Introduction

BEDES, the Building Energy Data Exchange Specification, has been created by Lawrence Berkeley National Laboratory (LBNL), with the help of the many stakeholders of the BEDES Working Group, and funded by the U.S. Department of Energy (DOE), to help standardize and facilitate the exchange of information on building characteristics and energy use. It is intended to be used in tools and activities that help stakeholders make energy efficiency investment decisions, track building performance, and implement energy efficiency policies and programs.

This spreadsheet represents the BEDES Dictionary Version 2.2 which will be used to support the analysis of the performance of buildings by providing a common set of terms and definitions for building characteristics, efficiency measures, and energy use.

The terms and definitions in this BEDES Dictionary were taken from a variety of sources in order to be as complete as possible as well as being inclusive of the existing implementations that characterize the energy use in buildings.

In order for the standardized terms and definitions of the BEDES Dictionary to be incorporated into different implementations, schemas and import/export formats will need to be developed for specific use cases by the appropriate stakeholders. This will allow compliance with BEDES, as described on the BEDES technical website (bedes.lbl.gov).

After the release of version 2.0 in 2016, LBNL and DOE continued to work with numerous adopters of BEDES. Version 2.2 is based on feedback from this process, as well as from stakeholders in general. We have also updated the online interactive website that contains the BEDES Dictionary in a searchable format.

The BEDES Community is a diverse group of stakeholders, including software developers, government entities (such as cities and states), energy consultants, and energy providers (such as utilities). A strong BEDES Community will be crucial to the success of BEDES for standardizing data exchange, both from a technical and implementation standpoint. We encourage all stakeholders to participate in the BEDES process, and to provide feedback to LBNL as BEDES continues to evolve. We also encourage all stakeholders to become members of the BEDES Working Group. You can request to become a member, or send general feedback about BEDES, by emailing BEDES-Support@lbl.gov.

Useful Links:

BEDES main website
http://energy.gov/eere/buildings/building-energy-data-exchange-specification-bedes

BEDES technical website
http://bedes.lbl.gov/

General Guidelines

Composing Terms

According to your particular use case or software data model, BEDES terms can map directly to single fields or can be combined to form composite terms using a variety of qualifiers. Below are some examples of the different ways in which BEDES terms can

Example

Terms as Separate Fields related in data records

Interval Frequency	Resource Boundary	Resource	Resource Value	Unit of Measure
Annual	Site	Energy	254	kBtu
Month	Source	Electricity	24	kWh
Hour	Site	Potable water	4	gallons

Composite Terms

Annual Site Energy Resource Value = 254 kBtu

Month Source Electricity Resource Value = 24 kWh

Hour Site Potable Water Resource Value = 4 gallons

Individual Terms Listed as BEDES Mapping

Interval Frequency = "Annual", Resource Boundary = "Site", Resource = "Energy", Resource Value = [value], Unit of Measure = "kBtu"

Interval Frequency = "Month", Resource Boundary = "Source", Resource = "Electricity", Resource Value = [value], Unit of Measure = "kWh"

Interval Frequency = "Hour", Resource Boundary = "Site", Resource = "Potable water", Resource Value = [value], Unit of Measure = "gallons"

Global Terms

Global terms can be used in many different contexts, and combined with other terms in BEDES to create a field in a specific implementation of BEDES.

Note that a full list of Global Terms can be found on the "Global Terms" worksheet.

Constrained Lists

For terms whose value is a choice from a list, the Data Type is

List	*Definition*
Other	The term applies but none of the constrained list options are appropriate.
Unknown	The term applies, there is such a thing implemented, but which constrained list option is implemented is unknown.
None	The term applies but there is no such thing implemented.
Not applicable	The term does not apply.
Custom	The term applies, there is such a thing implemented, but none of the constrained list options are appropriate, so a custom option is designated.

Note:
"Custom" is an optional addition to any constrained list as needed, and must then include another accompanying field that is free text (or part of the implementation's own enumeration) to characterize the custom field.

An example might be a custom verification program, where "Custom" is added to the existing constrained List for "Verification", and then a second field called "Custom Verification "

Sample Mapping

Adoptors who wish to map to BEDES should follow this mapping template. Below is an example of an adoption mapping. The table should be read left to right for each implementation field. See the BEDES Mapping Procedure document under bedes.lbl.gov/technical-documentation for more information on mapping.

Example

Table Name	Implementation Field	Value	Units	BEDES Term	BEDES Mapping	Unit
Building Info	Gross Floor Area (ft2)	[value]	ft2	Gross Area	Floor Area Qualifier = "Gross"	
					Area = [value]	ft2
	Building Type	Hopital	n/a	Occupancy Classification	Occupancy Classification = "Inpatient hospital"	
		Office			Occupancy Classification = "Office"	
		School			Occupancy Classification = "Education"	
		Supermarket			Occupancy Classification = "Grocery store"	
		Restaurant			Occupancy Classification = "Food Service"	
	Number of Employees	[value]	people	Workers On Main Shift Quantity	Occupant Quantity Type = "Workers on main shift"	
					Quantity = [value]	people
	Number of Floors Above Grade	[value]	floors	Above Grade Floors Quantity	Location ="Above grade"	
					Spatial Unit Type = "Floors"	
					Quantity = [value]	floors
	Owner	[value]	n/a	Owner Full Name	Contact Label = "Owner"	
					Full Name = [value]	n/a
Energy Use	Site EUI (MJ/ft2)	[value]	MJ/ft2	Annual Site Energy Resource Intensity	Interval Frequency = "Annual"	
					Resource Boundary = "Site"	
					Resource = "Energy"	
					Resource Intensity = [value]	kBtu/ft2
	Annual Electricity (renewable)	[value]	kWh	Annual Renewable Electricty Resource Value	Interval Frequency = "Annual"	
					Resource Generation = "Renewable"	
					Resource = "Electricity"	
					Resource Value = [value]	kWh

