



विद्युत् नियमन आयोग

(विद्युत् नियमन आयोग ऐन, २०७४ बमोजिम स्थापित स्वायत्त नियमनकारी निकाय)



विद्युत नियमन आयोग सानोगौचरण, काठमाडौं

राय, सल्लाह, सुझाव तथा प्रतिक्रिया उपलब्ध गराईदिने सम्बन्धी सूचना

मिति: २०८३।०५।२६ गते

यस आयोगद्वारा तयार गरिएको DEVIATION SETTLEMENT MECHANISM AND RELATED MATTERS) Directives, 2083 र ELECTRICITY REGULATORY COMMISSION (INSTALLATION AND OPERATION OF MATTERS) DIRECTIVES, 2083 को मस्यौदा आयोगको वेबसाइटमा प्रकाशित गरिएको छ। साथै, उक्त मस्यौदाहरु उपर ३० दिन भित्र राय, सल्लाह, सुझाव तथा प्रतिक्रिया उपलब्ध गराइदिनुहुन समेत सम्पूर्ण सरोकारवालाहरुमा अनुरोध छ।

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DRAFT

ELECTRICITY REGULATORY

COMMISSION

(DEVIATION SETTLEMENT

MECHANISM AND RELATED MATTERS)

DIRECTIVES, 2083



Electricity Regulatory Commission

Sano Gaucharan, Kathmandu, Nepal

Bhadra, 2083 (September 2026)

Electricity Regulatory Commission

DEVIATION SETTLEMENT MECHANISM AND RELATED MATTERS DIRECTIVES, 2083

Preamble: Whereas it is necessary to provide for a regulatory mechanism for the treatment and settlement of deviation from the schedule of drawal or injection of electricity in the interest of reliability, security, and stability of the grid, it is hereby specified as follows:

Now, therefore, the Commission, in exercise of the powers conferred on it by section 43 of the Electricity Regulatory Commission Act, 2074 (2017 AD) and as mandated by section 12(a) thereof hereby makes the following directives:-

1. Short title and commencement

- (1) These regulations may be called the Electricity Regulatory Commission (Deviation Settlement Mechanism and Related Matters) Directives, 2083.
- (2) These shall come into force on such date as may be notified by the Commission separately.

2. Definitions and Interpretation

- (1) In these regulations, unless the context otherwise requires -
 - (a) **“Act”** means the Electricity Regulatory Commission Act, 2074 (2017 AD).
 - (b) **‘Actual drawal’** in a time block means the electricity drawn by a buyer, measured by the interface meters;
 - (c) **‘Actual injection’** in a time block means the electricity injected by the seller, measured by the interface meters;
 - (d) **‘Buyer’** means a person purchasing electricity through a transaction scheduled in accordance with the Grid Code;
 - (e) **“Commission”** means the Electricity Regulatory Commission (ERC) formed under the Electricity Regulatory Commission Act, 2074 (2017 AD).
 - (f) **‘Deviation’** in a time block for a seller of electricity means the difference between total actual injection and its total scheduled injection, and for a buyer of electricity, it is the difference between its total actual drawal minus its total scheduled drawal, and shall be computed as per this Directive;
 - (g) **Deviation Charge Vector:** A **Deviation Charge Vector** is a structured matrix or tabular schedule that specifies the **rate of deviation charges** applicable for different combinations of:
 - i) **System frequency**
 - ii) **Magnitude and direction of deviation** (over-injection / under-injection for generators, over-drawal / under-drawal for buyers)

- (h) **‘Deviation Charge Pool Account’** means the Account to be maintained and operated by the Nodal Agency as per this Directive;
 - (i) **“Grid Code”** means Nepal Grid Code, 2080 (2023) issued by the Commission.
 - (j) **“Meters”** means meters as defined in the Open Access Directives, 2082;
 - (k) **‘System Operator (SO)’** means system operator as defined in Open Access Directives;
 - (l) **‘Scheduled injection’** for a time block or any period means the schedule of generation or injection in MW or MWh ex-bus given by the concerned SO;
 - (m) **‘Scheduled drawal’** for a time block or any period means the schedule of drawal in MW or MWh ex-bus, including the schedule for Ancillary Services given by the concerned SO;
 - (n) **“Seller”** means a person, including a generating station, supplying electricity through a transaction scheduled in accordance with the Grid Code;
 - (o) **“Time Block”** means the time block of 15-minutes each for which Special Energy Meters record specified electrical parameters and quantities, with the first such period starting at 00:00 hours.
- (2) Save as aforesaid and unless repugnant to the context or the subject matter otherwise requires, words and expressions used in these regulations and not defined, but defined in the Act, or any other directive of this Commission shall have the meaning assigned to them respectively in the Act or any other directive

3. Scope

These Directives shall be applicable to all entities who utilize the Integrated Nepal Power System (INPS) for transaction of power.

