electricity**
- **to prepare a regulatory manual**
- **to consult, any person or group of persons who may be affected, or are likely to be affected, by the decisions of the Commission**

GOVERNMENT INVOLVEMENT IN THE RESTRUCTURING OF UTILITY

- *Major functions of Monitoring & Advisory committee (MAC)*
 - **Recommendation to the Minister on the appointment / removal of directors**
 - **Reviewing of the Statement of Corporate intent (SCI) & forwarding recommendations**
 - **Monitoring the financial & operational performance**
 - **Advising the Minister on the exercising his powers in the event of failing to meet objectives & targets**

STEPS LECO HAS TAKEN TO FACE THE RESTRUCTURING OF DISTRIBUTION SECTOR

❖ Data Management

- **System Loss figure**
- **System Reliability Indices - SAIDI, SAIFI, MAIFI**
- **Fault analysis**

❖ Management with Indicators

- **Competition among Branch Offices**
- **Competition among CSCs within the Branch**

❖ Customer Oriented

- **Service guarantees**

STEPS LECO HAS TAKEN TO FACE THE RESTRUCTURING OF DISTRIBUTION SECTOR

❖ Bill Collection at private collecting centres

- All Collecting Centres are linked to the Branch Office Server, Payment data transfer via telephone line. (data entry through POS machine)**

❖ RMR & Spot Billing

- ❖ RMR for bulk consumers has been introduced. Still in the preliminary stage**
- ❖ Pilot project for the spot billing by HHU has been completed. Expected to implement soon.**

STEPS LECO HAS TAKEN TO FACE THE RESTRUCTURING OF DISTRIBUTION SECTOR

❖ Distribution Automation (DA)

- **Equipment & software are installed. Pilot operation is underway for remote operation.**

❖ New IT solutions for

- ❖ **Customer Support**
- ❖ **Materials management**

❖ GIS & GPS

❖ Energy Management Report (EMR)

STEPS LECO HAS TAKEN TO FACE THE RESTRUCTURING OF DISTRIBUTION SECTOR

❖ **System Loss Reduction:**

❖ **Current loss figure - 6.13 %**

(12 month average – From 33/11 PSS downward only)

❖ **How we achieved**

➤ **Technical Loss Reduction**

- **Network upgrading**
- **Optimizing Transformer loading**
- **Optimizing Conductor loading**

➤ **Non Technical Loss Reduction**

❖ **System Loss Reduction: Contd....**

❖ **Non Technical Loss Reduction :**

➤ **Close monitoring and Inspection of**

- ✓ **Bulk consumer meters with abnormal consumption**
- ✓ **Non moving meters**
- ✓ **Meters which used to be tampered**
- ✓ **Distribution Transformer areas with high loss figures and carry out loss reduction programme**
- ✓ **Periodic testing of meters**

❖ System Reliability :

❖ SAIDI

Year	Faults	Planned	Total
2001	7.04	19.45	26.49
2002	6.61	17.28	23.89
2003(up to May)	4.00	6.78	10.78

❖ SAIFI

Year	Faults	Planned	Total
2001	12	5	17
2002	9	5	14
2003(up to May)	4	0	4

❖ MAIFI 41 Up to May 2003

❖ **Fault analysis :**

❖ **Average restoration time :**

❖ **Service calls - 0.7 hrs**
(For June 2003)

❖ **No. of service calls / 1000 cons**

❖ **8 (For June 2003)**

❖ **Management with Indicators :**

❖ **Competition among Branch Offices**

Leading Performing Branch November 2002

This monthly award is presented to the leading performing Branch of LECO, the criteria for selection being the performance statistics obtained from the management information system. This award in no way implies that the recipient Branch is the best performer. The best performer will be selected once the criteria for such selection are established.

1 Cost Control

		Unit of measure	Kotte		Kelaniya		Moratuwa		Galle		Kalutara		Negombo		Scoring Scheme
1.1	Office employees/consumers	no / k-consumer	1.08	4	1.23		1.25		1.27		1.23		1.19		4
1.2	Field employees/consumers	no / k-consumer	1.98		2.02		2.15		2.24		1.97	4	2.34		4
1.3	Wages(D) / Employee	Rs.	17,005		17,485		17,947		14,943		17,141		14,870	4	4
1.4	OT / Employee	Rs.	4,869		4,067		3,803		2,643	4	3,619		3,934		4
1.5	Fuel Cost / Vehicle	Rs.	5,478		4,941	4	5,661		6,316		9,105		6,923		4
1.6	Maintenance Cost / Vehicle	Rs.	2,750		2,020		2,864		1,321	4	3,237		7,051		4
Total marks				4		4		0		8		4		4	

