ITEM NO. XLI I- (1) CONFIRMATION OF MINUTES OF 41ST MEETING HELD ON 27.08.07.

The minutes of 41St meeting of Power Sub-Committee held at New Delhi on 27 August, 2007, were circulated to all Members & Invitees vide letter No. 2/7/2001/PSC-41/Power/1797 dated 14th September, 2007. No comments have been received on the minutes from any of the Member/Invitee.

The Committee may confirm the minutes of 41st meeting.

ITEM NO. XLI I- (2) FOLLOW UP ACTION ON THE DECISIONS OF THE EARLIER MEETING.

(a) **Installation of Special Energy Meters (SEMs), Disturbance recorder and Data Logger**

During the 41st Power Sub Committee meeting, SSNNL had informed that the unit-wise SEMs would be installed by the end of September, 2007. Regarding providing the Disturbance Recorder and Data Logger at RBPH which is procured from M/s Siemens Limited as a part of Computerised Control System (CCS), SSNNL had informed that shut down of two RBPH units (at a time) for 40-45 days would be required at the time of commissioning of CCS. The Committee had advised SSNNL to review the time frame and minimize downtime of RBPH units in consultation with CCS supplier. NCA vide letter No 2/7/2007/PSC-41/358 dated 15.02.08 have requested SSNNL to intimate the progress and programme of commissioning of CCS **(Annex.XLII-I)**

SSNNL may apprise the Committee about the status/programme of the installation/commissioning of CCS.

(b) **Upgradation/Replacement of SSP data transmission to SLDC/WRLDC & EMC.**

This point would be discussed separately under agenda item XLII (3) Progress of Energy Management Center (EMC)

(c) **Implementation of safety aspects for O & M of SSP complex.**

During the 41st meeting the committee stressed the need for preparedness of SSP O&M staff to meet the emergent situation caused due to calamities /disaster. Member (Power), NCA vide D.O. No. 2/7/2005/Power/1856 dated 26.09.07 **(Annex.-XLII-II)** requested SSNNL to initiate action for preparation of Disaster Management Plan and provide facilities required to tackle the disaster/ emergency situations at SSP Complex.

SSNNL may appraise the committee about the action taken on this matter.

(d) Operation of RBPH units in synchronous condenser mode.

The issue regarding formulating the methodology for energy accounting for operation of RBPH units in synchronous condenser mode was discussed during the 41st meeting of Power Sub Committee. The Committee deliberated the proposal of NCA to adopt the practice being followed by NRPC in respect of Pong HE station of BBMB. After obtaining the specific views of beneficiary States on the recommendation of Power Sub Committee, NCA recommended the above methodology to the WRPC secretariat which was accepted by Commercial Committee of WRPC during its 47th meeting held on 19.09.07 and was approved by WRPC constituents during the TCC/WRPC meeting held on 5th -6th

October. NCA vide letter No. 3/13/Power/2021 dated 23/24.10.07 **(Annex.XLII-III)** communicated the decision of WRPC for regular operation of RBPH units in synchronous condenser mode. The units are being run in condenser mode as per system requirements in co-ordination with WRLDC.

This is for information of Committee.

(e) Applicability of UI Charges of SSP

Power Sub Committee during the 41st meeting discussed the issue regarding applicability of UI on SSP after taking cognizance of the status of petition filed by NRLDC in CERC for bringing BBMB generating stations under the purview of UI. It was decided that till final decision in this regard is taken regarding the above petition the status quo be maintained in respect of SSP. CERC Notification issued vide regulation no. L-7/25(5)/2003-CERC dated 28.12.2007 **(Annex.-XLII-IV)** have amended the regulation regarding implementation of UI charges on hydel stations. According to the amendment the Hydro Electric generating stations are expected to respond to grid frequency changes and inflow functions. They would therefore be free to deviate from given schedule as long as they do not indulge in gaming and do not cause a grid constraint. The above amendments of CERC regulation would accordingly be

implemented for SSP after taking into consideration the availability of storage/inflows and allocation made by Sardar Sarovar Reservoir Regulation Committee (SSRRC) for 10 daily generation planning.

(f) SSP O & M Coordination Committee

During the 39th & 41st Power Sub Committee meeting, the constitution of SSP O&M coordination committee was discussed with the objective to carry out detailed review of O&M matters of SSP complex and formulate detailed programme to be followed by SSNNL/GSECL. The nomination of representative from MSETCL has not been communicated so far. The regular meeting of O&M group is essential to review the O &M activities of SSP Complex as all the unit are already commissioned and are injecting sizeable energy to Western Grid .

The Committee may discuss.

(g) Membership of WRPC for SSP.

During the previous meeting the matter regarding membership of WRPC for SSP was discussed. The Committee was informed about the non receipt of the views of Govt. of Maharashtra's. MSEDCL vide their letter no. CE/PP/SSP/41170 dated 17.11.2007 **(Annex.XLII-V)** have conveyed that stated that " SSP is major generating station in the region, it is ideal that NCA is associated

with the various activities of Western Region and hence may represent SSP." Further, MSEDCL have also indicated that as the SSP beneficiaries are already members of WRPC and are funding WRPC, NCA should not share the expenses of WRPC just like CEA, WRLDC, NRLDC, and RPC secretariat. "MSEDCL, requested Power Sub Committee to have discussions, in light of the above, and communicate the final decision to WRPC. The Government of India Ministry of Power resolution dated 25.05.05 and 29.11.05 regarding composition and functions of WRPC is given at **(Annex-XLII-VI)** for reference of the Committee.

