PERFORMANCE EVALUATION REPORT OF DISTRIBUTION COMPANIES & K-ELECTRIC (2013-14)

(With a Comparison of 2012-13, 2011-12 & 2010-11)

As Per

Performance Standards (Distribution) Rules (PSDR)-2005

NATIONAL ELECTRIC POWER REGULATORY AUTHORITY

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INTRODUCTION

1. INTRODUCTION

In exercise of the powers conferred by Section 46 of the Regulation of Generation, Transmission and Distribution of Electrical Power Act, 1997 (XL of 1997), read with Section 34 thereof, the National Electric Power Regulatory Authority, with the approval of the Federal Government has made the Performance Standards (Distribution) Rules notified vide S.R.O.45(I)/2005 dated 11th January, 2005.

As per rule 7 of Performance Standards (Distribution) Rules 2005, each Distribution Company has to supply to the Authority an Annual Performance Report every year, before the 31st of August of the succeeding year in the Forms as set out in the Annexure-I to these rules.

The Annual Performance Report should include as a minimum the following information, namely as per rule 7(3):-

(a) System Performance Reports:
The format for reporting performance is shown in Performance Standards Forms as set out in Annexure-I to these Rules.

(b) Consumer Service Performance Reports:
The format for reporting performance is shown in Performance Standards Forms as set out in Annexure-I to these Rules.

(c) Distribution Companies Written Report on Performance and Plans for Improvement:
This should be in the distribution company's own style but concentrating on:-

i. Reasons for any poor performance against standards;
ii. Worst served consumers;
iii. Worst performing circuits;
iv. Plans to improve the reported poor performance areas related to geography, investment plans or organizational change; and
v. Expected performance improvements as a result of any investment.

Rule 7(2) of Performance Standards (Distribution) Rules-2005 (PSDR) states that the Annual Performance Report should also contain all relevant information with respect to compliance with these Rules during the year, including a comparison with the compliance reported to Authority for the previous year.

As per Rule 8 Monitoring of Standards of Performance Standards (Distribution) Rules-2005, the Authority shall periodically monitor the compliance of each distribution company with these rules and may require the distribution company to undertake a performance audit at the distribution company's expense, for the purpose of monitoring the same.

Through efficient & effective coordination, the Annual Performance Reports from all Distribution Companies (i.e. IESCO, PESCO, GEPCO, FESCO, LESCO, MEPCO, QESCO, SEPCO, HESCO KEL, BTPL and TESCO) for the year 2010-11, 2011-12, 2012-13 & 2013-14 were obtained. For this purpose, regular interactive meetings at NEPRA Offices were held. (The year or annual means the period of twelve months beginning on the 1st July and ending on the 30th June).

This Analysis Report depicts the entire picture of power sector through the performance of all Distribution Companies (DISCOs), analysis and evaluation of every parameter through description & graphical representation for individual DISCO comprising of the reported data for last four years. Further, Comparison has also been made between key factors of the data of all DISCOs & KEL through tables & graphs. At the end recommendations based on findings have been incorporated.

In the analysis part of every DISCO, data provided by each DISCO and KEL for the last four years has been evaluated along with relevant tables indicating following parameters:-

- Transmission & Distribution Losses,
- Recovery in percentage,
- Number of consumers served by DISCO in a year,
- Total annual number of consumer power supply interruptions,
- Aggregate sum of all consumer power supply interruptions (duration in minutes),
- System average Interruption Frequency Index (SAIFI), which is a measure of how often an average customer loses supply during one year. A SAIFI of 13means that the average customers connected to the feeder or supply area being measured on average lost supply thirteen times during the past 12months.
- System Average Interruption Duration Index (SAIDI), which is commonly known as "average customer minutes off supply" and is reported over a one –year period. A SAIDI of 200minutes means that customers connected to the feeder or supply area being measured, experienced in average 200minutes off supply in 12months.
- Total number of consumers who applied for connection,
- Total number of consumers who were not given connections in permitted time period,
- Percentage consumers who were not given connection in permitted time period,
- Total number of consumers who made complaints about Voltage,
- Average duration of load-shedding (hrs),
- Total complaints received by DISCO during the year,
- Total length of Distribution System Network (Km),
- Total number of distribution system faults,
- Faults/km of distribution system,
- Electrical incident resulting in death or permanent serious injury/disability to the member of staff or public.

Graphical Representation of key factors of all Distribution Companies gives the overall view of major parameters related to:-

- Transmission & Distribution Losses
- Recovery in percentage
- System Average Interruption Frequency Index (SAIFI)
- System Average Interruption Duration Index (SAIDI)
- Time Frame for New connection,
- Average Duration of Load-Shedding
- Complaints
- Safety (Fatal Incidents)
- Fault Rate i.e. (Total Number of Faults/Total length of Distribution System Network (Km).

After the analysis of each DISCO based on their reported data, findings/recommendations have been provided.

ANALYSIS OF EACH DISTRIBUTION COMPANY & K-ELECTRIC BASED ON THEIR ANNUAL PERFORMANCE REPORTS

2. ISLAMABAD ELECTRIC SUPPLY COMPANY (IESCO)

2.1 Introduction:

IESCO jurisdiction is expanded to total area of 23,160 sq. km and it facilitates total number of 2.26 million consumers (residential, industrial, commercial etc.) in the districts/areas of Attock, Taxila, Pindigheb, Rawalpindi and Jhelum. Total peak demand is 2087 MW.

2.2 Parameters Evaluation:

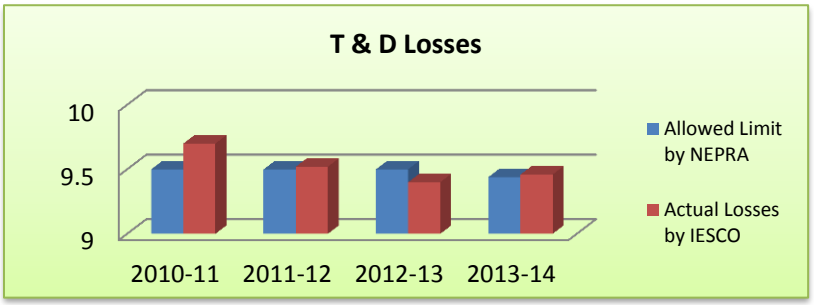
2.2.1 Transmission & Distribution (T&D) Losses:

Table-2.1 & Graph-2.1 indicate that IESCO overall system losses have been slightly increased in 2013-14 as compared to 2012-13 and financial impact comes out to be approximately Rs 15 millions.

From performance rating point of view, IESCO is almost meeting the expectations of Regulator. To be world class utility company, IESCO needs to do more in respect of reduction in losses irrespective of the targets set by regulator.

Years	Allowed limit by NEPRA (%)	Actual T&D Losses (%)
2010-11	9.5	9.7
2011-12	9.5	9.52
2012-13	9.5	9.40
2013-14	9.44	9.46

Table-2.1



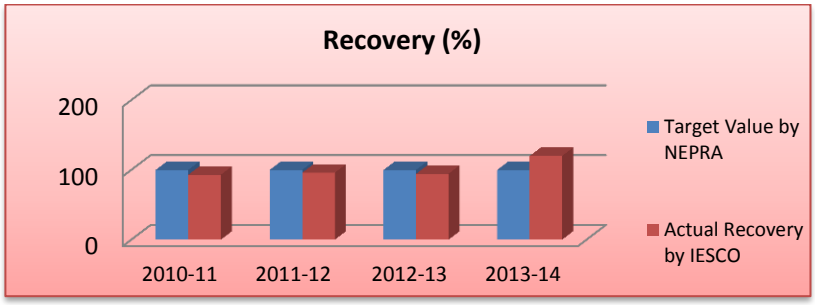
Graph-2.1

2.2.2 Recovery:

Comparison of IESCO's recovery shows that it is much better as compared to 2012-13 and exceeded 100%. This reveals good performance of IESCO towards recovery, but the matter has been taken with IESCO for diagnosing the actual cause of exceeding 100%.

Years	Target value by NEPRA (%)	Actual Recovery (%)
2010-11	100	93
2011-12	100	96
2012-13	100	94.4
2013-14	100	120

Table-2.2



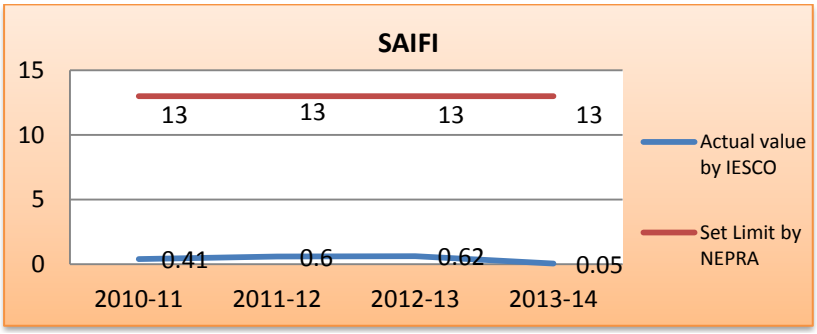
Graph-2.2

2.2.3 System Average Interrruption Frequency Index (SAIFI):

Table-2.3 indicates that IESCO is meeting the expectations of regulator. Here the question arises whether the reported data is being maintained properly by IESCO or otherwise.

Years	Total number of consumers served by IESCO	Total annual number of power supply interruptions	SAIFI (3)=(2)/(1)	SAIFI (Set limit by NEPRA)
	(1)	(2)	(3)	
2010-11	2,094,299	857,621	0.41	13
2011-12	2,206,006	1,305,999	0.60	13
2012-13	2,260,203	1,391,792	0.62	13
2013-14	2,342,241	120,949	0.05	13

Table-2.3



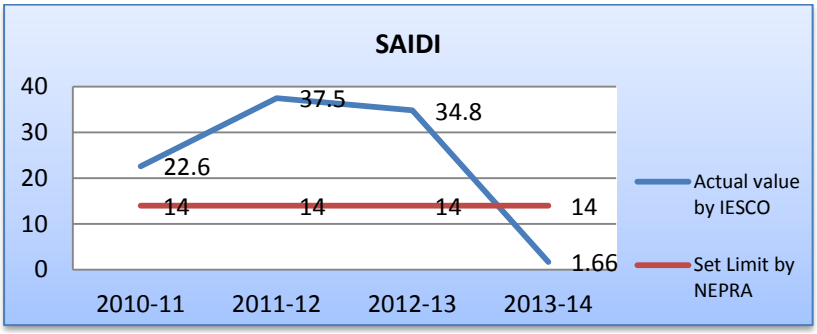
Graph-2.3

2.2.4 System Average Interruption Duration Index (SAIDI):

The reported data from the Table2.4 indicates that IESCO has met the targets set by regulator.
The value of SAIDI from 34.8 to 1.66, just in a period of 01 year needs to be further diagnosed that what measures/steps have been taken by IESCO to achieve the target.

Years	Total Number of consumers served by IESCO	Agg.sum of all consumers power supply interruption duration (Min)	SAIDI (3)=(2)/(1)	SAIDI (Set limit by NEPRA)
	(1)	(2)	(3)	
2010-11	2,094,299	47,380,746	22.6	14
2011-12	2,206,006	82,736,301	37.5	14
2012-13	2,260,203	78,663,777	34.8	14
2013-14	2,342,241	3,886,042	1.66	14

Table-2.4



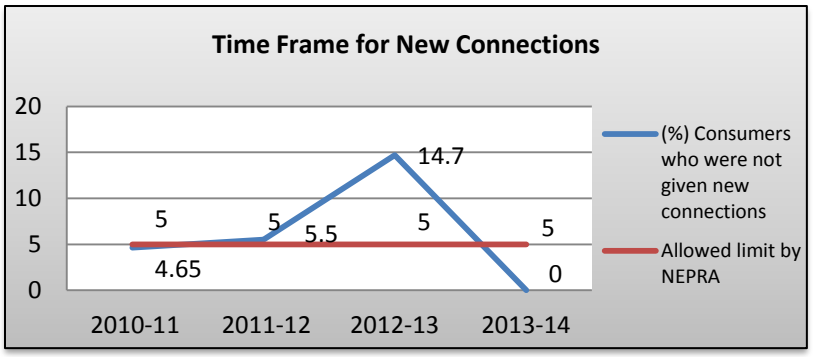
Graph-2.4

2.2.5 Time Frame for New Connections (% of consumers who were not given new connections):

It is noted that the reported data of IESCO shows that in year 2013-14 all consumers who applied for new connections were given new connections within the time frame as specified in Performance Standards (Distribution) Rules – amendment 2011, where-as in 2012-13, 14.7 % connections were not provided against 5% allowed by regulator.

Years	Consumers applied for new connection	Consumers who were not given connections in permitted time	Consumers who were not given new connections (%)
2010-11	81,118	3,779	4.65
2011-12	84,711	4,640	5.5
2012-13	86,566	12,735	14.7
2013-14	70,850	0	0

Table-2.5



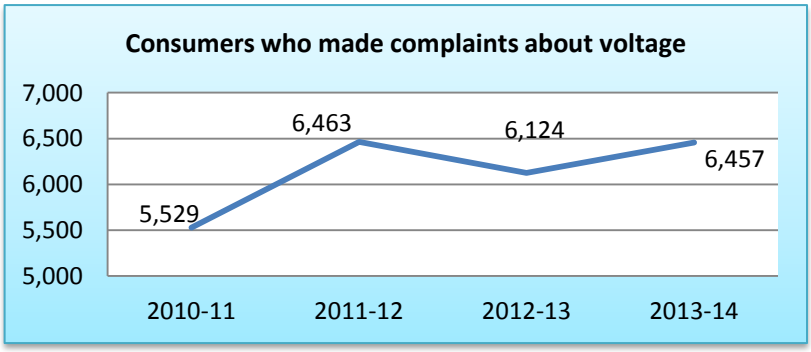
Graph-2.5

2.2.6 Nominal Voltage:

Table 2.6 shows that number of consumers who made complaints about voltage variations has been increased up to 5% in year 2013-14 as compared to year 2012-13. This shows poor performance of IESCO towards maintenance works & it shows that IESCO is not utilizing proper funds for O&M purpose.

Years	Total number of consumers	No of consumers who made complaints about voltage	(%) Increase/Decrease in number of complaints
2010-11	2,094,299	5,529	-
2011-12	2,206,006	6,463	+14.5
2012-13	2,260,203	6,124	-5.2
2013-14	2,342,241	6,457	+5.1

Table-2.6



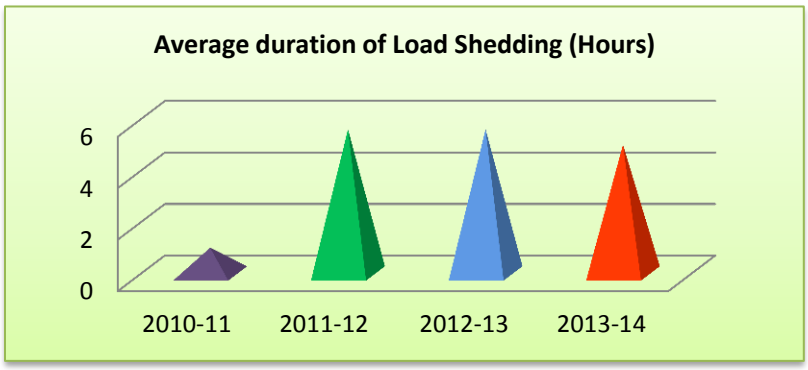
Graph-2.6

2.2.7 Load Shedding:

In view of Table 2.7, it is noted that IESCO has done averagely 5 hours load shedding on daily basis, although, it is slightly less as compared to 2012-13.Here the need of diagnostic of implementation of load-shedding plans, as per requirements of Rule 4 (f) of PSDR also arises & for this IESCO has been directed accordingly.

Years	Average duration of Load Shedding (Hours)
2010-11	1
2011-12	5.6
2012-13	5.6
2013-14	5

Table-2.7



Graph-2.7

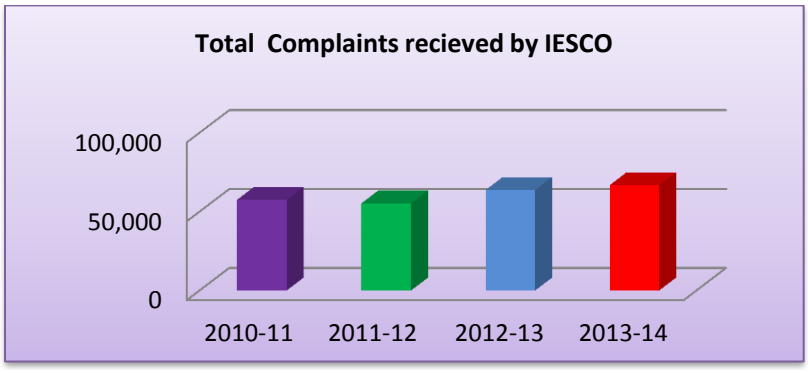
2.2.8 Consumer Service - Complaints:

Table 2.8 indicates that the total number of complaints against IESCO iro price of electricity, reliability of supply, planned interruptions, supply voltage level, new connection, safety & other have been increased 5% in year 2013-14 as compared to 2012-13 and the trend also shows that these are gradually increasing over the period as provided in table.

It is very strange that complaints of IESCO are increasing where-as IESCO has shown improvement in SAIFI & SAIDI.

Years	Total Complaints received by IESCO
2010-11	57,421
2011-12	55,214
2012-13	63,712
2013-14	66,739

Table-2.8



Graph-2.8

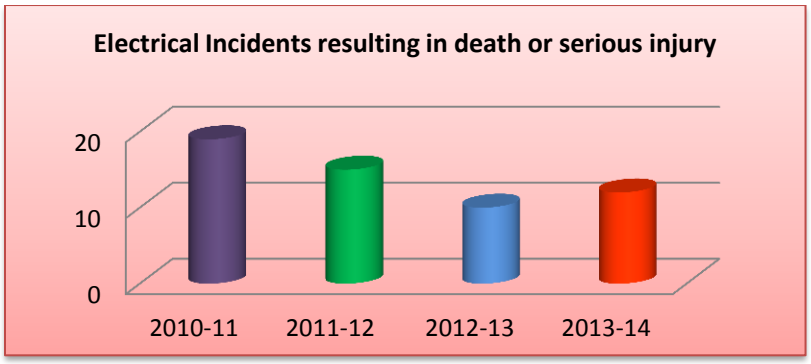
2.2.9 Safety (Fatal Incidents):

After observing the safety incident reports, it is noted with concern that the number of fatal incidents have increased in year 2013-14 as compared to 2012-13.

This gives the message that IESCO needs a lot of improvement in Safety Concerns and the relevant Safety Rules & Standard Engineering practices are required to be properly implemented.

Years	Electrical Incidents resulting in death or permanent serious injury to member of staff or public
2010-11	19
2011-12	15
2012-13	10
2013-14	12

Table-2.9



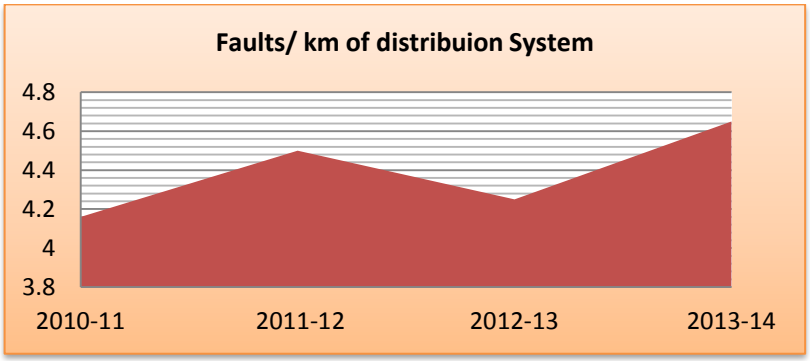
Graph-2.9

2.2.10 Fault Rate (No of Faults/Km)

From the table-2.10, it is surprising that fault rate of IESCO has increased from 4.25 to 4.65 in 2013-14, whereas IESCO has shown improvement in SAIFI & SAIDI.

Years	Total length of distribution system in Service (km)	Total No. of Distribution system faults	Faults/km of Distribution System
2010-11	50917	211,659	4.16
2011-12	51,833	233,929	4.5
2012-13	52,654	224,058	4.25
2013-14	53,066	246,893	4.65

Table-2.10



Graph-2.10

3. PESHAWAR ELECTRIC SUPPLY COMPANY (PESCO)

3.1 Introduction:

PESCO jurisdiction is expanded to total area of 74,521 sq. km and it facilitates total number of 2.69 Million consumers (residential, industrial, commercial etc.) of all civil districts of KPK. Total peak demand is 3308 MW.

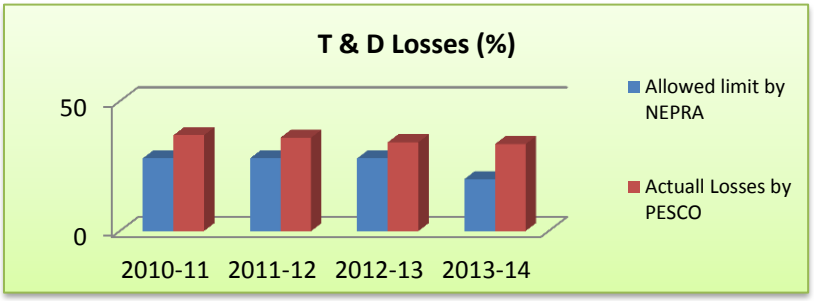
3.2 Parameters Evaluation:

3.2.1 Transmission & Distribution (T&D) Losses:

Table-3.1 & Graph-3.1 show that PESCO's T&D losses have been decreased in year 2013-14 as compared to 2012-13 with a slight difference. Even, PESCO's actual losses are far away from NEPRA's set target, hence, from performance rating point of view, PESCO have not met regulator's expectations. By comparing the difference between given target & actual losses, it is 13.5% & subsequently financial impact comes out to be around 10.125 billion rupees.

Years	Allowed limit by NEPRA (%)	Actual T&D Losses (%)
2010-11	28	36.9
2011-12	28	36
2012-13	28	34.2
2013-14	20	33.5

Table-3.1



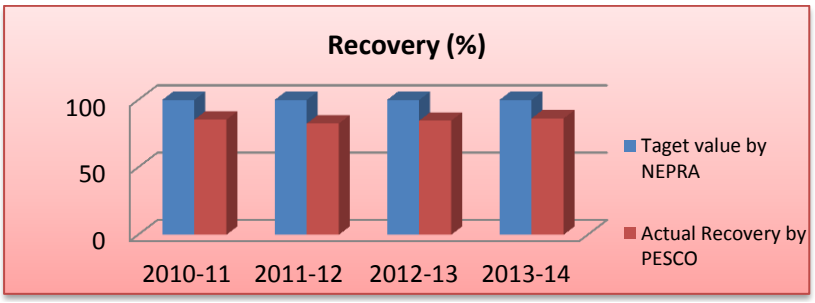
Graph-3.1

3.2.2 Recovery:

Comparison of PESCO's recovery graph shows a little decrease year 2013-14 as compared to previous years. PESCO could have recovered more than this by applying good governance strategies. PESCO should improve its recovery, and play a role in overcoming a national issue i.e. Circular Debt.

Years	Target value by NEPRA (%)	Actual Recovery (%)
2010-11	100	85.4
2011-12	100	82.5
2012-13	100	84.6
2013-14	100	86.3

Table-3.2



Graph-3.2

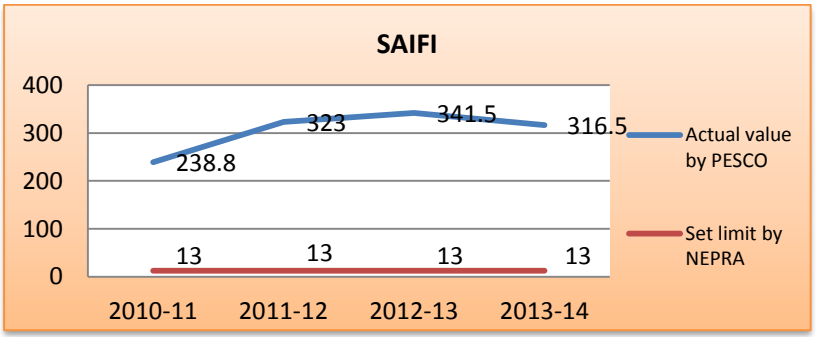
3.2.3 System Average Interruption Frequency Index (SAIFI):

In view of Table-3.3, PESCO's performance is very clear that they crossed SAIFI limit, and shows their non-serious behavior towards improvement of their performance.

It has been observed that PESCO is not implementing its own distribution code, which covers all possible solutions of all distribution network problems. Overall, from rating point of view, PESCO does not meet regulator's expectations. Here, question arises that what steps towards the improvement of system have been taken by PESCO, as 534 million rupees were allowed during 2013-14 for O&M purpose.

Years	Total Number of consumers served by PESCO	Total annual number of power supply interruptions	SAIFI (3)=(2)/(1)	SAIFI (Set limit by NEPRA)
	(1)	(2)	(3)	
2010-11	2,459,330	587,275,327	238.8	13
2011-12	2,542,747	821,123,054	323	13
2012-13	2,530,655	864,386,357	341.5	13
2013-14	2,588,473	819,134,634	316.5	13

Table-3.3



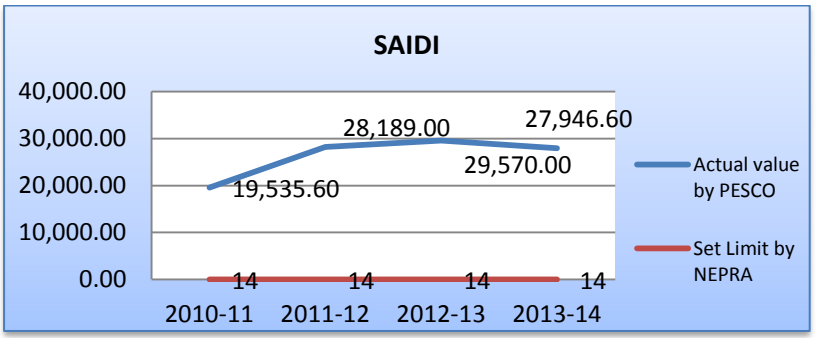
Graph-3.3

3.2.4 System Average Interruption Duration Index (SAIDI):

Same case regarding SAIDI, as NEPRA allowed limit is 14 min but PESCO SAIDI value is 27,946, which is very high as compared to Regulatory expectations. It seems no proper utilization of O&M funds & investment amounts by PESCO in this regard. Important point is that PESCO got 10% more amount in respect of O&M & 28% more in respect of Investment amounts in year 2013-14 as compared to 2012-13 but their improvement towards SAIFI & SAIDI is not significant.

