

NETWORK AND EXCHANGE SERVICES
A14. HIGH VOLTAGE PROTECTION SERVICES

LIST OF EFFECTIVE SHEETS

Sheets listed below are effective as of the date shown on each sheet.

<u>Revision</u> <u>Number</u>	<u>Sheet</u>
2nd	CS A
3rd ¹	CS A
Original	ToC A
Original	1
1st	2
1st	3
1st	4
1st ¹	5

NOTE 1: Issued

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(N)

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NETWORK AND EXCHANGE SERVICES
A14. HIGH VOLTAGE PROTECTION SERVICES

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14.1 HIGH VOLTAGE PROTECTION

14.1.1 GENERAL

A. DESCRIPTION

1. Utility exchange and private line services extending to electric power generating stations, co-generating stations, substations, distributing power station locations, and other similar locations may require special equipment to isolate or neutralize Ground Potential Rise (GPR) and/or induced voltage caused by faults in the electric power system.

B. REGULATIONS

1. Based on data provided by the customer, the Utility shall determine the proper levels of protection required on its network to isolate or neutralize electrical hazard.
2. The high voltage protection equipment will be located at the Network Interface (NI) or demarcation point for specially protected telephone facilities at power stations. The Utility will be responsible up to this point for the provisioning of tariffed channels and/or services regardless of ownership of the special high voltage protection equipment.
3. High voltage protection equipment may also be required on the serving telephone facilities at the Utility's Central Office and at Remote Drainage Locations.
4. As a condition to receiving service, those customers described in A.1. shall provide the Utility, in writing, the technical data necessary for Pacific to determine the high voltage protection requirements, at the time of application for the initial service, additions to, or changes in the existing service. In addition, the customer shall notify the Utility prior to making changes in the electric supply which will increase the GPR at the location.
5. The customer will provide the Service Type and the Service Performance Objective (SPO), as described in D. & E. following.
6. The technical data for the power station shall include, but not be limited to, the following:
 - a. ground grid area in square feet
 - b. ground grid impedance in ohms
 - c. X/R ratio at worst case fault location
 - d. Ground Potential Rise (GPR) in volts RMS

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NETWORK AND EXCHANGE SERVICES

A14. HIGH VOLTAGE PROTECTION SERVICES

14.1 HIGH VOLTAGE PROTECTION (CONT'D)

14.1.1 GENERAL (CONT'D)

B. REGULATION (CONT'D)

7. In addition to the rates and charges set forth in this tariff schedule, rates and charges in Schedule Cal.P.U.C. No. 175-T, Special Access Services, shall apply. (T)
(T)
8. The charges, as set forth in G. following, under Rates and Charges are applicable for high voltage protection equipment furnished by the Utility and do not include equipment cabinets or mounting arrangements when provided by the customer or the Utility, nor do they include the rates and charges set forth in Schedule Cal.P.U.C. No. A8.1.2 and A8.1.9. Additional rates and charges are applicable for Utility provided equipment, cabinets and mounting arrangements to be determined at the time the requirement develops.
9. If at any time during the specified period following the installation of high voltage protection equipment, such equipment is permanently disconnected as a result of a request of the customer or disconnection of the customer's telephone service in accordance with Utility's applicable tariffs, the customer shall pay to the Utility, upon demand, the basic termination charge specified for said equipment, less a credit for each full month between the date on which said equipment was installed and the date on which it was so disconnected. For the purposes of computing basic termination charges, the last equipment installed shall be considered to be the first equipment removed.

Basic termination charges for fractional portions of a month shall be prorated on the same basis as for monthly billing.

10. The customer releases, indemnifies and holds harmless the Utility from any and all loss, claims, demands, suits or other action or any liability whatsoever, whether suffered, made, instituted or asserted by the customer or by any other party or person, for any personal injury to or death of any person or persons, or for any loss, damage or destruction of any property whether owned by the customer or others, caused or claimed to have been caused directly or indirectly by the installation, operation, failure to operate, maintenance, removal, presence, condition, location or use of such equipment and services associated therewith.

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NETWORK AND EXCHANGE SERVICES
A14. HIGH VOLTAGE PROTECTION SERVICES

14.1 HIGH VOLTAGE PROTECTION (CONT'D)
14.1.1 GENERAL (CONT'D)

C. COMPLIANCE STATEMENT

If the Utility has provided service where high voltage protection is necessary, by the customer or the customer-provided equipment is nonfunctional or inadequate or the customer fails, upon written notice, to establish or reestablish the required high voltage protection equipment or apply for and obtain such protection from the Utility, or keep the Utility informed of changed high voltage requirements, then the Utility will disconnect service 120 days after giving the notice required, as set forth in Cal.P.U.C. No. A2.1.11.A.10.