Term	Definition	Data Type	Unit of Measure	Definition Source
Conditioning Status	A description of the state of "conditioning" of a premises or space, where	Constrained List	n/a	LBNL
	Premises are mechanically heated.	*Heated*	n/a	LBNL
	Premises are not mechanically heated.	*Unheated*	n/a	LBNL
	Premises are mechanically cooled.	*Cooled*	n/a	LBNL
	Premises are not mechanically cooled.	*Uncooled*	n/a	LBNL
	Premises are conditioned if mechanically cooled, heated, ventilated, and/or	*Conditioned*	n/a	LBNL
	Premises are partially conditioned by mechanical heating, cooling, ventilation, or	*Semi conditioned*	n/a	LBNL
	Premises are not conditioned by any mechanical cooling, heating, ventilation,	*Unconditioned*	n/a	LBNL
	Premises are ventilated mechanically.	*Ventilated*	n/a	LBNL
	Premises are not ventilated by any means	*Unventilated*	n/a	LBNL
Building Energy Code Or Standard	The name of an energy efficiency code or standard that is applied to building	Constrained List	n/a	LBNL
	American Society of Heating, Refrigeration and Air Conditioning Engineers.	*ASHRAE*		
	The "International Energy Conservation Code IECC" published by the International	*IECC*	n/a	LBNL
	The "Building Energy Efficient Standards for Residential and Nonresidential	*California Title 24*	n/a	LBNL
	The "Standard for the Design of High-Performance Green Buildings, Except Low-	*189.1*	n/a	LBNL
	The "International Green Construct Code (IgCC)" published by the International	*IgCC*	n/a	LBNL
Building Energy Code Or Standard	The version number, such as "90.1" for ASHRAE Standard.	String	n/a	
Building Energy Code Year	Year for the Energy Code or Standard used with the Energy Code term. As the	Year Format from Metadata	n/a	LBNL
Energy Software Tool	A software program that is used in some fashion to calculate the energy	String	n/a	LBNL
Energy Software Tool Version	The release version of the software tool used to calculate energy performance of a	String	n/a	
Sector Classification	The sector classification appropriate for the premises. Also, the sector-appropriate	Constrained List	n/a	LBNL
	Residential designs are meant to accommodate the needs of people residing on	*Residential*	n/a	LBNL
	Commercial designs are meant to accommodate the making of a profit, either	*Commercial*	n/a	LBNL
	Industrial designs are meant to accommodate the making of a profit by providing a	*Industrial*	n/a	LBNL
	Category for any agricultural use	*Agricultural*	n/a	
	Category for any use that is not residential in nature	*Nonresidential*	n/a	
Notes	Brief note on additional information.	String	n/a	LBNL/IEP
Description	A longer text description.	String	n/a	
Equipment Terms				
Efficiency Qualifier	Variations in the quantification of the effectiveness with which equipment, a	Constrained List	n/a	LBNL
	A ratio of energy output to input.	*Efficiency*	n/a	LBNL
	The percentage of the energy to which the cell is exposed to (input resource) that is actually converted into effective energy (output resource) under standard testing conditions. For solar cells, this is calculated by dividing a cell's power output (in watts) at its maximum power point by the input light (in watts per square meter) and the surface area of the solar cell (in square meters).	*Energy conversion*	n/a	LBNL
	Reflectance is the ratio of the energy reflected from the surface of the interface to the total incident energy. There is a reflection of light at the interface between the first layer of a solar cell and the incident medium, usually air, and there is also reflection at the interfaces between the individual layers within the solar cell. All these processes result in a total reflectance between the solar cell and air. This means that a part of the incident energy that can be converted into a usable energy by the solar cell is lost by reflection.	*Reflectance*	n/a	Solar Cells
	The external quantum efficiency of a solar cell is the percentage of photons that are converted to electric current when the cell is operated under short circuit conditions after the reflected and transmitted light has been lost.	*External quantum*	n/a	LBNL

