

PUNJAB STATE TRANSMISSION CORPORATION LIMITED

Departmental Accounts Examination-2024 (1st Session)

Paper-III Commercial Accounting And Other Miscellaneous Technical Knowledge

Category :- AE/E - II

Time Allowed: 3 Hours

Roll No:

Max Marks: 100

Note: All questions are compulsory

- Q1. (a)** Explain in detail procedure for filing appeal as per PSERC (Procedure for filling appeal before the Appellate Authority) Regulations 2005. **(10 Marks)**
- (b)** Explain the following as per CERC (Standards of performance of inter-state transmission licensee) Regulation 2012: **(5*2=10 Marks)**
- (i)** Transmission System availability
(ii) Restoration time
- Q2. (a)** State the matters for which State Commission shall specify Electricity supply Code? **(8 Marks)**
- (b)** Explain Various Instruction of supply Code relating to Cluster Sub-Station? **(12 Marks)**
- Q3. (a)** Define "Open Access" under Electricity Act? **(5 Marks)**
- (b)** What is minimum Capacity for Green open Access? **(5 Marks)**
- (c)** State the applicability of PROCEDURES / GUIDELINES for intra state MEDIUM TERM OPEN ACCESS AND LONG TERM ACCESS? **(10 Marks)**
- Q4. a)** What is the objective & Scope of State Grid Code?. **(10 Marks)**
- b)** Explain in detail structure of State Grid Code. **(10 Marks)**
- Q5. (a)** Define ARR and its Components in Detail. **(5+15 =20 Marks)**

ANSWER KEYDepartmental Accounts Examination-2024 (1st Session)

Paper-III Commercial accounting And Other Miscellaneous Technical knowledge

Category :- AE/E

Q1. (a)

1. Any person aggrieved by a final order made by an assessing officer under Section 126 of the Act, may, within 30 days of the order, file an appeal before the Appellate Authority.
2. The appeal shall be made in the form specified in the Schedule to these Regulations.
3. The Memorandum of Appeal shall be signed and verified in the manner specified in the Schedule to these Regulations.
4. No appeal against an order of assessment under Clause (1) shall be entertained unless an amount equal to one-third of the assessed amount is deposited in cash or by way of bank draft with the Licensee and documentary evidence of such deposit has been enclosed alongwith the appeal.
5. The appeal shall be accompanied by the fee of 0.5% of the assessed amount subject to minimum of Rs. 100.
6. The fee shall be paid in such form as the Appellate Authority may specify. (10 Marks)

Q1. (b)

- (i) **Transmission System availability-Transmission Availability** means the period of time a transmission line is not out of service for maintenance or replacement. **Transmission system availability factor for a calendar month (TAFM)** shall be calculated by the respective transmission licensee, got verified by the concerned RLDC and certified by the Member-Secretary, Regional Power Committee of the region concerned, separately for each AC and HVDC transmission system and grouped according to sharing of transmission charges
- (ii) **Restoration Time-Restoration Time** means the period of time from the problem occurrence to the time in which the service returns to operational status. In case of switching off or tripping of any of the important elements of the regional grid under emergency conditions or otherwise, it shall be intimated immediately by the users with available details (i) to SLDC if the element is within the control area of SLDC, who in turn shall intimate the concerned RLDC and (ii) to RLDC if the element is within the control area of RLDC. The reasons for such switching off or tripping to the extent determined and the likely time of restoration shall also be intimated within half an hour. The concerned RLDC or SLDC and the users shall ensure restoration of such elements within the estimated time of restoration as intimated. (5*2=10 Marks)

Q2. (a)

The State Commission shall specify an electricity supply code to provide for recovery of electricity charges, intervals for billing of electricity charges, disconnection of supply of electricity for non-payment thereof, restoration of supply of electricity; measures for preventing tampering, distress or damage to electrical plant, or electrical line or meter, entry of distribution licensee or any person acting on his behalf for disconnecting supply and removing the meter; entry for replacing, altering or maintaining electric lines or electrical plants or meter and such other matters. (8 Marks)

Q2. (b)

- A group of new/existing HT/EHT consumers having their total contract demand above 2500 kVA, may jointly install a 33 kV or higher voltage cluster Sub-Station to be owned and maintained by them. The supply of electricity shall be provided by the distribution licensee to the cluster sub-station at a specified voltage based on the sanctioned contract demand of the cluster sub-station in the premises of the leader of the group & actual cost of the HT/EHT line from feeding grid sub-station to cluster substation along with bay shall be payable by the constituent members of the group.