It is proposed that NCA would continue to represent SSP as special Invitee in WRPC.

The Committee may discuss.

ITEM NO. XLII - (3) : Progress of Energy Management Center (EMC).

(a) Closure of contract with M/s. BHEL for Work Package I & II

The Power Sub Committee during various meeting have discussed the need for upgradation/replacement of SSP data transmission system for which BHEL contract is to be closed. The BHEL system procured by NCA during 1995 has since become technologically obsolete and is not suitable to meet the data transmission as per ULDC requirements. The proposal to replace the SSP data transmission system is under formulation in consultation with CEA. The BHEL has, therefore, been asked to submit their proposal and discuss the modalities for closing the contract. The action in this regard would be taken after obtaining approval of the Permanent Standing Committee of (SSCAC).

This for information of the Committee.

(b) Interim arrangement for SSP data transmission by hiring ULDC compatible RTU from GETCO.

In line with the decision taken during the meeting of Power Sub Committee and Expert Committee constituted by Power Sub Committee, it was decided to upgrade/replace the existing data transmission system for which bid document is presently under preparation in consultation with Central Electricity Authority

(CEA). The new system is expected to be operational in a period of about 1½ to 2 years as BHEL contract closure is also required to be done after obtaining approval of PSC(SSCAC). In view of the sizeable energy generation from SSP complex and need for effectively monitoring the generation/transmission and to comply with the requirement of IEGC, WRLDC/WRPC and beneficiary State Electricity Boards has been raising the issue of SSP real time data monitoring in various fora. During the previous power Sub Committee meeting GETCO had suggested to provide RTU on rental basis till the new system is in position. GETCO has already provided RTU on rental basis to various independent power producers (IPPs) and generating companies. Accordingly, the proposal was obtained from GETCO for installation, testing and commissioning of RTU including annual rent and maintenance charges for this work. The total cost of the services indicated by GETCO is Rs.4.37 lacs. Apart from this, for installation of cables, testing of transducers as well as replacement of faulty ones, an expenditure of Rs. 4.12 lacs is anticipated which is to be facilitated by NCA with the assistance of SSNNL. The proposal to provide interim arrangement of data transmission was put up to Permanent Standing Committee

(PSC) SSCAC during the 94th meeting held on 14th Nov. 2007. Extracts of MOM are given at **(Annex.-XLII-VII).**

The action for implementation of the interim arrangement is being undertaken in coordination with GETCO & SSNNL for which budget provision has been made in RE 2007-08.

(c) Interim arrangement for SSP data transmission to EMC

The arrangement for SSP data transmission by utilizing GETCO RTU would be for transportation of data to SLDC & WRLDC which can not be tapped and provided to other sources. To facilitate monitoring of SSP data by EMC other options available are being explored.

This is for information of the Committee.

(d) Proposal for Up-gradation/Replacement of SSP data transmission system.

The matter regarding finalization of bid document in consultation with CEA and upgradation/replacement of Data Transmission was discussed during the 41st Power Sub Committee Meeting held on 27th August, 2007. The Committee after detailed discussion directed NCA to initiate the action for closure of BHEL contract for Package I & II along with formulation of new proposal of SSP data transmission system. The closure of BHEL contract as well as bid document and award of contract is to be put up to Permanent

Standing Committee (PSC) of Sardar Sarovar Advisory Committee (SSCAC) for ratification. The proposal is likely to take 1 ½ to 2 years. The progress of the scheme would be put up to the Committee in the next meeting.

This is for information of the Committee.

ITEM NO. XLII - (4) : Progress of Sardar Sarovar Power (SSP) Complex .

(a) <u>Canal Head Power House</u>

All the five units of CHPH have been commissioned during 2004-05. During the 41st Power Sub Committee meeting, SSNNL had informed that the remaining work pertaining to lift at CHPH would be completed by September, 07. The following activities are indicated to be under progress by SSNNL:

- Intra site communication work (cabling) at CHPH.
- Commissioning of Lift for CHPH.

The programme of providing unit wise energy meter as discussed under Item XLI-(2) (a) also needs to be included in the ongoing activities of CHPH. The progress/programme of the activities may be apprised by SSNNL.

(b) <u>River Bed Power House</u>

All the six units of RBPH have been commissioned. During the 41st Power Sub Committee meeting SSNNL had informed that the work pertaining to supply erection and commissioning of Air-conditioning and ventilation system is completed however the performance testing of duct was to be under taken. Regarding the work pertaining to Computerised Control System (CCS) SSNNL had informed that action is being taken for early completion of the work. As regards to intra-site communication work SSNNL had assured to complete the work by September, 2007, however, in the progress report for December, 2007 following activities are indicated to be under progress:

- Supply, erection and commissioning of Air-conditioning and ventilation system.

- Supply erection and commissioning of Computerized Control System (CCS) Disturbance Recorder & data logger.

- Supply, erection & commissioning of intra-site communication system

The programme of providing additional emergency escapes at RBPH as discussed during 41st Power Sub Committee Meeting also needs to be included in the ongoing activities.

The progress and programme of the activities may be apprised by SSNNL.

ITEM NO. XLII - (5) : O&M of SSP Complex

The operation of SSP complex is broadly being undertaken in accordance with the 10 daily water allocation decided by SSRRC and in coordination with WRLDC.