	The fill factor is the ratio of the actual maximum attainable power to the product of	*Fill factor*	n/a	LBNL
	The amount of light (luminous flux) produced by a light source, usually measured	*Efficacy*	n/a	BEDES Beta
	A factor is used to compare the relative efficiency of water heaters, dishwashers,	*Energy factor*	n/a	EPA
	Water Factor, WF, is the quotient of the total weighted per-cycle water consumption, Q, divided by the capacity of the clothes washer, C. The lower the value, the more water efficient the clothes washer is. The equation is: WF = Q/C.	*Water factor*	n/a	ENERGY STAR
	Combined Energy Factor (CEF) is the energy performance metric for clothes dryers; the higher the CEF the more efficient the clothes dryer. CEF is the quotient of the test load size, 8.45 lbs for standard dryers and 3 lbs for compact dryers, C, divided by the sum of the machine electric energy use during standby and operational cycles. The equation is shown here: CEF = C (lbs) / (Eon + Estandby). The units are pounds per kWh, the higher the value, the more efficient the clothes dryer is. lbs/kWh	*Combined energy factor*	n/a	EPA
	Idle energy rate represents the total idle energy consumed by the machine including all tank heaters) and controls, or while maintaining at a stabilized operating condition or temperature such as a thermostat(s) set point during the time period specified. Booster heater (internal or external) energy consumption should not be included. It's measured while equipment is enclosed. Also called standby energy rate. For cooking equipment, the purposes of the idle rate can be normalized based on the area of the (bottom) cooking surface. kWh/hr, Btu/h per ft^2 or W/ft^2	*Idle energy rate*	n/a	EPA
	PUE is a measure of data center infrastructure efficiency, representing the amount of energy that is needed per unit delivered to IT equipment. It is computed as the total annual source energy divided by the annual IT source energy.	*Power usage effectiveness*	n/a	EPA
	The ratio of energy delivered to heat cold water compared to the energy consumed by the water heater, as determined following standardized DOE testing procedure.	*Recovery*	n/a	DOE
	The fraction of total energy transfer between the evaporator coil and air that is associated with sensible capacity (change in air temperature) expressed as a dimensionless value.	*Rated sensible heat ratio*	n/a	LBNL
	~~Indicates how well the motor converts electrical power into mechanical power and is defined as output power divided by input power expressed as a percentage (0-1).~~	~~*Motor*~~	~~n/a~~	~~LBNL~~
	~~A measure of how much power transferred through the drive is lost as heat, expressed as a percentage (0-1).~~	~~*Drive*~~	~~n/a~~	~~LBNL~~
	Rate of heat loss from the recirculation loop when operating. MMBtu/hr	*Recirculation energy loss rate*	n/a	LBNL
	The heat loss coefficient to ambient conditions. Btu/h·ft2·°F	*Off cycle heat loss coefficient*	n/a	LBNL
	Overall annual efficiency of a heating system	*Annual heating*	n/a	LBNL
	Overall annual efficiency of a cooling system	*Annual cooling*	n/a	LBNL
	Efficiency of boiler equipment	*Boiler*	n/a	LBNL
	The measure of how much energy is extracted from the fuel and is the ratio of heat	*Combustion*	n/a	LBNL
	The efficiency of heat transfer between the combustion process and the heated steam, water, or air. (0-1)	*Thermal*	n/a	LBNL
	~~Efficiency of the fan, excluding motor and drive. (Usually between 0 and 1)~~	~~*Fan*~~	~~n/a~~	~~LBNL~~
	Efficiency of sensible heat recovery in percentage.	*Heat recovery*	n/a	LBNL
	The net total energy (sensible plus latent, also called enthalpy) recovered by the	*Energy recovery*	n/a	NREL
	The ratio of accumulated non-active energy divided by battery energy.	*Battery energy ratio*	n/a	LBNL
Efficiency Metric Qualifier	The measure used to quantify efficiency	Constrained List	n/a	LBNL
	Annual fuel utilization efficiency is a thermal efficiency measure of combustion	*AFUE*	n/a	LBNL
	Coefficient of performance - a measure of the amount of power input to a system	*COP*	n/a	LBNL
	Energy efficiency ratio - the ratio of output cooling energy (in BTU) to electrical	*EER*	n/a	LBNL