Years	Total Number of consumers served by PESCO	Agg.sum of all consumers power supply interruption Duration (Min)	SAIDI (3)=(2)/(1)	SAIDI (Set Limit by NEPRA)
	(1)	(2)	(3)	
2010-11	2,459,330	48,044,522,020	19,535.6	14
2011-12	2,542,747	71,677,299,240	28,189.0	14
2012-13	2,530,655	74,832,413,870	29,570.0	14
2013-14	2,588,473	72,339,031,400	27,946.6	14

Table-3.4



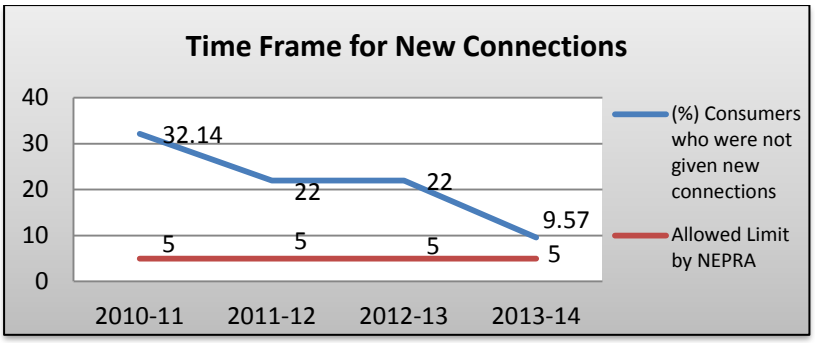
Graph-3.4

3.2.5 Time Frame for New Connections (% of consumers who were not given new connections):

Table-3.5 shows that PESCO have improved their performance regarding provision of new connections but still there is much room for improvement in this regard. According to NEPRA Standards, new connection should be given to at- least 95% of applied consumers. However, it is a matter of concern that PESCO is not complying fully with the requirements of Rule 4(c) of PSDR-2005 as PESCO has not the each day delay reason that why PESCO did not provide connection within due time frame to their eligible consumers i.e. 6448

Years	consumers applied for new connection	Consumers who were not given connections in permitted time	Consumers who were not given new connections (%)
2010-11	60,660	19,496	32.14
2011-12	61,813	13,640	22.00
2012-13	61,813	13,640	22.00
2013-14	67,337	6,448	9.57

Table-3.5



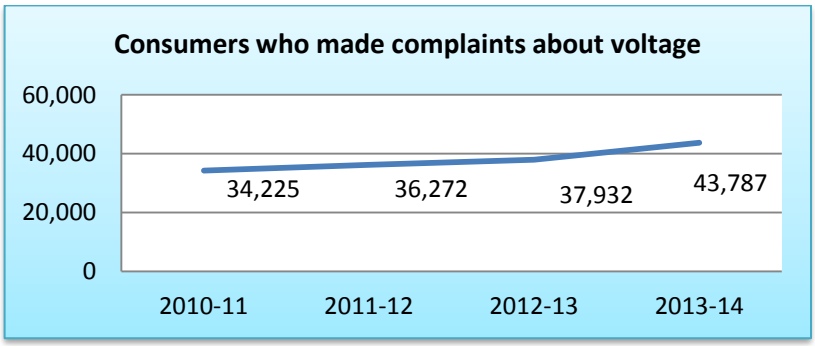
Graph-3.5

3.2.6 Nominal Voltage:

It is surprising to note that complaints made by the consumers about the voltage violations have been increased in year 2013-14 as compared to 2012-13 by more than 13%, which shows the poor performance of PESCO regarding their system networks.

Years	Total Number of consumers	Consumers who made complaints about voltage	(%) Increase/Decrease in number of complaints
2010-11	2,459,330	34,225	-
2011-12	2,542,747	36,272	+5.9
2012-13	2,530,655	37,932	+4.5
2013-14	2,588,473	43,787	+15.4

Table-3.6



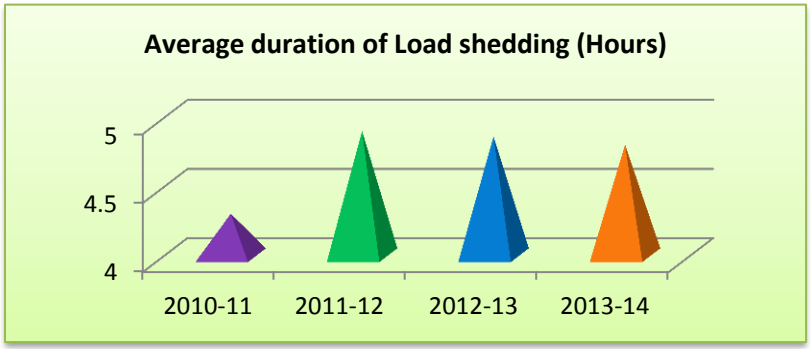
Graph-3.6

3.2.7 Load Shedding:

In view of Table 3.7, it is noted that PESCO has done averagely 4.8 hours load shedding on daily basis. Although, there is no change/decrease in load shedding in year 2013-14 as compared to year 2012-13. Important point is PESCO's approach against load shedding plans is totally inconsistent with the requirement of Rule 4(f) of PSDR. PESCO is preparing load shedding plans on the basis of high loss & low recovery areas and vice versa. However, such segregation is not mentioned in PSDR-2005, therefore PESCO has been strictly conveyed to comply with this effect.

Years	Average duration of Load shedding (Hours)
2010-11	4.3
2011-12	4.9
2012-13	4.8
2013-14	4.8

Table-3.7



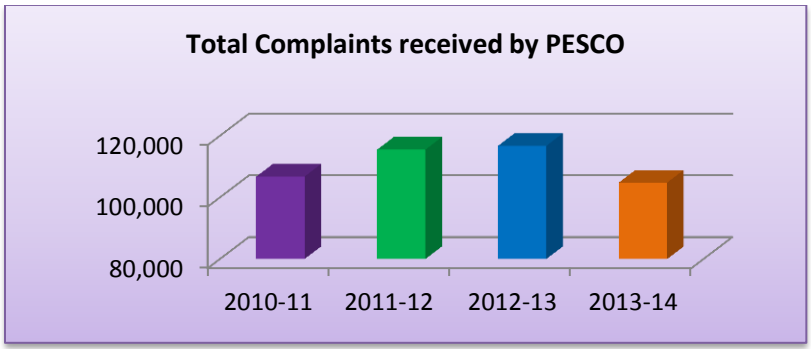
Graph-3.7

3.2.8 Consumer Service-Complaints:

It is clear from table 3.8 & comparison graph 3.8 that overall complaints received by PESCO iro price of electricity, reliability of supply, planned interruptions, supply voltage level, new connection, safety & other have been decreased, as compared to year 2012-13 with a difference of 10% but still number of complaints is very large which shows the un-satisfaction of PESCO's consumers from PESCO as utility. PESCO should put maximum efforts for providing relief to their consumers by establishment of computerized complaint handling mechanism such as Call Center 118-IESCO.

Years	Total Complaints received by PESCO
2010-11	106,749
2011-12	115,494
2012-13	116,718
2013-14	104,812

Table-3.8



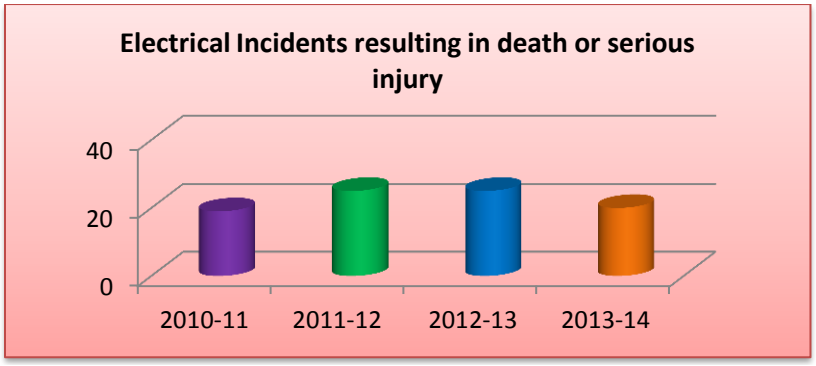
Graph-3.8

3.2.9 Safety (Fatal Incidents):

Moreover, PESCO have not provided details of Electrical Incidents as per requirement of Form-9 and also no any inquiry report of these twenty cases, wherein, it can be diagnosed that what steps/actions have been taken by PESCO in this regard. While, reviewing the safety data submitted by PESCO, it is noticed that still there is a need of taking strict steps/measure at PESCO end to prohibit the Safety incidents. Although this year number is less, but, even 20 number is too high, as every human life is so precious.

Years	Electrical Incidents resulting in death or permanent serious injury to member of staff or public
2010-11	19
2011-12	25
2012-13	25
2013-14	20

Table-3.9



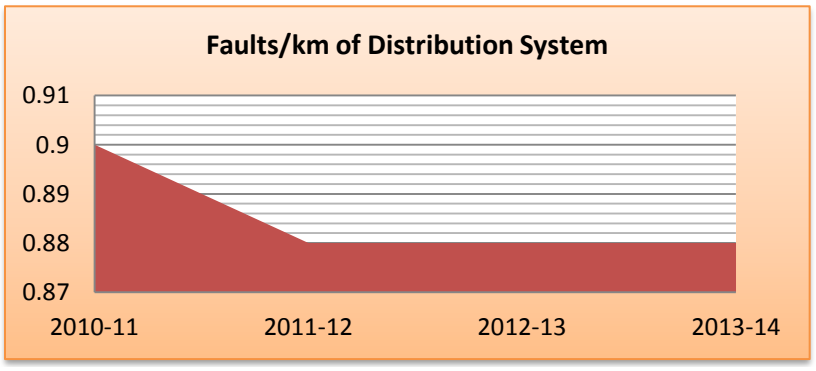
Graph-3.9

3.2.10 Fault Rate (No of Fault/Km):

Table 3.10 indicates that PESCO's distribution system faults have been increased with increasing network, resultantly, no effect on fault rate this year and it is same as of previous year. i.e. 0.88. In view of increasing number of faults, it can be commented that utilization of O&M funds is going to be questionable.

Years	Total length of distribution system in Service (km)	Total No. of Distribution system faults	Faults/km of Distribution System
2010-11	75,219	67,597	0.90
2011-12	75,697	65,658	0.88
2012-13	76,511	67,002	0.88
2013-14	77,131	68,437	0.88

Table-3.10



Graph-3.10

4. Gujranwala Electric Power Company (GEPCO)

4.1 Introduction:

GEPCO jurisdiction is expanded to total area of 17,207 sq. km and it facilitates total number of 2.64 Million consumers (residential, industrial, commercial etc.) of Hafizabad, Sialkot, Narowal, Gujrat & Mandi Baha-ud-din .Total peak demand is 1,870 MW.

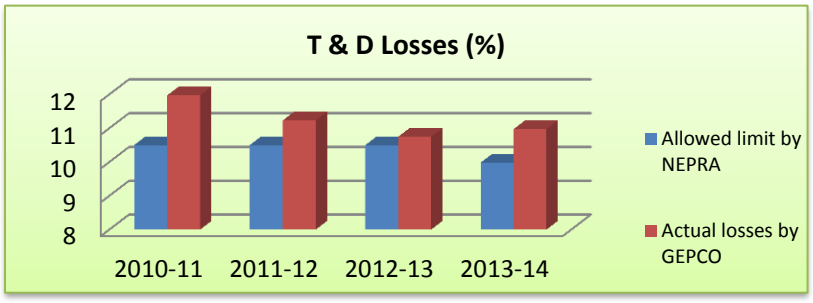
4.2 Parameters Evaluation:

4.2.1 Transmission & Distribution (T&D) Losses:

Table – 4.1 and graph 4.1 shows that T&D losses of GEPCO system have been slightly increased in year 2013-14 as compared to 2012-13 & financial impact comes out to be around 742.5 millions. From performance rating point of view, GEPCO have not met the regulator's expectations as GEPCO have crossed the NEPRA target almost 1%.

Years	Allowed limit by NEPRA (%)	Actual T&D Losses (%)
2010-11	10.5	11.97
2011-12	10.5	11.23
2012-13	10.5	10.75
2013-14	9.48	10.97

Table-4.1



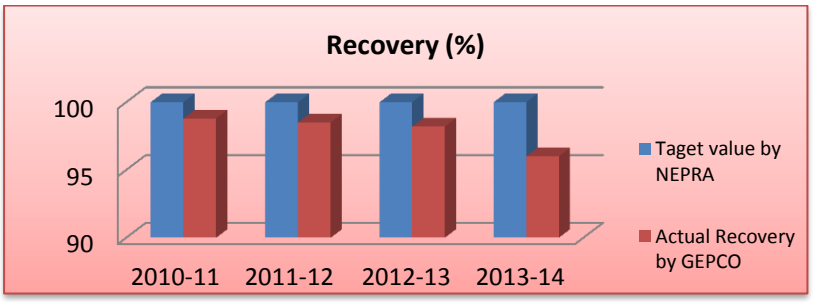
Graph-4.1

4.2.2 Recovery:

Comparison of GEPCO's recovery graph shows little decrease in year 2013-14 as compared to 2012-13 and trend indicates the gradual decrease over a period of last four years. Although, the decrease is not so high, but GEPCO should improve rather than decline.

Years	Target value by NEPRA (%)	Actual Recovery (%)
2010-11	100	98.8
2011-12	100	98.5
2012-13	100	98.2
2013-14	100	96

Table-4.2



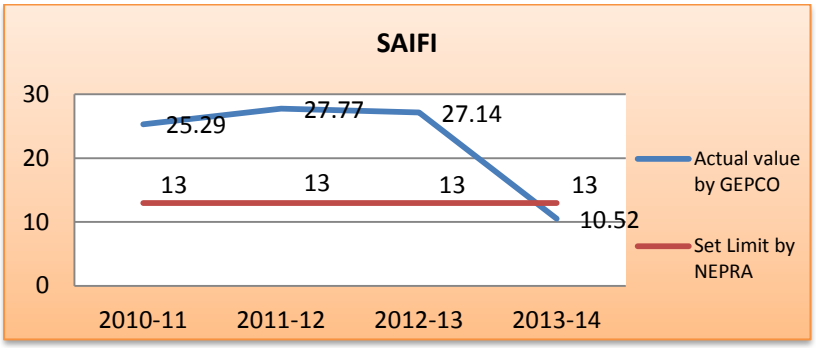
Graph-4.2

4.2.3 System avergae Interruption Frequency Index (SAIFI):

Table-4.3 shows a sudden fall of SAIFI in year 2013-14 as compared to previous years. This is a good sign and indicates that this year. GEPCO have met the expectations of regulators But also arises a lot of questions that what steps have been taken by GEPCO in year 2013-14 to achieve this limit and not in previous years. One important point is that their SAIFI figure shows that the system is perfect now, but on the other hand number of complaints has been increased drastically (Table-4.8). It seems that the submitted data is not based on realistic approach.

Years	Total Number of consumers served by GEPCO	Total annual number of power supply interruptions	SAIFI (3)=(2)/(1)	SAIFI (Set Limit by NEPRA)
	(1)	(2)	(3)	
2010-11	2,500,268	63,230,504	25.29	13
2011-12	2,608,374	72,435,349	27.77	13
2012-13	2,568,859	69,726,399	27.14	13
2013-14	2,736,688	28,804,296	10.52	13

Table-4.3



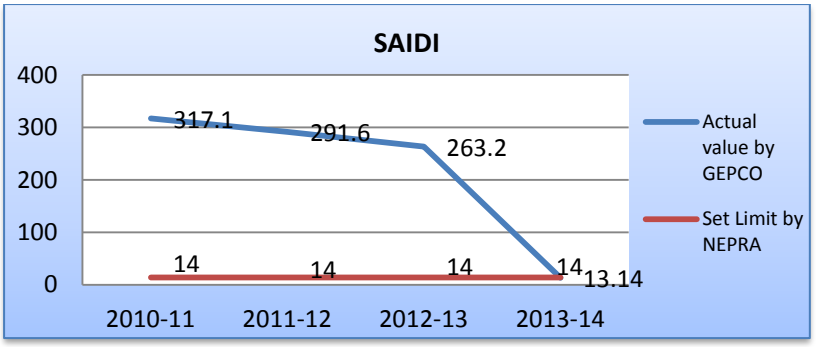
Graph-4.3

4.2.4 System Average Interruption Duration Index (SAIDI):

Same is the case with SAIDI, the figures in year 2012-13 is far away from NEPRA limits, but in year 2013-14 GEPCO has met out. However, number of times GEPCO raised their point of view that Standards are ideal & hard to achieve. During review of aggregate sum of all consumers power supply interruptions duration, it has been observed that GEPCO has reduced the duration (minutes) from 676 million to 35 million in 2013-14 as compared to 2012-13, which is very surprising

Years	Total Number of consumers served by GEPCO	Agg.sum of all consumers power supply interruption duration (Min)	SAIDI (3)=(2)/(1)	SAIDI (Set Limit by NEPRA)
	(1)	(2)	(3)	
2010-11	2,500,268	792,887,713	317.1	14
2011-12	2,608,374	760,565,671	291.6	14
2012-13	2,568,859	676,186,878	263.2	14
2013-14	2,736,688	35,971,518	13.14	14

Table-4.4



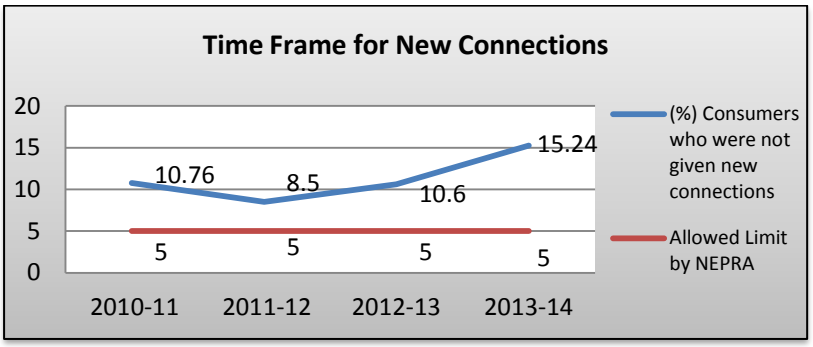
Graph-4.4

4.2.5 Time frame for New Connections (% of consumers who were not given new connections):

Table-4.5 shows that GEPCO performance has been decreased regarding time frame for new connections. According to NEPRA standards, new connections should be given to at-least 95% of applied consumers. But here, GEPCO reported that 15% connections have not been conveyed due shortage of materials & right of way problems etc. which causes delay. Moreover, GEPCO has not complied with the requirements of rule 4(c) of PSDR-2005, and have not provided connection wise reason for each delay, which also had to convey to consumers.

Years	consumers applied for new connection	Consumers who were not given connections in permitted time	Consumers who were not given new connections (%)
2010-11	94,358	10,154	10.76
2011-12	90,787	7,757	8.50
2012-13	76,145	8,078	10.60
2013-14	85,477	13,033	15.24

Table-4.5



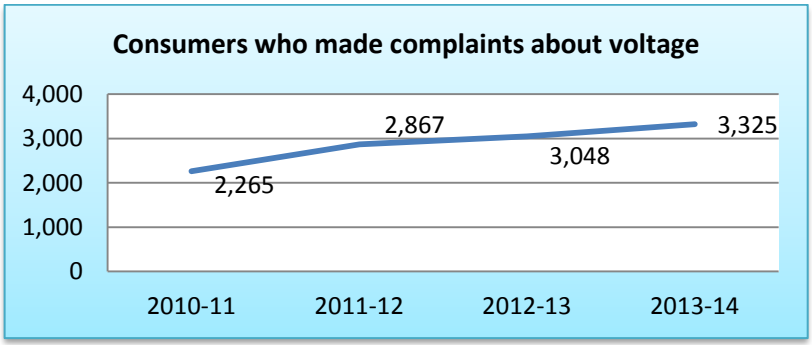
Graph-4.5

4.2.6 Nominal Voltage:

Table 4.6 shows that no. consumers who made complaints about voltage variation have been increased in year 2013-14 as compared to 2012-13. This shows the poor performance of GEPCO towards maintenance works, although, it is small decrease.

Years	Total Number of Consumers	Consumers who made complaints about voltage	(%) Increase/Decrease in number of complaints
2010-11	2,500,268	2,265	-
2011-12	2,608,374	2,867	+26.5
2012-13	2,568,859	3,048	+6.31
2013-14	2,736,688	3,325	+9.08

Table-4.6



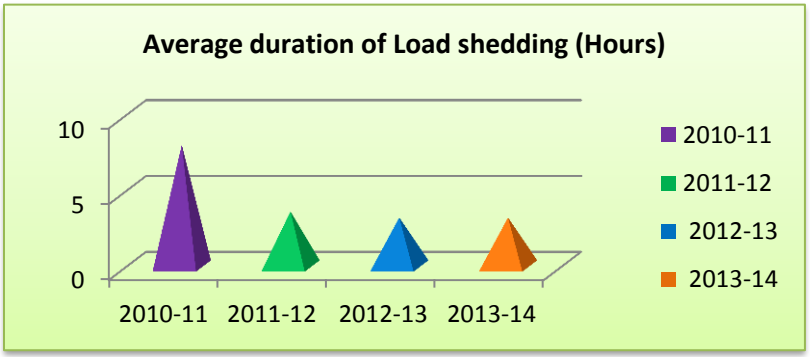
Graph-4.6

4.2.7 Load Shedding:

Table-4.7 shows that GEPCO average duration of load shedding is 3.2 hours which is same as previous year. Here the need of implementation of load shedding plan, as per requirement of Rule 4(f) of PSDR-2005 also arises & for this GEPCO has been directed accordingly. Further, it can also be commented that by keeping in view the media reports, this data seems to be unrealistic

Years	Average duration of Load shedding (Hours)
2010-11	8
2011-12	3.6
2012-13	3.2
2013-14	3.2

Table-4.7



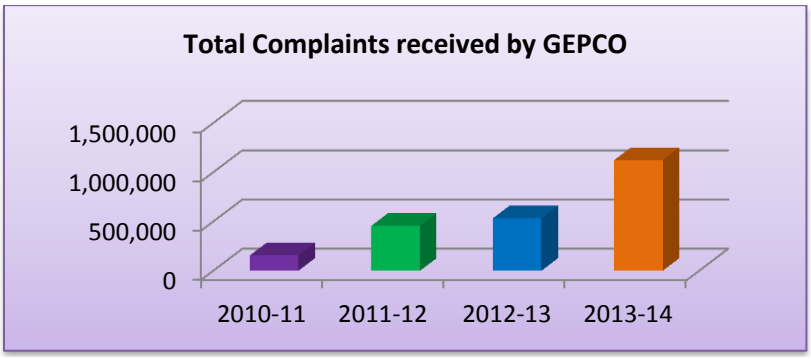
Graph-4.7

4.2.8 Consumer Service - Complaints:

It is surprising to note that GEPCO complaints have been increased drastically in year 2013-14 as compared to 2012-13. However, GEPCO have received 49 millions more amount in head of O&M as compared to 2012-13 but their performance have not improved. This huge number of complaints shows non-satisfaction of GEPCO consumers with their utility. GEPCO should consider this seriously and pay attention to improve its system quality. It is very strange that complaints of GEPCO are increasing where-as GEPCO has shown improved SAIFI & SAIDI Standards.

Years	Total Complaints received by GEPCO
2010-11	155,132
2011-12	456,304
2012-13	532,925
2013-14	1,123,731

Table-4.8



Graph-4.8

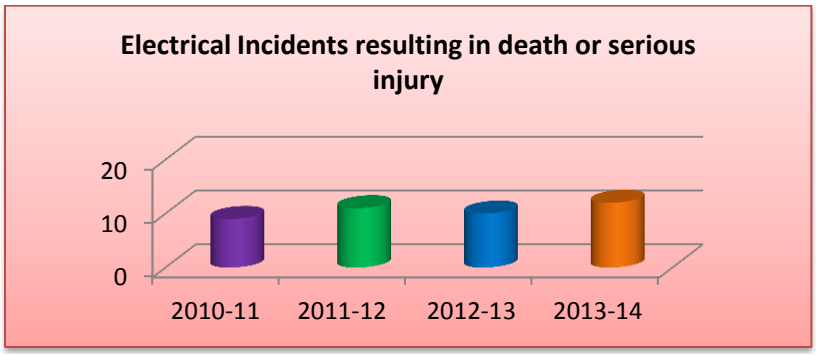
4.2.9 Safety (Fatal Incidents):

During review of Safety reports, it is noted with concern that no. of fatal incidents have been increased in year 2013-14 as compared to 2012-13.

This gives the message that GEPCO needs a lot of improvement in Safety Concerns and the relevant Safety Rules & Standard engineering practices are needed to be properly implemented.

Years	Electrical Incidents resulting in death or permanent serious injury to member of staff or public
2010-11	9
2011-12	11
2012-13	10
2013-14	12

Table-4.9



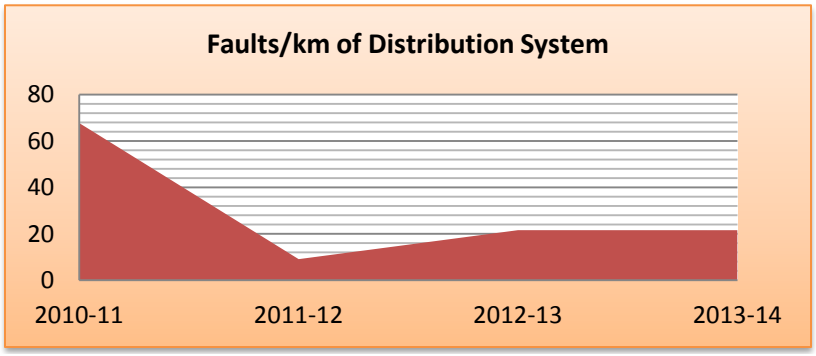
Graph-4.9

4.2.10 Fault Rate (No of Faults/Km):

Table 4.10 shows that GEPCO fault rate have remained almost same in year 2013-14 as compared to year 2012-13. It is important to note that fault rate have not decreased even the amount under maintenance head have been allowed i.e. 10% more in year 2013-14 as compared to 2012-13. This shows that GEPCO has not utilized the aforesaid amount in proper way to reduce the no. of faults and to improve the system quality.

