#### KARNATAKA ELECTRICITY REGULATORY COMMISSION

# No. 16, C-1, Millers Tank Bund Road, Yellappa Garden, Bed Area, Vasanth Nagar, Bengaluru, Karnataka 560052

### **NOTIFICATION**

No: KERC/S/2024/ 693 Date:24.09.2024

Draft Karnataka Electricity Regulatory Commission (Intra-State Deviation Settlement Mechanism and Related Matters) Regulations, 2024.

#### Preamble:

- In order to maintain the balance between power generation and consumption within a State's power grid and to minimize deviations from scheduled generation and consumption patterns, thereby ensuring stability and reliability in the supply of electricity, there is a need to formulate the Regulations and monitoring compliance.
- The stakeholders involved in the matter include power generators, distribution utilities, transmission companies, and open access consumers. Each participant has specific roles and responsibilities in adhering to Regulations and settling deviations effectively.
- 3. The Karnataka Electricity Regulatory Commission has decided to issue the draft Karnataka Electricity Regulatory Commission (Intra-State Deviation Settlement Mechanism and Related Matters) Regulations, 2024, in exercise of the powers conferred by Section 181 read with clause (c) of sub-section (1) of section 86 of the Electricity Act 2003.
- 4. As required under sub section (3) of section 181 (zi) & (zp) of the Act, and the Electricity (Procedure for Previous Publication) Rules, 2005, the Commission hereby notifies the Draft Regulations, for information of the persons and all the stakeholders likely to be affected.

5. Notice is hereby given that the Draft Regulations will be finalized after 30 days from the date of their publication in the Official Gazette, after considering the comments/suggestions/objections on the draft Regulations submitted by the stakeholders. Hence, the stakeholders are requested to submit their objections/suggestions/views on the proposed draft within 30 (Thirty) days from the date of publication of these draft Regulations in the Official Gazette of Karnataka, to the Secretary of the Commission at the following address:

The Secretary,

Karnataka Electricity Regulatory Commission,

No 16, C-1, Miller Tank Bed Area,

Vasanthanagar,

Bengaluru-560052.

#### **PRELIMINARY**

# 1. SHORT TITLE, EXTENT OF APPLICATION AND COMMENCEMENT

- 1.1. These Regulations may be called the Karnataka Electricity Regulatory Commission (Intra-State Deviation Settlement Mechanism and Related Matters) Regulations, 2024.
- 1.2. These Regulations shall apply within the geographical area of the State of Karnataka and shall apply to all Inter / Intra-State Entities connected with STU in Karnataka in a manner as specified in these Regulations.
- 1.3. These Regulations shall be effective from the date of their publication in the official gazette of the State of Karnataka.

# CHAPTER-2 OBJECTIVE

#### 2. OBJECTIVE

These regulations seek to ensure, through a commercial mechanism, that grid users do not deviate from and adhere to their schedule of drawal and injection of electricity in the interest of security and stability of the grid.

# CHAPTER-3 DEFINITIONS

# 3. **DEFINITIONS**

In these Regulations, unless the context otherwise requires:

- 3.1. "Act" means the Electricity Act, 2003 (36 of 2003) or any amendments made to the same or any succeeding enactment thereof;
- 3.2. "Actual Drawal" in a time-block means electricity drawn by a Buyer, measured by the interface meters;

- 3.3. **"Actual Injection"** in a time-block means electricity injected, measured by the interface meters;
- 3.4. **"Ancillary Services"** means the Ancillary Services as defined in the Ancillary Services Regulations;
- 3.5. "Ancillary Services Regulations" means the Central Electricity Regulatory Commission (Ancillary Services) Regulations, 2022, as amended from time to time and shall include any re-enactment thereof:
- 3.6. "Area Clearing Price" or 'ACP' means the price of electricity contract for a time-block transacted on a Power Exchange after considering all valid buy and sale bids in particular area(s) after market-splitting;
- 3.7. "Buyer" means a licensee or consumer or captive user or company located within the State, receiving power by using the State-grid including such system when it is used in conjunction with inter-State transmission system and whose scheduling and/or metering and energy accounting is coordinated by the SLDC in accordance with the State Grid Code;
- 3.8. "Central Commission" or "CERC" means the Central Electricity Regulatory Commission referred to in sub-section (1) of section 76 of the Act;
- 3.9. **"Commission"** means the Karnataka Electricity Regulatory Commission referred to in sub-section (1) of section 82 of the Act;
- 3.10. "Contract Rate' means the tariff for sale or purchase of power, as determined under Section 62 or adopted under Section 63 or approved under Section 86(1)(b) of the Act by the Appropriate Commission, which shall be sum of Fixed Charges and Energy Charges, as the case may be;
- 3.11. **"Day"** means a continuous period starting at 00.00 hours and ending at 24.00 hours;