	Like SEER, this is a measurement of the efficiency of a system and the units are	*HSPF*	n/a	LBNL
	The efficiencies of large industrial air conditioner systems, especially chillers, are	*kW per ton*	n/a	LBNL
	Seasonal energy efficiency ratio - ratio of output cooling energy (in BTU) to	*SEER*	n/a	LBNL
	Integrated Energy Efficiency Ratio (IEER) - This measure expresses cooling part-	*IEER*	n/a	
Efficiency Value	The numeric value associated with an Efficiency Qualifier, given in the associated	Decimal	Dependent on	LBNL
Capacity Qualifier	The capacity refers to the energy or physical load amount that equipment can	Constrained List	n/a	LBNL
	The energy, in watt-hours (Wh), consumed by the battery charger in battery	*Accumulated nonactive energy*	n/a	EPA
	The energy, in watt-hours (Wh), that may be delivered by the battery under	*Battery energy*	n/a	EPA
	Industry standard cell voltage multiplied by the number of cells in the battery pack.	*Nominal voltage*	n/a	EPA
	The equipment's nameplate rated voltage is tested at standard testing conditions	*Rated voltage*	n/a	EPA
	Power load capacity of equipment in the premises, such as total kW of a server	*Connected load*	n/a	
	Amount of heat energy rejected to its surroundings. MMBtu/hr	*Waste heat*	n/a	BuildingSync
	Dimensional size of equipment.	*Size*	n/a	LBNL
	Volume capacity of equipment or asset, such as a pool.	*Volume*	n/a	LBNL
	Equipment nameplate rated capacity	*Rated*	n/a	
	Equipment capacity as measured at full load	*Full Load*	n/a	
Capacity	The capacity value of the associated equipment or system	Decimal	Dependent on	LBNL
Consumption Rate Type	Rate measurement type for resource consumption of the system.	Constrained List	n/a	LBNL
	The nameplate input power is either (a) the input power marked on the nameplate	*Nameplate input power*	n/a	EPA
	Amount of power drawn or supplied by a device under standard operating	*Nominal power*	n/a	LBNL
	Electric power consumed while equipment is switched off or in a standby mode.	*Idle power*	n/a	LBNL
	Peak power exerted by a system.	*Maximum power output*	n/a	LBNL
	The equipment's rated, maximum-power-point power at standard testing	*Rated power*	n/a	LBNL
	The rate of parasitic fuel consumption by heating equipment. Primarily, this will be	*Parasitic fuel*	n/a	LBNL
	Amount of power drawn by a specific lamp.	*Watts per lamp*	n/a	LBNL
	Water use of an equipment which depends on its chosen setting. For instance, the	*Water cycle draw*	n/a	LBNL
	Resource drawn per average cycle of an appliance, such as washer, dryer,	*Energy cycle draw*	n/a	BuildingSync
	Average daily volume of water drawn by the system.	*Daily draw*	n/a	LBNL
	Equipment rated consumption rate (as opposed to rated power)	*Rated consumption*	n/a	
Consumption Rate	Rate at which resource is consumed by the system.	Decimal	Dependent on	LBNL
Percentage Of Total Installed Capacity	Percentage of maximum, peak or rated installed capacity of a system, piece, or set of equipment that is either available or being used.	Decimal	Percent	LBNL
Percentage Of Total Floor Area Served	Percentage of the total floor area within a defined zone that is being served by a	Decimal	Percent	LBNL
Duty Cycle	Percent of time the system operates.	Decimal	Percent	BuildingSync
Quantity	The number of specified units. ~~systems described by this specification, i.e. the multiplier~~	Integer	n/a	LBNL
Quantity Of Units Per System	Number of units in a system. For instance, a photovoltaic system will have a	Integer	n/a	LBNL
Quantity Intensity	The number of entities per unit area. This can be used to represent load densities	Decimal	Dependent on	LBNL
Year Of Manufacture	Year the product was produced and labeled by the manufacturer.	Year Format from Metadata	n/a	LBNL
Manufacturer	Manufacturer of the product.	String	n/a	LBNL
Date	Date	Date	n/a	LBNL
Date Status	~~Status of the associated Date~~ Qualifier for identifying the type of Date value	Constrained List	n/a	LBNL
	Initial creation	*Created*	n/a	
	Last modification	*Modified*	n/a	
		Installed	n/a	
		~~*Collected*~~	~~n/a~~	
		Received	n/a	
		Measured	n/a	
		Start	n/a	

		End	n/a	
		Awarded	n/a	
		Submitted	n/a	
		Reviewed	n/a	
		Due	n/a	
		Invoiced	n/a	
		Approved	n/a	
	Last update	*Updated*	n/a	
	Into effect	*Effective*	n/a	
		~~*Sunset*~~	~~n/a~~	
		~~*Purchased*~~	~~n/a~~	
		Aquired	n/a	
	Obligation agreement	*Committed*	n/a	
		Paid	n/a	
Demand Response Participation	Demand response participation requires changes in electric usage by end-use	Constrained List	n/a	DOE
	This system is used to offset energy consumption during demand response	*Participation*	n/a	LBNL
	This system is not used to offset energy consumption during demand response	*No participation*	n/a	LBNL
Rated Lifetime	Rated life time of operation in number of years.	Decimal	Years	LBNL
Age	Age of premises or equipment in years.	Decimal	Years	LBNL
Useful Life	The expected remaining service life of a component.	TimeDuration	TimeDuration	LBNL
Warranty Duration	The time duration of a warranty for the component	TimeDuration	TimeDuration	
Location	Spatial location or installation location. This can apply to systems, opaque	Constrained List	n/a	LBNL
	A roof structure that forms the exterior upper covering of a premises.	*Roof*	n/a	LBNL
	The area in a building between the above-ground floor and the ground.	*Crawlspace*	n/a	LBNL
	A floor structure usually made of concrete. In the context of Location, a component	*Slab*	n/a	LBNL
	A space allocated for storage or parking of motor vehicles.	*Garage*	n/a	LBNL
	The space above the garage.	*Above garage*	n/a	
	The floor of a building at ground level.	*Ground floor*	n/a	LBNL
	Chamber that supplies conditioned air to the zone	*Supply chamber*	n/a	LBNL
	Chamber to receive the return air	*Return chamber*	n/a	LBNL
	Chamber to receive the return air and mix it with outside air.	*Mixed chamber*	n/a	LBNL
	Used to convey air from a source to the final delivery components	*Duct*	n/a	LBNL
	Terminal units are the ones that provide conditioned air to the zone. Some types	*Terminal*	n/a	LBNL
	The outdoor space that is exposed to outside conditions. This can also be applied	*Exterior*	n/a	LBNL
	The inside space that is not exposed to outside conditions. This can also be	*Interior*	n/a	LBNL
	Located at the meter.	*Meter*	n/a	LBNL
	Space directly under a counter.	*Under counter*	n/a	LBNL
	Located on a conveyer.	*Conveyer*	n/a	LBNL
	Located or can be easily relocated to the location where it is to be used.	*Point of use*	n/a	LBNL
	Space above the ground level.	*Above grade*	n/a	LBNL
	Space below the ground level.	*Below grade*	n/a	LBNL
	Space is partially above ground if any part of it is below grade.	*Partially below grade*	n/a	
	Located on the ground	*On grade*		
	Location designated as an emergency area, such as an assembly area, and exit	*Emergency*	n/a	LBNL
	Location is an entrance for the public.	*Public entrance*	n/a	
	Location is an exit.	*Exit*	n/a	LBNL
	Located at an on-site central plant.	*Central plant on site*	n/a	LBNL
	Located at an off-site central plant.	*Central plant off site*	n/a	LBNL

