

ITEM NO. 1: ISSUES RELATED WITH ERPC

Responsibilities	Present Practice	Proposed Practice/Scheme which Members may discuss
<p>1.5 Compliance Oversight</p> <p>The RPC in the region shall also continuously monitor the instances of non-compliance of the provisions of IEGC and try to sort out all operational issues and deliberate on the ways in which such cases of non-compliance are prevented in future by building consensus.</p> <p>The Member Secretary RPC may also report any issue that cannot be sorted out at the RPC forum to the Commission</p> <p>The RPC shall also file monthly reports on</p> <ul style="list-style-type: none"> ➤ Status of UI payment ➤ Installation of capacitors by states vis-à-vis the requirement/targets, as decided in the RPC. 	<p>ERLDC used to report the matter of non-compliance of IEGC to Member Secretary, RPC and he used to take up the matter with defaulter.</p> <p>This work is new.</p> <p>This work is new to RPC.</p>	<p>As ERPC is off-line body, it is difficult for ERPC to continuously monitor the non-compliance. The matter of non-compliance may continue to be reported by ERLDC to Member Secretary, ERPC. He will raise the issue in OCC/TCC/ERPC meeting.</p> <p>MS, ERPC will refer any such issue to Commission.</p> <p>ERPC Secretariat will submit such report to Commission by 15th of every month for preceding month.</p> <p>These reports on quarterly basis will also be placed before ERPC.</p>

Responsibilities	Present Practice	Proposed Practice/Scheme
<p>4.6.1 Reactive Power Compensation</p> <p>The person already connected to the grid shall also provide additional reactive compensation as per the quantum and time frame decided by respective RPC in consultation with RLDC.</p>	<p>Earlier the work was entrusted with CTU.</p>	<p>A reactive power study group with 2 persons from each SLDC, 1 each from PGCIL, ERLDC and ERPC Sectt may be formed to finalize the quantum and time frame of reactive power compensation required by the utility (132 kV and above) on annual basis. This quantum and time frame may be vetted by ERPC. The group will review its recommendation on quarterly basis.</p>
<p>The Users and STUs shall provide information to RPC and RLDC regarding the installation and healthiness of the reactive compensation equipment on regular basis.</p> <p>RPC shall regularly monitor the status in this regard.</p>	<p>Utilities used to pass on the information voluntarily.</p> <p>This work is new to RPC.</p>	<p>The information may be passed on to ERLDC and ERPC Secretariat on monthly basis.</p> <p>The same will be accordingly placed before ERPC for further monitoring.</p>

Responsibilities	Present Practice	Proposed Practice/Scheme
<p>5.2 System Security Aspects</p> <p>(e) Prolonged Outage of system elements</p> <ul style="list-style-type: none"> • Any prolonged outage of power system elements of any User/CTU/STU, which is causing or likely to cause danger to the grid or sub-optimal operation of the grid, shall regularly be monitored by RLDC. • RLDC shall report such outages to RPC. • RPC shall finalize action plan and give instructions to restore such elements in a specified time period. 	<p>Regularly monitored by ERLDC.</p> <p>ERLDC used to pass on the information to ERPC Secretariat for discussion in OCC.</p> <p>Such outages are regularly discussed in OCC and time frame for restoration was noted in OCC.</p>	<p>May continue with present practice.</p> <p>Any outages for more than 30 days shall be reported by ERLDC to ERPC Secretariat on monthly basis. The same will be placed before ERPC.</p> <p>Such outages may be discussed in OCC for finalization of action plan for restoration of the elements within a specified time period. ERPC will be brought to notice on such action plan for further guidance.</p>

Responsibilities	Present Practice	Proposed Practice/Scheme
<p>(k) Power System Stabilizer</p> <ul style="list-style-type: none"> Power System Stabilizers (PSS) in AVR of generating units (wherever provided), shall be got properly tuned by the respective generating unit owner as per a plan prepared for the purpose by the CTU/RPC from time to time. CTU /RPC will be allowed to carry out checking of PSS and further tuning it, wherever considered necessary. 	<p>In earlier IEGC, the work was entrusted with CTU. However, ERPC has done PSS tuning of some generating stations with the help of IIT, Mumbai.</p> <p>This work is new to RPC.</p>	<p>Protection sub-committee may finalize a plan for PSS tuning which may subsequently vetted by ERPC.</p> <p>Protection sub-Committee may constitute a sub-group for checking of PSS and also decide on periodicity of checking.</p>
<p>(n) Automatic Under Frequency Relay and Df/Dt relay</p> <ul style="list-style-type: none"> RPC shall decide and intimate the action required by SEB, distribution licensee and STUs to get required load relief from Under Frequency and Df/Dt relays. All SEB, distribution licensee and STUs shall abide by these decisions. 	<p>ERPC in consultation with other RPCs used to formulate UFR and df/dt scheme</p>	<p>The same practice may be followed. Plans in this regard may be discussed initially in Protection sub-Committee meeting and subsequently vetted by RPC. Plans may be reviewed on half-yearly basis.</p>