- 3.12. "Day Ahead Contract" means a contract wherein Collective Transactions occur on day (T) and delivery of electricity is on the next day (T+1);
- 3.13. "Declared Capacity" in relation to any period or time block, means the capability of the Seller to deliver MW as declared by the Seller at interface point with the State Grid in accordance with the State Grid Code;
- 3.14. "Despatch Schedule" means the ex-Power Plant net Mega Watt or Mega Watt Hour scheduled for injection by a Generating Station in a time block;
- 3.15. "Deviation" in a time block for a Seller of electricity means its total actual injection minus its total scheduled generation; and for a Buyer of electricity means its total actual drawal minus its total scheduled drawal, and shall be computed in accordance with these Regulations;
- 3.16. "Deviation Charges" means the charges computed in accordance with these Regulations;
- "CERC DSM Regulations, 2024" means the Central Electricity Regulatory Commission (Deviation Settlement Mechanism and related matters) Regulations, 2024 including any subsequent amendments/re-enactments thereof;
  - 3.17. "Distribution Licensee" means a License authorized to operate and maintain a distribution system for supplying electricity to the consumers in his area of supply;
  - 3.18. "Drawal Point" means connection point(s) at which electricity is drawn from the State-Grid by the State-Grid user;
  - 3.19. "Ex-Power Plant" means net Mega Watt / Mega Watt hour output of a generating station, after deducting Auxiliary consumption and Transformation losses;

- 3.20. **"General Seller"** means a Seller in case of a generating station based on other than Hydro Seller and WS (Wind Solar) Seller;
- 3.21. "**Grid**" means the high voltage backbone system of interconnected Transmission lines, Sub-Stations and Generating plants;
- 3.22. "Grid Code" means the Indian Electricity Grid Code specified by the Central Commission under Clause (h) of Sub-section(1) of Section 79 of the Act;
- 3.23. "Hydro Seller" means a hydro generating station;
- 3.24. "Intra State Entity"- means a person whose scheduling and energy accounting is coordinated by State Load Despatch Centre or any other authorized State agency;
- 3.25. "Interface Point" for Buyer/Seller means the location where Interface Meter is installed for the purpose of Deviation Settlement;
- 3.26. "Interface meters" means energy meters installed at interface points as defined under the Central Electricity Authority (Installation and Operation of Meters) Regulations, 2006 as amended from time to time and any re-enactment thereof;
- 3.27. **"Losses"** means the energy losses in percentage for the intra-State transmission system or distribution system as specified by the Commission from time to time;
- 3.28. "Month" means a calendar month as per the British Calendar;
- 3.29. "Multiple Supply Consumer or MSC" means a consumer who has a supply agreement with the distribution licensee in whose area of supply the consumer is located and also has a supply agreement with the person other than the distribution licensee under the Open Access Regulations and includes a consumer of a distribution licensee who also avails of wheeling facility for carrying the electricity from his captive generating plant to the destination of his own use;

- 3.30. "Normal Rate of Charge for Deviation" (NR) means the charges for deviation (in Paise/kWh) as referred to in these Regulations;
- 3.31. "Net Drawal Schedule" means the drawal schedule of the Distribution licensees or a Buyer after deducting the apportioned Transmission Losses and/or Distribution Losses as applicable;
- 3.32. "Open Access Customer" means a consumer permitted to receive supply of electricity from one or more person(s) other than the distribution licensee of his area of supply, or a generating company (including captive generating plant) or a licensee or a captive user who has availed of or intends to avail of long-term open access or medium term open access or short-term open access, as the case may be;
- 3.33. "Open Access Regulations" means the Karnataka Electricity Regulatory Commission (Terms and Conditions for Open Access)
  Regulations, 2004 as amended from time to time;
- 3.34. "Reference Charge Rate or RR" means (i) in respect of a general seller whose tariff is determined or adopted or approved under Section 62 or Section 63 or Section 86(1)(b) of the Act, Rs/kWh energy charge as determined or adopted or approved by the Appropriate Commission, or (ii) in respect of a general seller whose tariff is not determined or adopted or approved under Section 62 or Section 63 or Section 86(1) (b) of the Act, and selling power through power exchange(s), the price as discovered in the power exchange for the respective transaction; or (iii) in case of captive consumption of a captive generating plant based on resources other than renewable energy sources, the weighted average ACP of the Integrated-Day Ahead Market segments of all the Power Exchanges for the respective time block; or (iv) in case of multiple contracts or transactions including captive consumption, the weighted average of the reference rates of all such contracts or transactions.

- 3.35. "Run-of-River Generating Station" or 'RoR generating station" means a hydro generating station which does not have upstream pondage;
- 3.36. 'Scheduled Drawal' for a time block or any period means the schedule of drawal in MW or MWh ex-bus given by the State Load Despatch Centre;
- 3.37. "Scheduled generation" or "Scheduled injection" 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 State Load Despatch Centre;
- 3.38. 'Single Supply Consumer' or 'SSC' means a consumer including captive user not having a supply agreement with the distribution licensee in whose area of supply the consumer is located, but availing or intending to avail supply of energy under the Open Access Regulations from a person other than that distribution licensee of the area;
- 3.39. "Seller" means a generating station including captive generating plant (selling directly or through trader) or licensee or a company located within the State, injecting power into the State-grid including such system when it is used in conjunction with inter-State transmission system and whose scheduling and/ or, metering and energy accounting is coordinated by SLDC, in accordance with Grid Code/State Grid Code as the case may be;
- 3.40. "State Deviation Pool Account" means the Account to be maintained and operated by State owned distribution licensee as per these Regulations;
- 3.41. "State Load Despatch Centre (SLDC)" means Karnataka State Load Despatch Centre established under Sub-Section (1) of Section 31 of the Act;
- 3.42. "State" means the State of Karnataka;