4. Adherence to Schedule and Deviation

- (1) For the secure and stable operation of the grid, every grid-connected regional entity shall adhere to its schedule finalized by SO as per the Grid Code and shall endeavor not to deviate from its schedule.
- (2) Computation, charges, and related matters in respect of such deviation shall be dealt with as per the following provisions of these regulations.

5. Computation of Deviation

- (1) Deviation in a time block for sellers shall be computed as follows:

$\text{Deviation(seller) (in MWh)} = [(\text{Actual injection in MWh}) - (\text{Scheduled injection in MWh})].$

$\text{Deviation (seller) (in \%)} = 100 \times [(\text{Actual injection in MWh}) - (\text{Scheduled injection in MWh})] / [(\text{Scheduled injection in MWh})].$

- (2) Deviation in a time block for buyers shall be computed as follows:

$\text{Deviation (buyer) (in MWh)} = [(\text{Actual drawal in MWh}) - (\text{Scheduled drawal in MWh})].$

$\text{Deviation (buyer) (in \%)} = 100 \times [(\text{Actual drawal in MWh}) - (\text{Scheduled drawal in MWh})] / [(\text{Scheduled drawal in MWh})]$

6. Principles for Deviation Charges

Deviation Settlement Mechanism is based on the following principles:

- i) When the system frequency is 50 Hz, it signifies that the supply of power and demand for power in the electricity grid perfectly match.
- ii) When the system frequency is below 50 Hz or above 50 Hz, it means that there is a mismatch between demand and supply of electricity.
- iii) The Deviation Charge Vector shall be so designed as to reward the entities who are helping the grid and impose penalty on those who are causing distress to the grid.
- iv) When the frequency is below 50 Hz, the demand outstrips the supply. Therefore, additional supply is required and/or demand is to be curtailed. Therefore, injections more than schedule and/or drawal less than schedule shall be encouraged. Injections less than schedule and/or drawal more than schedule shall be discouraged. The Deviation Charge Vector shall be so designed as to induce the entities to help the grid to restore system frequency to 50 Hz from low frequency operation and impose penalties on those who are responsible for low frequency operation.
- v) Similarly, when the frequency is above 50 Hz, the supply outstrips demand. Therefore, under such conditions, demand is to be augmented and/ or supply is to be reduced. So, injections more than the schedule and/ or drawal less than the schedule shall be discouraged. Deviation Charge Vector shall be so designed as to induce the entities to help the grid to restore system frequency to 50 Hz from high frequency operation and put penalty on those who are responsible for high frequency operation.
- vi) Therefore, the frequency at which the deviation is occurring and the nature of deviation, shall be the main determinant on whether the deviation shall be encouraged or discouraged.

7. Deviation Charge Vector

(I) The Deviation Charge payable by an overdrawing entity shall be as follows:

OVER-DRAWAL

Frequency(f) in Hz						
	$f < 49.8$	$49.8 \leq f < 49.9$	$49.9 \leq f < 50$	50	$50 < f \leq 50.1$	$f > 50.1$
	Payable by	Payable by the	Payable by	Payable by	Payable by	ZERO

OVER-DRAWAL	the over-drawing entity @NPR 20 per kWh	over-drawing entity @ NPR 10 per kWh at 49.9 Hz to NPR 20 per kWh at 49.98 Hz varying linearly in between.	the over-drawing entity @ NPR 5 per kWh at 50 Hz to NPR 10 per kWh at 49.9 Hz varying linearly in between.	the over-drawing entity @NPR 5 per kWh	the over-drawing entity @NPR 5 per kWh at 50 Hz to NPR 0 per kWh at 50.1 Hz varying linearly in between.	
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(2) The Deviation Charge receivable by an under-drawing entity shall be as follows:

