

COMPLIANCE OF OLD DIRECTIVES

The Compliance of Old directives (13 Nos.) are as under in respect of Uttar Gujarat Vij Company (UGVCL).

Directive-1: Purchase of Power from Renewable Energy Sources (RES)

UGVCL is required to purchase power from renewable sources in accordance with the Regulations in force from time to time.

UGVCL's renewable purchase obligation is 2% of its total consumption which will be about 15000 MUs for year 2009-10. Upto Sept.'2009 UGVCL has purchased 239 MU's against the recorded consumption of 7459 MUs.

Directive-2: Timely Meter Reading and Billing

There is a need for timely reading of meter promptly on the due date so that slab overlap does not put the consumer to loss. The licensee is required to provide relevant consumer related information on the spare space in the bill or along with the bill.

Commission's comments

The Commission has noted the compliance of UGVCL on timely meter reading and billing as well as printing of additional information on the consumer bill.

UGVCL has noted the comments of the commission & UGVCL is striving hard to further improve upon timely meter reading & billing by outsourcing in more areas of concern.

Directive-3: Consumption by agricultural pump sets

Commission's comments:

The Commission notes that UGVCL has been able to meter a substantial number of agricultural transformers in FY 2008-09. In order to achieve consumer buy-in for metering, UGVCL should communicate with consumers, especially agriculture and interior regions' consumers, highlighting the long term benefits of metering. Further,UGVCL should explore installing tamper proof meters in interior areas.

The systematic planning has been made for providing meters on DTC of Ag Dom feeders to have a realistic consumption by overcoming difficulties in the scattered interior area. As this being political sensitive issue for which guide line of GOG was also asked to achieve 100 % target. However progress report upto Sept.'09 is as under.

Year	Number of Agriculture dominated feeders	Number of Transformers on Agriculture dominated feeders	Number of meters provided on transformers.
2007-08	2002	83359	31475
2008-09	2126	87795	64801
2009-10(Upto Sept.-09)	2182	89070	68868

As reported earlier, the work of providing meters on DTC is all most completed in all circles, except Palanpur circle; however sincere efforts are being made for providing meters on DTC in the scattered area of Palanpur circle by convincing /explaining purpose of providing meters to consumers so that safe custody of meters can be maintained.

However, study of 35 nos Ag dominated feeders regarding consumption of Ag pump set, it is to state that due to poor rain fall in the jurisdiction of UGVCL, power supply was given more than 8 hours to save crop. As a result of which, consumption per HP per Year is found 1577 from April'2009 to Dec.'09 and there is remarkable increase in % losses in agriculture sector. Details are as per format below.

Sr No.	Particulars	Unit	Data	
			08-09	09-10 upto Dec.'09
1	Nos of feeders under study	Nos	35	35
2	X'mers on feeders	Nos	1193	1193
3	Consumers connected on x'mers	Nos	3080	3080
4	Study carried out for	Year/Months	01 Yr.	6 Months.
5	Contracted HP of Agriculture metered & unmetered consumers	HP	68954	63429
6	Total sent out as per panel meter reading of all feeders	Mus.	110.59	92.23
7	Total sold out as per reading of X'mer meters	Mus.	89.85	75.08
8	Unit loss	Mus.	20.73	17.15
9	%loss	%	18.75	18.60
10	Per HP per day consumption	Units	03.85	4.29
11	Per HP per year consumption for metered & unmetered consumers	Units	1406	<u>1577</u>

It may also be noted that the actual consumption in unmetered agriculture depends on many parameters such as the amount of rainfall during a particular season, geographical disparities, type of crop, number of hours of supply etc. So the actual consumption would vary within a range of values, season to season, year to year.

It is reported that the feeders feeding agriculture pump sets are now separated and are now metered. By studying the metered agriculture services, both under normal & tatkal scheme and the feeders feeding agriculture loads exclusively, it is possible to have more realistic assessment of un metered pumsets. Such studies for last three years are depicted as under.