Years	Total length of distribution system in Service (km)	Total No. of Distribution system faults	Faults/km of Distribution System
2010-11	39,747	2,693,495	67.77
2011-12	41,099	373,667	9.09
2012-13	42,667	921,361	21.59
2013-14	42,681	921,312	21.58

Table-4.10



Graph-4.10

5. Faisalabad Electric Supply Company (FESCO)

5.1 Introduction:

FESCO jurisdiction is expanded to total area of 36,122 sq. km and it facilitates total number of 3.11 Million consumers (residential, industrial, commercial etc.) of Faisalabad, Sarghodha, Mianwali, Khushab, Jhang, Bhakker & Toba Tek Singh districts .Total peak demand is 2538 MW.

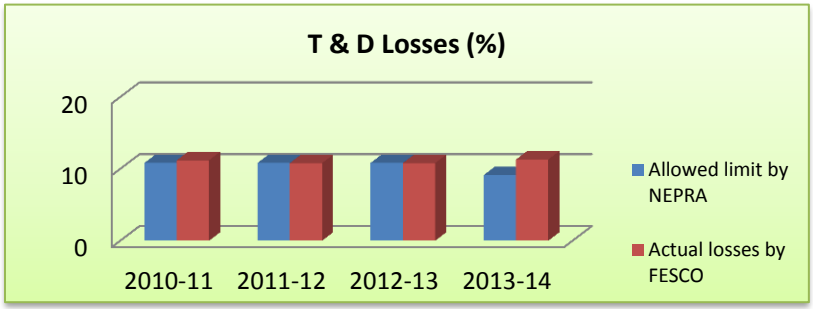
5.2 Parameters Evaluation:

5.2.1 Transmission & Distribution (T&D) Losses:

Table-5.1 & Graph-5.1 show that FESCO overall system losses have been increased in year 2013-14 as compared to year 2012-13 from 10.8 to 11.3 with a difference of 0.5%. From Performance rating point of view, FESCO have not met the regulator's expectations, as there is a difference of 2% losses b/w NEPRA's set target and actual losses reported by FESCO and its financial impact comes out to be around 1627 million rupees, which could be helpful at national level to reduce circular debt.

Years	Allowed limit by NEPRA (%)	Actual T&D Losses (%)
2010-11	10.83	11.2
2011-12	10.83	10.8
2012-13	10.83	10.8
2013-14	9.13	11.3

Table-5.1



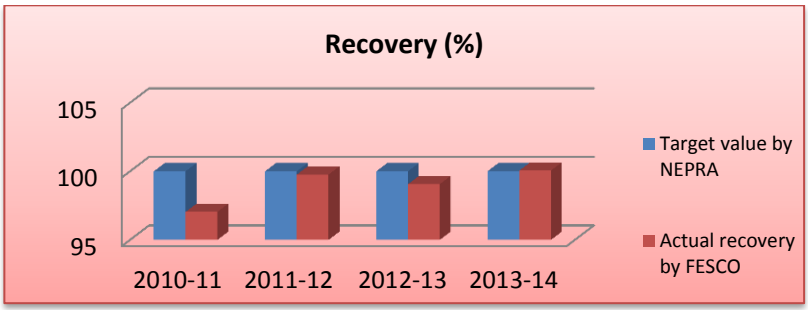
Graph-5.1

5.2.2 Recovery:

Comparison of FESCO's recovery shows that it is better as compared to 2012-13 and exceeded 100%. This reveals good performance of FESCO towards recovery, but the matter has been taken with FESCO for diagnosing the actual cause of exceeding 100%.

Years	Target value by NEPRA (%)	Actual Recovery (%)
2010-11	100	97.04
2011-12	100	99.76
2012-13	100	99.06
2013-14	100	100.05

Table-5.2



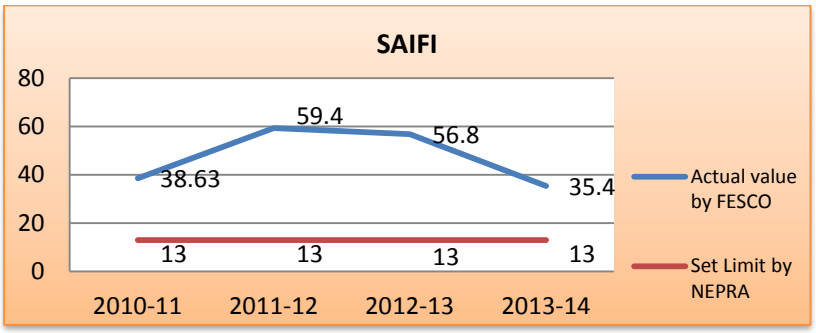
Graph-5.2

5.2.3 System avergae Interruption Frequency Index (SAIFI):

Table-5.3 indicates that SAIFI value reported by FESCO in year 2013-14 is somehow better than previous years, but still away from set standards. FESCO should put more efforts towards the improvement of network as Rupee 580 million amounts was allowed to FESCO under O&M head in year 2013-14 which is 4% more than previous year.

Years	Total Number of consumers served by FESCO	Total annual number of power supply interruptions	SAIFI (3)=(2)/(1)	SAIFI (Set Limit by NEPRA)
	(1)	(2)	(3)	
2010-11	2,996,549	115,742,546	38.63	13
2011-12	3,278,533	194,766,923	59.40	13
2012-13	3,214,275	182,579,281	56.80	13
2013-14	3,288,932	116,444,302	35.40	13

Table-5.3



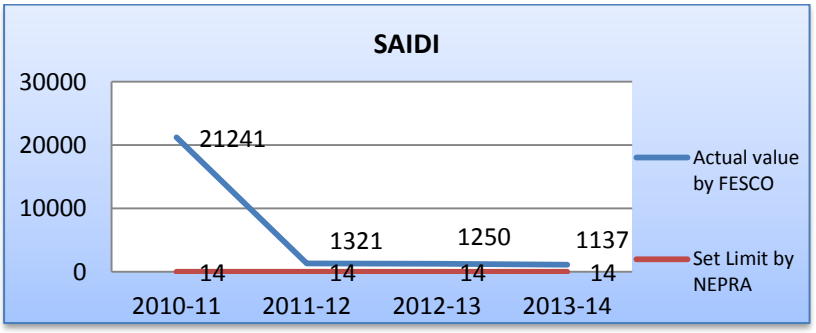
Graph-5.3

5.2.4 System Average Interruption Duration Index (SAIDI):

In case of SAIDI, there is also a gradual decrease, which is good sign, but still value is too big as compared to Set Limit.
Since, FESCO is considered as a good performer in power sector, therefore, FESCO should pay its attention towards improvement of System/ Network and achievement of NEPRA's standards.

Years	Total Number of consumers served by FESCO	Agg.sum of all consumers power supply interruption duration (Min)	SAIDI (3)=(2)/(1)	SAIDI (Set Limit by NEPRA)
	(1)	(2)	(3)	
2010-11	2,996,549	63,649,624,760	21241	14
2011-12	3,278,533	4,331,500,066	1321	14
2012-13	3,214,275	4,019,965,724	1250	14
2013-14	3,288,932	3,739,602,394	1137	14

Table-5.4



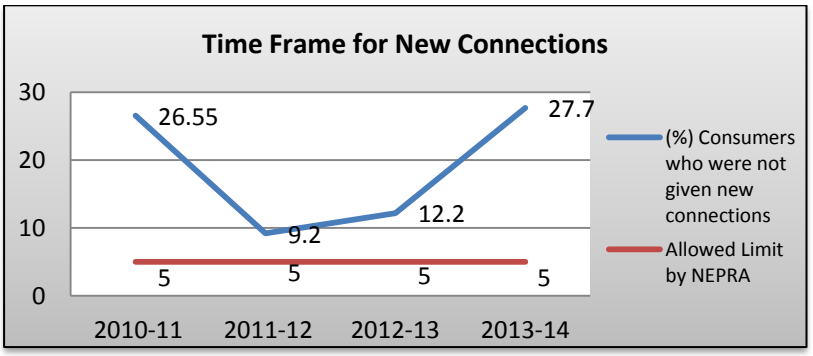
Graph-5.4

5.2.5 Time frame for New Connections (% of consumers who were not given new connections):

It is noted from Table-5.5 that percentage of consumers who were not given new connections has been increased more than double as compared to previous year; even the applied consumers are less. Their actual figure is far away from Regulator allowed limit, as according to NEPRA Rules, at least 95% of applied consumers should be provided connections in given time.

Years	Consumers applied for new connection	Consumers who were not given connections in permitted time	Consumers who were not given new connections (%)
2010-11	125,060	33,204	26.55
2011-12	119,703	11,027	9.20
2012-13	88,776	10,281	12.20
2013-14	84,886	23,547	27.7

Table-5.5



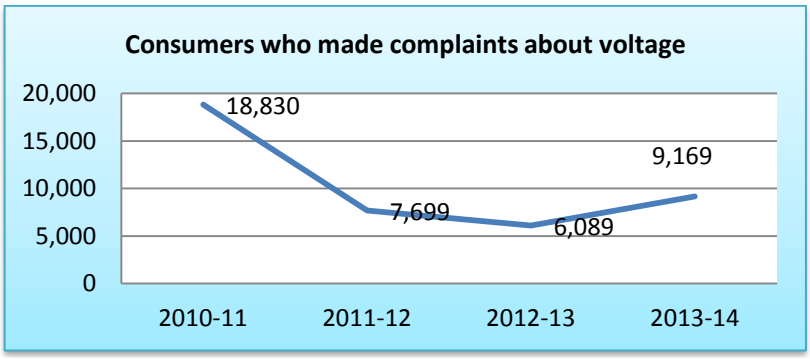
Graph-5.5

5.2.6 Nominal Voltage:

In Table-5.6, it is clear that FESCO complaints regarding voltage variation have been increased by more than 50% in year 2013-14 as compared to year 2012-13. This shows extremely poor performance towards the Network/ System maintenance.

Years	Total Number of consumers	Consumers who made complaints about voltage	(%) Increase/Decrease In number of complaints
2010-11	2,996,549	18,830	-
2011-12	3,278,533	7,699	-59
2012-13	3,214,275	6,089	-20
2013-14	3,288,932	9,169	+50.5

Table-5.6



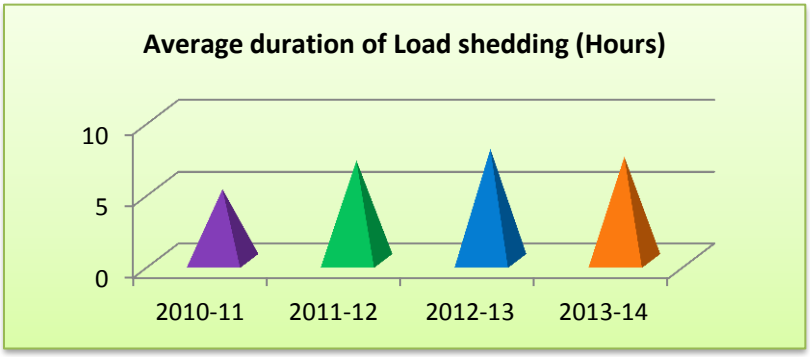
Graph-5.6

5.2.7 Load Shedding:

Table-5.7 shows that average load shedding of FESCO is 7.25 hours. Although, there is no significant decrease in duration of load shedding in year 2013-14, but important point is that load shedding plans must be in line with the requirements of Rule 4(f) of PSDR-2005. Accordingly, directions have already been conveyed to FESCO for compliance.

Years	Average duration of Load shedding (Hours)
2010-11	5
2011-12	7
2012-13	7.8
2013-14	7.25

Table-5.7



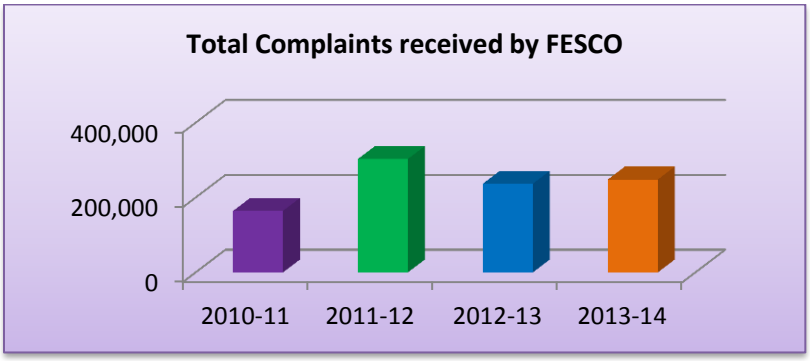
Graph-5.7

5.2.8 Consumer Service-Complaints:

It is surprising to note that FESCO complaints have been increased in year 2013-14 as compared to 2012-13 up to 5%. FESCO have received 29 millions more amounts in head of O&M as compared to 2012-13, but their performance is becoming poor instead of improvement. This shows satisfaction of FESCO consumers with their utility.

Years	Total Complaints received by FESCO
2010-11	164,356
2011-12	303,013
2012-13	236,850
2013-14	248,241

Table-5.8



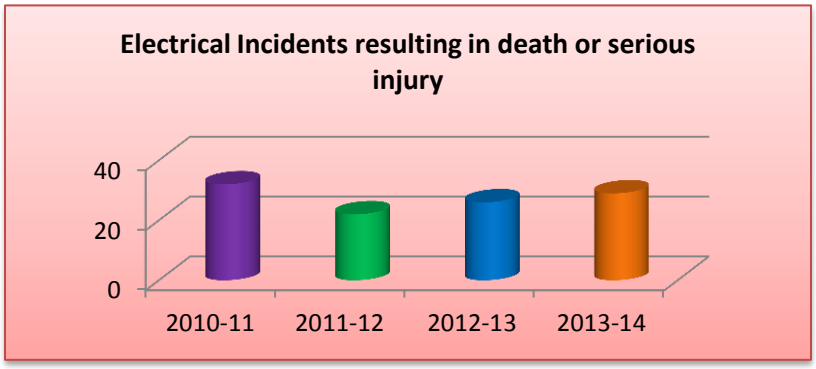
Graph-5.8

5.2.9 Safety (Fatal Incidents):

In view of Table-5.9, it is noted with concern that the number of fatal incidents have increased in year 2013-14 as compared to 2012-13.
This gives the message that FESCO needs a lot of improvement in Safety Concerns and the relevant Safety Rules & Standard Engineering practices are needed to be properly implemented.

Years	Electrical Incidents resulting in death or permanent serious injury to member of staff or public
2010-11	32
2011-12	22
2012-13	26
2013-14	29

Table-5.9



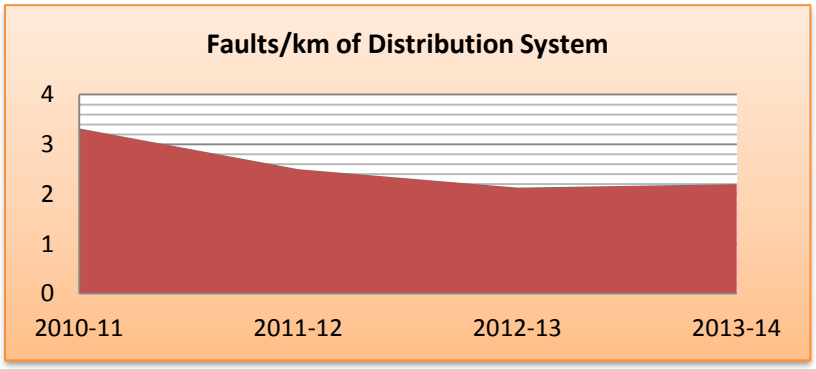
Graph-5.9

5.2.10 Fault Rate (No. of Faults/Km)

Table 5.10 shows that FESCO fault rate have been increased in year 2013-14 as compared to year 2012-13. It is important to note that fault rate have not decreased even the amount under maintenance head have been allowed is 4% more in year 2013-14 as compared to 2012-13. This shows that utilization of amounts is not being carried out properly

Years	Total length of distribution system in Service (km)	Total No. of Distribution system faults	Faults/km of Distribution System
2010-11	63,794	211,505	3.32
2011-12	58,651	147,342	2.50
2012-13	67,823	144,643	2.13
2013-14	71,424	157,656	2.20

Table-5.10



Graph-5.10

6. Lahore Electric Supply Company (LESCO)

6.1 Introduction:

LESCO jurisdiction is expanded to total area of 19,064 sq. km and it facilitates total number of 3.43 Million consumers (residential, industrial, commercial etc.) of Lahore, Kasoor, Okara & sheikhupura. Total peak demand is 4,006 MW

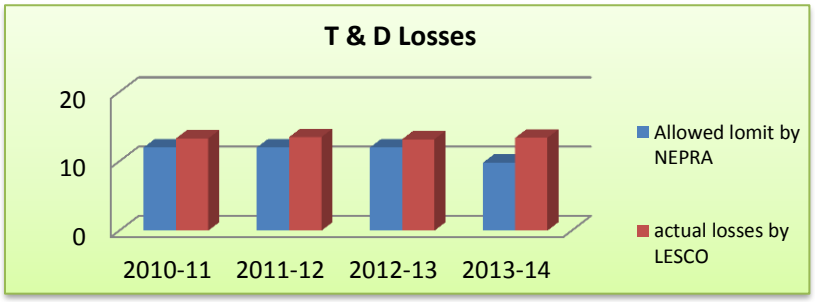
6.2 Parameters Evaluation:

6.2.1 Transmission & Distribution (T&D) Losses:

Table-6.1 & graph-6.1 indicate that LESCO overall system losses have been increased in year 2013-14 as compared to 2012-13, with a difference of 0.2%. Further, If LESCO's reported loses compare with NEPRA's target for year 2013-14. Then there is a difference of 3.6% having financial impact of 2.7 billion rupees .From performance point of view, it can be said that LESCO have not met regulator's expectations.

Years	Allowed Limit by NEPRA (%)	Actual T&D Losses (%)
2010-11	12	13.3
2011-12	12	13.5
2012-13	12	13.2
2013-14	9.80	13.4

Table-6.1



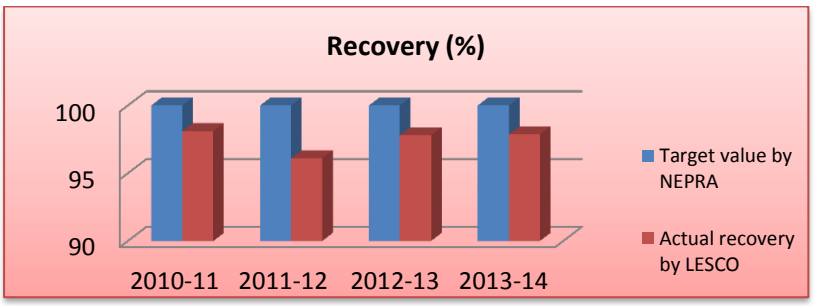
Graph-6.1

6.2.2 Recovery:

From this table & graph, it is noticed that LESCO's recovery is remained as of previous years. Since, recovery seems to be better; therefore, LESCO should pay attention towards system improvement & losses reduction

Years	Target value by NEPRA (%)	Actual Recovery (%)
2010-11	100	98.1
2011-12	100	96.1
2012-13	100	97.80
2013-14	100	97.87

Table-6.2



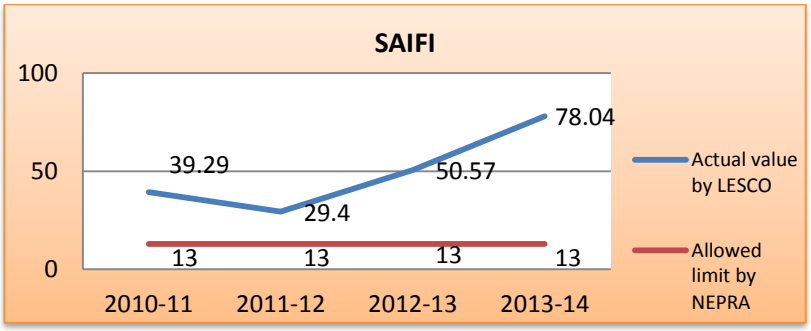
Graph-6.2

6.2.3 System Avergae Interruption Frequency Index (SAIFI):

Table-6.3 shows that LESCO's SAIFI value has been increased in 2013-14 as compared to 2012-13. By comparing the number of interruptions of both years 2012-13 & 2013-14, it is noted with concern that no of interruptions have been increased from 160 million to 256 million, despite of the fact that 1096 million amount were allowed to LESCO under O&M head in 2013-14 determination, which is 3.4% more than the amount of 2012-13

Years	Total Number of consumers served by LESCO	Total annual number of power supply interruptions	SAIFI (3)=(2)/(1)	SAIFI (Set Limit by NEPRA)
	(1)	(2)	(3)	
2010-11	2,959,110	116,264,697	39.29	13
2011-12	3,052,299	89,713,568	29.40	13
2012-13	3,164,986	160,058,187	50.57	13
2013-14	3,286,668	256,478,823	78.04	13

Table-6.3



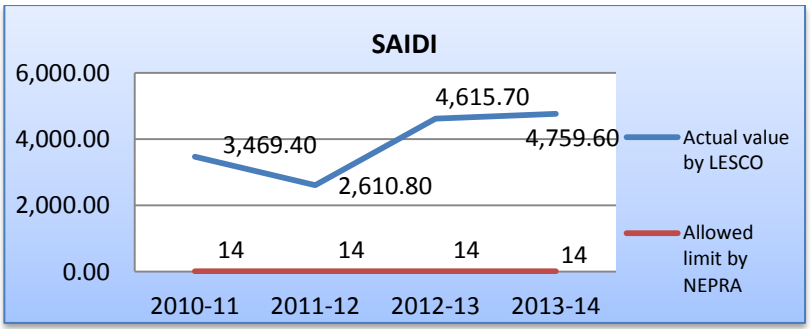
Graph-6.3

6.2.4 System Average Interruption Duration Index (SAIDI):

Same is the case with SAIDI, the value of SAIDI have been increased in 2013-14 up to 3% as compared to 2013-13. This all indicates that utilization of amounts is not being carried out in proper way. From performance rating point of view, LESCO have not met with regulator's expectations.

Years	Total Number of consumers served by LESCO	Agg.sum of all consumers power supply interruption duration (Min)	SAIDI (3)=(2)/(1)	SAIDI (Set Limit by NEPRA)
	(1)	(2)	(3)	
2010-11	2,959,110	10,266,206,977	3,469.4	14
2011-12	3,052,299	7,968,880,969	2,610.8	14
2012-13	3,164,986	14,608,740,454	4,615.7	14
2013-14	3,286,668	15,643,260,013	4,759.6	14

Table-6.4



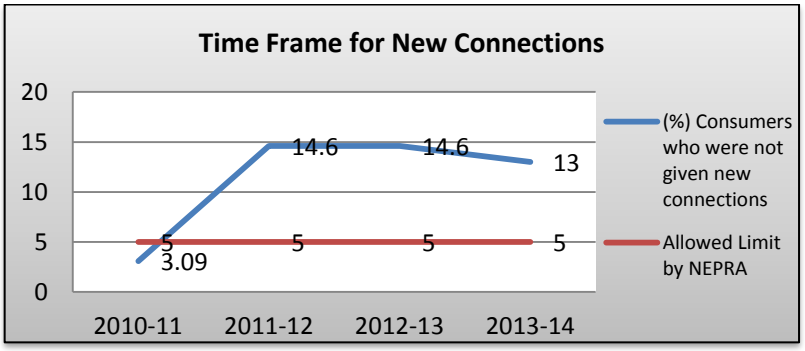
Graph-6.4

6.2.5 Time frame for New Connections (% of consumers who were not given new connections):

As regard of Provision of New connections slight improvement in 2013-14 has been noted, but, ever 13% is high as compared to NEPRA set standards. i.e. at least 95% of applied consumers should be connected with in specified time frame. Moreover, LESCO has not complied with requirements of Rule 4 (C) of PSDR-2005 and have not submitted the each day delay reasons for not provided connections.

Years	consumers applied for new connection	Consumers who were not given connections in permitted time	Consumers who were not given new connections (%)
2010-11	137,715	4,253	3.09
2011-12	130,059	19,041	14.60
2012-13	130,059	19,041	14.60
2013-14	121,829	15,842	13.00

Table-6.5



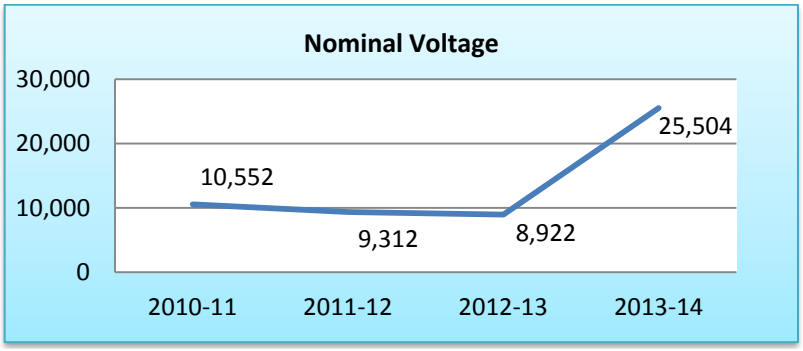
Graph-6.5

6.2.6 Nominal Voltage:

It seems strange that the complaints about the voltage violations have been suddenly raised from 8 thousand to 25 thousand over a period of one year. This gives massage that LESCO is not serious towards maintenance works and LESCO is not playing its due role as a utility i.e. customer facilitation & satisfaction

Years	Total Number of consumers	Consumers who made complaints about voltage	(%) Increase/Decrease in number of complaints
2010-11	2,959,110	10,552	-
2011-12	3,052,299	9,312	-11.75
2012-13	3,164,986	8,922	-4.18
2013-14	3,286,668	25,504	+185.85

Table-6.6



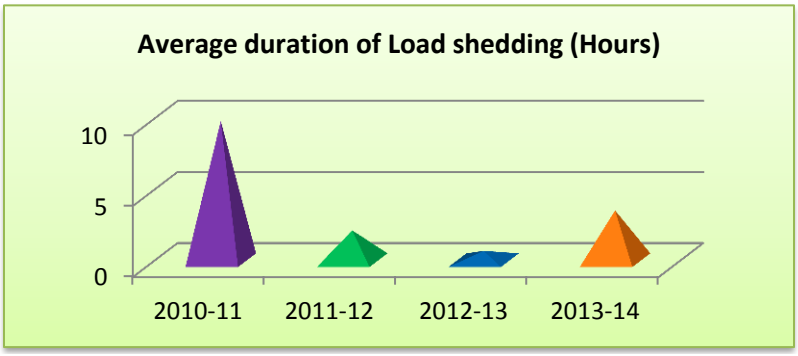
Graph-6.6

6.2.7 Load Shedding:

The Load shedding trend indicates variations, which means that there is no consistently in time duration of load shedding in LESCO areas. The figure reported by LESCO for 2013-14 still seems to be unrealistic as according to media reports there is 10 to 12 hours load shedding in rural areas during peak season. Important point is whether load shedding is being carried out as per Rule 4(f) of PSDR-2005 or otherwise. Accordingly, directions have already been conveyed to LESCO for strict compliance.

