

CHHATTISGARH STATE POWER GENERATION COMPANY LIMITED

(A Govt. of C.G. Undertaking)

Chief Engineer (C&RA) Raipur

No. 03-09/180

Raipur, dtd. 20/03/24

To,

The Secretary,

C.S. Electricity Regulatory Commission

New Shanti Nagar, Raipur

Sub: Second Draft CSERC (Intra-State Deviation Settlement Mechanism and Related Matters) Regulations, 2024. – CSPGCL's comments/ Suggestion.

Ref: No.03/CSERC/Tariff/ Intra-state ABT/Regulation2024/2024/388 Dtd. 01/03/2024

Respected Sir,

On the subject matter following comments/submissions are being submitted for kind consideration please: -

A. Clause 1.3 : Effective date of regulations

Draft Regulation: "These Regulations shall be effective from 01.07.2024."

CSPGCL Observation/Comment: As per prevailing practice any regulation is enacted after notification in the official Gazette.

The normal frequency band proposed in the draft is reduced to 49.95Hz-50.03Hz from 49.7 Hz -50.10 Hz. The normal frequency band squeezed 5 times from 0.40 Hz to 0.08 Hz. It is big challenge for a Generator to implement under the stringent DSM rates. To implement such scenario minimum three months are required to modify the C&I and train operation personnel to follow the regulations.

Proposed Regulation: 'These regulations shall be effective from the first day of the month succeeding three months of publication in the official Gazette of the State of Chhattisgarh.'

B. Clause 3.39 : "Scheduled generation" or "Scheduled Injection"

Draft regulation: "for a time block or any period means the schedule of generation or injection in MW or MWh ex-bus including the schedule for Ancillary Services given by the concerned Load Despatch Centre;"

CSPGCL Observation/Comment: Currently Ancillary Services are not implement in CG State. Therefore, schedule for Ancillary Services may be removed from above clause.

Proposed Regulation: “for a time block or any period means the schedule of generation or injection in MW or MWh ex-bus”

C. Clause 6.4(1) Charges for Deviation

Draft regulation: “Generators injecting power without scheduling shall be considered as unscheduled power. CSPDCL shall procure such unscheduled power by executing an agreement with such generators from time to time and such power shall be paid at the rate of 50 paisa per unit. The cost incurred for purchase of such power shall be considered as power purchase cost of CSPDCL.

Provided that the generator shall not be paid in case the frequency is greater than 50.03 Hz for the respective time block.”

CSPGCL Observation/Comment : It is to be humbly submitted that exact forecasting of unit synchronization time is not possible at all time. In actual practice, generating plant get synchronized early than expected. It is requested that in such cases cost of generation may be allowed.

Proposed Regulation:” Generators injecting power without scheduling shall be considered as unscheduled power. CSPDCL shall procure such unscheduled power by executing an agreement with such generators from time to time and such power shall be paid at the rate of 50 paisa per unit. The cost incurred for purchase of such power shall be considered as power purchase cost of CSPDCL.

Provided that General seller other than a generating station based on municipal solid waste whose tariff is determined under Section 62 or Section 63 of the Act injecting power without schedule/Zero schedule may be paid at the reference charge rate.

Provided that the generator shall not be paid in case the frequency is greater than 50.05 Hz for the respective time block.”

D. Clause 6.4(5) : For general Seller other than Generating stations based on municipal solid waste and biomass.

Current Regulation	Draft Regulation
Normal Freq. range 49.7 -50.1	Normal Freq. range 49.95 -50.03
For Over Injection - “ <u>Receivable</u> ” upto 12%, DSM charges as per Frequency/rate table In excess of 12% -No Charges	For Over Injection - “Receivable” up to 10% or 100MW whichever is less - (ECR+FCA) In excess of 10% - No Charges

Under Injection - “payable” Upto 12% - DSM charges 12% to 15% - 120% of DSM charges 15% to 20% - 140% of DSM charges Above 20% - 200% of DSM charges	Under Injection - “payable” Lesser of 100MW or 10% - (ECR+FCA) From Lesser of 100MW or 10% to 150MW or 15% - 120% of Normal rate From Lesser of 150MW or More than 15% - 150% of Normal rate
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CSPGCL observation/ Comments: It is humbly submitted that the clause related to DSM rate linked with normal rate/market rate (in case of under injection) is not only unjust, irrational and against the concept of jurisprudence but is also detrimental to the interest of all the stakeholders too. To that extent it also vitiates the preamble of the Act.