The water allocated for RBPH and GOG/GOR water requirements including environmental flow requirement and evaporation losses for the period March, 2008 to June, 2008 as finalized by SSRRC during its 11th meeting held on 01/03/2008 is given below :-

Period	Period	Water available for RBPH (Mm^3)	GOG/GOR + Environmental requirement & Evaporation losses	Total ($Mm^{3)}$
March	01-10	160	177	337
	11-20	160	156	316
	21-31	176	135	311
April	01-10	135	141	276
	11-20	135	140	275
	21-30	135	139	274
May	01-10	133	306	439
	11-20	133	105	238
	21-31	146	105	251
June	01-10	133	105	238
	11-20	133	115	248
	21-31	133	125	258
Total		1712	1749	3461

The O&M matters are also apprised to Western Regional constituents during WRPC/OCC meeting. SSNNL vide letter No. CE/NPHP/PB/1514 dated 05.02.07 **(Annex-XLII-VIII)** have

conveyed the planned maintenance progress of SSP units for year 2008-09.

SSNNL may apprise the members about various activities planned to be undertaken by SSNNL/GSEC.

ITEM NO. XLII - (6) : Energy Benefits Accured from SSP Complex.

During the year 2007-08 (April to Mar.) Energy benefits of 4228.585 MUs was accured from SSP Complex. The benefits was shared amongst the beneficiary states in the ratio prescribed by NWDT award.

ITEM NO. XLII - (7) : Energy Generation Target for the year 2008-09 and Review of Energy Generation performance for 2007-08

The energy generation target for year 2007-08 of SSP complex was 4390 MU. The generation during 2007-08 (April, 2007 to February 2008) is to be 4302.7 MU. The month-wise generation vis-à-vis actual generation is given at **(Annex.XLII-IX)** which includes 4018.51MU for RBPH and balance 284.18 MU for CHPH. The energy generation target for 2008-09 of SSP complex is fixed at 4730 MU which includes 4450 MU for RBPH and balance 280 MU for CHPH. The programme is broadly based on the working table of SSP complex finalized by SSRRC as well as pattern of generation/water availability during previous year(s). The month wise generation progress is given at **(Annex. XLII-X).**

This is for information of the Committee.

ITEM NO. XLII - (8) : Any other item with permission of chair.

Annex XLII – (I)

नर्मदा नियंत्रण प्राधिकरण
NARMADA CONTROL AUTHORITY

No.2/7/2007/PSC-41/Power/ 358 Dated:15.02.08

To,

Chief Engineer (Electrical)
Sardar Sarovar Narmada Nigam Ltd.,
Old Administrative Block, 1st floor,
Kevadia Colony,
Distt. Narmada -393151 (Gujarat)

Sub: Installation of Computerized Control System (CCS) at RBPH- Reg.

Sir,

Please refer to the discussions held during the 41st Power Sub Committee Meeting held on 27th August, 2007. Under Item No. XLI (2) (d) "Follow Up action on the decision of earlier meetings" the committee had asked SSNNL to complete the installation of Computerized Control System (CCS), Disturbance Recorder & Data Logger to monitor the SSP generation. SSNNL had indicated downtime of 40-45 days of (two units simultaneously) for commissioning of CCS. SSNNL has so far not furnished the action plan for completing the activity. It is requested that programme of commissioning of CCS may be communicated urgently so as to firm up the NCA's proposal for upgradation/replacement of SSP data transmission to GETCO (SLDC) & EMC.

Yours faithfully,

(Suman Sinha)
S.E.(EMC)

O/C

Energy Management Centre, N.C.A., D-3/4, Narmada Colony, Sch. No. 78, Vijay Nagar, Indore - 452 010 (M.P.)
ऊर्जा प्रबंधन केन्द्र, न.नि. प्रा., डी.-३/४, नर्मदा कॉलोनी, स्कीम नं. ७८, विजय नगर, इन्दौर - ४५२ ०१० (म. प्र.)
Phone No. : SE (EMC) - 2553783 Gram : NARCONTROL

Annex XLI – II

मेजर सिंह
MAJOR SINGH

सदस्य (विद्युत)
नर्मदा नियंत्रण प्राधिकरण
(जल संसाधन मंत्रालय, भारत सरकार)
Member (Power)
Narmada Control Authority
(Ministry of Water Resources, Govt. of India)

D.O.No.2/7/2005/Power/ 1856
Dated, the 26th September, 2007
27

Dear Shri

During the 41st meeting of Power Sub Committee of NCA held on 27th August, 2007, the Members discussed the need for preparedness of SSNNL/GSEC to effectively meet the emergent situations caused by natural calamities or other crisis in Sardar Sarovar Power (SSP) Complex. SSNNL had indicated that SSP O&M staff is fully conversant and is adequately trained to meet such situations. Keeping in view the serious impact of likely disasters and natural calamities in underground hydro stations like RBPH, the Committee stressed the need to regularly undertake mock drills to tackle the probable emergent situations at SSP complex. It is evident that in spite of adopting best possible safety measures, the probability of occurrence having disastrous consequences in underground stations cannot be completely ruled out. It is, therefore, essential that various electro-mechanical systems must have well thought out and rehearsed disaster management plan to mitigate the consequences of such incidents. The areas prone to disaster/crisis in SSP complex, therefore, need to be properly identified and disaster/crisis management plan be prepared and preparedness for effective implementation also needs to be ensured.

I would, therefore, request you to kindly initiate necessary action to prepare an action plan and provide facilities required to tackle the disaster situations/emergency conditions at SSP complex. The follow up action on this matter would be apprised to the Power Sub Committee in the next meeting.

With

Yours

MSL
(Major Singh)

To

Shri A.B.Mandavia,
Director (Civil),
SSNNL, Block No.12,
2nd Floor, New Sachivalaya Complex,
Gandhinagar-382010,
Fax No.079-23223503.