- 3.43. "State Deviation Settlement Mechanism Account (SDSMA)" means weekly/monthly State Deviation Settlement Mechanism Account prepared by State Load Despatch Centre for the billing and settlement of Deviation charges;
- 3.44. **"State Grid"** means the Intra-State transmission network owned by the State Transmission utility, transmission licensee and/or the network of any other person who has been granted licence by the Commission to establish or operate distribution system within the State;
- 3.45. **"State Grid Code"** means the Karnataka Electricity Grid Code notified by the State Commission under Section 86(1)(h) read with Section 181 (ZP) of the Electricity Act, 2003 (No. 36 of 2003);
- 3.46. "State Grid User" means Buyer and/or Seller;
- 3.47. **"State Transmission Utility (STU)"** means Karnataka Power Transmission Company Limited;
- 3.48. "Time Block" means Block of 15-minute or as defined in Grid Code for which special energy meters record specified electrical parameters and quantities, with first Time Block starting at 00.00 hours;
- 3.49. "Unscheduled Power Generation (UPG)" means Unscheduled Power Generation by a Generator injecting power without schedule.
- 3.50. "Week" means a period of consecutive seven days commencing from 00.00 hours on the Monday and ending at 24.00 hours on following Sunday as per the British Calendar;

The words and expressions used in these Regulations and not defined herein but defined in the Act shall have the meaning assigned to them under the Act and other Regulations notified by the Commission, provided that when a word or phrase is used by the Commission in a specific context, the meaning applicable in that specific context, shall prevail and the generic definition given above may not be applicable.

# **AVAILABILITY BASED TARIFF (ABT) AND DEVIATION SETTLEMENT MECHANISM**

- The tariff under the ABT regime will have three components namely the fixed/capacity charge, the energy/variable charge and the Deviation charge.
  - (a) Fixed charges/capacity charges: Capacity charges of the generators are payable on the capacity allocated and are linked to 'Availability' of the generating stations declared on daily basis in MW.
  - (b) Energy charges/variable charges: Energy charges or variable charges are payable on the scheduled energy irrespective of actual drawal.
    - Computation of capacity charges and energy charges shall be governed by the tariff orders of the Commission issued from time to time.
  - (c) Deviation Charges: Variation between actual generation and scheduled generation or actual drawal and scheduled drawal shall be accounted for through Deviation Charges and shall be computed as per these Regulations;

#### **CHAPTER-5**

# **APPLICABILITY OF INTRA-STATE ABT**

5. These Regulations shall be applicable to all grid connected entities engaged in Intra State purchase and sale of electricity as detailed below:

# 5.1 Generating Company/Captive generating plant

(a) State Generating Stations: To all generating stations owned by Karnataka Power Corporation Ltd (KPCL).

- (b) Conventional fuel based Generating Plants: All conventional fuel based power generating companies including Captive Generating Plants (CGP) located in the State and who have contracted to supply long-term or medium-term power to distribution licensees in the State at a tariff determined under Sections 62 and 63 of the Act.
- (c) Renewable energy based generating plant: All renewable energy based power generating stations (excluding Wind, Solar and WS hybrid) covered under the relevant Regulations, of installed capacity more than 5 MW located in the State and who have contracted to supply long-term and medium-term power to distribution licensees in the State at a tariff determined under Section 62 or Section 63 of the Act.
- (d) All the conventional generating stations including, CGP (Selling directly or through electricity traders or through exchanges) who intend to supply power to the distribution licensee of the State under short-term contracts.
- (e) All the generating stations including renewable energy based power plants (excluding Wind, Solar and WS hybrid)/CGP (Selling directly or through electricity traders or through exchanges) who intend to supply power outside the State under long-term, mediumterm or short-term contracts.
- (f) All the generating stations including renewable energy based power plants (excluding Wind, Solar and WS hybrid)/CGP (Selling directly or through electricity traders or through exchanges) who intend to supply power to intrastate consumers under long-term, medium-term or short-term contracts.
- 5.2 **Distribution Licensees:** The distribution licensee shall be covered under Intra-State ABT if it draws power by using the State-grid.

5.3 Open Access Consumers/captive users (Other than Solar, Wind and WS Hybrid): All open access consumers /captive users located within the State and who intend to purchase /receive power through State grid shall be governed by Intra-State ABT only in respect of electricity supplied to them by the generating station/ licensee governed by inter-State/ intra-State ABT.

# 5.4 Applicability of Deviation Charge Component of the Intra-State ABT

- (a) All SSC, procuring power through open access within the State shall be governed by Intra-State ABT only in respect of applicable deviation charges.
- (b) All generators including CGP (selling directly or through electricity trader) who have contracted to supply power only to SSC and/or MSC shall be governed by intra-State ABT only in respect of applicable deviation charges.
- (c) All generators including CGP (selling directly or through electricity trader) who have contracted to supply power only to licensees or consumers located outside the State shall be governed by intra-State ABT only in respect of applicable deviation charges.

# CHAPTER-6 DEVIATION CHARGES

# 6. COMPUTATION OF DEVIATION

# 6.1. Adherence to Schedule and Deviation

- (1) For a secure and stable operation of the grid, every grid connected State entity shall adhere to its schedule as per the Grid Code and shall not deviate from its schedule and/or as per the appropriate Regulations/Orders/Directives issued by the Commission from time to time.
- (2) Any deviation shall be managed by the State Load Despatch Centre as per the State appropriate Regulations as notified by the

Commission and the computation charges and related matters in respect of such deviation shall be dealt with as per the provisions of these Regulations.