Grounds Urged: -

1. The linking of receivable with the Reference Charge Rate (and in turn ECR) and the payable with “Market Rate” is against the very concept of equity and parity. While there can be an agreement that “Payable in case of under injection” may be 120% /150% of the “Receivable in case of over injection”, linking the two to two entirely different yardsticks cannot have a rational.
2. Such Linking induces inequality among the equals. At the time of under injection, generator saves on the fuel cost. Thus if the Payable is linked to the “market rate”, effectively the net payable remains “120% of market rate (–) ECR” (because the billing is linked to schedule energy). Thus if on a given day, the discovered “normal rate” (Market Discovered Rate) is Rs 4.50 / kWh then for under injection, a generator running on linkage domestic coal (with ECR say Rs 1.50/ kWh) ends up with net payment of Rs 3/kWh, while the other generator running with costly imported / auction coal (with ECR say Rs 5/ kWh) ends up with earning of Rs 0.50/kWh.
3. The above illustration also shows that whatever may be the market rate, on any given day, the proposed mechanism in the draft regulation will always favour the generator with higher fuel cost. This is not only against the underlying principle of merit order dispatch, but is against the common prudence too.
4. As a generator at low ECR and low AFC stands to lose heavily, and recovery of fixed cost is capped to 85% PAF, such mechanism may lead to low ECR generators to declare DC conservatively, so that if any auxiliary goes out of operation, the schedule can be met through the undeclared spinning reserve. While the generator with very high ECR will tempt to declare DC at higher level (even with the risk of imposition of DSM charges for under injection). It may be interesting to visualise an analogy:
 - a. The Case of Low Cost generator : For a low cost generator (such as HTPS), suppose the ECR is Rs 1.50/ Kwh and the AFC is about Rs 1 / kWh (at normative

PAF, with 100% schedule) then with the 'normal rate hovering at about Rs 4.50 / kWh, the cost of under injection would be about Rs 3/kWh. Then, commercially, for such generator to it may be better to keep some spinning reserve and declare the capacity conservatively. Even if there is a slight under recovery of AFC, it will be much less than what it would have to pay in case of under injection (Loss of Rs 1/ kWh vis-à-vis loss of Rs 3.50 /kWh).

- b. Per contra, we may consider a case of high cost generator. Suppose the ECR is Rs 5/ Kwh and the AFC is about Rs 3/kWh then with the normal rate hovering at about Rs 4.50/kWh, the generator would not only earn about Rs 0.50/kWh cost but will also earn about Rs 3/kWh on for AFC. Thus, commercially, for such generator it may be better to declare the capacity aggressively, even under the risk of under injection because even with payable provision there would be effectively a gain of about Rs 3.50/ kWh.
 - c. With the above, the grid will have lower quantum of cheaper power and higher quantum of costlier power. As the cost of DSM is a pass through for the distribution licensee, ultimately it will be the end beneficiary who will end up with higher cost of power.
5. CSPGCL respectfully submits that as such scenario will be against the preamble of the Act, it may please be treated as ab-initio ultra-virus.
6. In absence of the explanatory memorandum for consideration of differential rates for computation of "receivable" in case of over injection and "payable" in case of under injection, only perceptible logic may be that the table has been borrowed from the CERC provisions. However, it is respectfully submitted that such adoption is contrary to the pith and substance of the Act. At the state level, generating company, supplying 100% power to distribution licensee, for the purpose of DSM, acts as a subcomponent of Discom and not as generation company at central level whose deviations are settled vis-à-vis the state deviations. It is for this reason that at central level a balancing and settlement code is required. For state level, if a comparison is to be made, at best it can be compared with the unbundled SEB. As per Act, a Discom may have its own captive generating capacity, the pertinent question which may guide the DSM at state level should be that what treatment would be given to the over injection / under injection by a captive plant.

Further, the fact that Chhattisgarh State Generating company is on a different footing than Central PSU's can also not be ignored. The non-availability of Payment Security Mechanism, lower Return on Equity & such other factors must be taken into consideration while applying penalty on market rates. The law of parity also stipulates that unequal's cannot be treated as equals. Hence, under no condition each provision of DSM at Central level may be adopted inevitably at state level.

Penalty /Incentive should be commensurate with each other for either normal rate or ECR. However, as the cost of DSM power for Discom is a pass through, hence to safeguard the interest of end beneficiaries, CSPGCL proposes that adoption of Reference Charge Rate (i.e ECR) at both ends in case of ‘normal rate’ at both ends may be preferred.

Proposed Regulation:

Entity	Charges for deviation payable to State Deviation Pool Account	
Seller	Deviation by way of over injection	Deviation by way of under injection
For General Seller other than generating stations based on municipal solid waste.	Zero: Provided that such Seller shall be paid back for over injection @ the reference charge rate for deviation up to 10% of schedule or 100 MW, whichever is less.	(i) @ the reference charge rate for deviation up to 10% of schedule or 100 MW, whichever is less; (ii) @ 120% of the reference charge rate for deviation by way of under-injection beyond 10% of schedule or 100 MW, whichever is less and up to 15% of schedule or 150 MW, whichever is less; and (iii) @ 150% of the reference charge rate for deviation beyond 15% of schedule or 150 MW, whichever is less.