Years	Average duration of Load shedding (Hours)
2010-11	3574.3/365 = 9.8
2011-12	2.1
2012-13	0.66
2013-14	3.5

Table-6.7



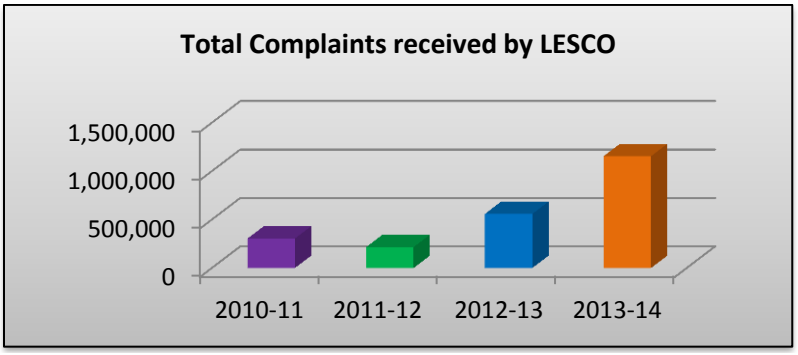
Graph-6.7

6.2.8 Consumer Service - Complaints:

It is surprising to note that the number of complaints in 2013-14 have been increased more than double as compared to 2012-13. This shows the improvement level of LESCO towards its system/network. LESCO should take strict measures to resolve such huge number by activating their customer service centers and by establishing Automated Complaint handling mechanism such as Call Center 118-IESCO.

Years	Total Complaints received by LESCO
2010-11	303,793
2011-12	215,888
2012-13	558,090
2013-14	1,163,927

Table-6.8



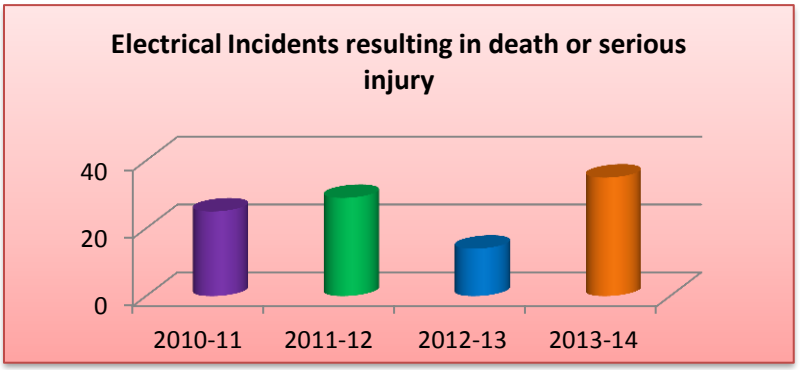
Graph-6.8

6.2.9 Safety (Fatal Incidents):

It is noted with great concern that the safety incidents have been increased more than double as compared to 2012-13. This shows that LESCO is not taking any safety measure such as; safety trainings, availability of safety equipments, etc. LESCO should take strict actions to reduce such serious happenings and LESCO should realize the value of human life. Moreover, LESCO have not submitted any one of the inquiry report or detail of actions taken and/or to be taken by LESCO.

Years	Electrical Incidents resulting in death or serious injury
2010-11	25
2011-12	29
2012-13	14
2013-14	35

Table-6.9



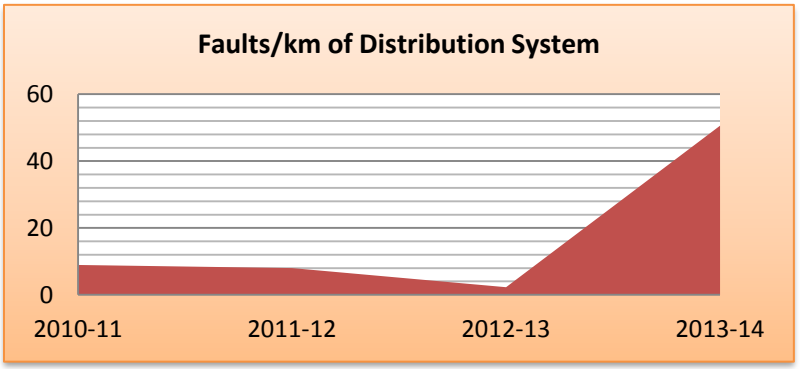
Graph-6.9

6.2.10 Fault Rate (No of Faults/Km):

Table-6.10 shows that LESCO's network is under miserable conditions as number of faults has been increased from 60 thousands to 2 million, resultantly, increase in fault rate from 2.28 to 50.6. In view of such alarming reports, it is commented that if such situation is continued, then it will lead to increase in power crises rather than any improvement.

Years	Total length of distribution system in Service (km)	Total No. of Distribution system faults	Faults/km of Distribution System
2010-11	37,801	337,446	8.93
2011-12	40,489	324,380	8.0
2012-13	26,298	60,085	2.28
2013-14	44,552.7	2,253,103	50.6

Table-6.10



Graph-6.10

7. MULTAN ELECTRIC POWER COMPANY (MEPCO)

7.1 Introduction:

MEPCO jurisdiction is expanded to total area of 105,505 sq. km and it facilitates total number of 4.42 Million consumers (residential, industrial & commercial etc.) in the districts/areas of Sahiwal, Bahawalnagar, Tonsa Sharif to Rajanpur with sindh, Baluchistan & KPK. Total peak demand is 2964 MW.

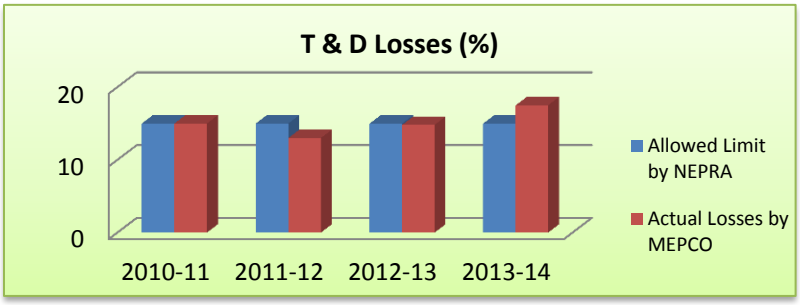
7.2 Parameters Evaluation:

7.2.1 Transmission & Distribution (T&D) losses:

Table-6.1 & Graph-6.1 show that Transmission & Distribution losses by MEPCO have been increased in year 2013-14 as compared to year 2012-13 by 2.7%, and this year MEPCO have not met the regulator's expectations as reported losses are more than NEPRA target by 2.5%. The financial impact of this difference comes out to be around 1.875 billion rupees.

Years	Allowed limit by NEPRA (%)	Actual T&D Losses (%)
2010-11	15	15
2011-12	15	13
2012-13	15	14.8
2013-14	15	17.5

Table-7.1



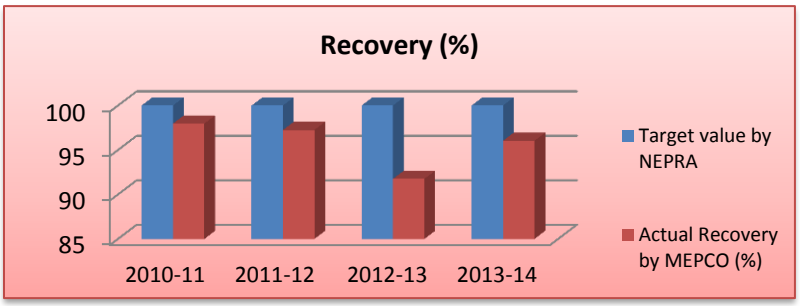
Graph-7.1

7.2.2 Recovery:

From Table-6.2 It noticed that MEPCO recovery in year 2013-14 has been improved as compared to year 2012-13. MEPCO should improve more and contribute to overcome national power crisis

Years	Target value by NEPRA (%)	Actual Recovery (%)
2010-11	100	97.97
2011-12	100	97.25
2012-13	100	91.76
2013-14	100	96.04

Table-7.2



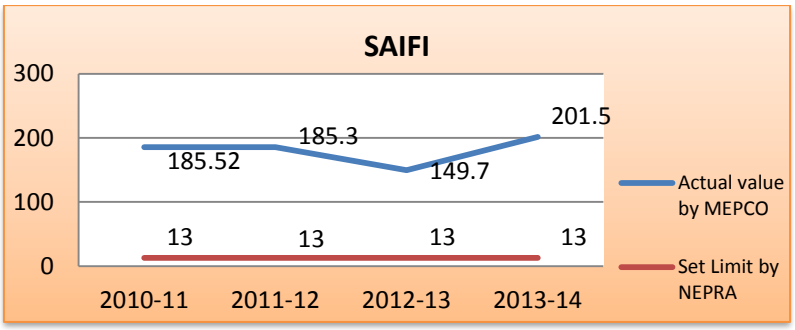
Graph-7.2

7.2.3 System Average Interruption Frequency Index (SAIFI):

Table 7.3 shows that SAIFI value in 2013-14 has been increased by more than 30% which shows non-serious behavior of MEPCO towards improvement of their system. Even, MEPCO was allowed 10% more amounts under O&M head as compared to 2012-13. From performance rating point of view, MEPCO is not meeting with regulator's expectations, as reported value is far away from set limit.

Years	Total Number of consumers served by DISCOs	Total annual number of power supply interruptions	SAIFI (3)=(2)/(1)	SAIFI (Set Limit by NEPRA)
	(1)	(2)	(3)	
2010-11	4,095,946	759,867,592	185.52	13
2011-12	4,290,373	795,001,382	185.30	13
2012-13	4,535,062	678,829,469	149.70	13
2013-14	4,693,061	945,813,581	201.5	13

Table-7.3



Graph-7.3

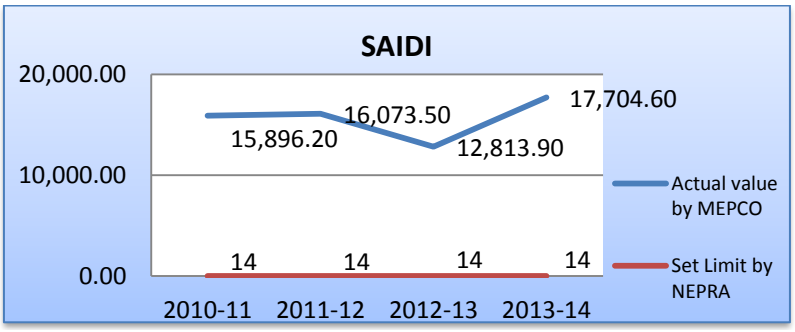
7.2.4 System Average Interruption Duration Index (SAIDI):

Same is the case with SAIDI, as reported value is far away from set limit and has been increased by 28% as compared to 2012-13.

In view of this, it is found that utilization of O&M amounts is not being carried out properly. Further, it has also been observed that MEPCO is not implementing its own Distribution Code, which covers all possible solutions regarding DISCO's network problems.

Years	Total Number of consumers served by DISCOs	Agg.sum of all consumers power supply interruption duration (Min)	SAIDI (3)=(2)/(1)	SAIDI (Set Limit by NEPRA)
	(1)	(2)	(3)	
2010-11	4,095,946	65,110,006,031	15,896.2	14
2011-12	4,290,373	689,654,325	16 073.5	14
2012-13	4,535,062	58,111,790,700	12813.9	14
2013-14	4,693,061	83,088,717,833	17704.6	14

Table-7.4



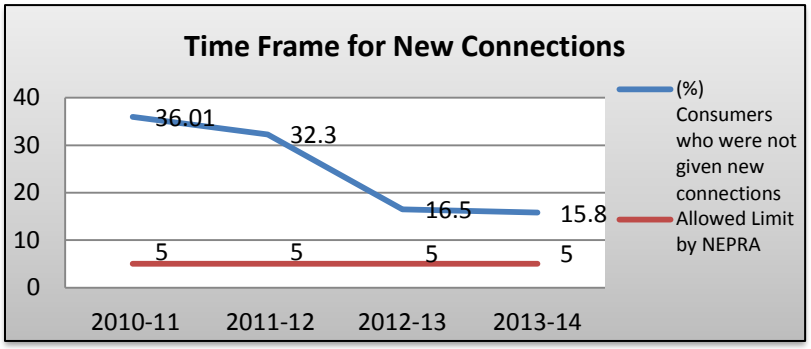
Graph-7.4

7.2.5 Time Frame for New Connections (% of consumers who were not given new connections):

Table 7.5 shows that MEPCO have not provided new connections to 15.8% of applied consumers in year 2013-14, although, there is little improvement but still MEPCO have not met with Regulator's expectations, as according to NEPRA standards, connections should be provided to at least 95% of applied consumers Further, requirements of MEPCO is not complying with Rule 4(c) of PSDR-2005 and has not submitted the reasons for each day delay for any one of the case.

Years	consumers applied for new connection	Consumers who were not given connections in permitted time	Consumers who were not given new connections(%)
2010-11	160,994	57,979	36.01
2011-12	219,866	71,137	32.30
2012-13	238,117	39,297	16.50
2013-14	181,188	28,671	15.8

Table-7.5



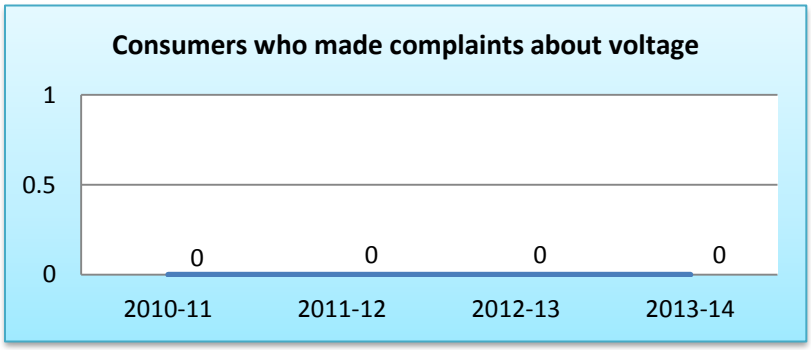
Graph-7.5

7.2.6 Nominal Voltage:

Table 7.6 indicates that MEPCO system is too healthy as there is no complaint about voltage variations. However, MEPCO's area is too large comprising of lengthy feeders. This creates doubts, weather MEPCO's data is based on realistic approach or otherwise.

Years	Total Number of consumers	Consumers who made complaints about voltage	(%) Increase/decrease in number of Complaints
2010-11	4,095,946	0	-
2011-12	4,290,373	0	0
2012-13	4,535,062	0	0
2013-14	4,693,061	0	0

Table-7.6



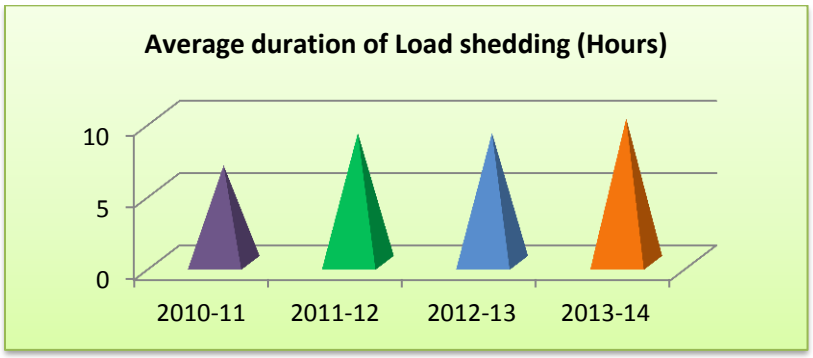
Graph-7.6

7.2.7 Load Shedding:

Table-7.7 shows that there is averagely 10 hours load shedding in MEPCO area, which is more than previous year. Important point is, whether it is in line with requirements of Rule 4(f) of PSDR-2005 or otherwise. Accordingly, directions have already been conveyed for strict compliance.

Years	Average duration of Load shedding (Hours)
2010-11	6.75
2011-12	9.0
2012-13	9.0
2013-14	10

Table-7.7



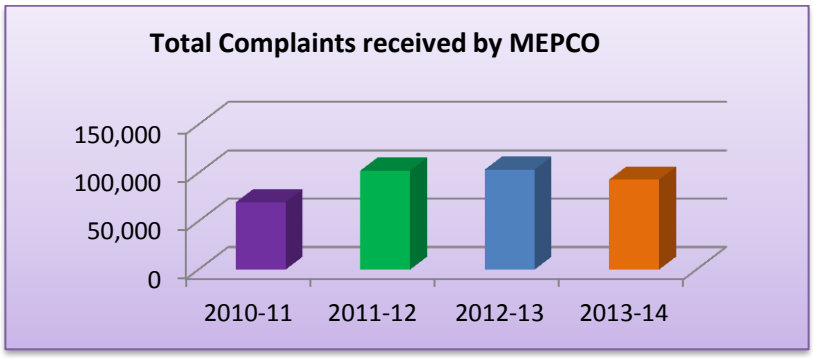
Graph-7.7

7.2.8 Consumer Service - Complaints:

Table 7.8 shows that the gradual decrease in number of complaints in 2013-14 as compared to 2012-13, but, still the number is high, which shows the non-satisfaction of MEPCO consumers towards its utility. MEPCO should put maximum efforts in this regard such as establishment of automated complaint handling mechanism as in IESCO call center - 118

Years	Total Complaints received by MEPCO
2010-11	69,601
2011-12	102,419
2012-13	103,454
2013-14	93,198

Table-7.8



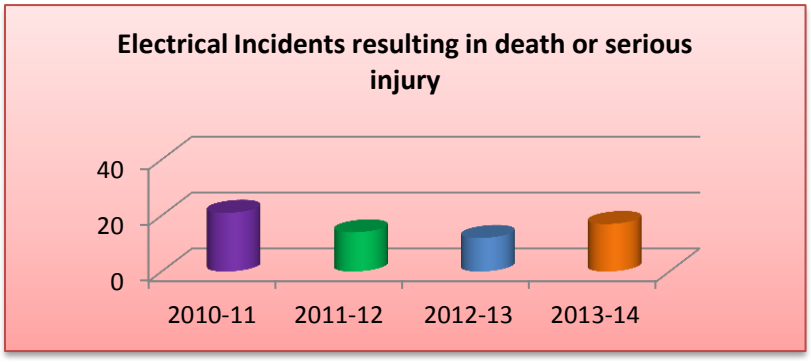
Graph-7.8

7.2.9 Safety (Fatal Incidents):

It is noted with concern that the number of safety incidents has been increased in 2013-14 from 12 to 17. This indicates that no safety measures have been taken by MEPCO during reported period. MEPCO should develop safety culture by initiating safety trainings, so that such mishaps can be reduced as maximum as possible.

Years	Electrical Incidents resulting in death or permanent serious injury to member of staff or public
2010-11	21
2011-12	14
2012-13	12
2013-14	17

Table-7.9



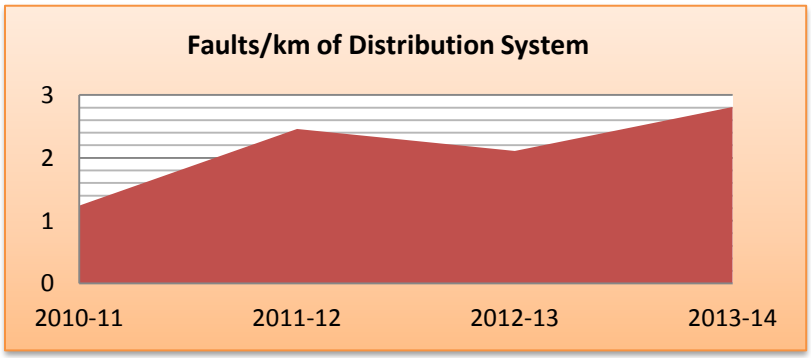
Graph-7.9

7.2.10 Fault Rate (No of Faults/Km):

Table 7.10 shows that Fault Rate has been increased as compared to 2012-13, as the number of faults have been increased rapidly during reported period. This indicates the improvement level of MEPCO towards maintenance works.

Years	Total length of distribution system in Service (km)	Total No. of Distribution system faults	Faults/km of Distribution System
2010-11	87,619	108,348	1.24
2011-12	45,951	113,120	2.46
2012-13	47,128	99,561	2.11
2013-14	47,446	133,405	2.81

Table-7.10



Graph-7.10

8. Quetta Electric Supply Company (QESCO):

8.1 Introduction:

QESCO jurisdiction is expanded to total area of 334,616 sq. km and it facilitates total number of 0.52 Million consumers (residential, industrial & commercial etc.) in the districts/areas of whole Baluchistan except Lasbela. Total peak demand is 1430 MW.

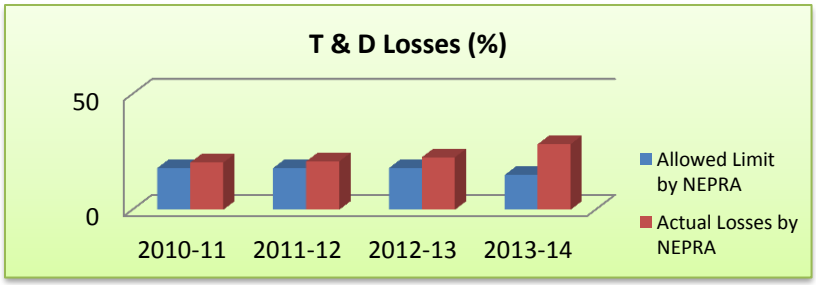
8.2 Parameters Evaluation:

8.2.1 Transmission & Distribution (T&D) Losses:

Table-8.1 shows that QESCO Transmission and distribution losses have increased in year 2013-14 as compared to year 2012-13 by more than 5%. It is important to note that QESCO's reported value far away from NEPRA's target as given in 2013-14 determination, and financial impact comes out to be around 7.725 billion rupees. Hence, it can be said that QESCO is not meeting Regulator's expectations

Years	Allowed limit by NEPRA (%)	Actual T&D Losses (%)
2010-11	18	20.4
2011-12	18	20.9
2012-13	18	22.7
2013-14	15	28.3

Table-8.1



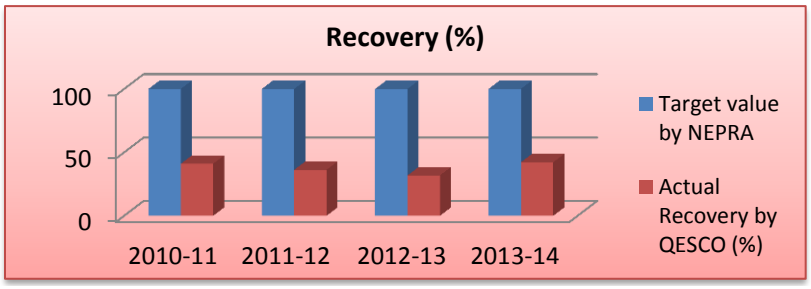
Graph-8.1

8.2.2 Recovery:

In view of Table-8.2, QESCO recovery for year 2013-14 is somehow better then 2012-13, but still very less as compare to other Distribution companies. QESCO should improve this by taking some serious steps which may be helpful for QESCO itself and may reduce the burden on National/ Provincial government

Years	Target value by NEPRA (%)	Actual Recovery (%)
2010-11	100	41
2011-12	100	36.2
2012-13	100	31.8
2013-14	100	42.2

Table-8.2



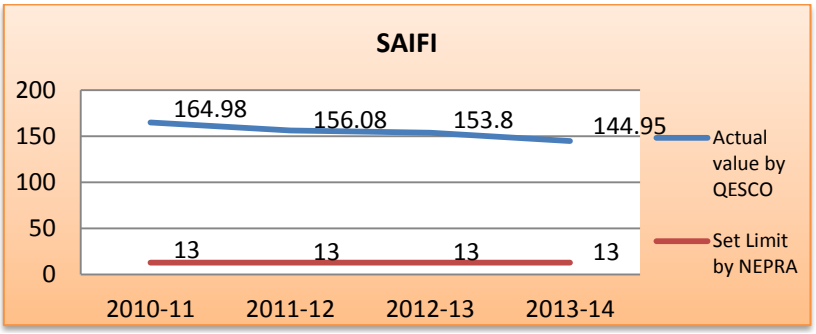
Graph-8.2

8.2.3 System Average Interruption Frequency Index (SAIFI):

In view of Table-3.3, it is observed that the SAIFI value has been increased in 2013-14 rather than any improvement. However, amounts under O&M head are being allowed every year to QESCO. Further, it has been observed that QESCO is not implementing its own distribution code, which covers all possible solutions of all distribution network problems.

Years	Total Number of consumers served by DISCOs	Total annual number of power supply interruptions	SAIFI (3)=(2)/(1)	SAIFI (Set Limit by NEPRA)
	(1)	(2)	(3)	
2010-11	487,620	80,445,210	164.98	13
2011-12	503,158	78,537,463	156.08	13
2012-13	516,327	79,422,810	153.80	13
2013-14	535,145	77,573,236	144.95	13

Table-8.3



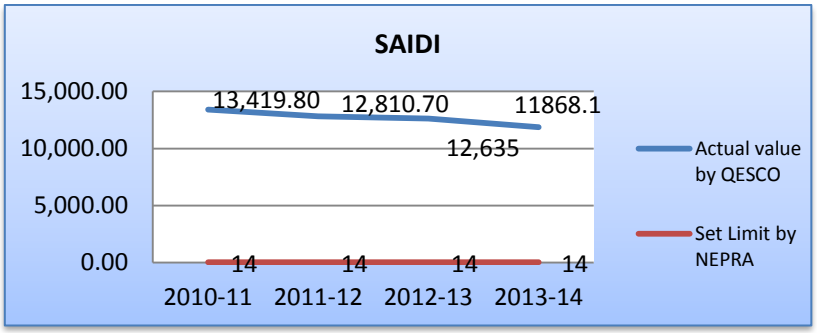
Graph-8.3

8.2.4 System Average Interruption Duration Index (SAIDI):

As regard of SAIDI, no such improvement has been noticed. The value is still very high as compared to Regulator's allowed limit. It seems no proper utilization of O&M funds & investment amounts is being carried out by QESCO in this regard. Important point is that, QESCO was allowed 10% more amount in respect of O&M in year 2013-14 as compared to 2012-13. From Performance rating point of view, it can be said that QESCO have not met with Regulator's expectations.