# 6.2. Computation of Deviation

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

  Deviation-general Seller (Dos) (in MWh) = [(Actual injection in MWh)] (Scheduled generation in MWh)].

  Deviation-general Seller (Dos) (in %) = 100 x [(Actual injection in MWh)] (Scheduled generation in MWh)].
- (2) Deviation in a time block for RE Seller other than WS/WSH Seller shall be computed as follows:

Deviation- RE Seller (in MWh) = [(Actual injection in MWh) – (Scheduled generation in MWh)]. Deviation- RE Seller (in %) =  $100 \times [(Actual injection in MWh)] - (Scheduled generation in MWh)]$  [(Scheduled generation in MWh)].

(3) Deviation in a time block for Buyers shall be computed as follows:

Deviation- Buyer (DBUY) (in MWh) = [(Actual drawal in MWh) - (Scheduled drawal in MWh)].

Deviation- Buyer (DBUY) (in %) = 100 x [(Actual drawal in MWh) - (Total Scheduled drawal in MWh)] / [(Total Scheduled drawal in MWh)].

# 6.3. Normal Rate of Charges for Deviation

- (1) The Normal Rate (NR) of charges for deviation for a particular time block shall be the highest of (A), (B) or (C), where (A), (B) and (C) are as follows:
  - (A) the weighted average ACP (in Paise /kWh) of the Integrated-Day Ahead Market segments of all the Power Exchanges;
  - (B) the weighted average ACP (in Paise /kWh) of the Real Time Market segments of all the Power Exchanges;
  - (C) the sum of:
  - (a) 1/3 [Weighted average ACP (in paise/kWh) of the Integrated-Day Ahead Market segments of all the Power Exchanges];
  - (b) 1/3 [Weighted average ACP (in paise/kWh) of the Real-Time Market segments of all the Power Exchanges]; and
  - (c) 1/3 [Ancillary Service Charge (in paise/kWh) computed based on the total quantum of Ancillary Services (SRAS UP and TRAS

UP) deployed and the net charges payable to the Ancillary Service Providers for all the Regions]:

Provided that in case of non-availability of ACP for any time block on a given day, ACP for the corresponding time block of the last available day shall be considered.

(2) The normal rate of charges for deviation shall be rounded off to the nearest two decimal places.

# 6.4. Charges for Deviation

- (1) Generators injecting power without scheduling shall be considered as unscheduled power. Distribution Licensee may procure such unscheduled power, if required, by executing an agreement with such generators and such power shall be paid at the ACP rate of the Day Ahead Market of IEX in each time block subject to a maximum cap rate of Rs1.50 per unit. Such generators shall be paid back zero when frequency is greater than 50.05 Hz. The cost incurred for purchase of such power shall be considered as power purchase cost of a distribution licensee.
- (2) Inter-State open access transactions: The deviation charges applicable for over injection /under drawal shall be prepared by considering 95% of the applicable rates specified for Charges of Deviation, when these charges are receivable to the Seller/Buyer and the deviation charges applicable for under injection /over drawal shall be prepared by considering 105% of the applicable rates specified for Charges of Deviation, when these charges are payable by the Seller/Buyer.
- (3) Intra-State open access transactions: The deviation charges applicable for over injection /under drawal and for under injection/over drawal shall be receivable and payable to the Seller/Buyer respectively and shall be prepared by considering the applicable rates specified for Charges of Deviation in these Regulations.

- (4) Inter-State as well as Intra-State open access transactions: The deviation charges applicable for over injection /under drawal shall be prepared by considering 95% of the applicable rates specified for Charges of Deviation, when these charges are receivable to the Seller/Buyer and the deviation charges applicable for under injection /over drawal shall be prepared by considering 105% of the applicable rates specified for Charges of Deviation, when these charges are payable by the Seller/Buyer.
- **6.5.** Charges for Deviation, in respect of a general seller (other than RoR generating station and a generating station based on municipal solid waste) shall be as under:

Deviation by way of over injection	Deviation by way of under injection (Payable	
(Receivable by the Seller)	by the Seller)	
(I) For Deviation up to [10% DGS or 100 MW, whichever is less] and f within f band		
(i) @ RR when [49.97 Hz ≤ f ≤50.03 Hz]	(iv) @ RR when [49.97 Hz ≤ f ≤50.03 Hz]	
(ii) When [50.03 Hz < f ≤50.05 Hz], for every increase in f by 0.01 Hz, charges for deviation for such seller shall be reduced by 25% of RR so that charges for deviation become 50% of RR when f = 50.05Hz	(v) When [50.03 Hz < $f \le 50.05$ Hz], for every increase in f by 0.01 Hz, charges for deviation for such seller shall be reduced by 7.5% of RR so that charges for deviation become 85% of RR when $f = 50.05$ Hz	
(iii) When [49.97 Hz > $f \ge 49.90$ Hz], for every decrease in f by 0.01 Hz, charges for deviation for such seller shall be increased by 2.15% of RR so that charges for deviation become 115% of RR when $f = 49.90$ Hz	(vi) When [49.97 Hz > $f \ge 49.90$ Hz], for every decrease in f by 0.01 Hz, charges for deviation for such seller shall be increased by 7.15% of RR so that charges for deviation becomes 150% of RR when $f = 49.90$ Hz	
(II) For Deviation up to [10% DGS or 100 MW, whi	ichever is less] and f outside f band	
(i) @ zero when [ $50.05  \text{Hz} < f < 50.10  \text{Hz}$ ]: Provide that such seller shall pay @ $10\%$ of RR when [ $f \ge 50.10  \text{Hz}$ ]		
(ii) @ 115 % of RR when [f < 49.90 Hz]	(iv) @ 150 % of RR when [f < 49.90 Hz]	
(III) For Deviation beyond [10% DGS or 100 MW, whichever is less] and f within and outside f band		