	Located within air stream, ex. fan motor within air stream.	*Within air stream*	n/a	LBNL
	Located in all zones within a building	*All zones*	n/a	
	Located within the inner core zone of a building	*Core*	n/a	
	The area in a building that is between the finished ceiling and the roof.	*Attic*	n/a	
	The basement floor of a premises can be partly or entirely below ground	*Basement*	n/a	
	Located in an enclosed un-occupied space	*Closet*	n/a	
		~~*Building integrated*~~	~~n/a~~	
	Located above some other element (e.g., ceiling, floor)	*Above*	n/a	
	Located below some other element (e.g., ceiling, floor)	*Below*	n/a	
	Located in a dedicated mechnical room	*Mechanical room*	n/a	
	Located in a dedicated electrical room	*Electrical room*	n/a	
	Located in some other element (e.g., ceiling, floor)	*In*	n/a	
	Located above/below/in some other suspended element	*Suspended*	n/a	
	Located in a common area of multiunit complex	*Common area*	n/a	
	Located within individual units of a multiunit complex	*In unit*	n/a	
Equipment Operational Mode	Operational mode or state of equipment.	Constrained List	n/a	LBNL
	Connected to a power source, activated, receiving a main charge or ready to use,	*On*	n/a	EPA
	Not connected to a power source, produces no function, and cannot be switched	*Off*	n/a	EPA
	Traffic is not passed across ports of equipment. For instance, network data rate is	*Idle*	n/a	EPA
	Traffic is passed across ports of equipment at relatively slow data rate. For	*Low data rate*	n/a	EPA
	Traffic is passed across ports of equipment at a selected reference rate,	*High data rate*	n/a	EPA
	Produces no functional output, but can be switched into another mode with the	*Passive standby*	n/a	EPA
	Produces no functional output, but can be switched into another mode with the	*High activity standby*	n/a	EPA
	Produces no functional output, but can be switched into another mode with the	*Low activity standby*	n/a	EPA
	Actively engaged in system maintenance or download updated functionality after	*Updating*	n/a	EPA
Input Resource Type	Resource or fuel consumed by the system. See Resource type for complete list of	Constrained List	n/a	LBNL
Output Resource Type	Resource or fuel produced by the system and used as energy on the premises.	Constrained List	n/a	LBNL
Equipment Rating	Formalized rating system for a given type of equipment.	Constrained List	n/a	LBNL
	A rating system for equipment sponsored by the U.S. Environmental Protection	*ENERGY STAR*	n/a	*LBNL*
	Part of the EPA Energy Star rating system, which distinguishes products that	*ENERGY STAR Most Efficient*	n/a	*LBNL*
	Federal agencies are required to procure energy-efficient products. The Federal	*FEMP Designated*	n/a	LBNL
	The Consortium for Energy Efficiency (CEE) energy efficiency program. Tier 1	*CEE Tier 1*	n/a	*LBNL*
	The Consortium for Energy Efficiency (CEE) energy efficiency program. Tier 2 and	*CEE Tier 2*	n/a	*LBNL*
	The Consortium for Energy Efficiency (CEE) energy efficiency program. Tier 2	*CEE Tier 3*	n/a	*LBNL*
Priority	Order of priority, for example: configuration of equipment, or priority of contact	Constrained List	n/a	LBNL
	The primary, or first in order of priority. Could also be the majority in capacity or	*Primary*	n/a	LBNL
	The secondary, or second in order of priority.	*Secondary*	n/a	LBNL
	The tertiary, or third in order of priority.	*Tertiary*	n/a	LBNL
	Reserved as a back-up to be operated if necessary.	*Backup*	n/a	LBNL
	Only operated in states of emergency.	*Emergency*	n/a	LBNL
	Operates constantly to identify exits.	*Exit*	n/a	LBNL
	Fourth in order of priority	*Quaternary*	n/a	LBNL
	Redundant	*Redundant*		
Condition	Description of a component's condition.	Constrained List	n/a	LBNL
	Installed or manufactured recently and never used prior, except for quality	*New*	n/a	LBNL
	Failing to function normally or satisfactorily.	*Malfunctioning*	n/a	LBNL
	Failing to function at all.	*Nonfunctional*	n/a	LBNL
	Condition is more than sufficient and in almost new condition.	*Excellent*	n/a	LBNL