Sr no	Particular	Unit	2007-08	2008-09	2009-10 upto Nov.'09
1	Sent out as per Ag. Dom feeders panel meter readings.	Mus	7301.97	7377.90	5747.45
2	Theoretical loss	Mus	837.86	753.21	567.78

3	Ag. Normal & Tatkal billed units	Mus	803.46	897.54	683.05
4	Other than Ag. Billed units	Mus	23.60	35.56	22.00
5	Consumption of Ag. Un metered Connections=1-2-3-4	Mus	5637.04	5691.57	4174.60
6	Ag. Unmetered consumption connected other than Ag.Dom feeder as per GERC norms	Mus	1.66	1.53	0.435
7	Total Ag. Unmetered Units=5+6	Mus	5638.71	5693.10	4175.035
8	Average Contracted HP of unmetered Ag. consumers	HP	2957141	3062785	3219862
9	Consumption of Ag.unmetered per HP per year	Units	1906.81	1858.79	1296.64 (For 8 Months)

From above figures we can see that this year upto Nov.'09 Consumption recorded is @ 1300 units. December, January & February being peak Agriculture season the year end unit consumption will be about 2000 units which will be higher than GERC approved figures of 1700 units.

Directive-4: Energy Audit

Measures taken to reduce the losses based on energy audit and the results thereon shall be reported to the Commission.

Commission's comments

The Commission has noted the steps taken by UGVCL to identify high loss feeders and reduce losses.

Hon'ble Commissions comments are noted & UGVCL is continuing to reduce the losses on all its feeder by Energy auditing.

Directive-5: Distribution loss

Commission's comments

The Commission has noted the various steps taken by UGVCL to reduce its losses well below the level as approved by the Commission. However, UGVCL has not provided the roadmap for reduction of losses till FY 2011-12. Also, UGVCL has not provided the further investments required to reduce technical and commercial losses. UGVCL is directed to provide these details. Further, UGVCL is also directed to provide details of utilization of APDRP funds till date.

The planning & road map for reducing T&D losses is as below.

Brief:

As per MYT petition UGVCL's approved losses for FY 2008-09 & for FY 2009-10 were 16% & 15% respectively. In year 2008-09 UGVCL achieved a loss figure of 14.71% which was remarkably less than the approved figure of 16%. During the FY 2009-10 due to 36% less

rainfall extra power supply more than 8 Hrs.(scheduled) was required to be given in AG for protection of farming. This has resulted in losses for FY 2009-10 upto sept.'09 as 23.95% & projected losses for FY 2009-10 are 18% as per APR.

UGVCL is determined to control its losses & reduction of 1% every year in a phased manner by following measures.

Technical Loss reduction Activities are planned as under :

- Proper maintenance & replacement of conductor & cables with proper size.
- Providing amorphous transformers & balancing load on each phase along with bringing transformer in load centre.
- Providing proper earthing to HT poles and transformers & minimize current on neutral of transformers.
- Improving power factor of feeder by HT capacitor.
- Improving power factor of feeder by APFC panels & LT capacitors.
- Bifurcating all required feeders along with review of allowable norms of bifurcation for AG feeders & minimize all joints in lines etc.

Commercial Loss reduction Activities are planned as under :

- Energy audit of DTC losses considering commercial/theft parameters.
- Providing Arial bunch conductor/insulated conductor/XLPE cable & armored services.
- Replacing services having joints, provide meters outside the entrance of premises.
- Replacing meters by static meters.
- Replacing all faulty/burnt meters & making all installation pilferage proof.
- Providing XLPE coated conductor at all crossing of rural feeders etc

Road Map for reducing % T & D loss year by year is as under.

- **Target of % T & D loss reduction for the year 2009-10 to 2011-12 will be achieved by :**
 - Performance based incentive scheme is finalised & will be made operational soon.
 - DTC wise micro analysis for energy audit.
 - Energy efficient pumpset scheme (EEPS) which is started in few talukas presently will be made operational in whole of UGVCL in a phased manner.
 - Franchise for high loss making pockets & high loss feeders is planned.
 - Through CMS (Consumer monitoring system) Consumer wise rise in consumption is being studied.
 - Utilization of advanced technology & up gradation.
 - Planned Checking based on CMS study & identification of theft prone areas.

UGVCL has carried out various activities for loss reduction in year 2009-10 as below

VARIOUS ACTIVITIES FOR LOSS REDUCTION			
Sr.No.	Description	UNIT	2009-10 (up to Dec-09)
1	Maintanance		
	HT line	KM	54317
	LT line	KM	31398
	Transformer	No.	49249
	Village	No.	2594
	XLPE conductor	KM	123.2
	Arial Bunch Conductor	KM	162.4
	Insulated conductor	KM	40.11
2	Installation Checking		
	Nos	No.	625318
	Detection	No.	10110
	Assessment	Rs. In Lacs	1605
3	Meter Replacement		
	1 Ph.	No.	91392
	3Ph	No.	7655
4	Installation Sealing		
	1Ph	No.	170594
	3Ph	No.	12158
5	Installation of Meter Boxes.		
	1Ph	No.	97466
	3Ph	No.	7508
6	Feeder Bifurcation	No.	102
7	Panel Meter testing	No.	2562
8	Amorphous X'mer replacement	No.	1686
9	HVDS (X'mer) installation	No.	1210
10	HP rise of AG HP based consumers	HP	180511
11	Installation of Energy efficient pump sets	Nos.	5853

Distribution losses of UGVCL for last three years are as under.