2 Debt Control

2.1	Debtors / Sales	months	1.18		0.84		0.64	6	0.68		1.14		1.01		6
2.2	Debt (Period 1-4) / tot. debts	% ytd	50%	6	52%		56%		53%		52%		62%		6
2.3	No.of Disconnections	no / k-consumer	0.00		0.00		0.00		0.00		0.00		0.00		6
2.4	Recovery of damages / tot.dama	% ytd	15%		19%		64%		68%	2	38%		63%		2
Total marks				6		0		6		2		0		0	

3 Efficiency of Breakdown Services

3.1	No. of 11kV failures	No / km	0.21		0.25		0.11		0.14		0.05	1	0.39		1
3.2	No. of LV failures	No / km	0.021	1	0.038		0.028		0.05	2	0.046		0.064		1
3.3	S A I D I - LECO failures	Hrs/consum/mt	4.52		1.57		1.55	2	9.88		4.51		1.90		2
3.4	Avg.Restor. time per service call	Hrs / no.of calls	0.51		0.46		0.48		0.83		0.47	2	0.67		2
3.5	Total Planned Outage Time/km	Hrs / km	0.35		0.08	2	0.09		0.12		0.18		0.22		2
Total marks				1		2		2		2		3		0	

4 Revenue

4.1	Energy Loss (12 mth moving)	%	8.64	4.79	6.14	6.98	3.37	5	4	5
4.2	Billing Errors	no / k-consumer	12	11	4	3.5	4		3	4
4.3	No of Distribution Substations	%								
	% loss 0 < L < 10		74%	82%	93%	4	58%	71%	66%	4
4.4	No of Distribution Substations	%								
	voltage outside (230v +/- 6%)range		6%	1%	4	3%	30%	25%	4%	4
Total marks			0	4	4	0	5	4		

5 System Development

5.1	11 kV Lines constructed YTD / Plan	%	135%	5	24%	70%	37%	81%	101%	5	
5.2	LV Lines constructed YTD / Plan	%	170%	5	64%	76%	78%	86%	40%	5	
5.3	Serv.Conn.within 5 days of payment	% month								5	
	no. who paid for estimates		53%	78%	70%	71%	41%	86%	5		
5.4	GPS Data Collection	no.of s/s / mth.	9	2	8	complete	2	8	0	complete	2
Total marks			12	0	2	0	0	7			

6 Marketing

	No of power factor Correction Capacitors Sold	no	2	10	0	0	0	0	0	10
Total marks			10	0	0	0	0	0		

Total marks obtained by each Branch Kotte **33** Kelaniya **10** Moratuwa **14** Galle **12** Kalutara **12** Negombo **15** 96

According to the scoring scheme **KOTTE** Branch has scored the highest number of points. Hence **KOTTE** Branch is declared the leading performing LECO BRANCH OF THE MONTH OF NOVEMBER 2002.

Operations Manager

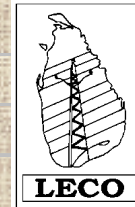
❖ **Management with Indicators :**

- ❖ **Competition among Customer Service Centres (CSCs) within the Branch Office**

LEADING PERFORMING - CUSTOMER SERVICE CENTRE

January-03

GALLE BRANCH



1. COST CONTROL

	Unit of Measure	GL CSC	HK CSC	AB CSC	
1 Employees(CSC)/Consumers	No/k-Consumers	2.65	3.02	2.43	2
2 Office Employees/CSC	Nos/CSC	5	3	3	1
3 Wages (D)/Employees	Rs.	13,860	14,210	14,196	2
4 OT/Employees	Rs.	3,192	2,970	2,563	2
5 OT/Basic Salary	%month	23%	21%	18%	2
6 No payman days per employee	Days/Employee	-	-	-	
7 Fuel Cost/Vehicle (Excl.Crane &Bucket)	Rs.	7,701	6,531	5,557	3
8 Maintenance Cost/Vehicle (Do)	Rs.	2,610	657	200	2
9 Cost of wayleave HV and LV YTD	Rs/kM	-	139	185	3
10 Maintenance Material Cost YTD	Rs/kM	1,091	1,101	196	2
11 Material stock level belows pecified minimum	Rs.	4,975,548	1,615,428	4,006,712	2
Sub Total			5	3	14