D. SERVICE TYPES

1. Type 1 - Services requiring either dc transmission or ac and dc transmission such as, Basic Exchange Telephone Service and Special Access Service. (T) (T)
2. Type 2 - Special Access Service requiring dc transmission or ac and dc transmission used for pilot wire protective relaying or dc tripping. (T)
3. Type 3 - Special Access Service requiring ac transmission only used for supervisory control and data. (T)
4. Type 4 - Special Access Service requiring ac transmission only used for audio tone protective relaying. (T)

E. SERVICE PERFORMANCE OBJECTIVE CLASSIFICATIONS

Interruptions or outages of telecommunications circuits serving electric power stations may occur for physical reasons such as cable damage due to extraordinarily heavy storm loading, a vehicle striking and breaking a utility pole, a direct lightning stroke, or acts of God. Circuit failures caused by such events cannot be prevented and the Utility expressly states that provision of the equipment provided in this schedule cannot prevent such service outages as may normally occur due to the preceding circumstances. It is the responsibility of the customer to provide sufficient protection to prevent damage caused by such events.

Interruptions or outages due to the effects (GPR and/or induction) of faults in the customer's power generating, transmission and/or distribution system are minimized through the installation and maintenance of high voltage protection equipment which is designed to operate in a fault-produced electrical environment.

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NETWORK AND EXCHANGE SERVICES

A14. HIGH VOLTAGE PROTECTION SERVICES

14.1 HIGH VOLTAGE PROTECTION (CONT'D)

14.1.1 GENERAL (CONT'D)

E. SERVICE PERFORMANCE OBJECTIVE CLASSIFICATIONS (CONT'D)

Because of the customer's need for service continuity during power system faults on some types of telecommunications services provided to power stations, the following system of service performance objective classifications has been established for the purpose of permitting the customer to specify the performance objectives for most types of telecommunications services provided to power stations.

1. Class A - Non-Interruptible service performance (must function before, during and after the power fault).
2. Class B - Self-Restoring interruptible service performance (must function before and after the power fault condition).

F. PROVISION OF HIGH VOLTAGE PROTECTION EQUIPMENT

Based on the customer's technical data provided to the Utility, the Utility will provide the necessary high voltage protection equipment at the Utility's local loop demarcation point on the customer's premises, at (T) the Utility Central Office, and at the remote drainage location. The placement of the equipment by the Utility shall in no way release customer of its responsibility for damage, loss or claims caused by electrical hazards resulting from the customer's electric power system. Pacific's liability for damage, loss or claims is set forth in Schedule Cal.P.U.C. No. A2.1.14.

The customer may elect to furnish the equipment at its premises to isolate or neutralize the electrical hazard subject to the approval of the Utility; however, such approval by Pacific shall not relieve customer of its responsibility to install or maintain adequate high voltage protection equipment.

When the customer provides the high voltage equipment at its premise, the Utility will provide the necessary high voltage equipment at the central office and remote drainage location.

The high voltage protection equipment at the power station will either be exclusively owned by the Utility or the customer.

The Utility will inspect and verify adequacy of the high voltage protection equipment when service is established and at such future times as deemed necessary due to additions, deletions, rearrangements, routine maintenance or for the purpose of verifying the adequacy of the high voltage protection equipment.

The provisioning of ground start circuits to the customer will be provided by the Utility where facilities and operating conditions permit.

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NETWORK AND EXCHANGE SERVICES
 A14. HIGH VOLTAGE PROTECTION SERVICES

14.1 HIGH VOLTAGE PROTECTION (Cont'd)
 14.1.1 GENERAL (Cont'd)

G. RATES AND CHARGES

1. High Voltage Protection Devices¹

	<u>BASIC</u> <u>TERMINATION</u> <u>CHARGE</u>		<u>NONRECURRING</u> <u>CHARGE</u>		<u>MONTHLY</u> <u>RATE</u>		<u>USOC</u>
a. Utility-Provided Devices							
- Type 1, A, each	\$ 2,103.10	(R)	\$ 233.68	(R)	\$ 51.30	(R)	HVPA1
B, each	1,528.41		193.78		36.10		HVPB1
- Type 2, A, each	2,388.07		233.68		56.99		HVPA2
B, each	1,813.38		193.78		42.75		HVPB2
- Type 3, A, each	1,628.15		233.68		37.05		HVPA3
B, each	1,035.40		187.13		22.80		HVPB3
- Type 4, A, each	1,628.15		233.68		37.05		HVPA4
B, each	1,035.40	(R)	187.13		22.80	(R)	HVPB4
b. Customer-Provided Devices							
- each	NO		360.02	(R)	NO		HVPCO
c. No High Voltage Protection Required							
	NO		NO		NO		HVPNR

NOTE 1: Basic Termination Charge is reduced 1/240th with each monthly payment.

NOTE 2: See D. and E. preceding.

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