PERMANENT STANDARDS WORKING GROUP

APPENDIX G

GLOSSARY

July 29, 1998

PSWG APPENDIX G: Glossary

Organization of the Glossary

This Glossary is organized into the following two sections:

- Standards concepts and definitions of terms
- Acronyms

1.   Standards concepts and definitions of terms

Below are some fundamental distinctions between standards and requirements:

1. <u>Standards</u> - to be used in a narrow, formal sense, as instituted by official standards bodies such as IEEE, ANSI, etc.
2. <u>Regulations</u> or <u>regulatory requirements</u> - imposed by the CPUC or other regulatory entity; i.e., "rules & regulations."
3. <u>Accepted practices</u> - agreed to by industry participants, but not imposed in regulations or embodied in formal standards; i.e., "common or standard business practices."
4. <u>Business requirements</u> - activities or performance capabilities which comprise the business functions and objectives an entity must accomplish as part of its fundamental mission.

Below are the Definitions of Terms:

<u>Accepted Practices.</u> - Processes agreed to by industry participants, but not imposed in regulations or embodied in formal standards; i.e., "common or standard business practices."

<u>Adjustment</u>. Any change to a customer's usage data made to correct an error in the original data.

<u>Average Daily Usage (ADU)</u>. Average daily usage over a specified period of time, such as a billing period. For example, if all constants and factors have already been applied to the reads, the ADU could be calculated by: ADU = (current billing read - previous billing read)/(# days between billing reads).

<u>Business Requirements</u> - Activities or performance capabilities which comprise the business functions and objectives an entity must accomplish as part of its fundamental mission.

<u>EDI Implementation Guideline</u>. Defines the EDI environment for using conventions within an industry, and provides assistance on how to implement the X12 standard. The Utility Industry Group (UIG) establishes Implementation Guidelines for the utility industry.

<u>Electricity meter</u>. A device that measures and registers the integral of an electrical quantity with respect to time.

<u>Electronic Data Interchange (EDI)</u>. The computer-application-to-computer-application exchange of business information in a standard format. In the context of this report, EDI refers to use of the ANSI X12 standards.

<u>Energy Service Provider (ESP)</u>. The party that contracts with the end-use customer to provide commodity electric service.

<u>Estimated data</u>. Usage or demand data that has been calculated based on standard estimation rules.

<u>Handshake</u>. The initiation or termination of communication between two devices at an interface.

<u>Interchangeability.</u> The ability to exchange discrete components of systems without affecting system performance. (See Interoperability)

ORA Alternative Definition

Interchangeability . The ability to exchange discrete components of systems without impacting data communication functions and services supported across any interface.

<u>Interface</u>. The point at which two systems, or subsystems connect either physically or to exchange information.

<u>Interoperability</u>. The capability to operate systems or products, from different types and manufacturers, under the same conditions, rules, formats, and protocols. (See Interchangeability)

ORA Alternative Definition

Interoperability . The capability to operate systems or products, from different types and manufacturers, under the same conditions, rules, data formats and data communication protocols.

<u>Interval data</u>. Metered end-use data from a meter capable of recording actual energy usage for each time interval (e.g., hour, half-hour, etc.) during the billing cycle.

<u>Irregular usage customer</u>. Customer whose usage pattern does not follow normal usage patterns and consistently fails validation checks.

<u>KYZ (contact output)</u>. A device coupled to a sensor or meter which produces incremental pulses with a defined value of the measured media. Also known as "Relay output Form C" in certain ANSI designations.

<u>Local Meter Reading</u>. The reading of meters accomplished by physically visiting individual customer premises or meter installation sites.

<u>Meter</u>. A device for measuring and totaling the variable consumption of a product. In general, a meter consists of a sensor that detects and measures a flow, and an integrating device and register that displays the total consumption in metrological units.

Meter Data Management Agent (MDMA). Performs a function which entails acquiring raw end-use data, performing VEE to create validated data, providing validated data to specified market participants, and maintaining an archive of raw and validated meter data.

Meter product. A physical device that performs the functions of a meter, and may perform other functions as well, e.g., communications-related functions, within the same physical package.

Meter product -- in-inventory. The meter products that have been purchased and stored in inventory, but not yet installed for direct access service in California. This does not include used, re-worked or recycled meters.

Meter product -- in-service. The meter products that have been approved and are currently in service for Direct Access.

Meter product -- recycled. The used meter products that are cleaned, tested for accuracy and good operating condition, and returned to inventory.

Meter product -- retrofitted. The in-inventory or used meter products that are retrofitted with electronic modules.

Meter product -- re-worked. The used meter products that are repaired, rebuilt, or refurbished. These do not include recycled or retrofitted meter products.

Meter product -- used. The meter products that are removed from service.

Meter Service Provider (MSP). The MSP function includes provision of the meter instrument, installation, testing, maintenance, programming, and possibly metering local area network (LAN).