E. Clause 7.1(a) &(b)

Draft Regulation:

When $f < 49.95\text{Hz}$

(a) The General Seller other than generating station based on municipal solid waste shall be paid back for deviation by way over injection

(i) @ 120% of reference rate of charge for deviation when grid frequency is greater than 49.90 Hz and less than 49.95 Hz [$49.90 < f < 49.95$] and

(ii) @ 150% of reference rate of charge for deviation when grid frequency is less than and equal to 49.90 Hz [$f \leq 49.90$];

(b) The general Seller other than generating station based on municipal solid waste shall pay for deviation by way under injection

- (i) @ 150% of the reference rate of charge for deviation, or @ 120% of the normal rate of charge for deviation, whichever is higher, when grid frequency is greater than 49.90 Hz and less than 49.95 Hz [$49.90 < f < 49.95$] and
- (ii) @ 200% of the reference rate of charge for deviation, or @ 150% of the normal rate of charge for deviation, whichever is higher, when grid frequency is less than and equal to 49.90 Hz [$f \leq 49.90$];

CSPGCL observation/Comment: - It is humbly submitted proposed penalty is very harsh on the thermal Generator under small bandwidth of normal frequency band of 0.08Hz, even a single Kwh of under injection may impose a penalty of market rate up to Rs 10/- whereas for over injections of the same only ECR is receivable. It is submitted that quantum of incentive and penalty always goes symmetrical, particularly when the variation of frequency is uncontrollable for Generator. A comparative table of both the scenario is as under: -

Current Regulation	Draft Regulation
Under Frequency < 49.7 Over Injection Receivable @ 8/ Under Injection Payable @ 16/	Under Frequency < 49.95 Over injection – Receivable (i) 120% of ECR upto Freq 49.90 (ii) 150% of ECR below Freq 49.90 Under Injection – Payable Upto Freq 49.90 (i) Higher of 150% of ECR or 120% of Market rate. Below Freq 49.90 (ii) Higher of 200% of ECR or 150% of Market rate.

Proposed Regulation: Looking to the uncontrollable condition for the generator, it is proposed to amend the clause as under:

When $f < 49.95\text{Hz}$

(a) The General Seller other than generating station based on municipal solid waste shall be paid back for deviation by way over injection

(i) @ 120% of reference rate of charge for deviation when grid frequency is greater than 49.90 Hz and less than 49.95 Hz [$49.90 < f < 49.95$] and

(ii) @ 150% of reference rate of charge for deviation when grid frequency is less than and equal to 49.90 Hz [$f \leq 49.90$];

(b) The general Seller other than generating station based on municipal solid waste shall pay for deviation by way under injection

(i) @ 120% of the reference rate of charge for deviation, when grid frequency is greater than 49.90 Hz and less than 49.95 Hz [$49.90 < f < 49.95$] and

(ii) @ 150% of the reference rate of charge for deviation, when grid frequency is less than and equal to 49.90 Hz [$f \leq 49.90$];

F. Clause 7.5

Draft Regulation:” Notwithstanding anything contained in Clause (1) of Regulation 6 of these Regulations, in case of forced outage of a seller, the charges for deviation shall be at the reference charge rate, for a maximum duration of four-time blocks including the first-time block when the outage has been occurred.”

CSPGCL observation/Comment: - It is humbly proposed that due to some typing error, the above proviso in draft regulation is referring to “Clause (1) of Regulation 6 of these Regulations” instead of clause no 6.4(5), 7.1 & 7.2 of Draft regulation.

Proposed Regulation:” Notwithstanding anything contained in Clause 6.4(5), 7.1 & 7.2 of these Regulations, in case of forced outage of a seller, the charges for deviation shall be at the reference charge rate, for a maximum duration of four-time blocks including the first-time block when the outage has been occurred.”

G. Clause 8.2 Scheduling and Dispatch

Draft Regulation : “For long-term open access customers and medium-term open access customers, the provisions of the CERC IEGC 2023, State Grid Code and the CSERC (Connectivity and Intra-State Open Access) Regulations 2011, as amended from time to time, shall be applicable for declaration of capacity and scheduling. For supply of power on “D” day, the Seller shall submit daily declared capacity by 07:00 Hrs of “D-1” day and accordingly the Buyers including beneficiary shall submit their requirement to SLDC in 15 minutes time block by 08:00 Hrs of “D-1” day. If no confirmation from Seller/ Buyer including beneficiary is received within above time limit, SLDC shall consider zero declared capacity/ requirement. Accordingly, SLDC shall issue the drawal and injection schedules by 09:30 Hrs of “D-1” day.