Years	Total Number of consumers served by DISCOs	Agg.sum of all consumers power supply interruption duration	SAIDI (3)=(2)/(1)	SAIDI (Set Limit by NEPRA)
	(1)	(2)	(3)	
2010-11	487,620	6,543,784,521	13,419.8	14
2011-12	503,158	6,445,823,719	12,810.7	14
2012-13	516,327	6,523,770,172	12,635	14
2013-14	535,145	6,351,140,612	11868.1	14

Table-8.4



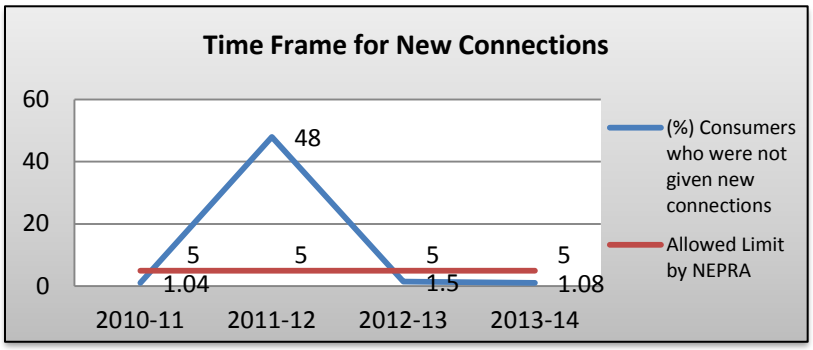
Graph-8.4

8.2.5 Time frame for New Connections (% of consumers who were not given new connections):

QESCO performance regarding time frame for new connections seems better and within NEPRA's limits. Further, as per requirement of Rule 4(f) of PSDR-2005, QESCO has to submit reasons for each day delay for the consumers which were not connected within due time, QESCO has not complied in this regard.
Hence, it can be said that QESCO have partially met with Regulator's expectations.

Years	consumers applied for new connection	Consumers who were not given connections in permitted time	Consumers who were not given new connections (%)
2010-11	10,459	109	1.04
2011-12	386	185	48.0
2012-13	12,088	183	1.50
2013-14	17,491	190	1.08

Table-8.5



Graph-8.5

8.2.6 Nominal Voltage:

Table-8.6 shows the little increase in number of complaints regarding voltage variation as compared to year 2012-13. This shows QESCO's behavior towards maintenance works.

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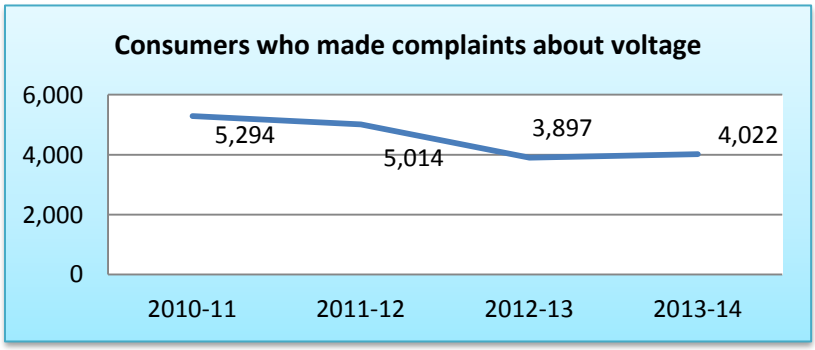
Years	Total Number of consumers	Consumers who made complaints about voltage	(%) increase/decrease in number of complaints
2010-11	487,620	5,294	-
2011-12	503,158	5,014	-5.28
2012-13	516,327	3,897	-22.2
2013-14	535,145	4,022	+3.20

Table-8.6



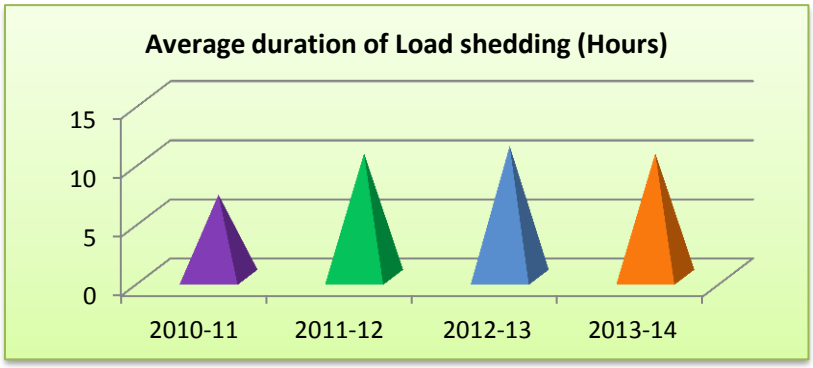
Graph-8.6

8.2.7 Load Shedding:

With reference of table-8.7, it is noted that QESCO has done averagely 10.5 hours load shedding on daily basis, although, it is little less as compared to 2012-13 but question is whether it is in line with rule 4(f) or otherwise. Accordingly, directions have already been conveyed to QESCO for strict compliance.

Years	Average duration of Load shedding (Hours)
2010-11	7
2011-12	10.5
2012-13	11.13
2013-14	10.5

Table-8.7



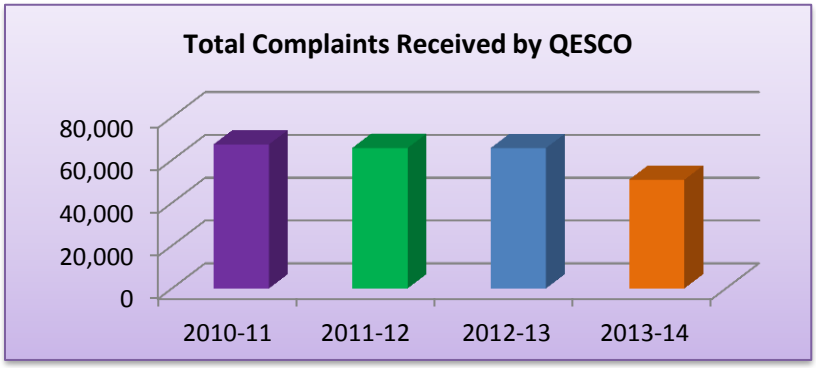
Graph-8.7

8.2.8 Complaints:

In view of table-8.8, some improvement has been noted as number of overall complaints received by QESCO has been decreased in year 2013-14 as compared to year 2012-13. But still the number is large, which shows un-satisfaction of consumers towards its utility.

Years	Total Complaints received by QESCO
2010-11	67,348
2011-12	65,647
2012-13	65,640
2013-14	50,811

Table-8.8



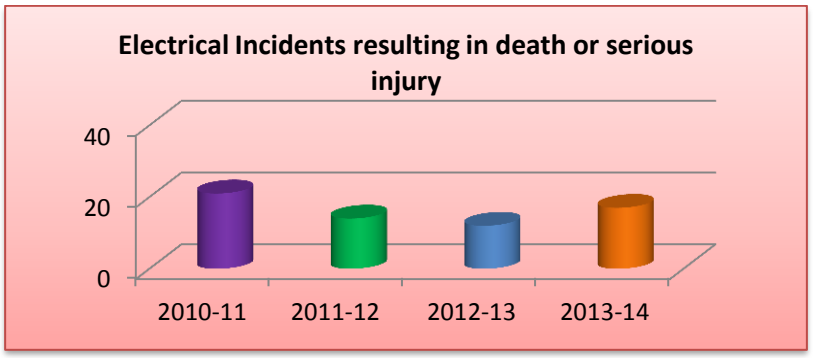
Graph-8.8

8.2.9 Safety (Fatal Incidents):

QESCO performance related to fatal Incidents in year 2013-14 shows improvement as compared to previous years, but still there is much room for improvement. QESCO should develop safety training culture in every sub division, so that such mishaps can be reduced as possible. QESCO has not provided the details of fatal incidents as per requirement of form-9 of PSDR-2005.

Years	Electrical Incidents resulting in death or permanent serious injury to member of staff or public
2010-11	20
2011-12	16
2012-13	7
2013-14	2

Table-8.9



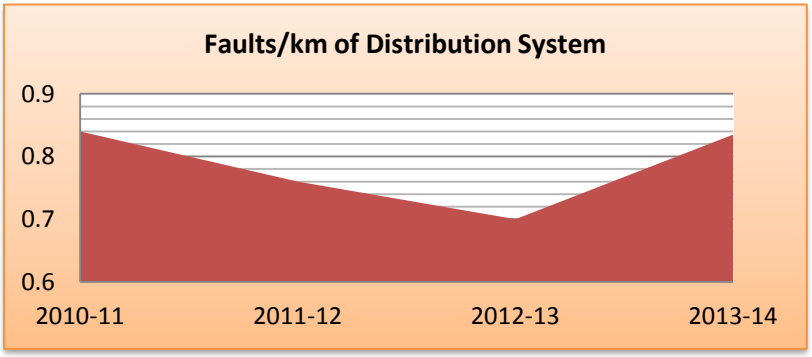
Graph-8.9

8.2.10 Fault Rate (No of Faults/Km):

Table 8.10 shows that QESCO fault rate have been increased in year 2013-14 as compared to previous year. This shows that QESCO is not serious towards the maintenance of their network/system.

Years	Total length of distribution system in Service (km)	Total No. of Distribution system faults	Faults/km of Distribution System
2010-11	48,184	40,411	0.84
2011-12	50,374	38,431	0.76
2012-13	52,000	36,475	0.70
2013-14	48,340	40,394	0.835

Table-8.10



Graph-8.10

9. Sukkur Electric Power Company (SEPCO)

9.1 Introduction:

SEPCO jurisdiction is expanded to total area of 56,300 sq. km and it facilitates total number of 0.69 Million consumers (residential, industrial & commercial etc.) in the districts/areas of Sukkur, Larkana, Jacobabad. Total peak demand is 1019 MW.

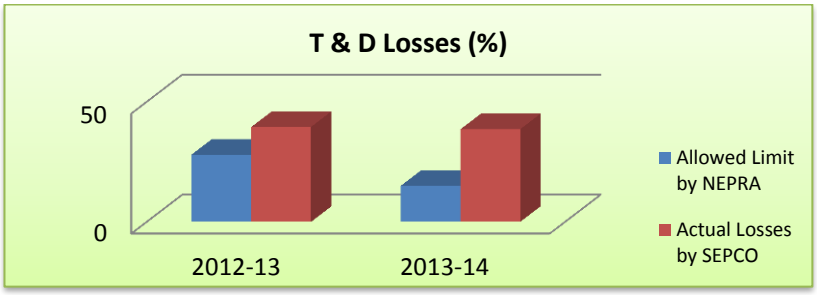
9.2 Parameters Evaluation:

9.2.1 Transmission & Distribution (T&D) Losses:

Table-9.1 shows the little decrease in T&D losses of SEPCO system but, stile figure is more than double as compared to NEPRA target. as compared to year 2012-13. By comparing reported figure with target value, the difference comes out to be 21.56% having financial impact around 16.170 billion rupees.

Years	Allowed limit by NEPRA (%)	Actual T&D Losses (%)
2011-12	28	N.A
2012-13	28	39.51
2013-14	15	38.56

Table-9.1



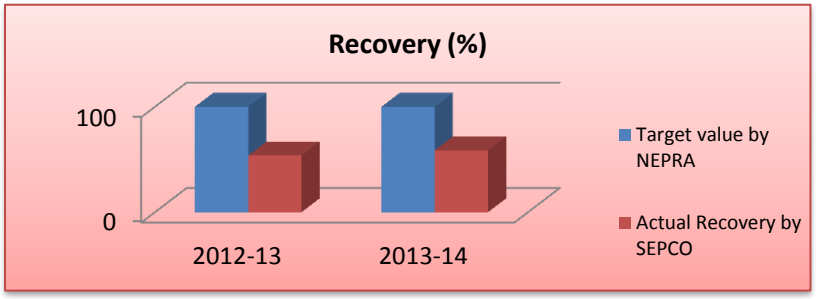
Graph-9.1

9.2.2 Recovery:

Comparison of SEPCO's recovery graph shows little improvement as compared to 2012-13, but still, figure is very small as compared to other DISCOs. It can be improved by applying good governance strategies, and SEPCO can contribute in catering the National power crisis.

Years	Target value by NEPRA (%)	Actual Recovery (%)
2011-12	100	N.A
2012-13	100	53.63
2013-14	100	58.60

Table-9.2



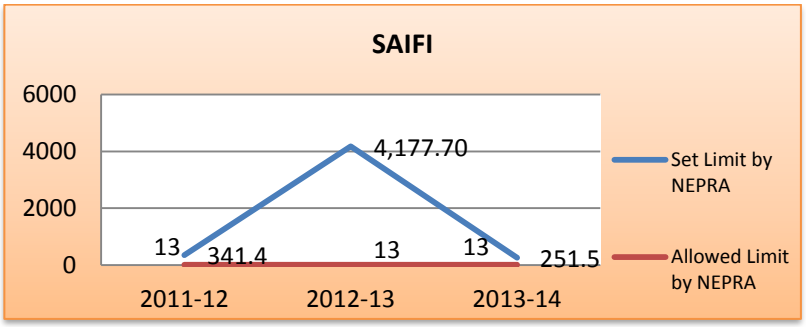
Graph-9.2

9.2.3 System Average Interruption Frequency Index (SAIFI):

In view of Table-9.3, we can say that SEPCO has reduced SAIFI but still have not met with Regulator's expectations. It is important to note that the data related to safety reported by SEPCO contains vide variations over period of last three years which indicates that either their system is unstable or not proper understandings of such standards.

Years	Total Number of consumers served by DISCOs	Total annual number of power supply interruptions	SAIFI (3)=(2)/(1)	SAIFI (Set Limit by NEPRA)
	(1)	(2)	(3)	
2011-12	643,197	219,610,030	341.4	13
2012-13	687,045	2,870,251,802	4,177.7	13
2013-14	711,727	178,978,331	251.5	13

Table-9.3



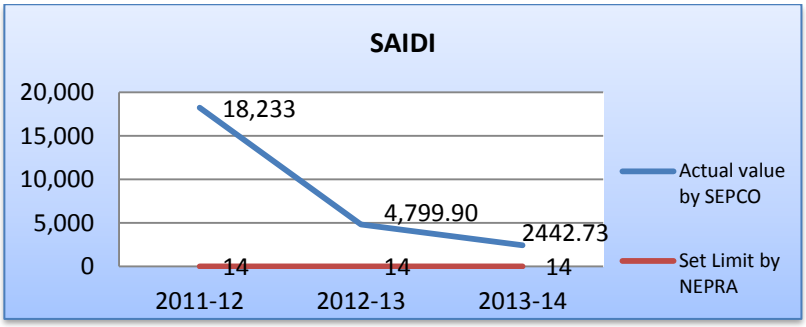
Graph-9.3

9.2.4 System Average Interruption Duration Index (SAIDI):

As regard of the SAIDI, there is little improvement, but still value is too high as compared to set limit. Hence, it can be said that SEPCO has not met with regulator's expectations, despite of the fact that 678 million rupees were allowed to SEPCO in 2013-14 under O&M head, which is 62 million more as compared to 2012-13.

Years	Total Number of consumers served by DISCOs	Agg.sum of all consumers power supply interruption duration (Min)	SAIDI (3)=(2)/(1)	SAIDI (Set Limit by NEPRA)
	(1)	(2)	(3)	
2011-12	643,197	11,727,318,040	18,233	14
2012-13	687,045	3,297,761,640	4,799.9	14
2013-14	711,727	1,738,562,122	2442.73	14

Table-9.4



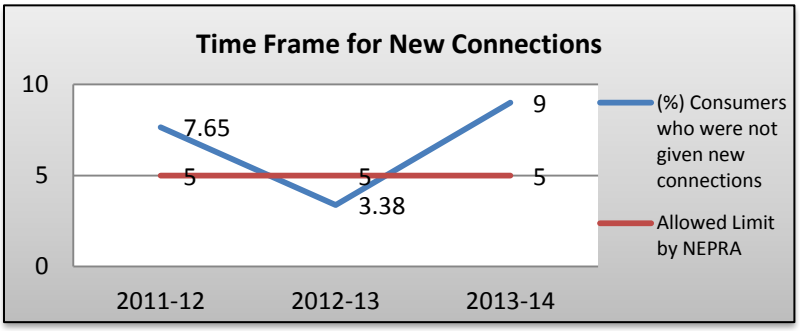
Graph-9.4

9.2.5 Provision of New Connections(% of consumers who were not given new connections):

Table-9.5 shows that SEPCO performance deteriorated in year 2013-14 as compared to previous year, regarding provision of new connections. SEPCO has not provided the connections up to 9% of applied consumers which is more than the allowed limit by NEPRA. It is important to note that SEPCO has not complied with the requirements of Rule 4 (c) of PSDR-2005 and have not submitted each day delay reasons for not providing the connections to the eligible consumers

Years	consumers applied for new connection	Consumers who were not given connections in permitted time	Consumers who were not given new connections (%)
2011-12	5,620	430	7.65
2012-13	10,190	345	3.38
2013-14	17,165	1,556	9.0

Table-9.5



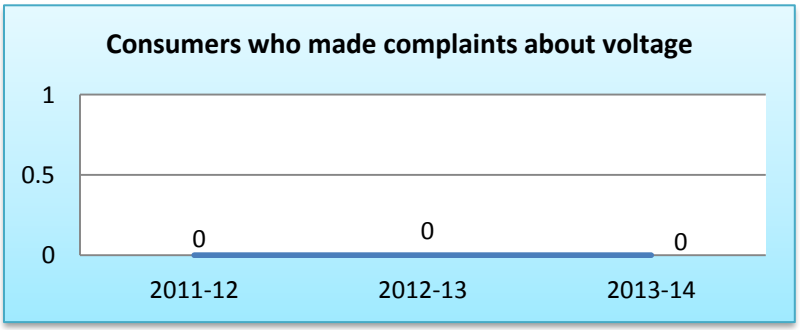
Graph-9.5

9.2.6 Nominal Voltage:

It is surprising to note that there is no any single complaint about voltage variations despite the high reported values of T&D losses, SAIFI & SAIDI by SEPCO. This indicates that either the system is too healthy or the data is not based on realistic approach.

Years	Total Number of consumers	Consumers who made complaints about voltage	(%) Consumers who made complaints about voltage
2011-12	643,197	0	-
2012-13	687,045	0	0
2013-14	711,727	0	0

Table-9.6



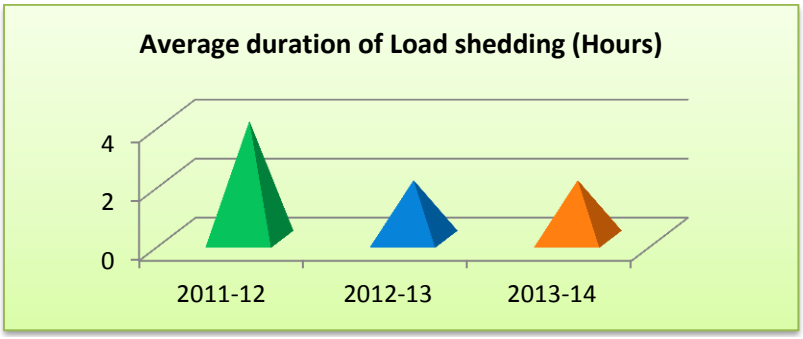
Graph-9.6

9.2.7 Load Shedding:

Table-9.7 shows that SEPCO average duration of load shedding is 2 hours, which is same as of previous year. However, keeping in view the media reports, this data seems to be unrealistic. Important point is that load shedding must be in line with Rule 4(f) of PSDR-2005. Accordingly, directions have already been conveyed for strict compliance in this regard.

Years	Average duration of Load shedding (Hours)
2011-12	4
2012-13	2
2013-14	2

Table-9.7



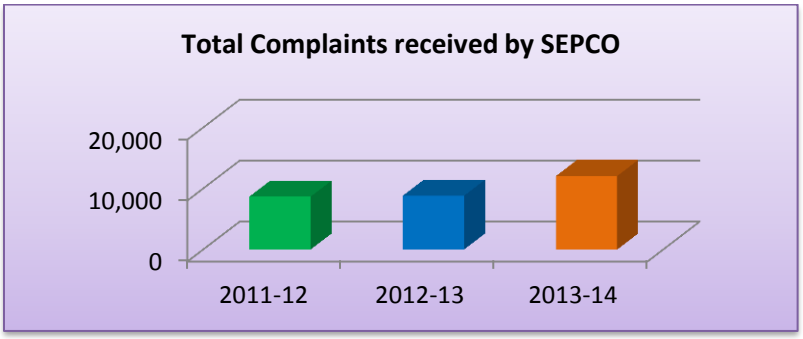
Graph-9.7

9.2.8 Consumer Service - Complaints:

Table-9.8 shows that SEPCO performance have been decreased in year 2013-14 as compared to previous year as number of complaints have been increased by 36%. Since NEPRA allowed 10 % more amount in head of maintenance in year 2013-14, but, even SEPCO has failed to show significant improvement. This indicates that utilization of O&M amounts is not being carried out properly.

Years	Total Complaints received by SEPCO
2011-12	8,659
2012-13	8,813
2013-14	12,051

Table-9.8



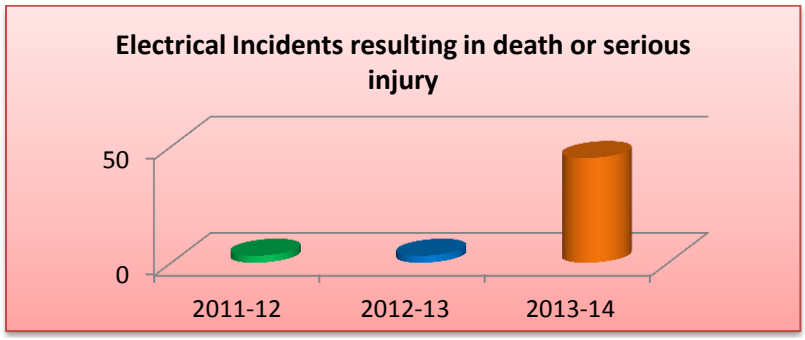
Graph-9.8

9.2.9 Safety (Fatal Incidents):

In view of Table-9.9, it is alarming to note that SEPCO's number of fetal incidents have been increased to a very high level which is many times more as compared to year 2012-13. This shows that there is nothing about Safety culture in SEPCO and SEPCO management does not realize the value of human life. It is also important to note that SEPCO has provided details of only seven fatal incidents.

Years	Electrical Incidents resulting in death or permanent serious injury to member of staff or public
2011-12	3
2012-13	3
2013-14	45

Table-9.9



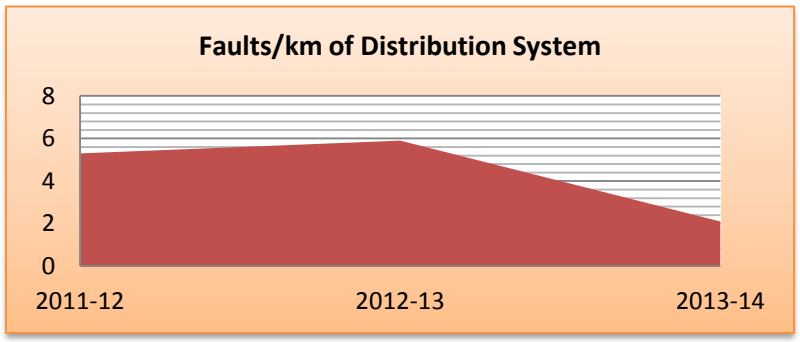
Graph-9.9

9.2.10 Fault Rate (No of Faults/Km):

Table-9.10 shows that SEPCO fault rate have been reduced in year 2013-14 as compared to year 2012-13, but on the other hand, number of complaints have been increased. This indicates that SEPCO's reported data does not match with each other. Hence, it can be said that the reported data is not based on realistic approach.

Years	Total length of distribution system in Service (km)	Total No. of Distribution system faults	Faults/km of Distribution System
2011-12	35,954	190,575	5.3
2012-13	37,323	218,984	5.9
2013-14	39,918	83,463	2.1

Table-9.10



Graph-9.10

10. Hyderabad Electric Supply Company (HESCO)

10.1 Introduction

HESCO jurisdiction is expanded to total area of 70,458 sq. km and it facilitates total number of 0.89 Million consumers (residential, industrial, commercial etc.) of Hyderabad, Tando Muhammad Khan, Badin, Thatta, Mirpur Khas & Tharparkar Districts of Sindh Province .Total peak demand is 950 MW

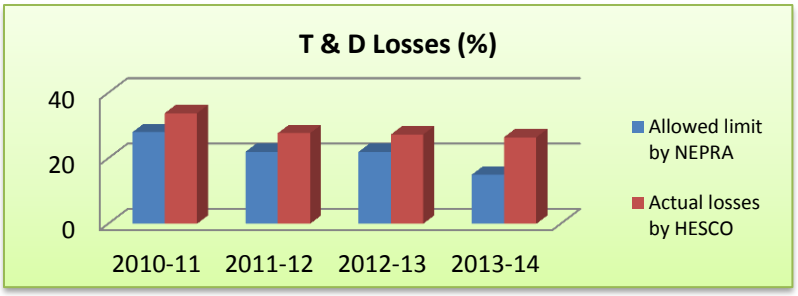
10.2 Parameters Evaluation:

10.2.1 Transmission & Distribution (T&D) Losses:

Table-10.1 shows that T&D losses of HESCO have been slightly decreased by less than in year 2013-14 as compared to 2012-13. But this difference is very small even less then 1%. Still Actual T&D losses of HESCO are far away from NEPRA allowed limit. It shows that HESCO do not meet regulators expectations, as the target of losses given by Authority in year 2013-14 determination is 15%. This shows non-serious behavior of HESCO towards improvement of their performance.

Years	Allowed limit by NEPRA (%)	Actual T&D Losses (%)
2010-11	28	33.80
2011-12	22	27.70
2012-13	22	27.30
2013-14	15	26.46

Table-10.1



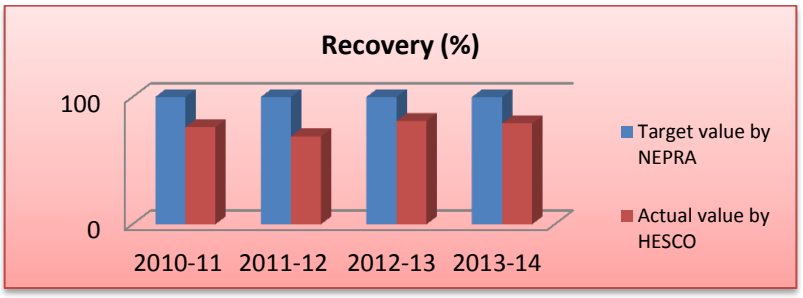
Graph-10.1

10.2.2 Recovery:

Comparison of HESCO's recovery graph shows less recovery in year 2013-14 as compared to year 2012-13. Although this decrease is not so high but HESCO should improve more rather than decline and contribute to manage the national issue i.e. Circular Debt.