UNDER-DRAWAL

Frequency(f) in Hz						
	$f < 49.8$	$49.8 \leq f < 49.9$	$49.9 \leq f < 50$	50	$50 < f \leq 50.1$	$f > 50.1$
UNDER-DRAWAL	Receivable by the under-drawing entity @NPR 16 per kWh	Receivable by the under-drawing entity @ NPR 8 per kWh at 49.9 HZ to NPR 16 per kWh at 49.8 HZ varying linearly in between	Receivable by the under-drawing entity @ NPR 4 per kWh at 50 HZ to NPR 8 per kWh at 49.9 HZ varying linearly in between	Receivable by the under-drawing Entity @ NPR 4 per kWh.	Receivable by the under-drawing entity @ NPR 4 at 50 Hz to NPR ZERO at 50.1 Hz varying linearly in between	Payable by the under-drawing entity @ NPR 8 per kWh

(3) The Deviation Charge receivable by an over-injecting entity shall be as follows:

OVER-INJECTION

Frequency(f) in Hz						
	$f < 49.5$	$49.8 \leq f < 49.9$	$49.5 \leq f < 50$	50	$50 < f \leq 50.1$	$f > 50.1$
OVER-INJECTION	Receivable by the over-injecting entity @NPR 16 per kWh	Receivable by the over-injecting entity @NPR 8 per kWh at 49.9 HZ to NPR 16 per kWh at 49.8 HZ varying linearly in between	Receivable by the over-injecting entity @NPR 4 per kWh at 50 HZ to NPR 8 per kWh at 49.9 HZ varying linearly in between	Receivable by the over-injecting entity @NPR 4 per kWh.	Receivable by the over-injecting entity @NPR 4 at 50 Hz to NPR ZERO at 50.1 Hz varying linearly in between	Payable by the over-injecting entity @ NPR 8 per kWh

- (4) The deviation charge payable by an under-injecting entity shall be as follows:

UNDER-INJECTION

Frequency(f) in Hz						
	$f < 49.8$	$49.8 \leq f < 49.9$	$49.9 \leq f < 50$	50	$50 < f \leq 50.1$	$f > 50.1$
UNDER-INJECTION	Payable by the under-injecting entity @NPR 20 per kWh	Payable by the under-injecting entity @ NPR 10 per kWh at 49.9 Hz to NPR 20 per kWh at 49.8 Hz varying linearly in between.	Payable by the under-injecting entity @ NPR 5 per kWh at 50 Hz to NPR 10 per kWh at 49.9 Hz varying linearly in between.	Payable by the over-drawing entity @NPR 5 per kWh	Payable by the over-drawing entity @NPR 5 per kWh at 50 Hz to NPR 0 per kWh at 50.1 varying linearly in between.	ZERO

- (5) In a time block, the average frequency as recorded in the Special Energy Meters should be rounded to the nearest of the above frequency and corresponding Deviation Charge Rate shall be applicable.
- (6) Deviation Charge Vector is given in Annexure-a
- (7) Illustrative examples are given in Annexure-b

8. Treatment of Some Special Transactions

- (1) The charges for deviation for injection of infirm power shall be zero:

Provided that upon such infirm power being scheduled, the charges for deviation for such power shall be as applicable as per this directive.

- (2) The charges for deviation for drawal of start-up power before the COD of a generating unit or for drawal of power to run the auxiliaries during the shut-down of a generating station shall be payable @ NPR 12 per kWh.
- (3) The charges for construction power drawn by a generating company shall be in conformity with the tariff schedule of the distribution licensee in whose area the generating company is located.
- (4) The charges for deviation in respect of cross-border transactions caused by over-drawal or under drawal or over injection or under-injection shall also be governed by these Directives.
- (5) In case of forced outage of a seller, the charges for deviation shall be @ NPR 10 per kWh for a maximum duration of eight-time blocks or until the revision of its schedule, whichever is earlier.

9. Accounting of Charges for Deviation Pool Account

- (1) The monthly account for deviation charges shall be prepared by the Nodal Agency as per the Directives on Balancing and Settlement issued by the Commission.
- (2) Separate books of accounts shall be maintained by the Nodal Agency for the principal component and interest component of charges for deviation.

Provided that the Commission may, by separate order, direct any other entity to operate and maintain the Deviation Charge Pool Account.