Copy to Shri V.S.Patel, Chief Engineer (Electrical), SSNNL, Narmada Project (Hydro Power), 1st Floor, Old Administrative Block, Kevadia Colony, District Narmada (Gujaratr) **(Fax No.02640-232102)**.

MSL
(Major Singh)
Member (Power)

Issued
27/9/07
27/9

113, बी. जी., स्कीम नं. 74-सी, विजय नगर, इन्दौर - 452 010 (म. प्र.)
113-BG, Scheme No. 74-C, Vijay Nagar, Indore - 452 010 (M.P.)
Phone No. : 0731-2551144
Fax No. : 91-731-2559888

नर्मदा नियंत्रण प्राधिकरण
NARMADA CONTROL AUTHORITY

No.3/13/06/Power/2021, Dated, the 23rd/24 October,2007

To

1. Director (Civil),
SSNNL, Block No.12,
2nd Floor,
New Sachivalaya Complex,
Gandhinagar-382010,
Fax No.079-23223503.

2. The Member (Power)
NVDA. Govt. of M.P.,
Narmada Bhavan,
Jail Road, 59, Arera Hills,
Bhopal.
(Fax No.0755-2677535).

3. Chief Engineer (Electircal),
Government of Maharashtra,
Hong Kong Bank Building,
3rd Floor, M.G.Road,
Fort, Mumbai
(Fax No.022-22674867/22674996).

Sub: Operation of RBPH Units in synchronous condenser mode.

Sir,

WRPC in its 5th meeting held on 6th October, 2007 deliberated and endorsed the decision of Technical Coordination Committee meeting held on 05/10/2007 regarding regular operation of RBPH units in synchronous condenser mode to facilitate improvement in the voltage profile of Western Grid.

The extracts of the deliberations are reproduced below :-

Energy Management Centre, N.C.A., D-3/4, Narmada Colony, Sch. No. 78, Vijay Nagar, Indore - 452 010 (M.P.)
ऊर्जा प्रबंधन केन्द्र, न.नि. प्रा., डी.-३/४, नर्मदा कॉलोनी, स्कीम नं. ७८, विजय नगर, इन्दौर - ४५२ ०१० (म. प्र.)
Phone No.: SE (EMC) - 2553783
E E (EMC) - 2552703, 2575766
Gram : NARCONTROL
Fax : 91-731-2559888
E-mail : emc_nca@rediffmail.com

"2.2 In order to evolve a methodology for accounting of energy consumed by SSP units during synchronous condenser mode of operation, NCA studied the practice being followed in this respect by other similar generating units. It was observed that generating units at Pong Hydro Station of BBMB in Northern Region have been operating in synchronous condenser mode to improve the voltage profile. According to methodology approved by NRE Board, energy drawn by Pong units during synchronous condenser mode is treated as loss in NR system. The Main SEMs are installed on HV side of the GTs at Pong HEP and Energy Sent Out (ESO) of the power station in each 15 minutes time-block is determined from readings of only those Main SEMs, which recorded export of energy into the grid. The Main SEMs recording import of energy would indicate operation of the concerned generating units in synchronous condenser mode and hence, their readings would be ignored for the purpose of determining the ESO. This arrangement was agreed and approved by NRE Board in June, 2004 and made effective from prospective date. It was also agreed by NR to implement the same methodology for Ranjit Sagar Dam HEP of PSEB, a shared generation project of Punjab, HP and J&K, which is at times being operated in synchronous condenser mode."

2.3 *" The above practice in vogue in NR was discussed in 41st Power Sub Committee meeting of NCA held on 27th August, 2007. The Sub Committee proposed that the practice being followed by NRPC in respect of accounting of active power drawl for synchronous condenser operation in Pong HE station of BBMB may be adopted for SSP i.e. the active power consumed by any of the RBPH machines during condenser mode operation shall be considered as losses and will be pooled along with WR grid loss and shared in the same manner as actual transmission losses are being shared. It was also agreed that the above proposal would be applicable from prospective date.*

The above proposal of NCA for accounting of quantum of power drawn for synchronous condenser mode of operation of generating units at SSP was further deliberated in 47th meeting of Commercial Committee held on 19th September, 2007 and Committee agreed to the same i.e. the active power drawn for synchronous condenser operation of SSP units could be treated as system loss of WR grid which shall be shared by all WR beneficiaries in manner in which

actual transmission losses are being shared. This arrangement will be made applicable prospectively".

In accordance with the above decision of WRPC, the operation of RBPH in condenser mode would henceforth be undertaken as per requirement communicated by WRLDC to EMC (NCA) and as per operation guidelines discussed in the 40th emergency meeting of Power Sub Committee held on 19th February, 2007 & subsequent OCC (WRPC) meetings. The specific aspects/constraints (if any) for this operation would, however, be apprised to OCC from time to time.

Yours faithfully,

(Suman Sinha)
Director (Power)

Copy to :-

1. Member Secretary, WRPC, CEA, Plot No.F-3, Central Road, MIDC Area, Marol, Andheri (East), Mumbai-400 093 **(Fax No.022/28370193)**.
2. General Manager, WRLDC, PGCIL, F-3, Central Road, MIDC Area, Marol, Andheri (East),Mumbai-400093(Fax **No.022-28202630)**.
3. Chief Engineer (LD), MPPTCL, Shakti Bhavan, Vidyut Nagar, Jabalpur-482008 (Fax No.**0761-2664343**).
4. Chief Engineer (LD), GETCO, 132 kV Sub-station, TB Hospital Road, Gotri, Vadodara-390 021 **(Fax No.0265-2352019)**.
5. Chief Engineer(LD), MSPTCL, Prakash Garh, Plot No.C-9 Prof.Anant Kanekar Marg, Station Road, Bandra(East), Mumbai-452010 **(Fax No.022-26472868)**.
6. Chief Engineer (Electrical), SSNNL, Narmada Project (Hydro Power), 1st Floor, Old Administrative Block, Kevadia Colony, District Narmada (Gujarat) **(Fax No.02640-232102)**.