Years	Target value by NEPRA (%)	Actual Recovery (%)
2010-11	100	76.3
2011-12	100	69.1
2012-13	100	81.2
2013-14	100	79.2

Table-10.2



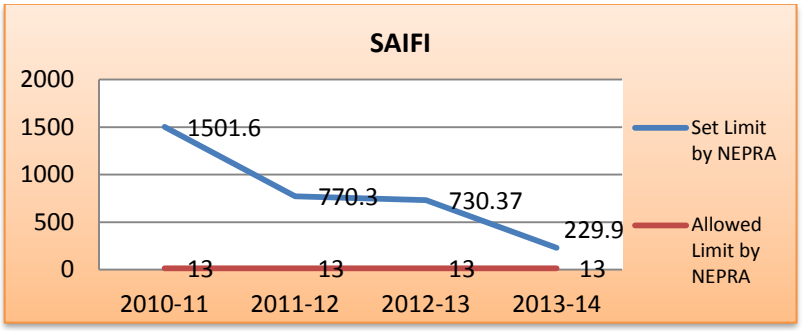
Graph-10.2

10.2.3 System avergae Interruption Frequency Index (SAIFI):

Table-10.3 shows that SAIFI values has been decreased in year 2013-14 as compared to year 2012-13 but still the value is far away from NEPRA's limit i.e. 13. Hence, from performance rating point of view, HESCO has not met with Regulator's expectations. HESCO should utilize O&M funds in proper way to reduce its SAIFI values and to achieve set target.

Years	Total Number of consumers served by HESCO	Total annual number of power supply interruptions	SAIFI (3)=(2)/(1)	SAIFI (Set Limit by NEPRA)
	(1)	(2)	(3)	
2010-11	1,539,637	2,311,912,695	1501.6	13
2011-12	883,335	680,501,756	770.30	13
2012-13	915,805	668,882,208	730.37	13
2013-14	952,296	218,961,910	229.9	13

Table-10.3



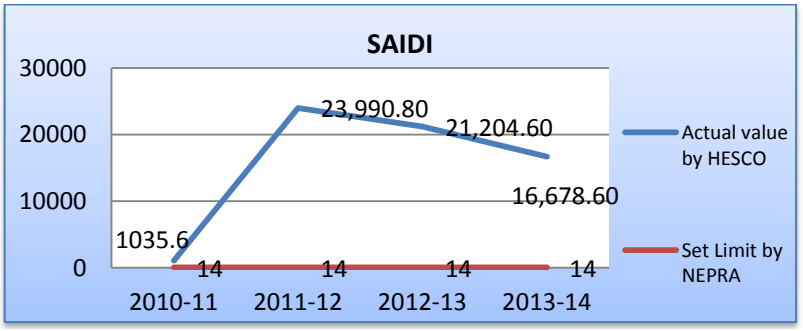
Graph-10.3

10.2.4 System Average Interruption Duration Index (SAIDI):

Same in case of SAIDI, HESCO has improved its SAIDI values but still many times more than set limit i.e. 14 minutes. Since a colossal amount is being allowed every year by NEPRA even, in 2013-14, 81 million were allowed more under maintenance head as compared to 2012-13 but, HESCO has still not showed any significant improvement.

Years	Total Number of consumers served by HESCO	Agg.sum of all consumers power supply interruptions	SAIDI (3)=(2)/(1)	SAIDI (Set Limit by NEPRA)
	(1)	(2) (Minutes)	(3)	
2010-11	1,539,637	1,594,389,070	1035.6	14
2011-12	883,335	21,191,991,580	23,990.8	14
2012-13	915,805	19,419,312,750	21,204.6	14
2013-14	952,296	15,883,027,060	16,678.6	14

Table-10.4



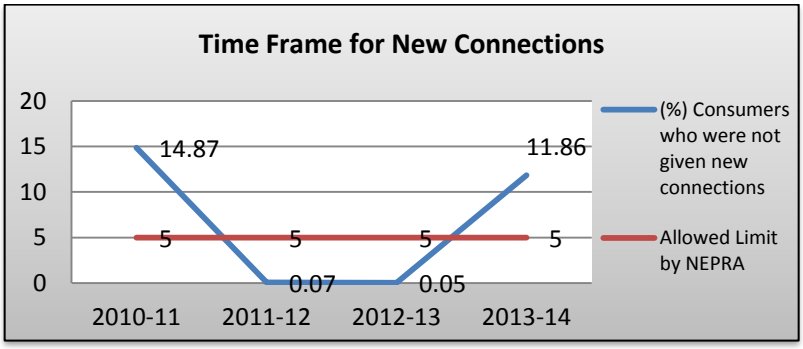
Graph-10.4

10.2.5 Time frame for New Connections (% of consumers who were not given new connections):

It is noted with concern that number of applied consumers who have not been provided new connections in year 2013-14 has been drastically increased as compared to year 2012-13. It has also been noted that the reported value is far beyond the set standard of NEPRA. Further, HESCO has not complied with requirements of Rule 4(c) of PSDR-2005 and has not provided the reasons of each day delay in provision of new connections.

Years	consumers applied for new connection	Consumers who were not given connections in permitted time	Consumers who were not given new connections (%)
2010-11	6,746	1,003	14.87
2011-12	16,084	11	0.07
2012-13	26,635	15	0.05
2013-14	41,398	4911	11.86

Table-10.5



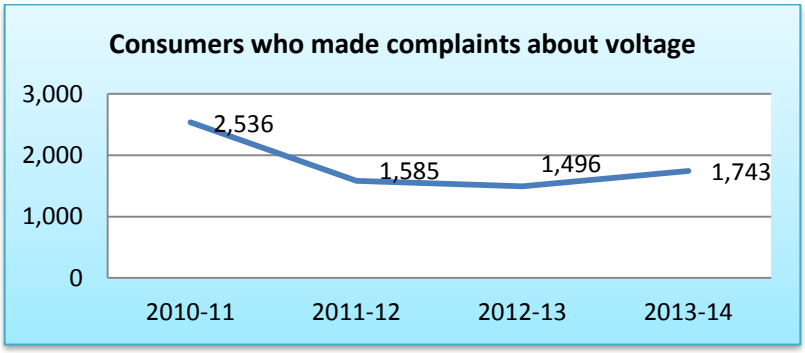
Graph-10.5

10.2.6 Nominal Voltage:

Table-10.6 indicates that number of complaints regarding voltage variation has been increased in year 2013-14 by 16.5 % as compared to year 2012-13. This shows the dissatisfaction level of HESCO consumers towards their utility. HESCO should implement its Distribution code, which cover all possible solutions regarding network constraints.

Years	Total Number of consumers	Consumers who made complaints about voltage	(%) Increase/Decrease in number of complaints
2010-11	1,539,637	2,536	-
2011-12	883,335	1,585	-37.5
2012-13	915,805	1,496	-5.6
2013-14	952,296	1,743	+16.5

Table-10.6



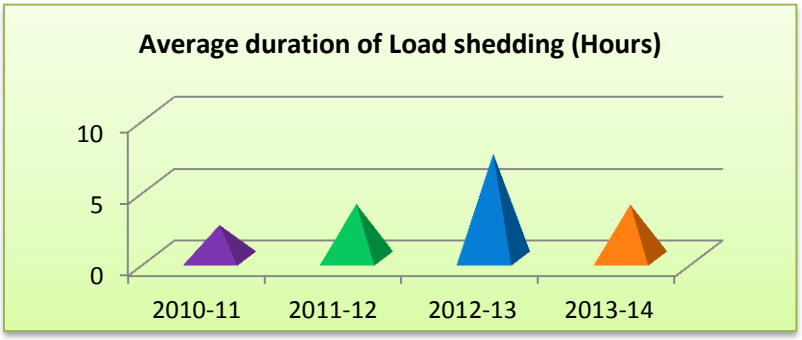
Graph-10.6

10.2.7 Load Shedding:

Table-10.7 shows that duration of load shedding has been reduced in year 2013-14 as compared to year 2012-13, but, keeping in view the media reports this figure seems to be unrealistic. Important point is, whether it is in line with rule 4(f) of PSDR-2005 or otherwise. Accordingly, directions have already been conveyed for strict compliance.

Years	Average duration of Load shedding (Hours)
2010-11	2.33
2011-12	3.8
2012-13	7.3
2013-14	3.75

Table-10.7



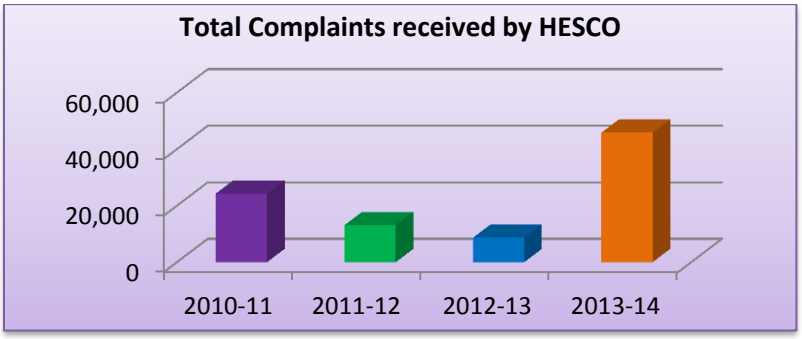
Graph-10.7

10.2.8 Consumer Service - Complaints:

It is surprising to note that number of complaints received by HESCO in year 2013-14 is much more as compared to year 2012-13. On the other hand HESCO has claimed about improvement in T&D losses, SAIFI & SAIDI. Since, NEPRA has allowed 10% more amounts in head of maintenance, but, HESCO's performance has been declined rather than improvement.

Years	Total Complaints received by HESCO
2010-11	24,211
2011-12	13,018
2012-13	8,613
2013-14	45,794

Table-10.8



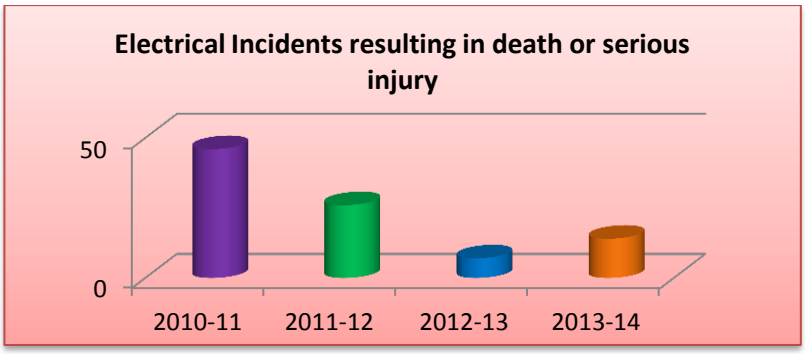
Graph-10.8

10.2.9 Safety (Fatal Incidents):

Table-10.9 indicates that the number of fatal incidents in year 2013-14 has been double as compared to 2012-13. This shows that HESCO is not taking preventive safety measure i.e. Safety trainings etc. HESCO should realize value of human life and take strict actions to reduce such happenings.

Years	Electrical Incidents resulting in death or permanent serious injury to member of staff or public
2010-11	46
2011-12	26
2012-13	7
2013-14	14

Table-10.9



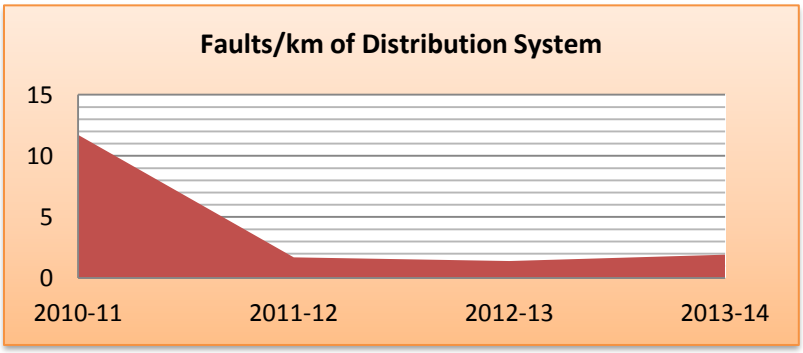
Graph-10.9

10.2.10 Fault Rate (No of Faults/Km)

From table 10.10, it is noted that fault rate have been increased in year 2013-14 as compared to year 2012-13. This indicates that utilization of O&M funds is not being carried out properly.

Years	Total length of distribution system in Service (km)	Total No. of Distribution system faults	Faults/km of Distribution System
2010-11	80,172	939,258	11.72
2011-12	42,052	69,824	1.7
2012-13	43,239	62,206	1.4
2013-14	44,040	84,937	1.92

Table-10.10



Graph-10.10

11. Karachi Electric (K-Electric)

11.1 Introduction

K-Electric is spread over entire Karachi and its suburbs up to Dhabeji and Gharo in Sindh and over Hub, Uthal, Vindhar and Bela in Bolochistan. The total jurisdiction is expanded to 6000 sq. km and it facilitates total number of 2.385 Million consumers (residential, industrial, commercial etc.).

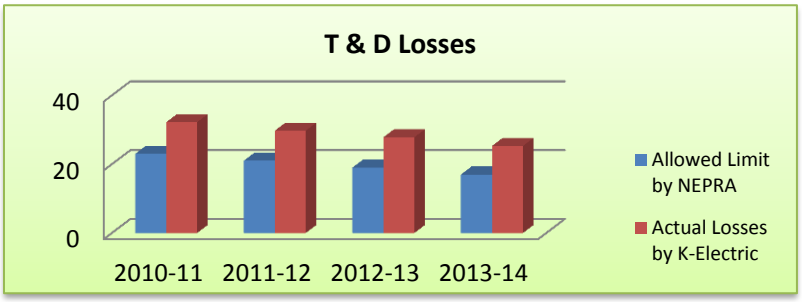
11.2 Parameters Evaluation:

11.2.1 Transmission & Distribution (T&D) Losses:

Table 11.1 & Graph shows that KEL has made improvement in form of reduction of 2% losses having financial impact comes out to be 1890 million rupees. Therefore, KEL should improve more and make maximum increase in its revenue. But it is also important to note that still the reported value is away from NEPRA's target, hence it can be said that KEL has not completely met with regulator's expectations.

Years	Allowed limit by NEPRA (%)	Actual T&D Losses (%)
2010-11	23	32.20
2011-12	21	29.73
2012-13	19	27.82
2013-14	17	25.30

Table-11.1



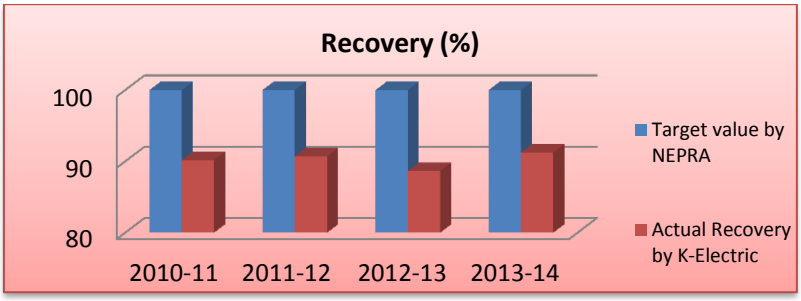
Graph-11.1

11.2.2 Recovery:

As regard of the recovery, improvement has been noted as compared to 2012-13. This can be improved more as IESCO & FESCO by applying good governance techniques.

Years	Target value by NEPRA (%)	Actual Recovery (%)
2010-11	100	90.17
2011-12	100	90.72
2012-13	100	88.65
2013-14	100	91.22

Table-11.2



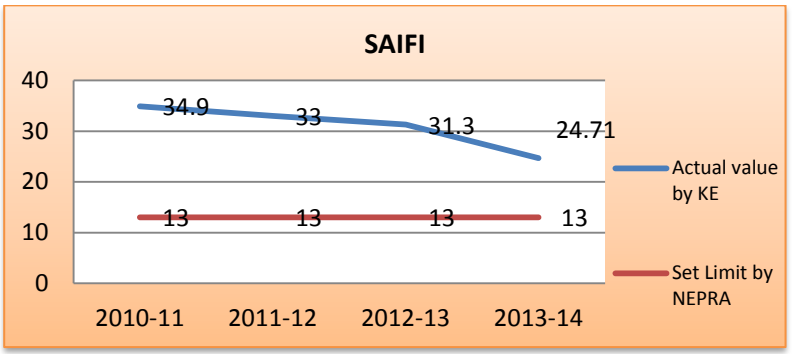
Graph-11.2

11.2.3 System avergae Interruption Frequency Index (SAIFI):

Table 11.3 shows that SAIFI value in 2013-14 has been decreased as compared to 2012-13 but still little high then NEPRA's set limit. Further, the trend also shows gradual improvement over a period of last four years. KEL should take more efforts and make possible the achievement of Standard i.e. 13 same is like IESCO & GEPCO.

Years	Total Number of consumers served by K-Electric	Total annual number of power supply interruptions	SAIFI (3)=(2)/(1)	SAIFI (Set Limit by NEPRA)
	(1)	(2)	(3)	
2010-11	2,370,738	82,737,192	34.90	13
2011-12	2,388,579	77,612,818	33	13
2012-13	2,385,100	74,576,586	31.30	13
2013-14	2,358,357	58,293,812	24.71	13

Table-11.3



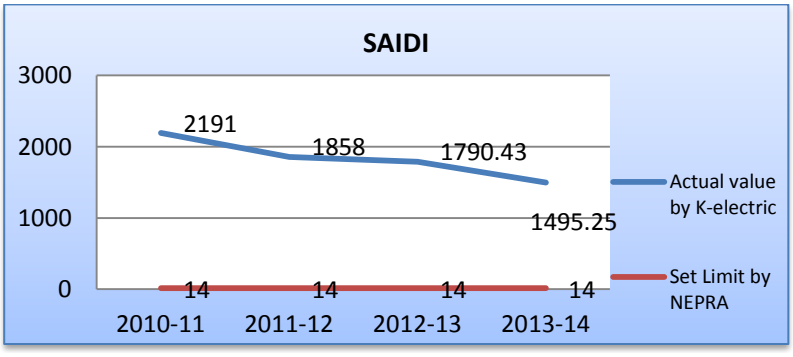
Graph-11.3

11.2.4 System Average Interruption Duration Index (SAIDI):

Regarding SAIDI, decrease by 16% has been noted, but, still value is far away from Set limit i.e. 14. KEL should improve more as there is much room for improvement. From performance rating point of view, KEL is not meeting regulator's expectations. KEL should implement its own Distribution Code, which covers all possible solutions regarding network constraints.

Years	Total Number of consumers served by K-Electric	Agg.sum of all consumers power supply interruption duration	SAIDI (3)=(2)/(1)	SAIDI (Set Limit by NEPRA)
	(1)	(2) (Minutes)	(3)	
2010-11	2,370,738	5,195,969,221	2191	14
2011-12	2,388,579	4,438,509,649	1858	14
2012-13	2,385,100	4,270,360,371	1790.43	14
2013-14	2,358,357	3,526,349,005	1495.25	14

Table-11.4



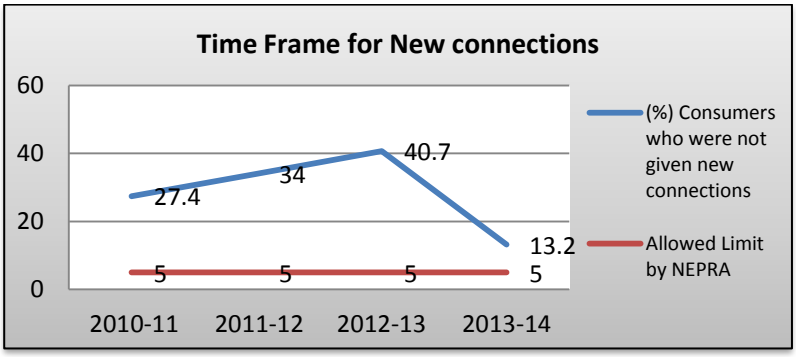
Graph-11.4

11.2.5 Time frame for New Connections (% of consumers who were not given new connections):

Table 11.5 indicates that KEL has improved in provision of new connections but still KEL has not fully complied with set Standards i.e. provision of connections to eligible consumers at least up to 95% of applied. Further, it has been found that KEL has not complied with requirements of Rule 4(C) of PSDR-2005 and has not submitted each day delay reasons for those consumers who were not provided connections i.e. 1,331.

Years	consumers applied for new connection	Consumers who were not given connections in permitted time	(%) Consumers who were not given new connections
2010-11	19,129	5,258	27.40
2011-12	10,994	3,765	34
2012-13	5,573	2,269	40.7
2013-14	10,039	1,331	13.2

Table-11.5



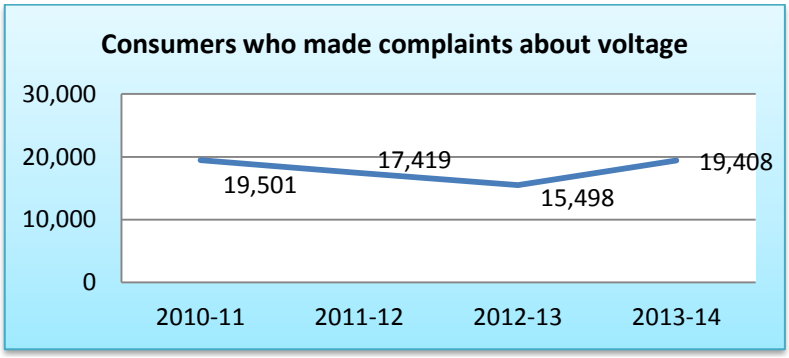
Graph-11.5

11.2.6 Nominal Voltage:

It is noted with concern that the number of complaints made by consumers about voltage variation has been increased by 25% . This shows the un-satisfaction level of KEL's consumers towards their utility.

Years	Total Number of consumers	Consumers who made complaints about voltage	(%) Increase/Decrease in number of Complaints
2010-11	2,370,738	19,501	-
2011-12	2,388,579	17,419	-10.67
2012-13	2,385,100	15,498	-11.02
2013-14	2,358,357	19,408	+25.22

Table-11.6



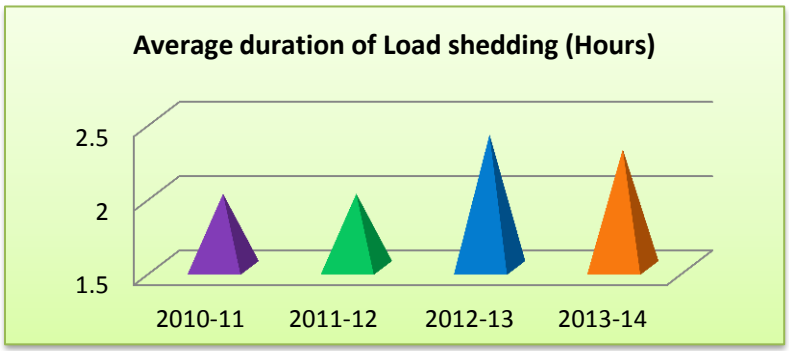
Graph-11.6

11.2.7 Load Shedding:

In view of Table 11.7, it is commented average duration of load shedding remained almost same as of 2012-13. However, keeping in view of media reports, this figure seemed to be based on unrealistic approach. Important point is to diagnose that whether it is in line with Rule 4 (f) of PSDR-2005 or otherwise. Accordingly, directions have already been conveyed for strict compliance.

Years	Average duration of Load shedding (Hours)
2010-11	2
2011-12	2
2012-13	2.4
2013-14	2.3

Table-11.7



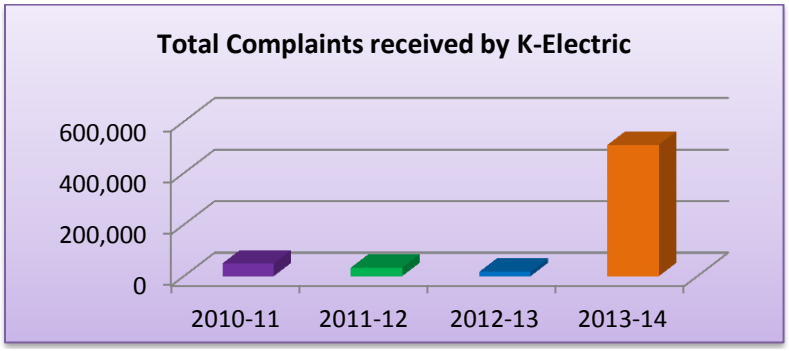
Graph-11.7

11.2.8 Consumer Service - Complaints:

It is noted with great concern that the number of complaints received by KEL has been suddenly raised from 16 thousand to 500 thousand. On the other hand, KEL has shown improvement in SAIFI, SAIDI, and time frame of New Connections. This shows the mismatching of data with each other. Keeping in view such high rise, it can also be said that KEL behavior towards its network maintenance is not serious.

Years	Total Complaints received by K-Electric
2010-11	49,281
2011-12	33,135
2012-13	16,756
2013-14	509,510

Table-11.8



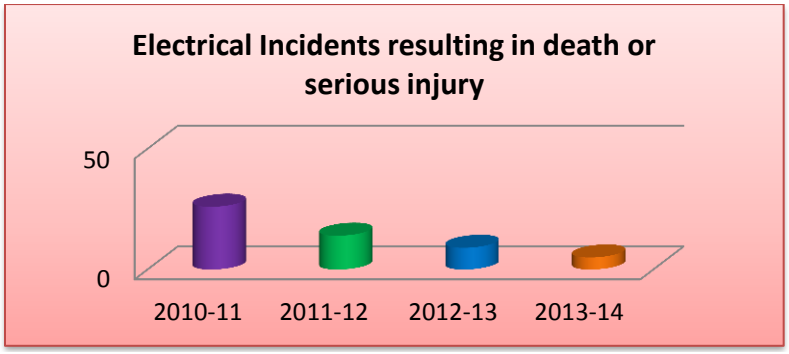
Graph-11.8

11.2.9 Safety (Fatal Incidents):

As regard of the Safety, it has been noticed that the number of fatal incidents have been reduced in 2013-14 as compared to 2012-13. KEL should put maximum efforts in development of safety culture and try to make this figure zero.

