draft-parello-eman-definitions-06

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Changes in this Draft

- Definitions will be maintained in framework
- Added changes from IETF-83 consensus
  - Device, Component with no qualifier
  - Added Power Characteristic
  - Added interface, outlet, inlet
- New Items from requirements and framework review
  - Entity : Needed term for physical items versus logical/ model
- Reviewed terms with ASHRAE 201p

Physical Things versus Information Model

- Simple Definitions for Device and Component from IETF 83
- Reviewed with Requirements authors and term

  Entity = Device or Component

  – Needed to avoid constantly repeating in requirements

  – NOTE: ASHRAE 201p has great term called ASSET for this and can avoid confusion with a MIB or class model.

  – **Recommend requirement authors adopt it**

Power Characteristics

Power Characteristics

Measurements of the electrical current, voltage and frequencies at a given point in an electrical power system.

Reference: Adapted from [IEC60050]

NOTES:

1. Power Characteristics is not intended to be judgmental with respect to a reference or technical value and are independent of any usage context.

Interfaces

Power Interface

A Power Interface (or simply interface) is an interconnection among devices or components where energy can be provided, received or both.

Power Inlet

A Power Inlet (or simply inlet) is an interface at which a device or component receives energy from another device or component.

Power Outlet

A Power Outlet (or simply outlet) is an interface at which a device or component provides energy to another device or component.

ASHRAE: Nameplate Power

- This was discussed frequently on list that we had no source for this
- Argued it was term widely used
- ASHRAE 201p adopted Class Nameplate with attributes
- Term is used through out as synonymous with a maximal/ minimal “rating”

ASHRAE: Characteristics, Quality, Measurements

- We have the concepts correct.

	EMAN	**ASHRAE 201p**
Measurement	Power Characteristic	Power Measurement
Comparison to Value	Power Quality	Power Quality
Pattern	None	Characteristic

ASHRAE: Etc..

- Power States (which were formerly levels) map directly to Curtailment Levels
- ODVA / ASHRAE have divided concepts of state and levels
- Power Source Relationships maps directly to Power Source Enumerations
- Aggregation is synonymous. Note ASHRAE open issue on how to distinguish EMS summation. We've clarified that in framework.
- Metering is synonymous. ASHRAE distinguishes internal and external

Where used

(requirements,framework,aware,monitoring)

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-fa- Aggregation Relationship
-fam Component
-f-m Demand
rfam Device
-f-- Electrical Energy Object
-f-- Electrical Equipment
rfam Energy
rfam Energy Control
rfam Energy Management
rfa- Energy Management Domain
rfam Energy Management System (EnMS)
rfam Energy Monitoring
rfam Energy Object
rfam Energy Object Child
rfa- Energy Object Context
rfam Energy Object Identification
rfa- Energy Object Parent
-fa- Energy Object Relationship
-f-- ISO Energy Management System
-fa- Metering Relationship
-f-- Non-Electrical Energy Object
-f-- Non-Electrical Equipment (Mechanical Equipment)
rf-m Power
rf-m Power Characteristics
rf-- Power Inlet
rf-- Power Interface
rf-- Power Outlet
-f-m Power Quality
-fa- Power Source Relationship
rf-m Power State
-f-m Power State Set
rf-m Provide Energy
-fa- Proxy Relationship
rf-n Receive Energy
-f-m Nameplate Power
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Sync with Drafts

- This draft kept us in sync across drafts for authors not so much for readers
- Maintained this draft just for continuity from IETF-83
- Framework is in sync with this draft
- Will proceed with using framework as the source

Thanks!