	Condition is properly sufficient and less worn than expected for time lapsed since	*Good*	n/a	LBNL
	Condition is sufficient and demonstrates normal wear for time lapsed since	*Average*	n/a	LBNL
	Condition is insufficient and/or is worn more than expected for time lapsed since	*Poor*	n/a	LBNL
	Below average	*Fair*		
	Below poor	*Very poor*		
	The component is already in place, as opposed to New.	*Existing*		
Make	Equipment identification indicating manufacturer and or high-level category of	String	n/a	LBNL
Model Number	Model or catalogue number that can be used to identify more detailed component	String	n/a	LBNL
Serial Number	A unique code assigned for identification of a single unit.	String	n/a	LBNL
Thermal Zone Layout	Type of zoning used for space conditioning	Constrained List	n/a	LBNL
	Zones within a story are defined along exterior walls of similar orientation	*Perimeter*	n/a	LBNL
	Zones within a story are defined along exterior walls of similar orientation, with a	*Perimeter and core*	n/a	LBNL
	Stories are not broken into multiple zones	*Single zone*	n/a	LBNL
Dimensional Terms				
Dimension	A linear measurement in one direction. Can be used to generically describe this	Decimal	ft	LBNL
Length	The longest dimension of an object. This can be used to define the length of any	Decimal	ft	LBNL
Width	The dimension of an object from one side to the other. This can be used to define	Decimal	ft	LBNL
Height	The dimension of an object from the bottom to the top. This can be used to define	Decimal	ft	LBNL
Depth	Dimension of the distance from the front to the back, such as the depth of	Decimal	ft	LBNL
Perimeter	Length of a line forming the boundary around the premises	Decimal	ft	LBNL
Diameter	Diameter of an object	Decimal	ft	
Aspect Ratio	The ratio of width to length, of a premises	Decimal	n/a	LBNL/BEDES-Beta
Spacing	Dimension of the distance between two components.	Decimal	ft	LBNL
Thickness	Dimension of the thickness of a component. Can be used to define overhang	Decimal	ft	LBNL
Offset	Distance from the edge of a surface to another surface or object. Offset can be	Decimal	ft	LBNL
Coordinate	Qualifier for various dimensional terms to clarify the coordinate direction	Constrained List	n/a	
	X coordinate	*X*	n/a	
	Y coordinate	*Y*	n/a	
	Z coordinate	*Z*	n/a	
Area	The space inside the boundary of a 2 dimensional shape. This can be used with	Decimal	ft2	LBNL
Percentage Of Total Area	Percent of a component to the total area of another component. This can be used	Decimal	Percent	LBNL
Volume	The space inside the boundary of a 3 dimensional shape	Decimal	ft3	LBNL
Azimuth	Degrees clockwise from North. For a premises, it is the azimuth of the front facing	Decimal	degrees	LBNL
Cardinal Orientation	Orientation of a surface or premises in terms of the attributes of North, South, East	Constrained List	n/a	LBNL/HPXML
	Lying toward, or facing the north.	*North*	n/a	LBNL
	Lying toward, or facing the northeast.	*Northeast*	n/a	LBNL
	Lying toward, or facing the east.	*East*	n/a	LBNL
	Lying toward, or facing the southeast.	*Southeast*	n/a	LBNL
	Lying toward, or facing the south.	*South*	n/a	LBNL
	Lying toward, or facing the southwest.	*Southwest*	n/a	LBNL
	Lying toward, or facing the west.	*West*	n/a	LBNL
	Lying toward, or facing the northwest.	*Northwest*	n/a	LBNL
Thermal Conductivity	The property of a material to conduct heat. A measure of the ability of a material to	Decimal	Btu/h·ft·°F	ASHRAE
Thermal Conductance	The C-factor, or thermal conductivity, is the heat flux through a flat body induced	Decimal	Btu/h·ft2·°F	ASHRAE
R Value	The R-value, also known as thermal resistance, is a quantity determined by the	Decimal	hr·ft2·°F/Btu	ASHRAE
R Value Per Unit Dimension	The R-value of a material, per inch of thickness	Decimal	(R-value)/in	LBNL
Effective R Value	The R-value of a complete construction including all material layers as well as the	Decimal	hr·ft2·°F/Btu	LBNL
~~**Thermal Resistance**~~	~~Thermal resistance, or R-value, the reciprocal of the time rate of heat flow through~~	~~Decimal~~	~~hr·ft2·°F/Btu~~	~~LBNL~~