- The Licensee shall sanction the contract demand of the cluster substation and individual consumers connected to the cluster sub-station provided the contract demand of the cluster shall not be less than sum total of sanctioned contract demands of constituent members of the group. For billing, only the contract demand of the cluster sub-station shall be taken into account.

- The supply on the basis of consumption recorded at 33 kV or higher voltage shall be billed for electricity charges including MMC along with electricity duty, octroi, fuel surcharge and shall be apportioned to the individual consumers in proportion to the consumption recorded by the meter installed on the 11 kV feeders of each consumer at the cluster sub-station. The licensee shall install, seal & maintain all the meters including 11 kV meters as per regulation 21 of Supply Code.

- Peak load/weekly off-day violation penalty, if any, shall be levied to individual consumer on the basis of readings recorded on the 11 kV feeder of each consumer.

- In case maximum demand of the cluster sub-station exceeds its sanctioned contract demand then the demand surcharge shall be levied as per General Conditions of Tariff and shall be apportioned amongst constituent consumers exceeding their sanctioned contract demand according to the maximum demand recorded over and above the sanctioned contract demand during the month.

- All consumers of the group shall jointly execute an agreement on the proforma prescribed by the distribution licensee for abiding by the conditions applicable to consumers catered supply from cluster substation.

- Each consumer shall be deemed to be connected at the voltage at which supply is catered to the cluster sub-station and separate bills shall be issued to each constituent member of the cluster sub-station.

- The erection of all the 11 kV feeders from cluster sub-station to individual constituent consumer shall be the responsibility of the concerned consumer. However the job may be carried out by the licensee if so requested by constituent members at their cost as a deposit

work. The operation and maintenance of these feeders shall be the responsibility of the constituent members. Provided where 11 kV feeder(s) for individual cluster constituent member(s) is/are required to be erected/laid in public land, the same shall be erected/laid and maintained by licensee at the cost of that constituent member(s). (12 Marks)

Q3. (a) The Electricity Act defines open access as the non-discriminatory use of transmission and distribution networks by licensees, consumers or generating companies in accordance with the regulations framed by the Regulatory Commissions. (5 Marks)

3(b) Green Open Access would be allowed to any Open Access Consumer. The transaction limit would be minimum 100 KW for non-captive consumers. No limit has been kept for captive consumers. The consumers will be given green certificate beyond their RPO obligation. (5 Marks)

3(c)

- This procedure for Intra-State Medium Term Open Access (MTOA) and Long Term Access (LTA) is being issued in compliance to the "Punjab State Electricity Regulatory Commission (PSERC) (Terms and Conditions for Intra-state Open Access) Regulations, 2011" dated 1st July 2011, and subsequent amendments thereof, if any, hereinafter referred to as "Principal Regulations" or "Open Access Regulations" or "the Regulations". The period/ validity of MTOA/LTA shall be in accordance with PSERC/ CERC Regulations, as applicable, for Intra-State/ Inter-State Open Access transactions. In case of any contradiction of this procedure with provisions of the Regulations, provisions of the Regulations shall prevail.

- This procedure covers guidelines, terms and conditions and application formats for availing Medium Term Open Access and/or Long Term Access on Transmission and/or Distribution system of the licensee(s) (i.e. Punjab State Transmission Corporation Ltd (PSTCL) and/or Punjab State Power Corporation Ltd. (PSPCL)) read along with Regulation 16 and Regulation 17 of PSERC Open Access Regulations governing LTA and MTOA respectively.

- This procedure, terms and conditions and charges will also be applicable to embedded Open Access customers who use transmission and/or Distribution system of PSTCL/PSPCL in conjunction with the Central Transmission System, in line with the PSERC and/or CERC Regulations for Medium Term Open Access and/or Long Term Access, as amended from time to time. Procedures /guidelines for inter-state MTOA/ LTA transactions not covered herein shall be applicable in line with the CERC (Grant of Connectivity, Long-term Access and Medium-term Open Access in inter-State Transmission and related matters) Regulations, 2009, or its statutory re-enactments, as amended from time to time. For such transactions, the Detailed Procedure of CTU /Power Grid Corporation of India Ltd. (PGCIL), as available on NLDC/POSOCO/PGCIL web site, shall be applicable.