(i) @ zero when (f < 50.10 Hz): Provided that such seller shall pay @ 10% of RR when [f ≥ 50.10 Hz]</li>
 (ii) @ RR when [f ≥ 50.00 Hz]; (iii) @ 150% of RR when [49.90Hz ≤ f < 50.00 Hz]; and (iv) @ 200% of RR when [f < 49.90 Hz]</li>

Note: System frequency = f and f band = [49.90Hz  $\leq f \leq 50.05$  Hz]

**6.6.** Charges for Deviation, in respect of a general seller being an RoR generating station, shall be without any linkage to grid frequency, as under:

Deviation by way of over injection (Receivable by the Seller)	Deviation by way of under injection (Payable by the Seller)
(i) @ RR for deviation up to [15% DGs or 150 MW, whichever is less]; (ii) @ Zero for deviation beyond [15% DGs or 150 MW, whichever is less]	<ul> <li>(iii) @ RR for deviation up to [15% DGs or 150 MW, whichever is less];</li> <li>(iv) @ 105% of RR for deviation beyond [15% DGs or 150 MW, whichever is less] and up to [20% DGs or 200 MW, whichever is less];</li> <li>(v) @ 110% of RR for deviation beyond [20% DGs or 200 MW, whichever is less].</li> </ul>

**6.7.** Charges for Deviation, in respect of a general seller being a generating station based on municipal solid waste, shall be without any linkage to grid frequency, as under:

	Deviation by way of over injection (Receivable by the Seller)	Deviation by way of under injection (Payable by the Seller)
(i)	@ contract rate for deviation up to [20% Dcs];	(iii) @ contract rate for deviation up to [20% Dgs];
(ii)	@ Zero for deviation beyond [20% Dgs];	(iv) @ 110% of contract rate for deviation beyond [20% DGs].

**6.8.** Charges for Deviation, in respect of a Buyer, shall be receivable or payable as under:

Deviation by way of under drawal (Receivable by the Buyer)	Deviation by way of over drawal (Payable by the Buyer)	
(V) For VLB (1) and $f$ within $f$ band		
i) @ 90% of NR when <i>f</i> =50.00 Hz;	iv) @ NR when <i>f</i> =50.00 Hz;	
ii) When 50.00 Hz < $f \le 50.05$ Hz , for every increase in $f$ by 0.01 Hz, charges for deviation for such buyer shall be decreased by 8% of NR so that charges for deviation become 50% of NR when $f = 50.05$ Hz;	v) When $50.00 < f \le 50.05$ Hz , for every increase in $f$ by 0.01 Hz, charges for deviation for such buyer shall be decreased by 5% of NR so that charges for deviation become 75% of NR when $f = 50.05$ Hz;	
iii) When [50.00 Hz > $f \ge 49.90$ Hz], for every decrease in $f$ by 0.01 Hz, charges for deviation for such buyer shall be	vi) When [50.00 Hz > $f \ge$ 49.90 Hz], for every decrease in $f$ by 0.01 Hz, charges for deviation for such buyer shall be	

incre	ased by 1 % of NR so that charges for deviation	increased by 5% of NR so that charges for deviation
beco	me 100% of NR when f = 49.90Hz;	become 150% of NR when $f$ = 49.90Hz.
	(VI)For VLB (1) and $f$ o	l utside f band
(i) (ii)	@ zero when [ $50.05 \text{ Hz} < f < 50.10 \text{ Hz}$ ]:  Provided that such buyer shall pay @ $10\%$ of NR when [ $f \ge 50.10 \text{ Hz}$ ];  @ NR when [ $f < 49.90 \text{ Hz}$ ];	<ul> <li>(iii) @ 50% of NR when [ 50.05 Hz &lt; f &lt; 50.10 Hz]:</li> <li>(iii) @ zero when [f ≥ 50.10 Hz];</li> <li>(v) @ 150 % of NR when [f &lt; 49.90 Hz].</li> </ul>
	(VII) For VLB (2) and $f$ within	and $outsidef$ $band$
(i)	@ 80% of NR when $f$ ≤ 50.00 Hz;	(iv) @ 150% of NR when f < 50.00 Hz;
(ii) (iii)	@ 50% NR when [50.00 Hz < $f \le 50.05$ Hz]; @ zero when [50.05 Hz < $f < 50.10$ Hz]: Provided that such buyer shall pay @ 10% of NR when [ $f \ge 50.10$ Hz];	(v) @ NR when $[50.00 \text{ Hz} \le f \le 50.05 \text{ Hz}];$ (vi) @ 75% NR when $[50.05 \text{ Hz} < f < 50.10 \text{ Hz}];$ (vii) @ zero when $[f \ge 50.10 \text{ Hz}].$
	(VIII) For VLB (3) and $f$ wi	thin and outside $f$ band
	@ zero when $f$ < 50.10 Hz: Provided such buyer shall pay @ 10% of NR when [ $f$ $\geq$ 50.10 Hz];	(ii) @ 200% of NR when $f < 50.10 \text{ Hz}$ ] (iv) @ NR when [50.00 Hz $\leq f < 50.10 \text{ Hz}$ ] (v) @ 50% of NR when [ $f \geq 50.10 \text{ Hz}$ ]