(Suman Sinha)
Director (Power)

Member (Power)
may see pl
24/10

O/C

May like to see for
saved information pl
MSh
24.10.10

DD(P)

E.M.

24/10
Mem(P)

CENTRAL ELECTRICITY REGULATORY COMMISSION
Core 3, 7th Floor, Scope Complex, New Delhi – 110 003.
(Tele No. 24364911 FAX No. 24360010)

No. L-7/25(5)/2003-CERC New Delhi the 28th December 2007

NOTIFICATION

In exercise of powers conferred under Section 178 of the Electricity Act, 2003 (36 of 2003), and all other powers enabling it in this behalf, and after previous publication, the Central Electricity Regulatory Commission hereby makes the following regulations to further amend the Central Electricity Regulatory Commission (Terms and Conditions of Tariff) Regulations, 2004, hereinafter referred to as "the principal regulations", namely: --

1. **Short title and commencement:** (1) These regulations may be called the Central Electricity Regulatory Commission (Terms and Conditions of Tariff) (Fourth Amendment) Regulations, 2007.

(2) These regulations shall come into force with effect from 00.00 hrs of 7th January, 2008.

2. **Amendment of Regulation 5:** After sub-clause (i) of Clause (3) of Regulation 5 of the principal regulations, the following proviso shall be added, namely:-

"Provided that while making the application for determination of provisional tariff, it shall not be necessary to file the details as specified under Forms 5B, 5C and 5D of the tariff filing forms, as applicable."

3. **Amendment of Regulation 19:** Regulation 19 of the principal regulations shall be substituted as under, namely:-

"19. **Sale of Infirm Power:** Infirm power shall be accounted as Unscheduled Interchange (UI) and paid for from the regional / State UI pool account at the applicable frequency-linked UI rate. Any revenue earned by the generating company from sale of infirm power shall be applied for reduction in capital cost and shall not be treated as revenue".

4. **Amendment of Regulation 24** : Clause (1) of Regulation 24 of the principal regulations, shall be substituted as under, namely:-

"24. **Unscheduled Interchange(UI) Charges**: (1) Variation between actual generation or actual drawal and scheduled generation or scheduled drawal shall be accounted for through Unscheduled Interchange (UI) Charges. UI for a generating station shall be equal to its actual generation minus its scheduled generation. UI for a beneficiary shall be equal to its total actual drawal minus its total scheduled drawal. UI shall be worked out for each 15-minute time block.

Charges for all UI transactions shall be based on average frequency of the time block and the following rates shall apply:

Average frequency of time block (Hz)		UI Rate
Below	Not below	(Paise per kWh)
----	50.50	0.0
50.50	50.48	8.0
50.48	50.46	16.0
-----	-----	-----
-----	-----	-----
49.84	49.82	272.0
49.82	49.80	280.0
49.80	49.78	298.0
49.78	49.76	316.0
-----	-----	-----
----	-----	-----
49.04	49.02	982.0
49.02	-----	1000.0

(Each 0.02 Hz step is equivalent to 8.0 paise/kWh in the 50.5-49.8 Hz frequency range, and to 18.0 paise/kWh in the 49.8-49.0 Hz frequency range)

Provided that in case of generating stations with coal or lignite firing and stations burning only APM gas, UI rate shall be capped at 406 paise per kWh when actual generation exceeds the scheduled generation.

Note

The above average frequency range and UI rates are subject to change through a separate notification by the Commission.

5. **Amendment of Regulation 35**: Regulation 35 of the principal regulations shall be substituted as under, namely:-

"35. **Sale of Infirm Power:** Infirm power shall be accounted as Unscheduled Interchange (UI) and paid for from the regional / State UI pool account at the applicable frequency-linked UI rate. Any revenue earned by the generating company from sale of infirm power shall be applied for reduction in capital cost and shall not be treated as revenue".

6. **Amendment of Regulation 42**: Regulation 42 of the principal regulations shall be substituted as under, namely:-

"42. **Unscheduled Interchange(UI) Charges**: (1) Variation between actual generation or actual drawal and scheduled generation or scheduled drawal shall be accounted for through Unscheduled Interchange (UI) Charges. UI for a generating station shall be equal to its actual generation minus its scheduled generation. UI for a beneficiary shall be equal to its total actual drawal minus its total scheduled drawal. UI shall be worked out for each 15-minute time block. Charges for all UI transactions shall be based on average frequency of the time block and the following rates shall apply:

Average frequency of time block (Hz)		UI Rate
Below	Not below	(Paise per kWh)
----	50.50	0.0
50.50	50.48	8.0
50.48	50.46	16.0
-----	-----	-----
-----	-----	-----
49.84	49.82	272.0
49.82	49.80	280.0
49.80	49.78	298.0
49.78	49.76	316.0
-----	-----	-----
----	-----	-----
49.04	49.02	982.0
49.02	-----	1000.0

(Each 0.02 Hz step is equivalent to 8.0 paise/kWh in the 50.5-49.8 Hz frequency range, and to 18.0 paise/kWh in the 49.8-49.0 Hz frequency range)

Note

The above average frequency range and UI rates are subject to change through a separate notification by the Commission.

