



निदेशक / विद्युत विनियम,
भाखड़ा ब्यास प्रबन्ध बोर्ड

SLDC Complex, Industrial Area Phase - I
Chandigarh - 160002. Tel Fax.: 0172 2652820
E-mail: dirpr@bbmb.nic.in



Email copy

प्रेषित

सचिव,
केंद्रीय विद्युत नियामक आयोग,
मंजिल 4 और 3, चंद्रलोक बिल्डिंग,
जनपथ 36, नई दिल्ली -110001

क्रमांक सं 3172-77 /PCT-127

दिनांक: 30-8-22

विषय: Draft Central Electricity Regulatory Commission (Indian Electricity Grid Code) Regulation-2022.

संदर्भ: आपके कार्यालय का पत्र (notice) न: L-1/265/2022/CERC दिनांक 07.06.2022

On the subject cited above, your office has sought comment/suggestions/objections in respect of draft Central Electricity Regulatory Commission (Indian Electricity Grid Code-IEGC 2022). BBMB would like to draw your attention towards this draft with following comments:-

Provisions in draft IEGC-2022 (Chapater-1, Clause (2), Sub Clause(3)):-

"The generating stations of the Bhakra Beas Management Board (BBMB) and Sardar Sarovar Project (SSP) shall be treated as regional entities and their generating units shall be scheduled and despatched in coordination with BBMB or Narmada Control Authority, as the case may be, having due regard to the irrigation requirements of the participating States."

Provisions in exisiting IEGC-2010 (Part-I, Clause (1.3) Sub Clause (iii)) :-

"For the purpose of the IEGC, the generating stations of the Bhakra Beas Management Board (BBMB) and Sardar Sarovar Project (SSP) shall be treated as intra-State generating stations, though their transmission systems shall be a part of the ISTS. This is because of the fact that only some of the States of Northern Region/ Western Region have a Share in BBMB/ SSP, and their generating units have to be scheduled and despatched in a very special manner (in coordination with the irrigational requirements). The scheduling and despatch of the BBMB/ SSP generation shall continue to be the responsibility of the BBMB/ Narmada Control Authority (NCA), with a proviso that it shall be duly coordinated with the respective Regional Load Despatch Centre and the beneficiaries."

Major Shift from IEGC-2010 to draft IEGC-2022:- From above it can be concluded that there is signification shift related to scheduling and dispatch of BBMB generating stations which is implied to be done by concerned RLDC i.e. NRLDC in coordination with BBMB having due regard to the irrigation requirements of the participating states.

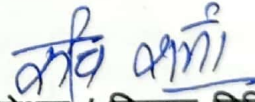
Concerns of BBMB:- It is submitted that BBMB is operating its power houses keeping in view the irrigation requirement, daily water inflows as well as connected civil hydraulic infrastructure/ water conductor system. This infrastructure has its own limitations such as Nangal pond level, Balancing reservoir, rate of fall of BR, etc and need to be taken care of while scheduling of generation at BBMB Power Houses. The operating constraints in brief with respect to BBMB generating stations are listed in **Annexure-I**. Therefore the assumption regarding irrigation requirement being prime and only constraint is not precise. It is pertinent to mention here that keeping in view the peculiar operation of BBMB generating stations, even in IEGC 2010, the scheduling and despatch of the BBMB generation was responsibility of BBMB, with a provision that it shall be duly coordinated with respective RLDC & beneficiaries. It would be appreciated that BBMB has been scheduling generation of its power houses after considering irrigation requirements, daily water inflows as well as hydraulic constraints along with seamless coordination with NRLDC for more than two decades.

It is further brought out that BBMB has been constituted as per the provision of **The Punjab Reorganization Act 1966** for Administration, operation & maintenance of Bhakra and Beas projects on behalf of its partner states viz states of Punjab, Haryana, Rajasthan, Himachal Pradesh & UT Chandigarh, as such coordination with BBMB beneficiaries is also required. Any decision in this regard may have the views of all the states involved i.e. partner states of BBMB and may not be taken in isolation.

Therefore it is requested that above mentioned concerns may please be considered while finalizing implementation of IEGC-2022 and continue with existing provisions of IEGC in reference to scheduling and despatch of BBMB power houses in proposed IEGC regulation also.