Years	Electrical Incidents resulting in death or permanent serious injury to member of staff or public
2010-11	26
2011-12	14
2012-13	9
2013-14	5

Table-11.9



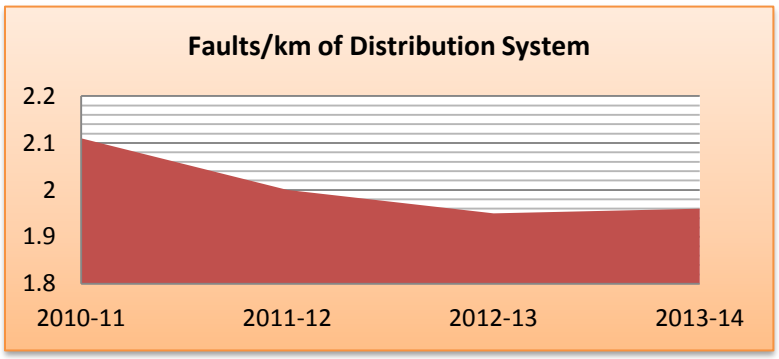
Graph-11.9

11.2.10 Fault Rate (No of Faults/Km):

Table 11.10 shows slight increase in fault rate, as the number of faults with increasing network has been increased in year 2013-14 as compared to 2012-13. This indicates that proper O&M activities are not being carried out by KEL.

Years	Total length of distribution system in Service (km)	Total No. of Distribution system faults	Faults/km of Distribution System
2010-11	24,809	52,324	2.11
2011-12	25,826	50,984	2
2012-13	26,666	52,071	1.95
2013-14	28,337	55,798	1.96

Table-11.10



Graph-11.10

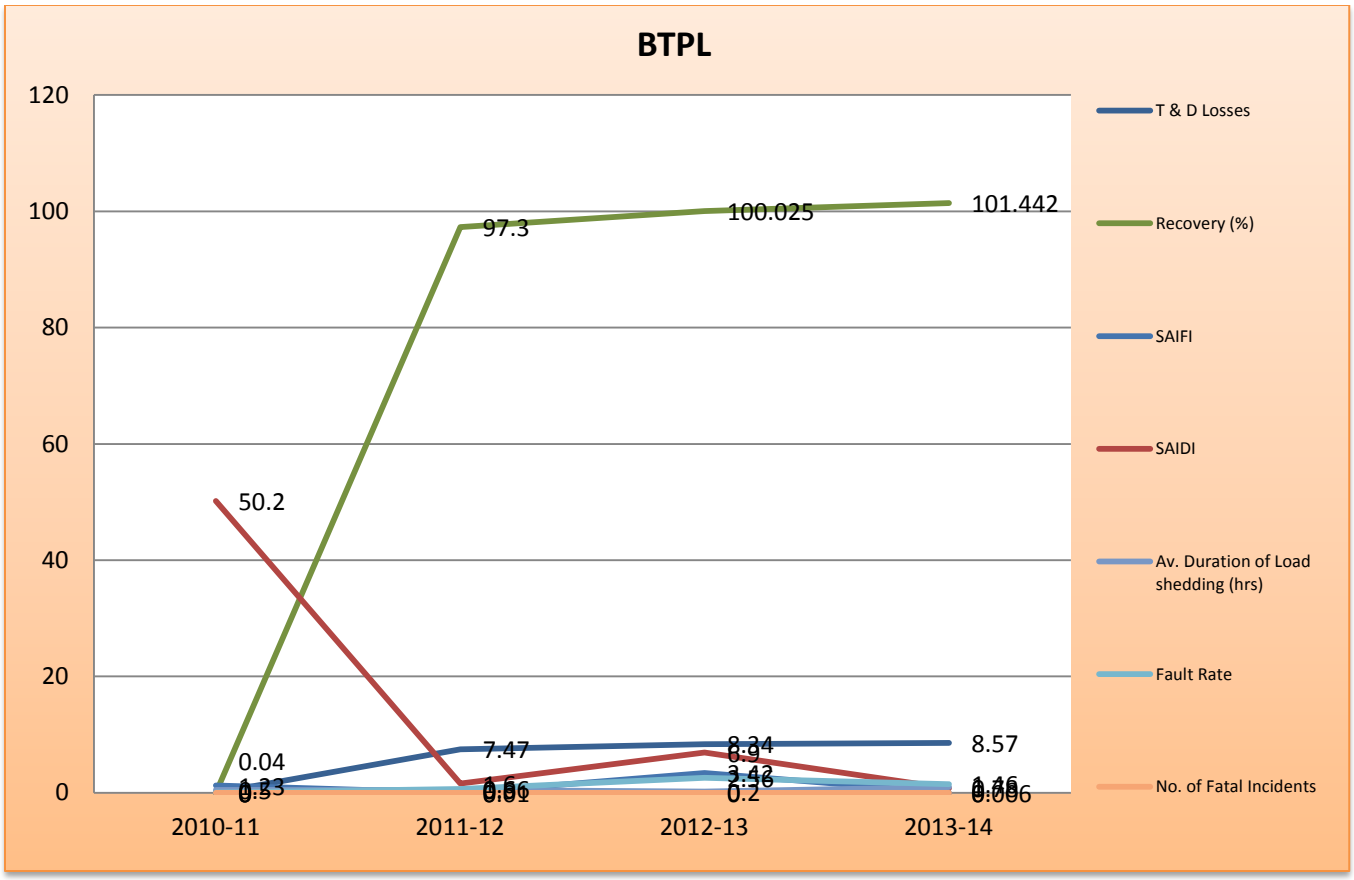
12. Bahria Town Private Limited (BTPL)

12.1 Introduction

Bahria Town Private Limited (BTPL) is a private distribution company and serves a total number of 11,838 consumers. BTPL spreads over its two regions i.e. North & South Regions

12.2 Parameters Evaluation:

Sr. #	Description	APR for 2010-11	APR for 2011-12	APR for 2012-13	APR for 2013-14
1	Technical Losses (10%)	N.P	7.47	8.34	8.57
2	Administrative Losses	N.P	7.47	8.34	8.57
3	Percentage of Recovery	N.P	97.3	100.025	101.442
4	Total number of consumers served by BTPL	6,756	8,845	11,838	15,636
5	Total annual number of Power Supply Interruptions	8,291	116	40,510	105
6	Aggregate sum of all consumers Power Supply interruptions duration (minutes)	339,306	14,658	81,454	12,303
7	System Average Interruption Frequency Index (SAIFI), Power Supply Interruptions per consumer per year	1.23	0.01	3.42	0.006
8	System Average Interruption Duration Index (SAIDI), Power Supply Interruptions Durations	50.2	1.6	6.9	0.78
9	Total Number of Consumers applied for Connections	1,197	2,045	2,045	3,698
10	Total Number of Consumers who were not given connections in permitted time period	0	0	0	0
11	Percentage Consumers who were not given connections in permitted time period	0	0	0	0
12	Total number of consumers who made complaints about voltage	0	0	0	0
13	Average duration of load-shedding period (hours)	0.5	0.5	0.2	1
14	Total Complaints received by BTPL during the year	723	1,560	1,481	1,550
15	Total length of Distribution System in service (km)	241	898	1084	1095
16	Total number of Distribution System faults	76	595	2,776	1,601
17	Faults/km of Distribution System	0.04	0.66	2.56	1.46
18	Electrical Incidents resulting in death or permanent serious injury / disability to member of staff / public	0	0	0	0



The above graph and relevant table indicates the behavior of BTPL in respect of T&D Losses, Recovery, SAIFI, SAIDI, Time Frame for New Connections, Consumer complaints about voltage variation, average duration of load shedding, total number of complaints received by BTPL, number of electrical incidents resulting in death or permanent serious injury to member of staff or public and fault rate over a period of last four years 2010-11, 2011-12, 2012-13 and 2013-14.

During review of losses and recovery data submitted by BTPL, it has been noted that the losses have increased in 2013-14 as compared to 2012-13, whereas, recovery graph exceeds 100%, the matter is being taken with BTPL for diagnosing the actual cause for exceeding 100%. As regard of SAIFI & SAIDI, a drastically decrease in number of interruptions and its duration have been observed which results in significant decrease of SAIFI & SAIDI values. But, on the other hand, number of distribution system faults has been increased, although the overall fault rate has been decreased with increasing length of distribution network. Further, number of complaints has also increased by 4.6% as compared to 2012-13. This all shows the contradiction of data with each other.

Moreover, it has also been observed that BTPL provided all new connections within due time frame and there is no any complaint about voltage variation. Important point is, over the period of last four years, there is no any incident which results in death in BTPL's jurisdiction.

13. Tribal Area Electric Supply Company

13.1 Introduction:

TESCO jurisdiction is expanded to 1200 sq. km. Its area of operation is the Seven Agencies and related FR. The seven agencies are, Kurram Agency, Orakzai Agency, Khyber Agency, North Waziristan Agency, South Waziristan Agency, Bajur Agency, Mohmand Agency And FRs are FR Peshawar, FR Kohat, FR Bannu, FR Lakki, FR Dera Ismail Khan, FR Tank.

13.2 Parameters Evaluation:

Sr. #	Description	APR for 2013-14
1	Technical Losses (10%)	N.A
2	Administrative Losses	N.A
3	Percentage of Recovery	N.A
4	Total number of consumers served by TESCO	390,723
5	Total annual number of Power Supply Interruptions	49,458
6	Aggregate sum of all consumers Power Supply interruptions (minutes)	819,028
7	System Average Interruption Frequency Index (SAIFI), Power Supply Interruptions per consumer per year	0.12
8	System Average Interruption Duration Index (SAIDI), Power Supply Interruptions Durations	2.09
9	Total Number of Consumers applied for Connections	198
10	Total Number of Consumers who were not given connections in permitted time period	146
11	Percentage Consumers who were not given connections in permitted time period	73.7
12	Total number of consumers who made complaints about voltage	Nil
13	Average duration of load-shedding period (hours)	10.5
14	Total Complaints received by TESCO during the year	12,585
15	Total length of Distribution System in service (km)	15,320
16	Total number of Distribution System faults	7,540
17	Faults/km of Distribution System	0.49
18	Electrical Incidents resulting in death or permanent serious injury / disability to member of staff / public	1

The table indicates the behavior of TESCO in respect of T&D Losses, Recovery, SAIFI, SAIDI, Time Frame for New Connections, Consumer complaints about voltage variation, average duration of load shedding, total number of complaints received by TESCO, number of electrical incidents resulting in death or permanent serious injury to member of staff or public and fault rate for the year of 2013-14.

Since the license has been issued to TESCO in year 2013, therefore, as a distribution licensee this is the first annual report of TESCO, hence, the table does not indicate any comparison with previous years.

During review of TESCO's performance it has been observed that the values of SAIFI & SAIDI are under the set limit, whereas it is noted with concern that TESCO has not provided connections to 73% of applied consumers and no any delay reason conveyed. Further, it has been noticed that average duration of load shedding about 10.5 hours on daily basis which seems very high. The number of complaints received by TESCO is also very high as compared to total number of consumers.

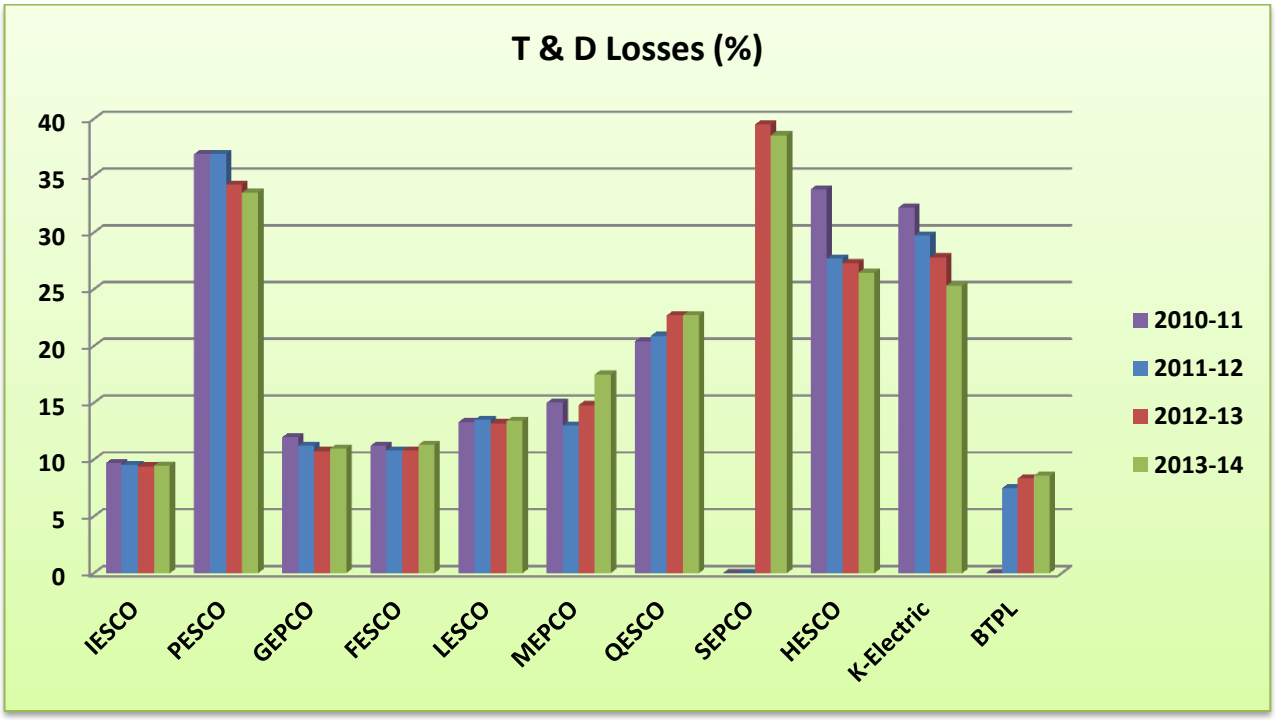
Being a distribution licensee, it is obligatory for TESCO to provide continuous and reliable supply to their consumers. Therefore, TESCO should improve by proper utilizing O&M and investment amounts by carrying out regular maintenance activities.

GRAPHICAL REPRESENTATIONS

14. Graphical Representations

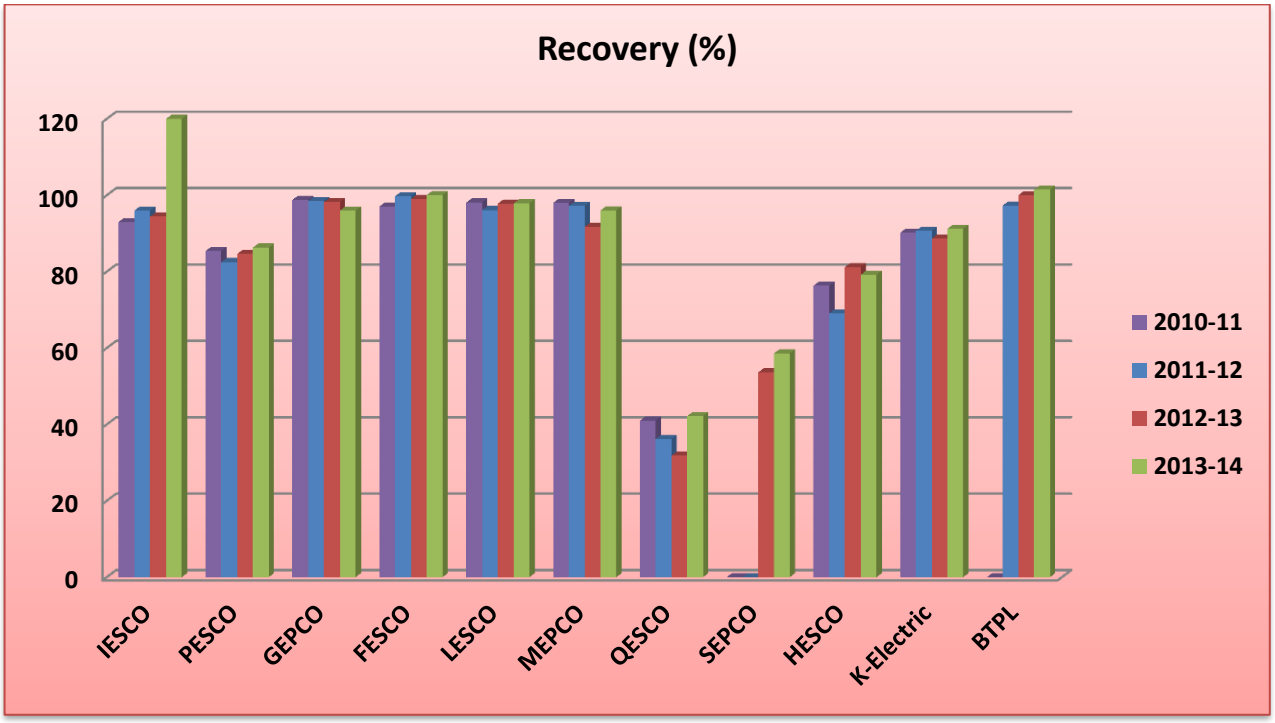
14.1 Transmission & Distribution Losses (%):-

DISCO/Years	2010-11	2011-12	2012-13	2013-14
IESCO	9.7	9.52	9.40	9.46
PESCO	36.9	36.9	34.2	33.5
GEPCO	11.97	11.23	10.75	10.97
FESCO	11.2	10.8	10.8	11.3
LESCO	13.3	13.5	13.2	13.4
MEPCO	15	13	14.8	17.5
QESCO	20.4	20.9	22.7	28.3
SEPCO	-	-	39.51	38.56
HESCO	33.80	27.70	27.30	26.46
K-Electric	32.20	29.73	27.82	25.30
BTPL	-	7.47	8.34	8.57
TESCO	-	-	-	-



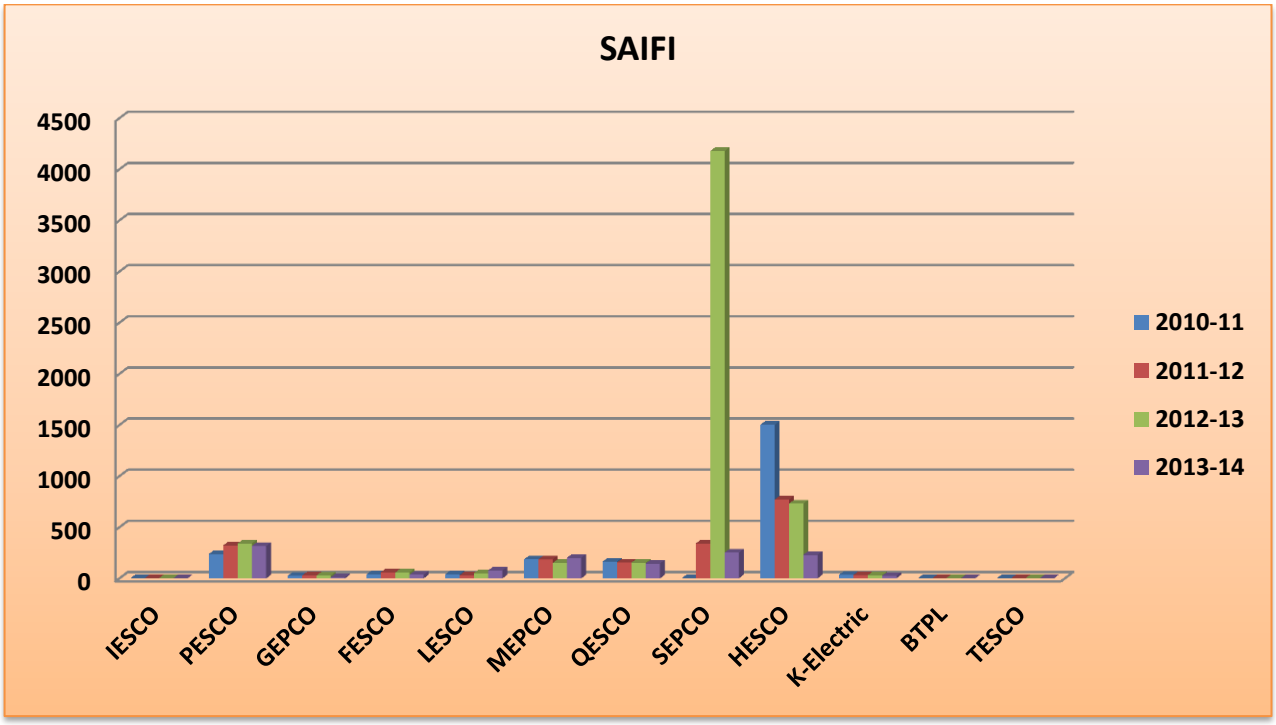
14.2 Recovery (%):-

DISCO/Years	2010-11	2011-12	2012-13	2013-14
IESCO	93	96	94.4	120
PESCO	85.4	82.5	84.6	86.3
GEPCO	98.8	98.5	98.2	96
FESCO	97.04	99.76	99.06	100.05
LESCO	98.1	96.1	97.8	97.87
MEPCO	97.97	97.25	91.76	96.04
QESCO	41	36.2	31.8	42.2
SEPCO	-	-	53.63	58.60
HESCO	76.3	69.1	81.2	79.2
K-Electric	90.17	90.72	88.65	91.22
BTPL	-	97.3	100.025	101.442
TESCO	-	-	-	-



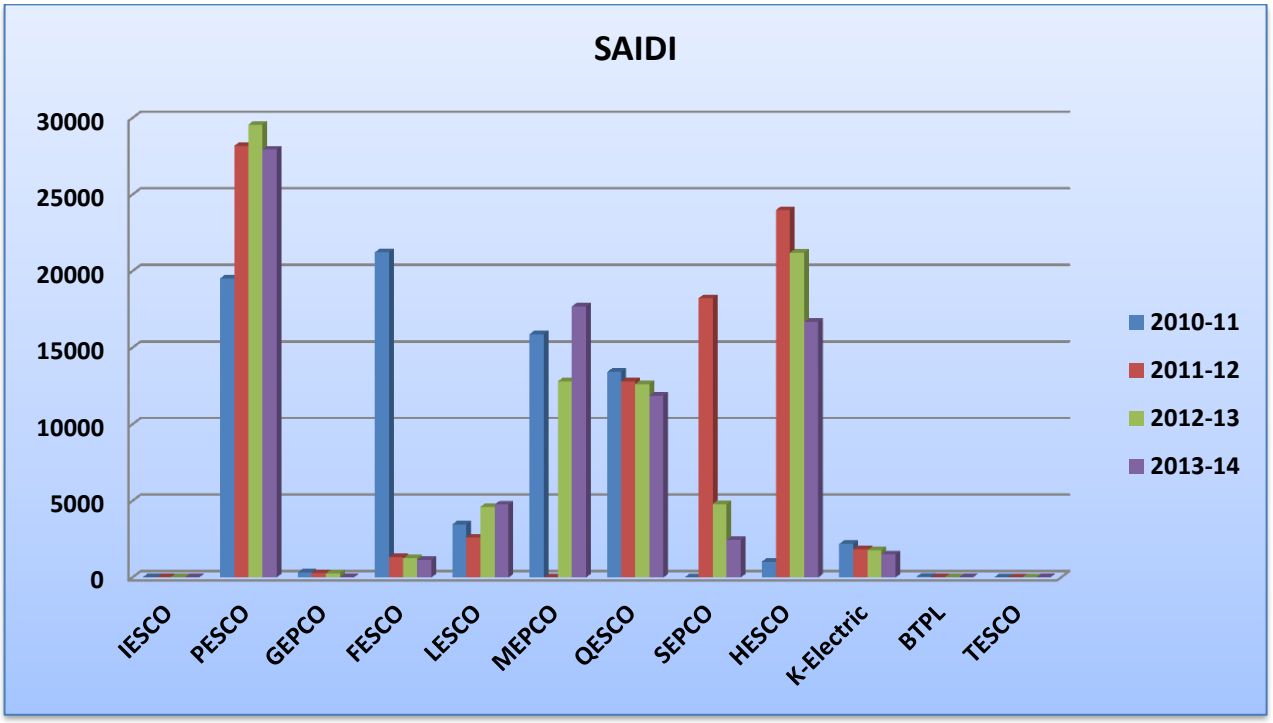
14.3 System Average Interrruption Frequency Index (SAIFI):-

DISCO/Years	2010-11	2011-12	2012-13	2013-14
IESCO	0.41	0.60	0.62	0.05
PESCO	238.8	323.0	341.5	316.5
GEPCO	25.29	27.77	27.14	10.52
FESCO	38.63	59.40	56.80	35.40
LESCO	39.29	29.40	50.57	78.04
MEPCO	185.52	185.30	149.70	201.5
QESCO	164.98	156.08	153.80	144.95
SEPCO	-	341.4	4,177.7	251.5
HESCO	1501.6	770.30	730.37	229.9
K-Electric	34.90	33	31.30	24.71
BTPL	1.23	0.01	3.42	0.006
TESCO	-	-	-	0.12



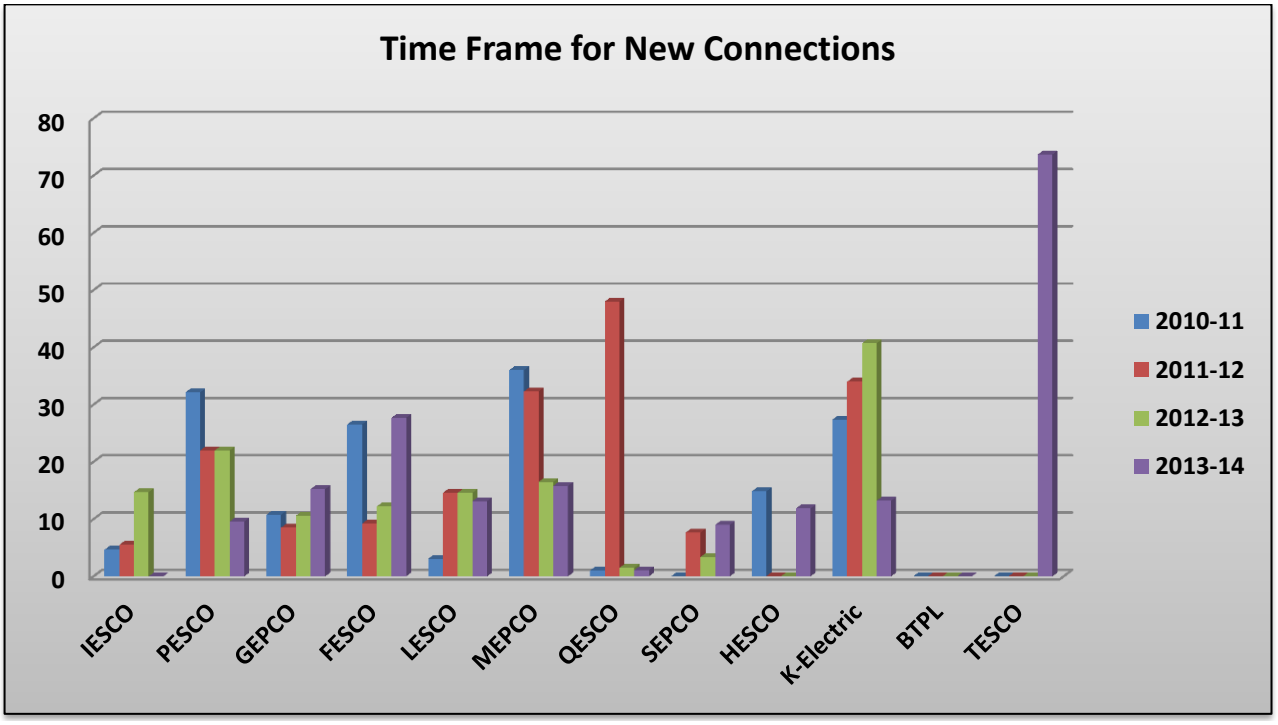
14.4 System Average Interrruption Duration Index (SAIDI):-