U Factor	The thermal transmission in unit time through a unit area of a particular body or	Decimal	Btu/hr·ft2·°F	LBNL
Density	Mass per unit volume.	Decimal	lb/ft3	LBNL
Specific Heat	Ratio of the quantity of heat required to raise the temperature of a given mass of	Decimal	Btu/lb-°F	LBNL
Solar Absorptance	The fraction of incident radiation in the solar spectrum that is absorbed by the	Decimal	n/a	LBNL
Thermal Absorptance	The fraction of incident long wavelength infrared radiation that is absorbed by the	Decimal	n/a	LBNL
Visible Absorptance	The fraction of incident visible wavelength radiation that is absorbed by the	Decimal	n/a	LBNL
Emittance	The capacity of a material to emit radiant energy. The ratio of the radiant flux	Decimal	n/a	LBNL
Luminance	The photometric measure of the luminous intensity per unit area of light travelling	Decimal	cd/m2	EPA
Surface Roughness	A description of the roughness of the exposed surface of a material. This property	Constrained List	n/a	LBNL
	Very rough surfaces such as stucco.	*Very rough*	n/a	IBPSA-USA
	Rough surfaces such as brick.	*Rough*	n/a	IBPSA-USA
	Medium rough surface such as concrete.	*Medium rough*	n/a	IBPSA-USA
	Medium smooth surface such as clear pine.	*Medium smooth*	n/a	IBPSA-USA
	Smooth surface such as smooth plaster.	*Smooth*	n/a	IBPSA-USA
	Very smooth surface such as glass.	*Very smooth*	n/a	IBPSA-USA
Insulation Application	A description of the type of insulation and how it is applied.	Constrained list	n/a	LBNL
	Insulation that is made of material that is not cohesive. Examples are cellulose,	*Loose fill*	n/a	DOE
	Insulation that is made of material that is spun into a flexible cohesive block or	*Batt*	n/a	DOE
	Insulation that can is semi-liquid and can be sprayed into place. Examples include	*Spray on*	n/a	DOE
	Insulation that is made of a solid, rigid material. Examples include foam	*Rigid*	n/a	DOE
	A water heater jacket, or blanket, is made of insulation contained in sheet plastic	*Insulation jacket*	n/a	LBNL
	Insulation is installed	*Insulated*	n/a	
	Insulation is not installed	*Not insulated*	n/a	
	Insulation is moveable	*Moveable insulation*	n/a	
Insulation Continuity	Insulation installation type.	Constrained list	n/a	LBNL
	A continuous layer of insulation that avoids thermal bridging.	*Continuous*	n/a	LBNL
	Insulation installed in surface cavities, possibly with thermal bridging due to breaks	*Cavity*	n/a	LBNL
Exposure	Exposure of a material or surface. See the Location term for a complete list of	Constrained List	n/a	LBNL
Color	Color of a material or component. Can be applied to opaque surfaces, materials,	Constrained List	n/a	LBNL
		~~*Reflective*~~		
	White is the color of milk or fresh snow, due to the reflection of most wavelengths	*White*	n/a	LBNL
	Light shade almost white, off-white, or pale in color.	*Light*	n/a	LBNL
	Medium shade of color, not considered dark or pale.	*Medium*	n/a	LBNL
	Medium dark shade of color, closer to dark than medium.	*Medium dark*	n/a	LBNL
	Black or near black shade of color.	*Dark*	n/a	LBNL
Tilt Description	A descriptive value for tilt, when an exact numeric angle is not known.	Constrained List	n/a	LBNL
	The component has a tilt of zero.	*Flat*	n/a	LBNL
	The component has a non-zero value for tilt. This will be somewhat subjective, and	*Sloped*	n/a	LBNL
	A tilt that is more than a tilt represented by a rise of 2 units for a length of 12 units.	*Greater than 2 to 12*	n/a	LBNL
	A tilt that is less than a tilt represented by a rise of 2 units for a length of 12 units.	*Less than 2 to 12*	n/a	LBNL
Tilt Angle	The angle from a horizontal surface; can be applied to an opaque surface, a	Decimal	degrees	LBNL
Value	Generic holder for numeric value characterized by atomic qualifiers	Decimal	Dependent on Quali	LBNL