Note: Volume Limits for Buyer:

Buyer	Volume Limit
Buyer other than (the buyer with a schedule less than 400 MW and the RE-rich State)	VLB(1) = Deviation up to [10% DBUY or 100 MW, whichever is less]  VLB(2) = Deviation [ beyond 10% DBUY or 100 MW, whichever is less] and up to [15% DBUY or 200 MW, whichever is less]  VLB(3) = Deviation beyond [15% DBUY or 200 MW, whichever is less]
Buyer (with a schedule up to 400 MW)	VLB(1) = Deviation [20% DBUY or 40 MW, whichever is less] VLB(2) = Deviation beyond [20% DBUY or 40 MW, whichever is less]
Buyer (being an RE Rich State)	VLB (1) = Deviation up to 200 MW  VLB(2) = Deviation beyond 200 MW and up to  300 MW  VLB(3) = Deviation beyond 300 MW
Buyer (being Super RE Rich State)	VLB (1) = Deviation up to 250 MW  VLB(2) = Deviation beyond 250 MW and up to 350 MW  VLB(3) = Deviation beyond 350 MW

- **6.9.** The charges for deviation by way of injection of infirm power shall be zero:
  - Provided that if infirm power is scheduled after trial run as specified in the Grid Code, the charges for deviation over the scheduled infirm power shall be as applicable for a general seller.
- 6.10. 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 at the reference charge rate or contract rate or in the absence of reference charge rate or contract rate, the weighted average ACP of the Day Ahead Market segments of all Power Exchanges for the respective time block, as the case may be.
- **6.11.** Notwithstanding anything contained in Clauses (1) to (6) of this Regulation, in case of forced outage or partial outage of a seller, the charges for deviation shall be @ the reference charge rate for a maximum duration of eight (8) time blocks or until the revision of its schedule, whichever is earlier.
- **6.12.** The consumers who have reduced their contract demand to zero and drawing power from grid shall be settled as per provisions specified in tariff order for the relevant period by the Commission.
- 6.13. In case of multiple contracts, the contract rate or the reference rate referred to in Regulation 6 of these Regulations, shall be the weighted average of the contract rates/ reference rate of all such contracts. The Sellers/Buyers shall furnish the PPA rates on affidavit for the purpose of Deviation charge account preparation to SLDC supported by a copy of the Order of the Commission.

## 7. SCHEDULING AND DESPATCH

- 7.1. Sellers/Buyers shall have to bear energy loss (transmission loss /or the distribution losses) for their injection /drawal schedules at the interface point with the State Grid or as applicable as per terms and conditions of prevailing power purchase agreement.
- 7.2. For long-term access customers and medium-term open access customers, the provisions of the State Grid Code and the relevant KERC Regulations/amendments, as amended from time to time, shall be applicable for declaration of capacity and scheduling. The Seller shall submit daily declared capacity and accordingly the Buyers including beneficiary shall submit their requirement to SLDC in 15 minutes' time block and by considering these the SLDC, shall finalize the injection/drawal schedule.
- 7.3. The Seller supplying power on short-term shall submit monthly declared capacity and accordingly the Buyers including InSGS shall submit their requirement to SLDC in 15 minutes' time block and by considering these the SLDC shall finalize the injection/drawal schedule. If the Sellers/Buyers fail to submit the declared capacity/drawal requirement for the scheduling of power, then the same shall be considered as zero for all purposes. However, maximum of two revisions of schedule per month under advance intimation to SLDC and distribution licensee shall be allowed with effect from 00.00 hours of next day.
- 7.4. If the Seller supplies short-term power to distribution licensee and/or MSC/SSC and if such Seller is also a long-term open access customer/medium-term open access customer, then such Seller shall give monthly schedule as per these Regulations for short-term open access so also daily schedule as long-term open access customer/medium-term open access customer as per these Regulations.

- 7.5. Based on declared capacity given by the Seller and requirement of drawal given by the Buyer, the SLDC shall allocate power and finalize the injection /drawal schedule of the Sellers/Buyers considering the applicable losses as specified by the Commission in its Tariff order from time to time.
- 7.6. In case of day ahead transactions, the declared capacity/schedules shall be conveyed by the Seller to SLDC; in one day advance up to 08.00 Hrs of the day. The Buyer including beneficiary shall confirm the time-block wise requirement to SLDC in one day advance up to 09.00 Hrs of the day. If no confirmation from Buyer including beneficiary is received within the above time limit, the SLDC shall consider zero requirement. Accordingly, SLDC shall issue the drawal and injection schedules by 18.00 Hrs of the day for the next day. Thereafter, normally no changes shall be registered in the schedule on the day ahead basis.
- 7.7. To discourage frivolous revisions, SLDC may, at its sole discretion, refuse to accept schedule/capability changes of less than two (2) percent of previous schedule/capability or 0.5 MW whichever is more.
- 7.8. If, at any point of time, the SLDC observes that there is a need for revision of the schedules in the interest of better system operation, it may do so on its own, and in such cases, the revised schedules shall become effective from the 4th time block, counting the time block in which the revised schedule is issued by the SLDC to be the first one.
- 7.9. It shall be incumbent upon the State-grid-users to declare their schedule /plant capabilities faithfully, i.e, according to their best assessment. In case, it is suspected that they have deliberately over/under declared the schedule/ plant capability contemplating to deviate from the schedules given on the basis of their capability declarations (and thus make money either as undue capacity charge or as the charge for deviations from schedule), the SLDC may ask the State-grid-user to explain the situation with necessary backup data.