Meter type. The design and specifications for a meter product, which includes all parts, components and circuit boards, functioning as a unit. A meter type includes any communication technologies and any additional functions utilized by that meter type and operated as a unit.

Metered End-Use Data. Energy usage or demand data associated with a particular meter and a particular end-use customer.

Monthly data. Monthly cumulative consumption, demand, and Time-of-Use (TOU) consumption and demand metered usage data.

Open Architecture. A set of design specifications which utilize "Open Standards" to accomplish "Interoperability."

Open System Interconnection (OSI) model. A definition of seven layers

of functionality that are involved in network communication, developed by the International Standards Organization in the early 1970s, with the goal of international standardization of computer network protocols. The seven layers are:

(1) Physical, to connect a device to a network, and a network to other networks,
(2) Data Link, to control movement of data onto a network, including flow of data, sender's location, and structure of error correction,
(3) Network, to control flow through a network, including routing and priority,
(4) Transport, to check and acknowledge arrival of data, and control retransmission in case of errors,
(5) Session, to manage process-to-process communication between systems, and establish and terminate communications, including transmission of passwords,
(6) Presentation, to translate data formats, including compression or encryption, and
(7) Application, to connect to a device's operating system to provide end-user services.

Pulse overflow. Condition in which the actual usage during an interval is larger than can be captured by the meter or recorder.

Raw data. Usage or demand data that has not gone through the validation, editing and estimation (VEE) process.

Re-framing. Changing the time frame of the metered usage data posted to the MDMA server. This typically refers to changing the beginning or ending date/time of the usage data.

Regulations or regulatory requirements - Requirements imposed by the CPUC or other regulatory entity; i.e., "rules & regulations."

Reliability. The probability of a product or system performing without failure a specified function under given conditions for a specified period of time.

Remote Meter Reading. The reading of meters accomplished without physically visiting individual customer premises or meter installation sites.

Specifications. Particular qualitative and quantitative attributes of a technical system or its elements, upon which the functionality of that system or its suitability for a particular purpose depends.

Standards. Specifications established or promulgated by an official standards body, such as IEEE, ANSI, etc, for public use. (See also regulations or regulatory requirements, accepted practices, and business practices.)

Closed Standards. Standards that are not open, i.e., that fail to meet any of the four criteria for open standards.

De facto Standard. A standard which is widely used in product design or referred to by industry participants without having been sanctioned by a recognized standards body.

International Standards. Open Standards as adopted by an international standards body; the U.S. participates in ISO, IEC, and others.

National Standards. Open Standards as adopted by a standards body accredited to a national standards body; in the U.S., ANSI Standards.

Open Standards. Voluntary standards which are: (1) developed in an open forum, (2) sanctioned by an official standards body, (3) vendor-neutral, and (4) readily available to the public at reasonable cost.

Proprietary Standard. A standard which is privately owned and for which access may be unilaterally withdrawn or otherwise restricted.

Test mode. Period during which a test load is applied to a meter or recorder to verify its accuracy.

Utility Distribution Company (UDC). The restructured descendent of an existing CPUC-regulated electric utility which provides distribution services, and is the default provider of energy and revenue cycle services.

Utility Industry Group (UIG). A utility industry action group that represents members to ASC X12. UIG develops, promotes, and establishes conventions for the use of EDI standards, guidelines, and tools in the utility industry. Membership includes utilities, customers, suppliers, service providers, and liaisons to other organizations.

Validation check. Data check designed to identify usage or demand data that may not reflect actual usage, typically due to problems at the meter or recorder.

Valid data. Usage or demand data that has gone through all required validation checks and either passed them all or has been verified.

Validated data. Usage or demand data that has been validated, edited and estimated (VEE) in accordance with approved procedures.

VEE. Validating, Editing, and Estimating. Validation is the process of performing standardized validation checks on usage and demand data. Estimating is the process of using standard estimation rules to calculate usage or demand data. Editing is the process of inserting estimated values into a validated data stream that has errors, gaps or omissions.

<u>Verified data</u>. Usage or demand data that failed at least one of the required validation checks but was determined to represent actual usage.

<u>Watt-hour Meter</u>. An electricity meter that measures and registers the integral, with respect to time, of the active power of the circuit in which it is connected. The power integral is the energy delivered to the circuit during the interval over which the integration extends, and the unit in which it is measured is usually the kilowatt-hour. (ANSI C12.1)

PSWG APPENDIX G: Glossary

2. Acronyms

ADU. Average daily usage.

DAWG. Direct Access Working Group.

DQIWG. Data Quality and Integrity Working Group.

ESP. Energy Service Provider.

ISO. Independent System Operator.

MDCS. Metering and Data Communication Standards.

MDMA. Meter Data Management Agent.

MSP. Metering Service Provider.

OSI. Open System Interconnection.

PSWG. Permanent Standards Working Group.

RDQI. Retail Data Quality and Integrity.

RSIF. Retail Settlements and Information Flows.

SC. Scheduling Coordinator.

UDC. Utility Distribution Company.

UIG. Utility Industry Group.