2. SYSTEM MAINTENANCE

1 Av g.Restrorastion time per serv ice call	Hrs/No of call	0.62	0.63	0.58	3
2 No of 11kv Failures	No/km/month	0.09	0.10	0.07	3
3 No of LV Failures	No/km/month	0.08	0.07	0.08	2
4 Line Patrolling HV YTD % of line length	%	14.5%	14.8%	20.0%	3
5 Line Patrolling LV YTD % of line length	%	7.9%	11.6%	10%	2
6 Wayleaves Clearing-HV YTD % of Line length	%	0.0%	9.4%	14.2%	3
7 Wayleaves Clearing-LV YTD % of Line length	%	2.2%	12.4%	13%	2
8 No of Distribution Substations with v oltage outside (230V +/-6%) range	%to total	21%	8%	72%	3
9 No of safety meeting held	No/month	2%	6%	0%	2
10 No of accidents	No/month	0	0	0	
11 No of safety v iolation & v iolation of dress code	No/month	0	0	0	
Sub Total			2	9	14

3. REVENUE

1	Energy Loss-12mth moving average for distribution	%	7%	4%	4	8%	
2	Billing errors	No/k-Con	7.40	4.64	4	5.70	
3	No of Unbilled Consumers	Nos	1	11	4	11	
4	No of Distribution Substation with %loss 0<L<5	%	12%	32%	3	17%	
5	No of Substations with Negative loss	%	23%	6%	2	11%	
6	New connections unbilled for more than 2 months	Nos	1	1	1	4	
7	No of Disconnection orders executed	No/D-Orders	0.51	0.96	2	0.73	
8	No of detections of theft of electricity	Nos/month	0	0		0	
Sub Total					5	16	0

4. SYSTEM DEVELOPMENT

1	11Kv Lines constructed YTD % of P lanned	%	0%	0%		0%	
2	LV Lines constructed YTD % of P lanned	%	5.8%	1%	3	2%	
Sub Total					3	0	0

5. CUSTOMER SATISFACTION

1	Estimates furnished within 5 Days/ Tot. applications received	%month	26%	93%		100%	4
2	Serv. Connec. within 5 days payment/no of who paid for estimates	%month	61%	85%		92%	4
3	Meters tested within 5 days/ Tot. Requests after payment	%month	25%	0	2	0%	2
4	No of consumer complains received by BM and CSM during the month	Nos	9	4		1	2
Sub Total					0	2	12

6. PREMISES

1	Premises and Garden Maintenance				3		
Sub Total					0	3	0

Total Marks obtain by each CSC

GL 15

HK 33

AB 40

According to the scoring scheme **Ambalangoda CSC** has scored the highest number of points. Hence **Ambalangoda CSC** is declared the leading performing CSC of the Galle Branch for the month of January 2003.

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BRANCH MANAGER

Copy to : OM

❖ **Customer Oriented :**

❖ **Service guarantees :**

- ✓ **Estimates within 14 Days**
- ✓ **Supply is given within 14 days after the payment**
- ✓ **Meter Testing within 14 days after the payment**
- ✓ **Voltage Improvement within 12 weeks**

❖ **Customer satisfaction Survey :**

- ✓ **Collect customer responses responses after attending to service calls / break downs etc**

July 15, 2003

To: Customer Services Manager

REPORT ON NON-COMPLIANCE WITH PERFORMANCE ASSURANCES - GALLE BRANCH

Month : June '03

C.S.C	Estimate within 14 days (X)		Supply given within 14 days after the payment (Y)		Meter testing within 14 days after the payment (Z)		Voltage improvement within 12 weeks (T)	
	No. received	Not achieved	Payment made no.	Not achieved	Payment made no.	Not achieved	Date identified	Not achieved
	Galle	130	1	65	2	-	-	-
Hikkaduwa	23	1	27	-	2	-	-	-
Ambalangoda	50	7	51	1	-	-	-	-

Application Ref. No.	Reason for not achieved	Application Ref. No.	Reason for not achieved
(X) GL/03/06/02/01	D' Notice issued	(Y) GL/03/02/25/03	Incomplete internal wiring
HK/03/06/30/02	Incomplete internal wiring	GL/03/03/25/01	- do -
AB/03/06/23/04	Incomplete internal wiring	AB/03/04/10/02	Incomplete internal wiring
AB/03/06/30/04	- do -		
AB/03/06/23/06	D' Notice issued		
AB/03/06/23/07	- do -		
AB/03/06/23/08	- do -		
AB/03/06/30/03	- do -		
AB/03/06/30/02	Could not find the place		

BRANCH MANAGER - GALLE

❖ **Revenue Collection :**

❖ **Debt to Sales Ratio = 1.05**

❖ **Billing :**

❖ **Billing Errors = 0.6%**

THANK YOU.....