- 7.10. If the scheduling of the State-grid-users 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.
- 7.11. In case of any grid disturbance, scheduled injection of the Sellers and scheduled drawal of the Buyers shall be deemed to have been revised in proportion to their actual generation/drawal for all the time blocks affected by the grid disturbance. Certification of grid disturbance and its duration shall be published by the SLDC/Distribution licensee in website within a week of its occurrence by the concerned licensee.
- 7.12. When for the reason of transmission constraints e.g. congestion or in the interest of grid security, it becomes necessary to curtail power flow on a transmission corridor, the transactions already scheduled may be curtailed by the SLDC. The short-term customer shall be curtailed first followed by the medium-term customers, which shall be followed by the long-term customers and amongst the customers of a particular category, curtailment shall be carried out on pro rata basis.
- 7.13. In the event of tripping of evacuating Substation path, the last injection/ schedule shall be considered with forecast and schedule of similar day forecast figure and considered as deemed injection/ schedule for the affected time blocks. For this the affected User/ Entity has to represent the event with due authorization/ certifications of the connected Substation Agency/ Authority on SLDC website.
- 7.14. In case it is observed that a "Seller" has scheduled excess power than the approved quantum of open access in any time block; then no deviation charge shall be receivable by him for excess injection, done on that day and he will have to pay the transmission/wheeling charges as applicable for the excess scheduled quantum, for the whole day, at the rate of two (2) times of the transmission charges as applicable. In the case of implemented schedules indicated by the SRLDC/Power

Exchanges/NLDC/SLDC for open access transactions, the rounding off of 0.01MWh whether on plus side or minus side shall be ignored and such a case shall not be considered either as excess scheduling or under injection.

# **CHAPTER-8**

# **ENERGY ACCOUNTING AND SETTLEMENT**

# 8. a. Settlement of energy at drawal point in respect of a SSC

- 8.1. The scheduled drawal (MWh) at drawal point shall be computed for each time block from the scheduled drawal (in MW) for such consumer through open access at the drawal point considering the energy losses of the State grid (Intra-State transmission system and/ or distribution system, as applicable) and the deviation from schedule shall be dealt with as per Regulation.
- 8.2. The excess energy consumed, if any, at the drawal point for any time block with reference to scheduled drawal shall be deemed to have been consumed by the consumer from the State grid and shall be treated as deviation and shall be paid by the consumer at the applicable DSM charge and shall be calculated as per Regulation.
- 8.3. In case, where such a consumer underdraws with reference to the scheduled drawal, the DSM charge shall be calculated as per Regulation.

# b. Settlement of energy at drawal point in respect of MSC

- **8.4.** Such a consumer shall have supply agreement with the licensee (either for standby support or for meeting part requirement of his total requirement as may be chosen by the consumer) as also with the "Sellers" for availing power through open access.
- **8.5.** The total scheduled drawal at drawal point shall be computed for each time block considering contract demand (in MVA) with licensee (considering power factor 0.90) and drawal schedule for the consumer through Open-Access at the drawal point by

- considering the losses of the State-grid (intra-State transmission system and / or distribution system, as applicable).
- 8.6. In case of levy of demand charges by distribution licensee; the actual drawal shall be first set off with actual demand scheduled through Open Access for the respective time block and the remaining shall be considered as drawal against the contract demand with the distribution licensee and shall be charged as per applicable tariff order issued by the Commission.
- 8.7. Energy charges in case of MSC consumer receiving power other than solar power shall be levied by the distribution licensee as per the respective tariff based on the actual energy consumed in the billing month after deducting the energy scheduled towards open access.

# **DSM ACCOUNT**

# 9. STATE DSM ACCOUNT (SDSMA)

- 9.1. The State Load Despatch Centre shall prepare and issue (to all Sellers/Buyers) SDSMA charges to all Sellers/Buyers as per the modalities and timelines as under:
  - a) Billing Cycle: The SDSMA billing cycle for all Sellers/ Buyers shall be weekly (i.e. Monday to Sunday) and SDSMA billing cycle for KPCL, RE Seller (other than WS seller) or the category as specified by the Commission shall be monthly (calendar month wise).
  - **b) Meter Reading:** Meter Reading shall be automatically read and communicated to SLDC.
  - c) Implemented Schedule: For preparation of SDSMA Statement, the SLDC shall consider implemented schedule as available in the SRLDC and SLDC websites and implemented schedule received from Power Exchanges through E-Mail. SLDC shall be responsible for timely (as per Grid Code) updation and uploading of the

implemented schedule in respect of all Sellers/ Buyers in the SLDC website.