Sr. No.	Year	Dist. Losses without AG	Overall Losses including EHT	Remarks
1	2006-07	10.85%	12.75%	
2	2007-08	12.49%	16.81%	Rise due to segregation of AG load (JGY scheme)
3	2008-09	10.89%	14.31%	

4	2009-10 (Upto Nov.'09)	10.68%	21.50%	More in AG due to excess Power supply.
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In the year 2009-10 there is 36% less & scattered rainfall recorded in areas of UGVCL. Due to this fact to save the standing crop more than 8 hours(Scheduled) power supply was required to be given in AG sector resulting in rise of AG & overall losses. The details of extra power supply are as below.

DETAILS OF AG/NON AG. SENT OUT MUs from April to Nov., for 2008-09 & 2009-10										
Sr.No.	2008 - 09					2009 - 10				
	Month	Sent out in Mus	Ag Sent Out in Mus	Non-Ag Mus	Av.Ag supply in Hrs.	Month	Sent out in Mus	Ag Sent Out in Mus	Non-Ag Mus	Av.Ag supply in Hrs.
1	April'08	1098	617	481	7:30	April'09	1284	778	506	7:55
2	May'08	1261	758	502	8:00	May'09	1308	767	541	7:58
3	June'08	994	512	482	7:40	June'09	1154	631	524	8:00
4	July'08	861	367	494	7:36	July'09	792	275	517	12:42
5	Aug'08	664	185	479	8:03	Aug'09	1175	644	532	13:18
6	Sep'08	878	394	484	7:53	Sep'09	1255	688	567	10:57
7	Oct'08	1204	706	498	7:53	Oct'09	1336	811	525	8:00
8	Nov'08	1206	765	441	7:47	Nov'09	1352	832	520	8:03
	Total	8166	4304	3862	7:48	Total	9657	5426	4231	9:36

As can be seen from above average Power Supply hours in AG sector has increased from 7.48 hrs. in 2008-09 to 9.36 hrs. in 2009-10 upto Nov.'2009. This energy catered to AG consumers for extra hours is converted into losses for want of methodology for calculating energy for power supplied beyond 8 hours. Due to this overall losses of UGVCL have increased in 2009-10. Excluding AG, the distribution losses of UGVCL are 10.68% which is probably best amongst all DISCOMs of Gujarat.

For reduction of Technical & Commercial losses UGVCL has proposed following Expenditure in CAPEX.

FY 2009-10	:	66.00 Crores
FY 2010-11	:	73.50 Crores
FY 2011-12	:	91.50 Crores

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Above expenditure will be incurred in various System Improvement activities along with Meter replacement scheme, Providing of Aerial Bunch Conductor, Purchase of Hand held equipments, AMR, HVDS etc.

Regarding APDRP utilization it is to state that APDRP scheme is already closed. Presently in R-APDRP scheme for the FY 2009-10, 19.78 crores & for FY 2010-11 13.19 crores are projected to be spent for various loss reduction, Energy Audit & GIS activities.

Directive - 6: Jyoti Gram Yojana

Jyoti Gram is a laudable scheme. All possible measures such as providing Aerial bunched cables, implementing high voltage distribution, curbing tapping of lines, replacement of old meters etc. shall be undertaken in a planned manner to reduce losses.

Commission's comments

The Commission has noted the compliance.

The scheme is already accomplished & fruitful results are achieved, also No further directives by Commission. The losses upto Nov.'09 for JGY are 25.10%.

The details of losses for last few years is as under.

Particulars	06-07	07-08	08-09	09-10(Upto Nov.'09)
JGY Losses	30.80%	29.67%	26.20%	25.10%

Directive-7: Effective metering, billing and revenue collection

Action taken is noted on replacing old meters with static meters. Handheld meter reading instruments shall be introduced, if not already done, to take meter readings, generate bills and deliver to the consumer on the spot. This will eliminate human errors to some extent and also improve revenue realization. Spot billing with handheld machines is to be implemented. A report may be submitted to the Commission by June 2009.