10. Schedule of Payment of Charges for Deviation

- (1) The payment of charges for deviation shall have the highest priority, and the concerned entity shall pay the due amounts within 7 (seven) days of the issue of the statement of charges for deviation by the Nodal Agency, failing which late payment surcharge@1.25% per month (or @ 0.04% per day for an incomplete month) shall be payable.
- (2) The payment received in the DEVIATION CHARGE POOL ACCOUNT shall be adjusted first with late payment surcharge, if any and the balance shall be adjusted with the principal amount of dues, older dues being adjusted first.
- (3) Each entity shall be required to open a Letter of Credit (LC) equal to 110% of their average monthly payable liability for deviations in the first quarter of the last financial year as determined by the Nodal Agency, in favor of the Nodal Agency within a fortnight from the start of the current financial year.

Provided that, during the first year of implementation of DSM, each entity shall be required to open, within 180 days of issuance of this Directive, the LC equal to 110% of the full first three months average monthly payable deviation charges as determined by Nodal Agency.

- (4) In case of failure on the part of any entity to pay into the DEVIATION CHARGE POOL ACCOUNT within two months from the date of issue of the statement of charges for deviation by the Nodal Agency, the Nodal Agency shall be entitled to encash the LC of the concerned regional entity to the extent of the default and the concerned regional entity shall recoup the LC amount within 10 days from the date of such encashment.
- (5) In case of continued failure to pay the deviation charge by any entity for 3 months consecutively, the matter shall be brought to the notice of the Commission for further action.

13. Managing the Deviation Charge Pool Account

- i) The Nodal Agency shall open an account under the name “ DEVIATION CHARGE POOL ACCOUNT” in a nationalised bank of Nepal for managing the deviation charges.
- ii) Any entity who uses the transmission network of Nepal and whose schedule is prepared by SO shall be member of Grid Code Management Committee.
- iii) Payments to the DEVIATION CHARGE POOL ACCOUNT shall be made through electronic transfer and the charge, if any, for the above transfer shall be borne entirely by the payee.
- iv) The charges receivable by an entity shall be remitted through electronic transfer and charges for remittance shall be borne by the receiving entity.
- v) The DEVIATION CHARGE POOL ACCOUNT shall be maintained by the Nodal Agency.
- vi) The DEVIATION CHARGE POOL ACCOUNT shall be audited by a Chartered Accountant at the end of each Nepali financial year. The Audit Report shall be placed before the Commission by the Nodal Agency. The cost associated with the auditing shall be met from the DEVIATION CHARGE POOL ACCOUNT.
- vii) The DEVIATION CHARGE POOL ACCOUNT shall be jointly operated by two officers of the Nodal Agency of which one of them shall not be less than the rank of Director or equivalent.
- viii) Surplus fund, if any, remaining with the DEVIATION CHARGE POOL ACCOUNT at the end of the Nepali financial year shall be distributed by the Nodal Agency among all the participants of the DEVIATION CHARGE POOL ACCOUNT in proportion of the aggregated scheduled energy of the year.

14. Power to Relax

The Commission may by general or special order, for reasons to be recorded in writing, and after giving an opportunity of hearing to the parties likely to be affected, may relax any of the provisions of this Directive on its own motion or on an application made before it by the affected party.

15. Power to Remove Difficulty

If any difficulty arises in giving effect to these Directives, the Commission may, on its own motion or on an application filed by any affected party, issue such practice directions as may be considered necessary in furtherance of the objective of these Directives.