- **d) Frequency:** For preparation of SDSMA Statement, SLDC shall consider frequency as considered by SRPC in the DSM Statement issued to Distribution licensee, as available in SRPC or as declared by SRLDC in its website.
- e) Confirmation of Meter-reading and Schedule: Since meter reading and implemented schedule data are received in encrypted softcopy, so to minimize the possibility of error, before processing of the SDSMA bill, SLDC shall again verify data of schedule and energy injection/drawal from the concerned Sellers/Buyers and concerned metering Division of KPCL, STU and Distribution licensee. The Sellers/Buyers and the concerned metering Division of KPCL, STU and Distribution licensee shall verify and confirm the required information within 2 (two) working days from the date of receipt of such data from SLDC through email.
- f) Processing of SDSMA Bill: SLDC shall prepare SDSMA bill within five (5) working days after the receipt of all related data from all concerned as above. Further, SLDC shall issue the SDSMA bill to all concerned through hardcopy and softcopy. The softcopy of the SDSMA bill shall be made available by publishing it on the SLDC website from the date of issue of SDSMA bill. The soft copy of the SDSMA shall broadly contain the following information:
  - (i) Details of Deviation Settlement Method Tariff Structure currently in force:
  - (ii) Details of Day-wise and total Deviation transactions for each Entity (details shall include Scheduled Energy, actual Energy, Charges for Deviation along with net amount payable/receivable by them);
  - (iii) Details of transmission constraints and Grid disturbances;

- (iv) Any other details which State Load Despatch Centre feels necessary to complete the Deviation Settlement Method Account.
- 9.2. Settlement of Deviation Charges shall be done through "State Deviation Pool Account" to be maintained and operated by the Distribution licensee. The Distribution licensee shall open a separate Bank Account in a Nationalized/Scheduled Commercial Bank in the name of "State Deviation Pool Account".

Provided that Distribution licensee shall maintain the account and submit the same to the Commission along with the tariff filing exercise.

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

- 9.3. Payment of Deviation charges shall have a high priority and the concerned Entity shall pay the indicated amount, within Seven (7) days from the date of issue of State Deviation Settlement Mechanism Account, into a "State Deviation Pool Account" operated by Distribution licensee. However, for the State Owned Generating Stations, the due date for payment of deviation charges shall be governed as per LPS as determined by KERC in Regulations/Orders issued from time to time.
- 9.4. The State Grid User which has to receive the money on account of Deviation charges would then be paid out from the State Deviation Pool Account within next two working days of receipt of payments in the "State Deviation Pool Account".
- **9.5.** Separate books of accounts shall be maintained for the principal component and interest component of charges for deviation.
- 9.6. If payments against the charges for deviation are delayed beyond as specified in this regulation from date of issue of State DSM Account, the defaulting State Grid Users shall have to pay simple interest @ 0.04% for each day of delay.
- 9.7. All Sellers/Buyers which had at any time during the previous quarter of

the year failed to make payment of Charges for Deviation within the time specified in these regulations shall be required to open a Letter of Credit (LC) equal to 110% of its average payable weekly/monthly liability for Deviations in the previous quarter of the year, in favour of the pool account maintained by Distribution licensee with a nationalized/scheduled commercial bank.

#### Provided that -

- (a) If any State Grid user fails to make payment of Charges for Deviation by the time specified in these regulations during the current quarter of the year, it shall be required to open a Letter of Credit equal to 110% of weekly/monthly outstanding liability in favour of "State Deviation Pool Account"
- (b) Letter of Credit amount shall be increased to 110% of the payable weekly/monthly liability for Deviation in any week/month during the quarter, if it exceeds the previous Letter of Credit amount by more than 50%.
  - Illustration: If the average payable weekly liability for Deviation of a State Grid user during Last Quarter of FY 2021-22 is Rs. 20 crore, the State Grid User shall open Letter of Credit for Rs. 22 crore in First Quarter of FY 2022-23. If the weekly payable liability during any week in First Quarter of FY 2022-23 is Rs. 35 crore which is more than 50% of the previous quarter of the year average payable weekly liability of Rs. 30 Crore, the concerned State Grid User shall increase the LC amount to Rs. 38.5 Crore (1.1\*35.0) by adding Rs. 16.5 Crore.
- (c) In case of failure to pay into the "State Deviation Pool Account" within the specified time in there Regulations from the date of issue of Statement of charges for Deviations, the Distribution licensee shall be entitled to encash the Letter of Credit of the concerned entity to the extent of the default and the concerned

- entity shall recoup the Letter of Credit amount within 3 (three) working days.
- (d) If necessary, the Distribution licensee shall initiate suitable action against defaulting entities under section 56 of the Act 2003 and other action as per relevant provisions of the Act as applicable from time to time. The responsibility of ensuring collection of outstanding dues from the Sellers/ Buyers shall be of the Distribution licensees.

## 10. POWER TO RELAX/ SAVINGS AND REPEAL/ POWER TO REMOVE DIFFICULTIES

- 10.1 The Commission, for reasons to be recorded in writing, may relax any of the provisions of these Regulations on its own motion or on an application made before it by an interested person.
- 10.2 Save as otherwise provided in these regulations, the Commissions Order dated 20.06.2006 with respect to implementation of Intra-state ABT shall stand repealed from the date of commencement of these Regulations.
- 10.3 If any difficulty arises in giving effect to any of the provisions of these regulations, the Commission may, of its own motion or otherwise by an order and after giving a reasonable opportunity to those likely to be affected by such order, make such provisions, not inconsistent with these regulations or the Act, as may appear to be necessary for removing those difficulties.
- 10.4 Issue of Suo-Moto orders and practice directions: The Commission may, from time to time, issue orders and practice directions in regard to the effective implementation of these regulations and matters incidental or ancillary thereto as the Commission may consider appropriate.

By the Orders of the Commission Secretary