- This procedure shall be applicable for reservation of Transmission and Distribution capacity for Medium Term and/ or Long Term sale or purchase of power by (consumers of PSPCL / non-consumers of PSPCL as well as bulk consumers /CPPs/IPPs or state utility or an intrastate entity as a buyer or seller as entitled to avail Medium Term Open Access or Long Term Access under Open Access Regulations, referred to as 'Open Access Customer' or 'Customer' or 'Applicant' herein after. (10 Marks)

Q4(a)

The State Grid Code governs the boundary between STU and Users as well as establishes guidelines for operation of facilities for those who are connected and will use the State Transmission System. It lays down both the information requirements and procedures governing the relationship between STU and Users. The principal objectives of the State Grid Code are:

- To provide clarity and certainty to the STU, State Genco, IPPs/CPPs within Punjab, Distribution Licensees/Discoms and any Open Access Consumers by stating their respective roles, responsibilities and obligations with respect to the operation of the State Transmission System.
- To improve the grid stability and set minimum standards of system performance.
- To define requirement for new entrants i.e. future new generating companies, licensees, CPPs and consumers.
- To document the common knowledge or normal practice in writing for ease of reference and help in compliance.
- To lay down in consultation with generators, performance characteristics of generating plants.
- To improve co-operation by providing a mechanism for clear and consistent disclosure of all information.
- To provide a level playing field.
- To indicate how generation is to be scheduled and despatched.
- To actually enforce what is verbally agreed

(10 Marks)

Q4(b)

The State Grid Code comprises of following parts:

I. General Code

General Code includes sections on:

- **Management:** intended to ensure that all other sections of the State Grid Code work together in the management of the State Grid Code
- **Review Procedures:** specify a procedure for review of State Grid Code to cater to inadvertent omissions and any modifications needed from time to time.

II. Planning Code

Planning Code includes sections on:

- **System Planning:** specifies the procedures to be applied by STU in the planning and development of the State Transmission System and by other Users connected or seeking Connection to the State Transmission System.
- **Procedures:** specify procedures to be followed by STU in the development of the State Transmission System in the long term taking into account the requirements for new connection of generation and demand.

- **Connection Issues:** specifies the technical requirements and standards to be complied with by STU and other Users connected or seeking Connection to the State Transmission System.

III. Load Despatch & System Operation Code

Load Despatch & System Operation Code includes sections on:

- **System Operation:** Specifies the conditions under which STU shall operate the State Transmission System, the Generating Companies shall operate their Power Stations and the Distribution Licensees shall operate their Distribution Systems in so far as necessary to protect the security and quality of supply and safe operation of the State Transmission System under both normal and abnormal operating conditions.
- **Schedule and Despatch:** Specifies the procedures relating to the scheduling and despatch of Generating Units and drawal by Discoms/ Open Access Customers to meet state demand and drawal allocation.
- **Outage Planning:** Specifies the procedures relating to the co-ordination of outages for scheduled maintenance of the State Transmission System, Generating Units, CPP and Distribution System that will use the State Transmission System.

IV. Protection Code

Protection Code specifies the co-ordination responsibility and minimum standards of protection that are required to be installed by Users of the State Transmission System.

V. Metering Code

Metering Code specifies the minimum operational and commercial metering to be provided for each User. It also sets out the requirement and procedures for metering.

VI. Data Registration

This contains the details of all the data required by STU, which is to be provided by the Users and vice versa

(10 Marks)

Q5.

Aggregate Revenue Requirement means the requirement of the Transmission Licensee or the Distribution Licensee or Generating Company or SLDC for recovery, through tariffs, of all the allowable expenses and return pertaining to its Licensed/Regulated Business for a particular financial year, in accordance with the Regulations.

Regulation 15.1 of PSERC MYT Regulations, 2022 specifies the Components of ARR for Transmission and SLDC Businesses as below:

The ARR of the Transmission business and SLDC business shall comprise of the following components:

- (a) Return on Equity;
- (b) Interest and Finance Charges on Loan Capital;
- (c) Interest Charges on Working Capital;
- (d) Depreciation;
- (e) Operation and Maintenance Expenses;
- (f) ULDC Charges;
- (g) Statutory levies and taxes, if any.

Less:

- (h) Non-Tariff income
- (i) Income from other business"

(5+15=20 Marks)