Provided that in case of forced outages, the generator shall be allowed 02 revisions of day-ahead declared capacity upto 22:00 Hrs of the “D-1” day. Thereafter, no changes shall be registered in the schedule on day-ahead basis.”

CSPGCL observation/Comment: None of the provisions of Scheduling and Despatch chapter is covering CSPGCL. Above provision contained in the chapter deals with open access customers whereas CSPGCL neither have long term open access or medium term open access, as CSPGCL sells 100% power to CSPDCL on Ex-bus basis. It is requested to modify the clause accordingly.

Further barring the generator from revision of schedule after 22.00 Hrs of ‘D-1’ day will put the generator on hold up-to 00.45 Hrs. In first case if generator trips on 22.01 Hrs, unwarranted DSM charges will be imposed from 00.00 Hrs to 00.45Hrs. In second case where generator is under forced shut down and generator want to put machine on bar early this provision restrict the generator to be synchronized till 00.45 Hrs. this will lead to under-utilization of available capacity of the State.

Proposed Regulation: “For long-term seller and medium-term seller, the provisions of the CERC IEGC 2023, State Grid Code and the CSERC (Connectivity and Intra-State Open Access) Regulations 2011, as amended from time to time, shall be applicable for declaration of capacity and scheduling. For supply of power on “D” day, the Seller shall submit daily declared capacity by 07:00 Hrs of “D-1” day and accordingly the Buyers including beneficiary shall submit their requirement to SLDC in 15 minutes time block by 08:00 Hrs of “D-1” day. If no confirmation from Seller/ Buyer including beneficiary is received within above time limit, SLDC shall consider zero declared capacity/ requirement. Accordingly, SLDC shall issue the drawal and injection schedules by 09:30 Hrs of “D-1” day.

Provided that in case of forced outage of unit or major auxiliary, the generator shall be allowed 02 revisions of day-ahead declared capacity upto 23:15 Hrs of the “D-1” day. Thereafter, no changes shall be registered in the schedule on day-ahead basis.”

H. Clause 8.7

Draft Regulation:

“To discourage frivolous revisions, SLDC may refuse to accept schedule/capability changes of less than two (2) percent of previous schedule/capability or 0.5 MW whichever is more. The schedule shall not be revised except in case of forced outage of generating unit.

The revisions of schedule of a generator shall be effective from 4th time block, the first being the time-block in which revision was submitted. There may be maximum of 8 revisions of the schedule during the day starting from 00:00 Hrs of the day.

Provided also that in case of a plant emergency, where multiple units trip the ceiling of 8 revisions in a day may be relaxed.”

CSPGCL observation/ Comments:

1. Last line of 1st para of above clause is contradictory with the second and third proviso. In the view of above it is requested to remove last line of first para.
2. In case of any plant having one unit or multiple units need for multiple revisions during ramp up will be same. Hence the second proviso should be enabled for plant with single unit also.

Proposed Regulation:

“To discourage frivolous revisions, SLDC may refuse to accept schedule/capability changes of less than two (2) percent of previous schedule/capability or 0.5 MW whichever is more.

The revisions of schedule of a generator shall be effective from 4th time block, the first being the time-block in which revision was submitted. There may be maximum of 8 revisions of the schedule during the day starting from 00:00 Hrs of the day.

Provided also that in case of a plant emergency, where units trip the ceiling of 8 revisions in a day may be relaxed.”

I. Clause 8.10

Draft Regulation:

“If the scheduling of the State-grid-user has been stopped/ discontinued/ cancelled by SLDC or got cancelled by SLDC on its request to RLDC/NLDC/PX, on “grid disciplinary” measures, the balance and the subsequent approved transactions and application of the State-grid-user shall be forfeited / cancelled.”

CSPGCL observation/ Comments: This provision empowers SLDC to cancel /forfeit already approved future transactions which is beyond the functions and jurisdiction of SLDC given under the Act. Hence this provision may be omitted.

Proposed Regulation: This clause may be omitted.

J. Clause 8.16

Draft Regulation:

“On an application received from the SLDC, the Commission shall approve the Scheduling and despatch procedure from time to time. Till such application is received the provisions specified in these Regulations shall be applicable.”

CSPGCL observation/ Comments: To facilitate scheduling and despatch consistent with the grid code is prerogative of the Commission. Hence this provision may be omitted.

Proposed Regulation: This clause may be omitted.

Last but not the least, looking to the importance and significance of the issue, it is submitted that if further discussions on any of the issues with stake holders are deemed useful than CSPGCL as a major contributor to the State Energy Balance may be allow an opportunity for presenting its views.

Submitted for kind consideration please.



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