Commission's comments

The compliance by UGVCL on this directive is noted.

For avoiding/ minimizing human error as well as for efficient & effective revenue realization, company is planning to fix up the out side agency in more & more areas for effective metering. It may be mentioned here that ATP machines are also installed at various places for better revenue collection & same are functioning satisfactorily.

Directive-8: Consumer Services

Working of consumer forums needs to be substantially improved.

Commission's comments

The compliance by UGVCL on this directive is noted.

For implementation of provision made in the regulation, the company is normally arranging average two meetings per month looking to numbers of complaints, so that representation of consumers can be disposed of within stipulated time limit. The chair man of the consumer forum is closely monitoring the entire process of the forum. At the end of every quarter a report is being submitted to Hon'ble commission.

Directive-9: Cent percent metering

Consumers may be convinced on the need for energy accounting by the utility and Providing metering for balance un-metered services may be expedited.

Commission's comments

The metering on Agriculture dominated feeders shall be accorded priority and expedited. UGVCL shall strengthen communication efforts to convince consumers on the importance of installing meters.

The difficulties regarding providing meters at installation of the consumers were reported earlier along with offensive approach of existing flat tariff consumers to the higher authority for amicable solution and smooth process. It was also requested to GoG to intervene in the matter. Government should intervene in the matter to achieve 100% progress.

UGVCL is arranging meetings with bearers of various kisan sanghs on various subjects & specifically, matter of providing meters at installation of flat tariff is stressed.

The progress of providing meters on consumer's installation is as under

As on	Numbers of Agriculture consumers	Number of metered consumers	% of metered consumers
31.03.06	205289	50547	24.62
31.03.07	207577	54778	26.29
31.03.08	213599	57593	26.96
31.03.09	217221	61105	28.13
31.09.09	219305	63305	28.87

Directive-10: Business Plan

Preparation of Business Plan including techno-economic justifications of the proposed schemes shall be expedited.

Commission's comments

The compliance by UGVCL on this directive is noted.

Company has got its business plan prepared and it has been adopted.

Directive-11: Introduction of MYT

The MYT filing for the control period FY 2008-09 to FY 2010-2011 is delayed. Review petition on annual performance should be filed in time.

Commission's comments

The Commission has taken a very serious view of the delay in submission of the

petition. The Commission is of the view that for future submissions the petitioner should file the petition within the stipulated time frame. In this regard the Commission is of the opinion that for the FY 2010-11, the petitioner should submit its petition within the permissible time frame as provided under the regulations.

In regard to the delay in submission of the current petition the Commission is of the view that since prior permission had been obtained for extension in timelines, the petition shall be considered within the applicable regulatory framework.

As directed by Hon'ble commission & after declaration of Tariff order for FY 2009-10 on dated 14th December, 2009, UGVCL has filed the APR for 2009-10 & Tariff petition for FY 2010-11 on 23rd December'2009. vide No. 992/2010.

Directive 12 ; Allocation of PPAs

The allocation of PPAs shall be firmed up at the earliest.

Commission's comments

The utilities are directed to firm up the allocation of PPAs.

On behalf of all DISCOMs including UGVCL, GUVNL is authorized to execute the PPA allocations from time to time. GUVNL will take further needful actions for periodical reallocation of PPA's.

Directive 13: Distribution Transformer Failures

The distribution transformers failure rate is still high. Efforts should be made to bring down the transformer failures to less than 10%.

For reduction in failure rate of distribution transformers, the company has taken various remedial measures which are as under.

- a. Balancing of load of transformers and to shift transformers in the load center.
- b. Effective pre and post monsoon maintenance work.
- c. Providing Amorphous transformers against failed CRGO transformer in Urban/JGY feeders which will not only reduce losses but also help to reduce transformer failure.
- d. Up graded condition in repairing order for improving quality of repaired transformers are planned.
- e. In a phased manner old (above 15 years or technically un economical) transformers are being replaced, looking to availability of fresh transformers.

Transformer failure rate are in decreasing trend for UGVCL as depicted here under.

Particulars	06-07	07-08	08-09	09-10 (Upto Dec.'09)
Transformer failure %	14.75%	12.62%	10.07%	8.04%

UGVCL is confident of achieving failure rate in single digit by year end.