(2) (i) The hydro-electric generating stations are expected to respond to grid frequency changes and inflow fluctuations. They would, therefore, be free to deviate from the given schedule, as long as they do not indulge in gaming, and do not cause a grid constraint. As a result, the actual net energy supplied by a hydro-electric generating station over a day may differ from the Scheduled Energy (ex-bus) for that day. A compensation shall then be made by the concerned Load Despatch Centre in the schedule for the (Day + 3), as described in clause (xix) of Regulation 45.

(ii) The concerned Load Despatch Centre shall periodically check that the generating station is declaring the capacity and energy sincerely, and is not

manipulating the declaration with the intent of making undue money through UI.

7. **Amendment of Regulation 45**: (1) Clause (xii) of Regulation 45 of the principal regulations shall be substituted as under, namely:-

"(xii) Revision of declared capability and energy by the generator(s) and requisition by beneficiary (ies) for the remaining part of the day shall be permitted, but only in case of a contingency. Revised schedules/declared capability in such cases shall become effective from the 6th time-block, counting the time-block in which the request for revision has been received in the Load Despatch Centre to be the first one."

(2) After clause (xviii) of Regulation 45 of the principal regulations, the following shall be added, namely:

"(xix) The schedule finalized by the concerned Load Despatch Centre for a hydro-electric generating station shall normally be such that the scheduled energy for a day equals the total energy (ex-bus) expected to be available on that day, as declared by the generating station, based on foreseen / planned water availability / release. It is also expected that the total net energy actually supplied by the generating station on that day would equal the declared total energy, in order that the water release requirement is met. While the 15-minute wise deviations from schedule would be accounted for as Unscheduled Interchange (UI), the net energy deviation for the whole day, if any, shall be additionally accounted for as shown in the illustration.

Illustration

Suppose the foreseen/expected total energy (ex-bus) for Day 1 is E1, the scheduled energy is S1, and actual net energy (metered) is A1, all in ex-bus MWh. Suppose the expected energy availability for Day 4, as declared by the generator, is E4. Then, the schedule for Day 4 shall be drawn up such that the scheduled energy for Day 4, shall be

S4 = E4 + (A1 – E1).
Similarly, S5 = E5 + (A2 – E2),
S6 = E6 + (A3 – E3),
S7 = E7 + (A4 – E4), and so on."

Sd/-
(K.S. Dhingra)
Chief (Law)

Note

The principal regulations were notified in the Gazette of India (Extraordinary) Part III, Section 4 on 29.3.2004 and were amended from time to time as under:

(i) Central Electricity Regulatory Commission (Terms and Conditions of Tariff) (First Amendment) Regulations, 2004, notified in the Gazette of India (Extraordinary), Part III, Section 4 dated 9.9.2004.

(ii) Central Electricity Regulatory Commission (Terms and Conditions of Tariff) (First Amendment) Regulations, 2005, notified in the Gazette of India (Extraordinary), Part III, Section 4 dated 25.8.2005.

(iii) Central Electricity Regulatory Commission (Terms and Conditions of Tariff) (First Amendment) Regulations, 2006, notified in the Gazette of India (Extraordinary), Part III, Section 4 dated 8.6.2006.

(iv) Central Electricity Regulatory Commission (Terms and Conditions of Tariff) (Amendment) Regulations, 2007, notified in the Gazette of India (Extraordinary), Part III, Section 4 dated 14.3.2007.

(v) Central Electricity Regulatory Commission (Terms and Conditions of Tariff) (Second Amendment) Regulations, 2007, notified in the Gazette of India (Extraordinary), Part III, Section 4 dated 27.4.2007.

(vi) Central Electricity Regulatory Commission (Terms and Conditions of Tariff) (Third Amendment) Regulations, 2007, notified in the Gazette of India (Extraordinary), Part III, Section 4 dated 1.10.2007.

Annex XLII – V

MAHAVITARAN (TM)
Maharashtra State Electricity Distribution Co. Ltd.

CE/PP/SSP/ 41170

Date: 17/11/2007

To
The Director,
Narmada Control Authority,
Energy management Center,
NCA, D- 3/ 4
Narmada Colony,
Sch.No.78, Vijay Nagar
Indore - 452010

Sub: Membership of WRPC for SSP.

Ref: Letter No. 3/7/2007/Power/PSC/ 840 dated 03.05.2007.

Sir,

This has reference to your above cited Letter seeking our views regarding the membership of NCA in WRPC, as representative SSP.

As SSP is a major generating station in the Region, it is ideal that NCA is associated with the various activities of Western Region and hence may represent SSP in WRPC.

However, as the SSP beneficiaries are already members of the WRPC and are funding WRPC, NCA should not share the expenses of WRPC just like the CEA, RLDC, NLDC and RPC secretariat.

The views of MSEDCL as above may be discussed in the Power Sub-Committee and the final decision of NCA may be communicated to WRPC.

Yours faithfully,

Chief Engineer (Power Purchase)

a copy to be placed in PSC-42

UDC 27/11

GOVERNMENT OF INDIA
MINISTRY OF POWER

New Delhi, the 25th May, 2005.

RESOLUTION

Sub-section (55) of section 2 of the Electricity Act, 2003 envisages establishment of Regional Power Committees (RPCs) by a resolution of the Central Government for a specified region for facilitating the integrated operation of the power system in that region.

2. Section 29 (4) of the Act further provides that the Regional Power Committee in the region may, from time to time, agree on matters concerning the stability and smooth operation of the integrated grid and economy and efficiency in the operation of the power system in that region.