DISCO/Years	2010-11	2011-12	2012-13	2013-14
IESCO	22.6	37.5	34.8	1.66
PESCO	19,535.6	28,189.0	29,570.0	27,946.6
GEPCO	317.1	291.6	263.2	13.14
FESCO	21241	1321	1250	1137
LESCO	3,469.4	2,610.8	4,615.7	4,759.6
MEPCO	15,896.2	16 073.5	12813.9	17704.6
QESCO	13,419.8	12,810.7	12,635	11868.1
SEPCO	-	18,233	4,799.9	2442.73
HESCO	1035.6	23,990.8	21,204.6	16,678.6
K-Electric	2191	1858	1790.43	1495.25
BTPL	50.2	1.6	6.9	0.78
TESCO	-	-	-	2.09



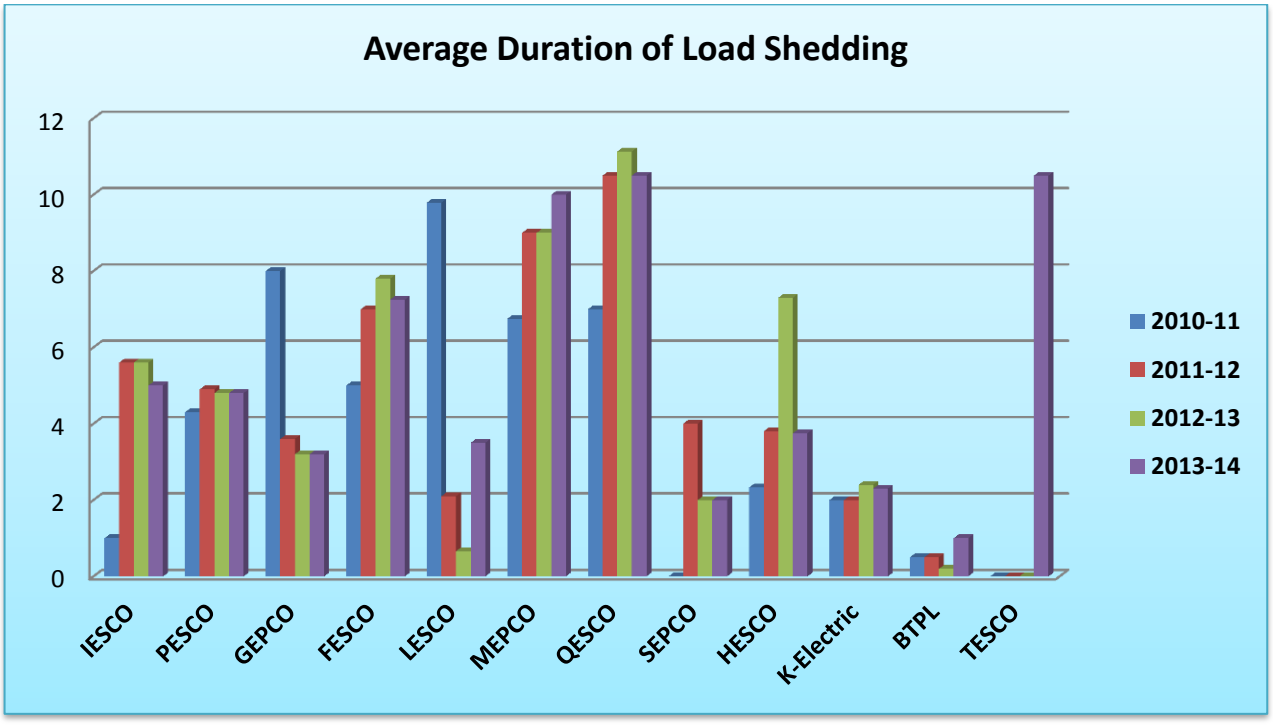
14.5 Time frame for New Connections (% of consumers who were not given new connections):-

DISCO/Years	2010-11	2011-12	2012-13	2013-14
IESCO	4.65	5.5	14.7	0
PESCO	32.14	22.00	22.00	9.57
GEPCO	10.76	8.50	10.60	15.24
FESCO	26.55	9.20	12.20	27.7
LESCO	3.09	14.60	14.60	13
MEPCO	36.01	32.30	16.50	15.8
QESCO	1.04	48.0	1.50	1.08
SEPCO	-	7.65	3.38	9.0
HESCO	14.87	0.07	0.05	11.86
K-Electric	27.40	34	40.7	13.2
BTPL	0	0	0	0
TESCO	-	-	-	73.7



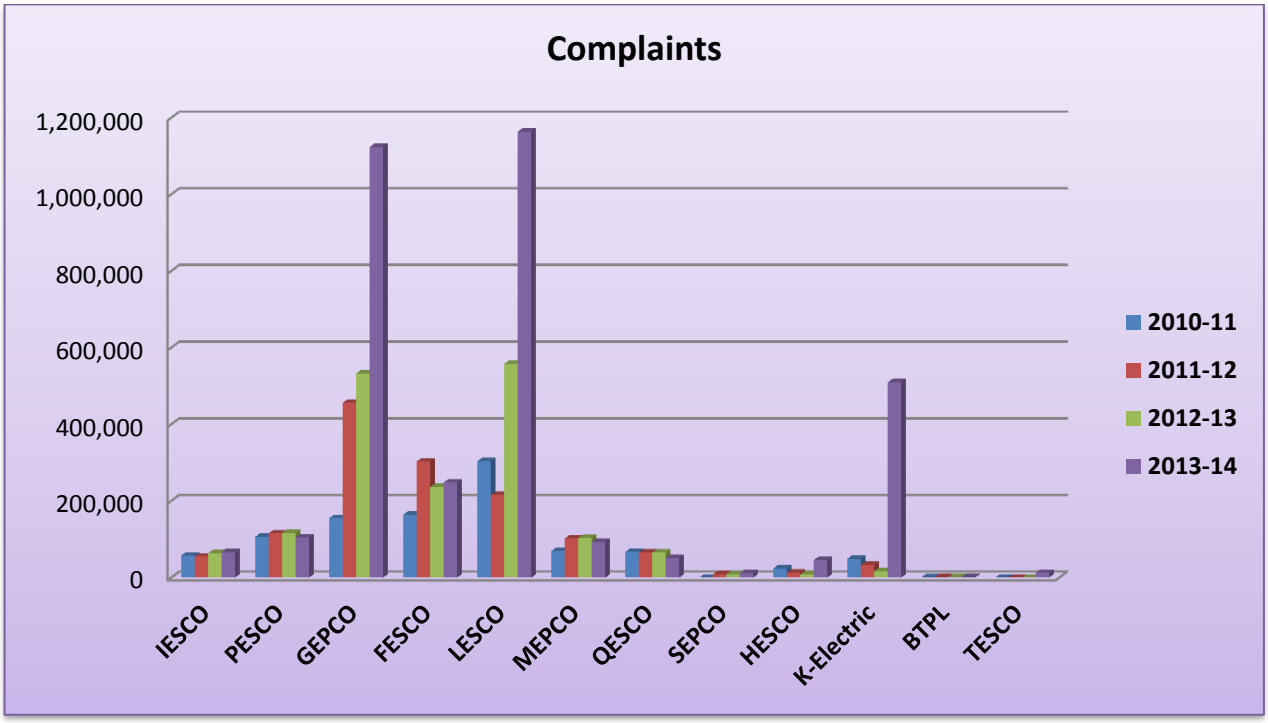
14.6 Average Duration of Load Shedding:-

DISCOs/Years	2010-11	2011-12	2012-13	2013-14
IESCO	1	5.6	5.6	5
PESCO	4.3	4.9	4.8	4.8
GEPCO	8	3.6	3.2	3.2
FESCO	5	7	7.8	7.25
LESCO	9.79	2.1	0.66	3.5
MEPCO	6.75	9	9	10
QESCO	7	10.5	11.13	10.5
SEPCO	-	4	2	2
HESCO	2.33	3.8	7.3	3.75
K-Electric	2	2	2.4	2.3
BTPL	0.5	0.5	0.2	1
TESCO	-	-	-	10.5



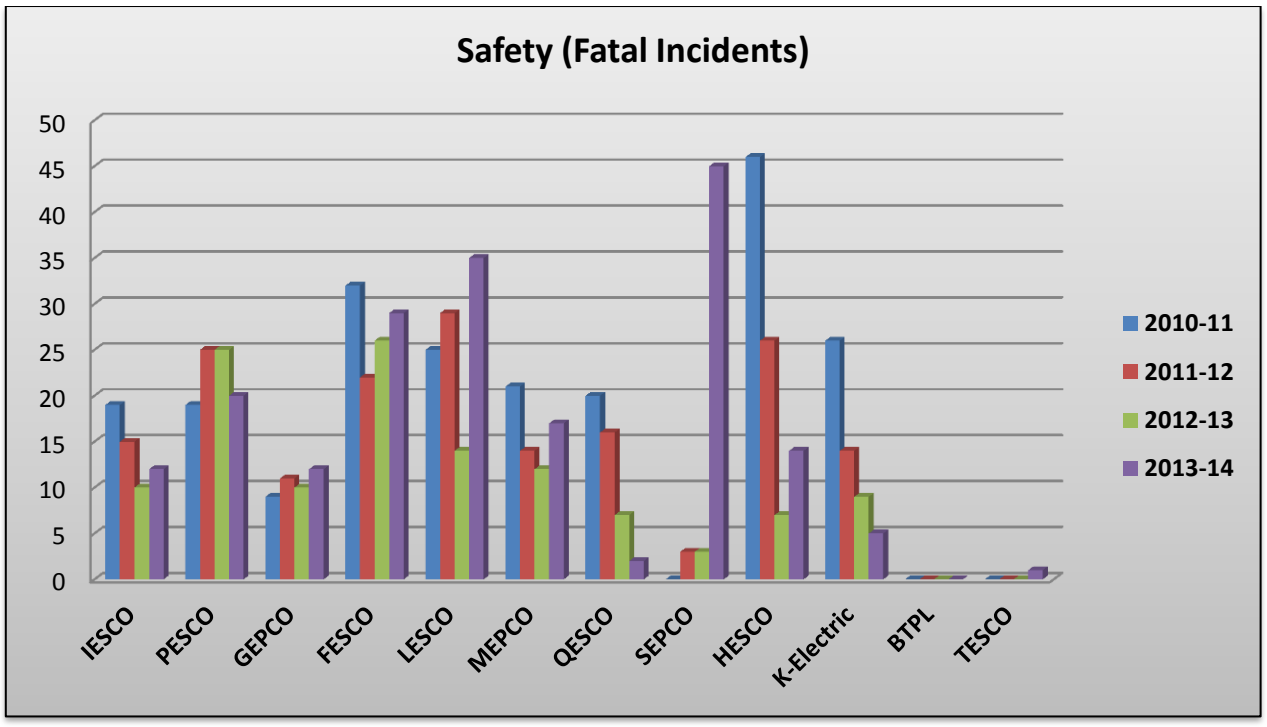
14.7 Complaints:-

DISCOs/Years	2010-11	2011-12	2012-13	2013-14
IESCO	57,421	55,214	63,712	66,739
PESCO	106,749	115,494	116,718	104,812
GEPCO	155,132	456,304	532,925	1,123,731
FESCO	164,356	303,013	236,850	248,241
LESCO	303,793	215,888	558,090	1,163,927
MEPCO	69,601	102,419	103,454	93,198
QESCO	67,348	65,647	65,640	50,811
SEPCO	-	8,659	8,813	12,051
HESCO	24,211	13,018	8,613	45,794
K-Electric	49,281	33,135	16,756	509,510
BTPL	723	1,560	1,481	1,550
TESCO	-	-	-	12,585



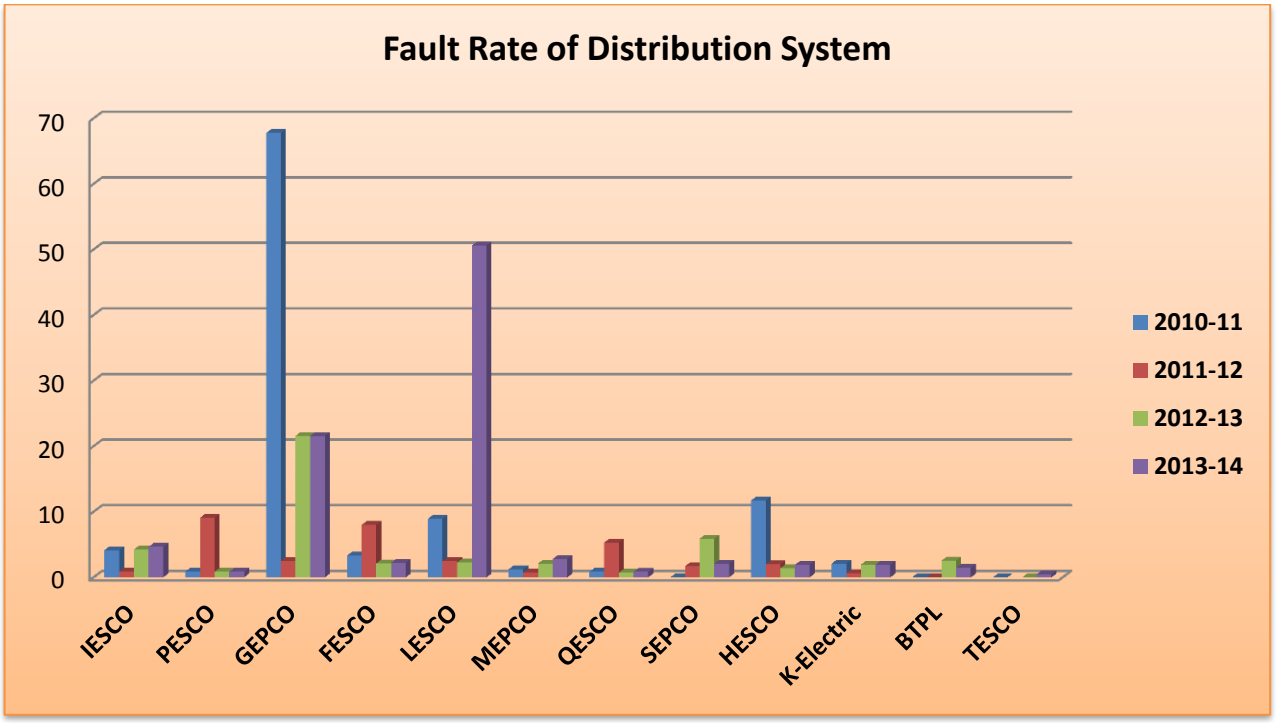
14.8 Safety (Fatal Incidents):-

DISCOs/Years	2010-11	2011-12	2012-13	2013-14
IESCO	19	15	10	12
PESCO	19	25	25	20
GEPCO	9	11	10	12
FESCO	32	22	26	29
LESCO	25	29	14	35
MEPCO	21	14	12	17
QESCO	20	16	07	02
SEPCO	-	3	3	45
HESCO	46	26	7	14
K-Electric	26	14	9	5
BTPL	0	0	0	0
TESCO	-	-	-	1



14.9 Fault Rate of Distribution System:-

DISCOs/Years	2010-11	2011-12	2012-13	2013-14
IESCO	4.16	4.5	4.25	4.65
PESCO	0.90	0.88	0.88	0.88
GEPCO	67.77	9.09	21.59	21.58
FESCO	3.32	2.50	2.13	2.20
LESCO	8.93	8.0	2.28	50.6
MEPCO	1.24	2.46	2.11	2.81
QESCO	0.84	0.76	0.70	0.835
SEPCO	-	5.3	5.9	2.1
HESCO	11.72	1.7	1.4	1.92
K-Electric	2.11	2	1.95	1.96
BTPL	0.04	0.66	2.56	1.46
TESCO	-	-	-	0.49



PEFORMANCE RANKING/RATING OF DISTRIBUTION COMPANIES

15. Performance Ranking/Rating of Distribution companies:

Performance rating of Distribution Companies comprising of IESCO, PESCO, GEPCO, FESCO, LESCO, MEPCO, QESCO, SEPCO, HESCO & K-electric has been based on the reported data of DISCOs in the following areas of performance of each DISCO:-

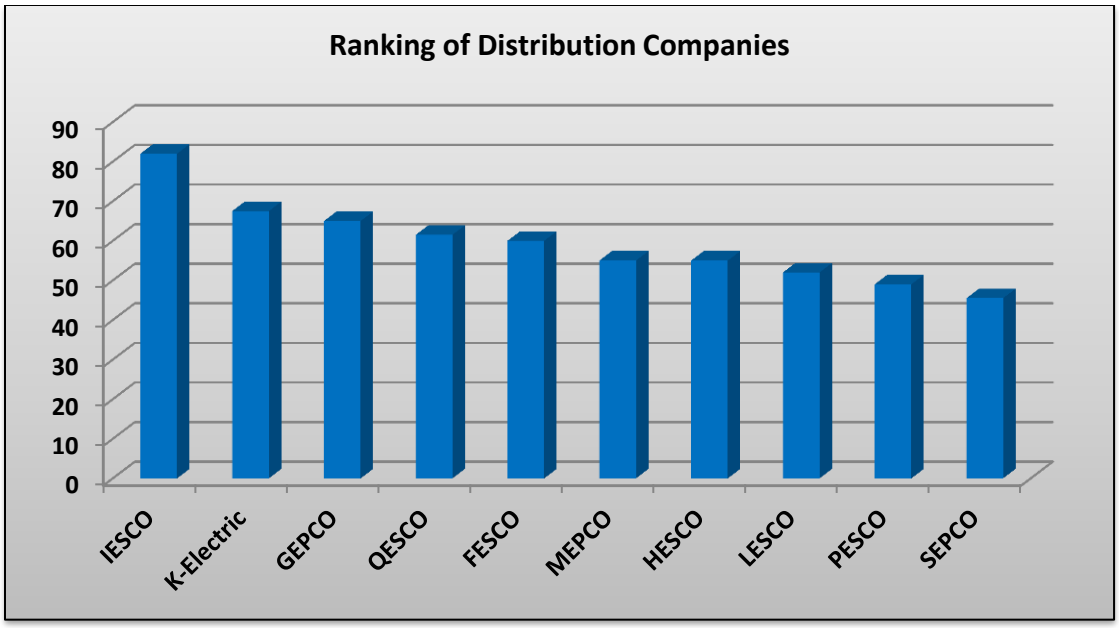
Weightage of Parameters

Serial No.	Description of Parameters	Weightage
01	T&D Losses	15
02	Recovery	15
03	SAIFI	7.5
04	SAIDI	7.5
05	Time frame for new Connections	10
06	Nominal Voltage	05
07	Load Shedding (Hrs)	05
08	Consumer Service Complaints	10
09	Safety	20
10	Fault Rate	05
		100

By considering the performance data reported by DISCOs and seriousness towards Performance Standards Distribution Rules (PSDR) – 2005 & Distribution Code, the judgmental approach has been used to rate the each company. So accordingly, the rating of DISCOs comes out to be as under:

DISCO	Weightage Awarded	Ranking/Rating
IESCO	82	1st
K-Electric	67.5	2nd
GEPCO	65	3rd
QESCO	61.5	4th
FESCO	60	5th
MEPCO	55	6th
HESCO	55	6th
LESCO	52	7th
PESCO	49	8th
SEPCO	45.5	9th

Performance rating of all Distribution Companies is also shown in graphical representation in next page.


Ranking of Distribution Companies
90
80
70
60
50
40
30
20
10
0
IESCO
K-Electric
GEPCO
QESCO
FESCO
MEPCO
HESCO
LESCO
PESCO
SEPCO

FINDINGS / CONCLUSIONS

16. Findings / Conclusions

i). T& D Losses

During review of the losses reported by DISCOs in year 2013-14, it has been observed that IESCO, GEPCO, FESCO, LESCO, MEPCO, QESCO & BTPL have shown no improvement. Instead of decrease in losses, an increase has been noted as compared to 2012-13.

ii). Recovery

It has been noted that Recovery of GEPCO & HESCO has gone down in year 2013-14 when comparing to 2012-13. Whereas, IESCO, FESCO & BTPL have exceeded the limit of 100% and the issue is being taken with these DISCOs, so that it can be diagnosed that either this is the result of recovery of arrears or overbilling. Based on the result, the experience of these DISCOs will be shared with other DISCOs.

iii). SAIFI & SAIDI

As regard of the SAIFI & SAIDI, it has been found that the reported values of LESCO & MEPCO regarding SAIFI have been increased as compared to last year. Similarly, the values of LESCO & MEPCO regarding SAIDI have also been increased when compared with data of last year. This shows their level of seriousness towards the maintenance of network. Due to non-compliance of SAIFI & SAIDI Standards, legal proceedings have already been initiated on the basis of 2012-13 reports.

It is important to mention here that IESCO & GEPCO have complied with SAIFI & SAIDI Standards, as mentioned in PSDR-2005.

iv) Time Frame for New Connections

While evaluating the DISCO's reports, it was noticed that GEPCO, FESCO, SEPCO, HESCO & TESCO have not complied with Rule 4(c) OS 3 - Time Frame for New connections. Their reports indicate that the % of consumers who were not given connections within due time frame is more than the specified limit i.e. 5% as mentioned in the PSDR 2005 and also the percent value has been increased as compared to 2012-13. Further, it has also been observed that none of the DISCO has provided the reasons for each day delay of not providing connections to applicants as per requirements of the said rule. Here also, due to non-compliance of Rule 4 (c) Overall Standard 3, legal proceedings have already been initiated on the basis of 2012-13 reports.

v) Average Duration of Load Shedding (Hrs)

Data submitted by GEPCO, LESCO, SEPCO & KEL regarding Average duration of load shedding (hrs) seems to be away from ground situations & DISCOs are being asked to submit the details of their load shedding plans indicating the principles & priorities of load shedding.

vi) Number of Complaints

During review of reports provided by DISCOs for year 2013-14, it has been noticed that all DISCOs have received more number of complaints in 2013-14 as compared to 2012-13 except PESCO, MEPCO & QESCO. This shows the level of customer satisfaction & probably indicates that customers are getting more awareness. Accordingly, DISCOs are being conveyed to explain the reasons behind such situation.

vii) Safety

This report also indicates the analysis of safety incidents based on the data reported by DISCOs and found that more number of incidents have been happened in the areas of IESCO, GEPCO, FESCO, LESCO, MEPCO, SEPCO & HESCO as compared to last year. This may show the lack/missing of safety culture / Safety management system in the respective DISCO's areas. It has been noted with concern

that for LESCO, FESCO & SEPCO a sudden rise in the number of incidents has been observed, although, legal proceedings are already foregoing in this regard based on the data of 2012-13. Moreover, for making effective development of safety culture in each DISCO, a Safety code has been developed by NEPRA & uploaded on NEPRA web. Based on this, the DISCOs are being coordinated to develop their detailed/comprehensive Safety Manuals to encourage Safety System.

viii) Fault Rate

This report depicts that the number of faults in the areas of IESCO, FESCO, LESCO, MEPCO, QESCO & HESCO have been increased which have resulted in increase of fault rate of their Distribution system. This indicates that utilization of O&M amounts are not being used properly, although, all the DISCOs have been allowed almost 10 % more amount under O&M head then the previous year.

ix) Overall, it can be concluded that DISCOs & KEL remained non-serious in maintaining the accurate, real & reliable data, resultantly provided the same to NEPRA even reluctantly. For this, the implementation of Automated Metering Infrastructure (AMI) has already been initiated. Further, The trend of data provided by DISCOs and K-Electric indicates that the distribution Codes developed by the companies themselves and approved by NEPRA are not being implemented in respect of design, planning, execution, operation, protection & safety etc. NEPRA has already activated the Distribution Code Review Panel in this regard.

RECOMMENDATIONS

17. Recommendations:

Based on reported data & findings as mentioned at paragraph 8, the following are recommended:

i. Since, the legal proceedings in form of explanation and show cause notices are already foregoing, therefore, it is requested to the Authority that the performance of DISCOs & KEL as evaluated in this analysis report may be linked during the hearings in the matter of Show Cause Notices for DISCOs and KEL.

ii. As it has already been mentioned that the DISCOs & KEL have failed to provide the real and reliable data, therefore, it is recommended that adoption of Automated Metering Infra-structure (AMI) may be started by DISCOs at the earliest for collecting reliable data through their system generated reports.

iii. Initiation of performance audits as and when required i.e. monitoring of the performance standards as per Rule – 8 of PSDR-2005, especially for IESCO & GEPCO as they have shown achievement of reliability Standards.

iv. For Better customer relations & focus and proper maintenance of computerized complaint handling system, DISCOs may be directed to establish Call Centers, same as like **Call Center – 118 IESCO.**

v. Physical inspection/ checking of DISCOs maintenance activities as per their defined SOPs, because, every year, a colossal amount is being allowed to every DISCO under O & M head as this practice has already been initiated by Standards team for NTDC's grids and concrete results have already been presented to the Authority.

vi. Collection of online Annual Performance Reports from 2014-15 by uploading prescribed proformas of Performance Standards (Distribution) Rules 2005 on NEPRA web.

vii. Strict monitoring of implementation of Distribution Code which is at neglected stage by the DISCOs.