Responsibilities	Present Practice	Proposed Practice/Scheme
<ul style="list-style-type: none"> • RLDC shall keep a comparative record of expected load relief and actual load relief obtained in Real time system operation. A monthly report on expected load relief vis-a-vis actual load relief shall be sent to the RPC and the CERC. • RLDC shall inform RPC Secretariat about instances when the desired load relief is not obtained through these relays in real time operation. • SLDC shall furnish monthly report of UFR and df/dt relay operation in their respective system to the respective RPC. • RPC Secretariat shall carry out periodic inspection of the under frequency relays and maintain proper records of the inspection. 	<p>This work is new.</p> <p>ERLDC used to inform.</p> <p>SLDCs used to furnish the report to ERPC Secretariat and the same is discussed in OCC meetings.</p> <p>This work is not done.</p>	<p>ERLDC may submit the report to ERPC Secretariat and the same may be discussed regularly in OCC meeting. Monthly status report will be placed before ERPC meeting, usually held on quarterly basis.</p> <p>ERLDC may submit the information on monthly basis.</p> <p>The same practice may be continued.</p> <p>In line with practices followed by other regions, a small group may be formed to carry out inspection. It is proposed that the inspection may be carried out on annual basis and method for testing of correctness of UFR relay setting may be discussed.</p>

Responsibilities	Present Practice	Proposed Practice /Scheme
<p>(o) System Protection Schemes (SPS)</p> <ul style="list-style-type: none"> Such schemes would be finalized by the concerned RPC forum and shall always be kept in service. 	<p>Protection sub-committee used to finalize such scheme as and when basis.</p>	<p>The same practice may be continued.</p>
<p>(t) Voltage Control Measures</p> <p>All Users, CTU and STUs shall provide adequate voltage control measures through voltage relay as finalized by RPC, to prevent voltage collapse.</p>	<p>This work is new to RPC.</p>	<p>Protection sub-committee may finalize such scheme, which in turn may be vetted by RPC.</p>
<p>5.6.2 Procedure for Operational Liaison</p> <ul style="list-style-type: none"> Forced outages of important network elements in the grid shall be closely monitored at the RPC level. 	<p>This work is new to RPC.</p>	<p>Any forced outage of important network elements may be intimated to ERPC Secretariat within shortest possible time. Discussion will be arranged on such events in the OCC meeting and accordingly the issues will be placed before ERPC.</p>

Responsibilities	Present Practice	Proposed Practice/Scheme
<ul style="list-style-type: none"> RPC shall send a monthly report of prolonged outage of generators or transmission facilities to the Commission. 	<p>This work is new to RPC.</p>	<p>ERPC Secretariat will send the report to the Commission by 15th of each month for the preceding month.</p>
<p>5.7.4 Outage Planning Process</p> <ul style="list-style-type: none"> The RPC Secretariat shall be primarily responsible for finalization of the annual outage plan for the following financial year by 31st January of each year. All SEBs/STUs, transmission licensees, CTU, ISGS IPPs, MPPs and other generating stations shall provide RPC Secretariat their proposed outage programmes in writing for the next financial year by 30th November of each year. 	<p>ERPC Secretariat used to carry out such outage plan for generating stations. Outage plan for transmission elements are not prepared. Besides, deadline is not strictly adhered due to non-submission of data by utilities on timely basis.</p> <p>Utilities apart from transmission licensee used to furnish the information but deadline not strictly adhered.</p>	<p>ERPC Secretariat shall prepare the outage plan for generating stations as well as transmission elements within deadline. All constituents may co-operate.</p> <p>All utilities including transmission licensee may submit requisite information.</p>

Responsibilities	Present Practice	Proposed Practice/Scheme
<ul style="list-style-type: none"> RPCs shall submit quarterly , half-yearly reports to the Commission indicating deviation in outages from the plan along with reasons .These reports shall also be put up on the RPC website. 	<p>This work is new to RPC.</p>	<p>During finalizing of shutdown plans in OCC, constituents must indicate the reason for deviation from annual outage plan, if any. ERPC Secretariat will compile and submit the same to commission. The deviation report will be placed before ERPC.</p>
<p>6.4 Demarcation of responsibilities:</p> <ul style="list-style-type: none"> RLDC shall periodically review the actual deviation from the dispatch and net drawal schedules being issued, to check whether any of the regional entities are indulging in unfair gaming or collusion. In case any such practice is detected, the matter shall be reported to the Member Secretary, RPC for further investigation/action. 	<p>ERLDC used to do.</p> <p>ERLDC used to bring such incidence before MS, ERPC for further investigation and implications are also discussed in Commercial sub-committee meeting.</p>	<p>The same may be followed.</p> <p>The same may be continued.</p>