यह प्रमुख अभियंता/ प्रणाली परिचालन के अनुमोदन उपरांत जारी किया जाता है जी।

यह आपकी सूचनार्थ एवं अग्रिम कार्रवाही हेतू प्रेषित है जी ।


निदेशक / विद्युत विनियम,
बीबीएमबी, चण्डीगढ़।

प्रतिलिपि

1. सदस्य सचिव/ एनआरपीसी को इस कार्यालय का पत्र क्रमांक 812-14/ पीसीटी-74 दिनांक 15.04.2020 के लगातारता में।
2. प्रमुख अभियंता/ प्रणाली परिचालन, बीबीएमबी, चण्डीगढ़।
3. अधीक्षण अभियंता (तकनीकी) टू अध्यक्ष, बीबीएमबी, चण्डीगढ़।
4. संयुक्त सचिव टू सदस्य (विद्युत), बीबीएमबी, चण्डीगढ़।
5. मास्टर फाइल कार्यालय: निदेशकविद्युत विनियम / , बीबीएमबी, चण्डीगढ़।

OPERATING CONSTRAINTS IN BRIEF WITH RESPECT TO
BBMB GENERATING STATIONS

A. BHAKRA POWER HOUSE

1. Operating Level Constraints at Nangal Dam
 - a) Nangal Dam acts as a balancing reservoir to smoothen the variation of water discharge from Bhakra Power Houses on account of peaking.
 - b) For water releases less than 22000 cusecs, power generation during peak demand has to be curtailed at less than the installed capacity of Bhakra Power Houses to avoid spilling at Nangal Dam. Accordingly, the peaking is generally provided depending on water releases and Bhakra reservoir level.
2. Maintenance of Tailrace Level at Bhakra Dam :
 - a) The Centre Line of Turbine at Bhakra Power Houses is at EL 1164'. In order to maintain the Minimum Tail Race Level of EL1165' a constant discharge of 6000Cusecs is required to be maintained round the clock, due to which all machines cannot be stopped during off-peak hours. This also effects no. of machines during peak hours when water releases are on lower side.

B. DEHAR POWER HOUSE

1. For Power generation at Dehar, water of river Beas is diverted from Pandoh dam to Balancing Reservoir located at Sundernagar through Pandoh Baggi Tunnel and Baggi Sundernagar Open Channel.
2. The water diverted from Beas is stored in a balancing reservoir at Sundernagar and used for generation at Dehar Power House through Sundernagar Slappar Tunnel.
3. The storage capacity of balancing reservoir being very less, i.e, about 3000 acre feet, the inflows and outflows have to regulated in such a way so as to provide maximum generation while simultaneously conserve the water for providing maximum generation during peak.
4. During low hydro period diversion of water from Pandoh dam is to be managed so as to maximize the peaking from Dehar while keeping track of levels of both Pandoh Dam and Balancing reservoir at Sundernagar. This also involves monitoring of inflows of Pandoh dam at controlled steps for raising/ reducing

diverted water in Pandoh Baggi Tunnel and correspondingly in Open Hydel Channel.

During high hydro period diversion of water from Pandoh dam is maximized while managing other hydraulic parameters within prescribed limits.

5. Keeping in view the necessary margins required to handle grid contingencies and silt deposits in Balancing Reservoir, the Operating limits of balancing reservoir during low and high hydro period are reviewed periodically and monitored accordingly.
6. Owing to silt deposits, the maximum draw down limits of Balancing Reservoir are declared in consultation with irrigation authorities and are periodically reviewed.

c. PONG POWER HOUSE

1. Mukerian Power Houses of PSPCL are located downstream of Pong Dam. Consequently, PSPCL has always stressed upon BBMB to spread/flatten the generation at Pong Power Houses throughout the day so that the generation at Mukerian Power Houses could be maximized.
2. Water released from Pong is stored at Shah Nehar Barrage, which is further used for Generation at Mukerian Power Houses.
3. The capacity of Shah Nehar Barrage being very less, the generation at Pong during peak has to be restricted so as to avoid spilling at Shah Nehar Barrage. Accordingly, the peaking at Pong Power Houses is generally provided depending on water releases and Pong reservoir level.