3. In pursuance of the aforesaid provision, the Government of India hereby establishes the Western Regional Power Committee (WRPC) comprising the States of Chhatisgarh, Gujarat, Madhya Pradesh, Maharashtra, Goa and the Union Territories of Dadar Nagar Havaeli and Daman & Diu with the following as members :

i) A representative of every generating company which has established a generating station in the region.
ii) A representative of every transmission licensee including deemed licensees operating in the region.
iii) A representative of every distribution licensee including deemed licensees whose area of licence falls within the States of the region.
iv) A representative of every trading licensee who has a licence either for any State of the region or an inter-state licence applicable to any State of the region.
v) A representative of Western Regional Load Dispatch Centre.
vi) Member Secretary, Western Regional Power Committee - Convenor

4. The members of the Committee shall elect a Chairman from among themselves for a period of one year after which a new Chairman will be elected for next year.

5. The Headquarters of the Committee will be located at Mumbai.

6. The Committee shall discharge following functions:
(1) To undertake Regional Level operation analysis for improving grid performance.
(2) To facilitate inter-state/inter-regional transfer of power.
(3) To facilitate all functions of planning relating to inter-state/ intra-state transmission system with CTU/STU.

(4) To coordinate planning of maintenance of generating machines of various generating companies of the region including those of inter-state generating companies supplying electricity to the Region on annual basis and also to undertake review of maintenance programme on monthly basis.

(5) To undertake planning of outage of transmission system on monthly basis.

(6) To undertake operational planning studies including protection studies for stable operation of the grid.

(7) To undertake planning for maintaining proper voltages through review of reactive compensation requirement through system study committee and monitoring of installed capacitors.

(8) To evolve consensus on all issues relating to economy and efficiency in the operation of power system in the region.

7. As WRLDC would be represented as one of the member of the Committee, the decisions of Committee arrived at by consensus regarding operation of the regional grid and scheduling and dispatch of electricity will be followed by WRLDC subject to directions of the Central Commission, if any.

8. The Committee shall have a secretariat of its own which will be headed by the Member Secretary of the Committee. The Member Secretary as well as other staff for the secretariat shall be provided by the Central Electricity Authority in the manner as was being provided to the erstwhile Western Regional Electricity Board.

9. The Committee will frame its own rules of business for the conduct of its meeting and other related matters.

10. The Committee may constitute its sub-committees as deemed necessary for efficient functioning. It may also set up, if required, Groups/Committees of eminent experts to advise on issues of specific nature.

11. The Committee shall meet at least once in a quarter and at such other time as may be considered necessary.

(Ajay Shankar)
Additional Secretary to the Government of India
F.No. 23/1/2004-R&R

THE GAZETTE OF INDIA
EXTRAORDINARY
PART-1 SECTION 1
PUBLISHED BY AUTHORITY

MINISTRY OF POWER

RESOLUTION

Dated 29th November, 2005

F.No.23/1/2004-R&R - In this Ministry's Resolution F.No. 23/1/2004-R&R dated 25th May, 2005 published in the Gazette of India (Extraordinary), Part 1, Section 1, (1596 GI/2005-3) establishing the Western Regional Power Committee (WRPC) under the provisions of Sub-section(55) of section 2 of the Electricity Act, 2003, the following amendments are hereby made:-

Para 3 of the resolution is replaced by the following para 3:-

3. In pursuance of the aforesaid provision, the Government of India hereby establishes the Western Regional Power Committee (WRPC) comprising the States of Chhatisgarh, Gujarat, Madhya Pradesh, Maharashtra, Goa and the Union Territories of Dadar Nagar Havaeli and Daman & Diu with the following members:-

i) Member(Grid Operations), Central Electricity Authority (CEA)
ii) One representative each of Central Generating Companies, Central Transmission Utility (CTU), National Load Despatch Center (NLDC) and the Western Regional Load Despatch Center (WRLDC).
iii) From each of the States in the region, the State Generating Company, Transmission Utility (STU), State Load Despatch Center (SLDC) and one Distribution company by rotation (where more than one such company exists) would be represented.
iv) Every Independent Power Producer (IPP) having more than 1000 MW installed capacity in the region would have one representative each.
v) One member representing all other IPPs operating in the region.
vi) One member representing the electricity traders in the region.
vii) Member Secretary, WRPC - Convenor.

In categories (v) & (vi), respective associations would send their representative to the WRPC. The representative from respective organizations should be either the head of the organisation or at least a person not below the rank of a Director on the Board of the company/corporate entity except for Central Public Sector Undertakings

(CPSUs) where representative could also be at the level of Executive Director.

Para 4 of the resolution is replaced by the following para 4:-

4. Chairperson of the WRPC would represent the States of the region by rotation in alphabetical order. Members of the WRPC from that particular State would nominate the Chairperson of WRPC from amongst themselves. Term of the Chairperson would be for a period of one year.

Para 10 of the resolution is replaced by the following para 10:-

10. The Committee may constitute its Sub-committees, Task Forces, Ad hoc Committees and Standing Committees, as deemed necessary for efficient functioning. It may also set up, if required, Groups / Committees of eminent experts to advise it on issues of specific nature. The level of the representative to the Sub Committees etc would depend on the nature of the issue concerned.

Para 11 of the resolution is replaced by the following para 11:-

11. The WRPC shall meet at least once in six months. Sub Committees, Task Forces, Ad hoc Committees and Standing Committees of the WRPC could meet as and when required.