ITEM NO. 2: ISSUES RAISED BY ERLDC

In the 51st OCC meeting, ERLDC briefly impressed upon the importance of following IEGC issues. All agreed that a one-day meeting should be dedicated to discuss IEGC issues. Accordingly, these issues are placed below for consideration of the members:

2.1 NON RECEIPT OF GRID INCIDENT REPORTS

As per clause no 5.9.6 of IEGC, all grid incident/event is to be reported in prescribed format. The details of information required to be furnished are also given in the clause no 5.9.6(c). The practice of furnishing information report is not being followed. In the absence of appropriate relay flag details etc, it is becoming very difficult to analyse the events and suggest remedial measures to prevent reoccurrence of such events. In this regard, GM, ERLDC vide letter dated 3rd June'10 requested all concerned to streamline the procedure of reporting grid incidents as mandated in IEGC.

Members may deliberate.

2.2 ANALOG TRIGGERING OF DISTURBANCE RECORDERS

At many Substations DR outputs from Numerical relays as well as disturbance recorders are not available/not functioning and are not time synchronized, causing difficulty in analysing tripping events and disturbances. IEGC clause 4.6.3 mandates keeping all recording instruments time synchronized and in working condition and furnishing of the recorded data. However, as a back up to system wide disturbances and to record phenomenon like low frequency oscillation etc. various DR printouts can be made available by enabling the following analog triggers:

- a) Under-Frequency & Over-Frequency triggering (e.g. 50.50Hz and 49.00 Hz)
- b) Under-voltage & over-voltage triggering(e.g. 90% & 110%)
- c) Under and overcurrent.

However, such analog triggering would lead to recording of more number of events and as such downloading of the information to PC at intervals is essential. The relay suppliers can be asked to provide polling and scheduler software and these could be installed in PCs so that the events are downloaded after every few minutes. GM, ERLDC vide letter dated

03.06.10 requested all constituents for making necessary arrangements to provide DR output to SLDCs and RLDC on the same day.

Members may deliberate.

2.3 UNDER FREQUENCY RELAY OPERATION-STATUS

As per present UFR scheme of ER, following are the UF relay settings and load relief expected:

SYSTEM	STAGE-I(48.5 HZ INSTANTANEOUS)	STAGE-II(48.2 HZ INSTANTANEOUS)	STAGE-I(48.0 HZ) INSTANTANEOUS
BSEB	30 MW	36 MW	43 MW
JSEB	17 MW	12 MW	22 MW
DVC	56 MW	55 MW	76 MW
OPTCL	77 MW	77 MW	105 MW
WBPDC(INCL CESC)	120 MW	120 MW	164 MW
TOTAL	300 MW	300 MW	410 MW

Since UFR operation is the ultimate defence mechanism to prevent grid disturbance, it is a must to keep all UFR always in service and functional. Further to get actual relief in terms of MW as mentioned in above said scheme during real time, it is felt necessary to connect at least double the load the mentioned in the scheme.

As per clause no 5.2(n) of IEGC, all constituents are to furnish the details of UFR operations as and when called upon to operate and monthly consolidated report on UFR operation for onward transmission to CERC and RPC.

In view of above, all SLDCS and Constituents may

- *Confirm the status of their UFR*
- *Agree to connect double the load as mentioned in the scheme*
- *Send report on UFR operations as and when called upon to operate and a monthly consolidated report.*

2.4 DEMAND MANAGEMENT MEASURES

As per 5.4.2(e) of Demand Management clause of IEGC, to maintain the system frequency within permissible band all constituents are identify following four categories of interruptible loads

1. loads for scheduled power cuts/loadshedding
2. loads for unscheduled load shedding
3. loads for UFR actuated shedding

4. loads for SPS(special protection scheme) actuated shedding
The clause also mentions that there will be no overlapping between different groups of loads to be shed as mentioned above. ER at present does not have any SPS actuated load shedding scheme.

All constituents are requested to furnish the details of first three categories of identified load as mentioned above.

2.5 NON-COMPLIANCE OF DIRECTIONS ISSUED BY SLDC:

Vide clause no 5.5.1.c (h) of IEGC, non-compliance of SLDC direction by SEB/Distribution licenses/bulk consumers to curtail overdrawal is to be reported to ERLDC for incorporating the same in weekly report to be prepared and published by ERLDC.

All SLDCs are to inform ERLDC the instances of non -compliance of SLDC directions by SEB/Distribution licenses/bulk consumers to curtail overdrawal, within two days of the incident.

SLDCs may agree.

ITEM NO. 3: ISSUES RAISED BY WBSETCL

In the 51st OCC meeting, WBSETCL suggested that upcoming generation/transmission projects could also be regularly discussed in OCC meeting. It was agreed to discuss this proposal in this IEGC meeting.

Members may discuss.

ITEM NO. 4: ANY OTHER ISSUES