ANNEXURE-A

DEVIATION CHARGE VECTOR

	Over-Drawal Charge (payable by an entity)	Under- Drawal Charge (Receivable by an entity)	Over-injection Charge (Receivable by an entity)	Under-injection Charge (Payable by an entity)
Frequency	(NPR/kWh)	(NPR/ kWh)	(NPR/kWh)	(NPR/kWh)
$f \leq 49.8$	20	16	16	20
$49.8 < f \leq 49.81$	19	15.2	15.2	19
$49.81 < f \leq 49.82$	18	14.4	14.4	18
$49.82 < f \leq 49.83$	17	13.6	13.6	17
$49.83 < f \leq 49.84$	16	12.8	12.8	16
$49.84 < f \leq 49.85$	15	12	12	15
$49.85 < f \leq 49.86$	14	11.2	11.2	14
$49.86 < f \leq 49.87$	13	10.4	10.4	13
$49.87 < f \leq 49.88$	12	9.6	9.6	12
$49.88 < f \leq 49.89$	11	8.8	8.8	11
$49.89 < f \leq 49.90$	10	8	8	10
$49.90 < f \leq 49.91$	9.5	7.6	7.6	9.5
$49.91 < f \leq 49.92$	9	7.2	7.2	9
$49.92 < f \leq 49.93$	8.5	6.8	6.8	8.5
$49.93 < f \leq 49.94$	8	6.4	6.4	8
$49.94 < f \leq 49.95$	7.5	6	6	7.5
$49.95 < f \leq 49.96$	7	5.6	5.6	7
$49.96 < f \leq 49.97$	6.5	5.2	5.2	6.5
$49.97 < f \leq 49.98$	6	4.8	4.8	6
$49.98 < f \leq 49.99$	5.5	4.4	4.4	5.5
$49.99 < f \leq 50$	5	4	4	5
$50 < f \leq 50.01$	4.5	3.6	3.6	4.5
$50.01 < f \leq 50.02$	4	3.2	3.2	4
$50.02 < f \leq 50.03$	3.5	2.8	2.8	3.5
$50.03 < f \leq 50.04$	3	2.4	2.4	3
$50.04 < f \leq 50.05$	2.5	2	2	2.5
$50.05 < f \leq 50.06$	2	1.6	1.6	2
$50.06 < f \leq 50.07$	1.5	1.2	1.2	1.5
$50.07 < f \leq 50.08$	1	0.8	0.8	1
$50.08 < f \leq 50.09$	0.5	0.4	0.4	0.5
$50.09 < f \leq 50.10$	0	0	0	0
$f > 50.10$	0	-8	-8	0

ANNEXURE-B

ILLUSTRATIVE EXAMPLES

Example for over-drawal

Nature od Deviation	Actual	Schedule	Deviation	frequency	Deviation Charge Rate	Deviation Charge	TO BE PAID TO DSM POOL/ TO BE RECEIVED BY ENTITY
	MW	MW	MW	HZ	NPR/KWH	NPR	
OVER-DRAWAL	120	100	20	49.7	20	$20 \times 20 \times 1000 = 400000$	TO BE PAID
	120	100	20	50	5	$20 \times 5 \times 1000 = 100000$	TO BE PAID
	120	100	20	49.9	10	$20 \times 10 \times 1000 = 200000$	TO BE PAID
	120	100	20	50.2	0	$20 \times 0 \times 1000 = 0$	

Example of under-drawal

Nature od Deviation	Actual	Schedule	Deviation	frequency	Deviation Charge Rate	Deviation Charge	TO BE PAID TO DSM POOL/TO BE RECEIVED BY ENTITY
	MW	MW	MW	HZ	NPR/KWH	NPR	
UNDER-DRAWAL	80	100	-20	49.7	16	$20 \times 16 \times 1000 = 320000$	TO BE RECEIVED
	80	100	-20	50.1	0	ZERO	
	80	100	-20	49.9	8	$20 \times 8 \times 1000 = 160000$	TO BE RECEIVED
	80	100	-20	50.2	8	$20 \times 8 \times 1000 = 160000$	TO BE PAID

Example of over-injection

Nature of Deviation	Actual	Schedule	Deviation	frequency	Deviation Charge Rate	Deviation Charge	TO BE PAID TO DSM POOL/ TO BE RECEIVED BY ENTITY
	MW	MW	MW	HZ	NPR/KWH	NPR	
OVER-INJECTION	120	100	20	49.8	16	$20 \times 16 \times 1000 = 320000$	TO BE RECEIVED
	120	100	20	50.1	0	ZERO	
	120	100	20	49.9	8	$20 \times 8 \times 1000 = 160000$	TO BE RECEIVED
	120	100	20	50.3	8	$20 \times 8 \times 1000 = 160000$	TO BE PAID

Example of under-injection

Nature of Deviation	Actual	Schedule	Deviation	frequency	Deviation Charge Rate	Deviation Charge	TO BE PAID TO DSM POOL/ TO BE RECEIVED BY ENTITY
	MW	MW	MW	HZ	NPR/KWH	NPR	

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UNDER-INJECTION	80	100	-20	49.75	20	20*20*1000=400000	TO BE PAID
	80	100	-20	50.1	0	20*0*1000=0	
	80	100	-20	49.9	10	20*10*1000=200000	TO BE PAID
	80	100	-20	50.3	0	20*0*1000=0	