The following para may be inserted as a new para :-

12. The principal resolution dated 25th May, 2005 shall come into force from the date of publication of this resolution in the Gazette.

Sd/-
(Ajay Shankar)
Additional Secretary to the Government of India

Extracts of Minutes of 94th Meeting of PSC of SSCAC

Annex- XLII-(VI)

ITEM NO.94-6: UPGRADATION/REPLACEMENT OF SSP DATA TRANSMISSIONSYSTEM.

Member (Power) NCA informed that the proposal for up-gradation/replacement of SSP data transmission system was deliberated by Power Sub Committee during its 41st meeting held on 27.08.07. The committee recommended implementation of Phase-I (for RBPH) and Phase-II (for CHPH) of the proposal simultaneously to avoid the constraints in integration of CHPH RTU at later stage as equipment under Phase-I would also be technologically obsolete as Phase-II is proposed to be taken up after a period of 5 years. The bid document for the proposal is under preparation in consultation with CEA. The additional fund requirement for the revised proposal of Phase-I & II would be put up to NCA for approval. He added that as commissioning of new system is likely to be completed in period of one year, Power Sub Committee decided to consider an interim arrangement suggested by Gujarat Electricity Transmission Company (GETCO) Ltd. to provide RTU for SSP on rental basis to enable SSP to provide data to State Load Despatch Centre (SLDC) GETCO in accordance with statutory requirements under Indian Electricity Grid Code (IEGC) 2006.

Annex XLII – VIII

FROM : S.E NP-P ECC SSNNL KEVADIA FAX NO. : 02640232101 Dec. 05 2007 05:03

SARDAR SAROVAR NARMADA NIGAM LTD.
(A WHOLLY OWNED GOVERNMENT OF GUJARAT UNDERTAKING)
Administrative Block-B, 3rd Floor, Kevadia Colony - 393 151 Dist. Narmada, Gujarat (INDIA)Post Box No: 52, Gram : Fax: 02640 – 232102 E Mail SSPKVD@GUJNIC.IN
Regd. Office –Block No.12, 1st floor, New Sachivalaya Complex, Gandhinagar

CHIEF ENGINEER (Elect.)
PHONE NO:- 232377 (P)
232102 (Fax)
232245 (O)

NO.CE / NPHP/ PB / 1517

Office of the Chief Engineer(Elect.)
N.P.H.P,
Kevadia Colony.
Date :- 5-12-07

To,
The Superintending Engineer,
Narmada Control Authority,
D ¾, Narmada Colony,
Sector no . 78, Vijay nagar,
Indore. 452 010

Sub : Regarding details of planned shutdown for year 2008-09.

With reference to above, the details of planned shutdown for the year 2008-09 for RBPH and CHPH as submitted by GSECL are as follows :

	Unit-1	Unit-2	Unit-3	Unit-4	Unit-5	Unit-6
RBPH	01-10-08 to 28-10-08	01-11-08 to 28-11-08	01-12-08 to 28-12-08	01-01-09 to 28-01-09	01-02-09 to 28-02-09	01-03-09 to 28-03-09
CHPH	01-10-08 to 28-10-08	01-11-08 to 28-11-08	01-12-08 to 28-12-08	01-01-09 to 28-01-09	01-02-09 to 28-02-09	

This is for your further needful action please.

Yours faithfully,

(Chief Engineer (Elect.)
N.P. Hydro Project
Kevadia Colony

- Master file

bDCP PL keep in file

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Annex XLIV-D

GENERATION OF SSP COMPLEX FOR THE YEAR 2007-08

S NO.	MONTH	C.E.A TARGET			GENERATION		
		CHPH	RBPH	TOTAL	CHPH	RBPH	TOTAL
1	April	25	144	169	24.49	126.74	151.23
2	May	25	144	169	12.93	72.64	85.57
3	June	25	144	169	9.74	214.98	224.72
4	July	31	504	535	34.95	796.61	831.56
5	August	32	864	896	50.83	788.86	839.69
6	September	31	864	895	15.85	586.99	602.84
7	October	32	228	260	19.50	329.53	349.03
8	November	31	228	259	22.71	355.59	378.30
9	December	32	228	260	31.15	350.44	381.59
10	January	31	228	259	29.90	344.12	374.02
11	February	32	228	260	32.13	52.02	84.15
12	March	31	228	259			
	Total	358	4032	4390	284.179	4018.517	4302.696

Annex-III

Month-wise Energy Generation Programme (2008-09) for CHPH (5x50MW)

Sl No.	Month	Likely Energy Generation (MUs)
1	April,08	20.60
2	May-08	14.16
3	June,08	16.55
4	July,08	36.79
5	August,08	41.81
6	September,08	13.30
7	Ocober,08	18.97
8	November,08	24.44
9	December,08	26.88
10	January,09	24.28
11	February,09	22.23
12	March,09	19.98
	Total	**280.00**

Likely Generation w.e.f Nov-08 is considered as per actual generation upto Nov-07 and w.e.f Dec-08 to Mar-09 as per working table for previous year

Energy Generation Target 2008-09 of CHPH = **280 MUs**

Annex-IV

Month-wise Energy Generation Programme (2008-09) for RBPH (6x200MW)

Sl No.	Month	Likely Energy Generation (MUs)
1	April,08	133
2	May-08	133
3	June,08	122
4	July,08	883
5	August,08	859
6	September,08	744
7	Ocober,08	385
8	November,08	372
9	December,08	329
10	January,09	170
11	February,09	148
12	March,09	173
	Total	**4450**

Energy Generation Target 2008-09 = 4450 MUs