Term	Definition	Data Type	Unit of Measure	Definition Source
Identifications				
Identifier Label	Identifier qualifier used in a specific program or dataset. There can be multiple	Constrained List	n/a	LBNL/BEDES Beta
	Identifier for a given premises. A premises can be any part of a building or land,	*Premises*	n/a	LBNL/BEDES Beta
	Identifier for a project.	*Project*	n/a	
	Identifier for an account.	*Account*	n/a	
	Identifier for a bill.	*Bill*	n/a	
	Identifier for a vendor.	*Vendor*	n/a	
	Identifier for a meter	*Meter*	n/a	
	Identifier for a listing. The Listing Identifier is intended to be the value used by a	*Listing*	n/a	RETS
	Name identifier rather than a unique alphanumeric identifier	*Name*	n/a	LBNL
	A unique identifier assigned by EPA's Portfolio Manager program to each	*Portfolio manager property*	n/a	ESPM
	Federal real property identifier, required to designate a facility as a federal	*Federal real property*	n/a	LBNL/BEDES Beta
	Some systems of parcel identification incorporate a method which utilizes a	*Tax book number*	n/a	RETS
	Some systems of parcel identification incorporate a method which utilizes a	*Tax map number*	n/a	RETS
	A number used to uniquely identify a parcel or lot. This number is typically issued	*Assessor parcel number*	n/a	RETS
	Some systems of parcel identification incorporate a method which utilizes a	*Tax parcel letter*	n/a	RETS
	A type of legal description for land in developed areas where streets or other	*Tax lot*	n/a	RETS
	A type of legal description for land in developed areas where streets or other	*Tax block*	n/a	RETS
	A type of legal description for land in developed areas where streets or other	*Tax tract*	n/a	RETS
	A 14-digit County District School code is the official, unique identification of a	*County district school code*	n/a	
	Project or activity task order identifier	*Task order*	n/a	
	Contract identifier	*Contract*	n/a	
	Version identifier	*Version*	n/a	
	Program identifier	*Program*	n/a	
	Small, relatively permanent statistical subdivisions of a county or equivalent entity	*Census tract*	n/a	
Identifier	A unique value associated with an Identifier Label or other qualifier.	String	n/a	LBNL
Premises Level	Level category of the premises with respect to all premises pertaining to a unique	Constrained List	n/a	LBNL
	Principal or overall level.	*Primary*	n/a	LBNL
	A subspace of a primary premises. Examples of components are: HVAC zones,	*Component*	n/a	LBNL
	A space utilized as a supporting element of a larger premises, such as the lobby	*Sub component*	n/a	LBNL
	Site refers to the land on which the premises is built	*Site*	n/a	LBNL
	A campus is comprised of multiple buildings served by a single electric meter or	*Campus*	n/a	LBNL
	A building is a single structure wholly or partially enclosed within exterior walls, or	*Building*	n/a	LBNL
	An area is a section within a building that serves a specific activity and could	*Area*	n/a	LBNL
	A space is a section within a building or area that aids the primary activity and	*Space*	n/a	LBNL
	Thermal zone is a space or group of spaces within a building with heating and	*Thermal zone*	n/a	LBNL
Occupant Information				
Occupancy Classification	Utilization of premises by building occupants. Can be used to describe a	Constrained List	n/a	LBNL
	A private area is an area for exclusive use by authorized persons only, and may	*Private area*	n/a	RESO
	Manufactured homes are prefabricated somewhere other than the current site.	*Manufactured home*	n/a	LBNL
	Housing units created in an existing residential or nonresidential premises.	*Single family*	n/a	LBNL
	Multifamily housing premises of any configuration.	*Multifamily*	n/a	LBNL
	Multifamily units in building premises created in an existing commercial structure	*Multifamily with commercial*	n/a	LBNL
	Premises is a unit within a multi-family structure, such as condominiums and	*Multifamily individual unit*	n/a	LBNL
	~~Residential premises.~~	~~*Residential*~~	~~n/a~~	~~LBNL~~
		~~*Commercial*~~	~~n/a~~	
	Health care premises where medication is prepared, dispensed and/or sold.	*Health care pharmacy*	n/a	LBNL

	A commercial live-in premises for special care needs including senior care	*Health care skilled nursing facility*	n/a	BEDES-Beta/ESPM
	A residential live-in Health care premises providing therapy for substance abuse,	*Health care residential treatment*	n/a	LBNL
	A commercial Health care premises that provides temporary to long-term	*Health care inpatient hospital*	n/a	BEDES-Beta/ESPM
	A commercial Health care premises providing outpatient rehabilitation and	*Health care outpatient rehabilitation*	n/a	BEDES-
	A commercial Health care premises using diagnostic medical equipment serving	*Health care diagnostic center*	n/a	LBNL
	Premises that include medical office, urgent care, and outpatient clinics.	*Health care outpatient non diagnostic*	n/a	BEDES-Beta/ESPM
	Premises that include ambulatory surgical center.	*Health care outpatient surgical*	n/a	ESPM
	Premises that provides services for the prevention, diagnosis, treatment, and	*Health care veterinary*	n/a	ESPM/CENSUS/NAIC
	Premises that is used for the storage of human corpses awaiting identification, or	*Health care morgue or mortuary*	n/a	LBNL
	Premises that host heath care services for the maintenance and improvement of	*Health care*	n/a	LBNL
	Convenience food store and gas station premises that sells food mart items and	*Gas station*	n/a	BEDES-
	Convenience food store or food mart premises, excluding gas stations, that are	*Convenience store*	n/a	BEDES-
	Supermarkets, grocery stores, gourmet food stores, and food super stores that	*Food sales grocery store*	n/a	BEDES-
	Premises that primarily sells food products and services but may sell other non-	*Food sales*	n/a	LBNL
	Laboratory premises that have physical, chemical, and other analytical testing	*Laboratory testing*	n/a	BEDES-
	Laboratory premises providing analytic or diagnostic services generally to the	*Laboratory medical*	n/a	LBNL
	A laboratory premises with unspecified function.	*Laboratory*	n/a	LBNL
	A premises adapted or prepared for keeping animals under semi-natural	*Vivarium*	n/a	LBNL
	Administrative and professional office premises that manage other	*Office*	n/a	LBNL
	Bank office premises that provide trust, fiduciary, and custody services to others	*Bank*	n/a	BEDES-
	Court premises for public safety including civilian courts, courts of law, and	*Courthouse*	n/a	BEDES-
	Premises for criminal and civil law enforcement and other activities related to the	*Public safety station*	n/a	BEDES-
	Short-term detention center premises for the confinement, correction, and	*Public safety detention center*	n/a	BEDES-Beta/NAICS
	Long-term corrections facility premises for the confinement, correction, and	*Public safety correctional facility*	n/a	BEDES-
	Government or non-government premises for public safety activities such as	*Public safety*	n/a	BEDES-Beta/NAICS
	Premises with refrigerated warehousing and storage facilities that provide	*Warehouse refrigerated*	n/a	BEDES-
	Premises with warehousing and storage facilities excluding refrigerated spaces,	*Warehouse unrefrigerated*	n/a	BEDES-
	Self-storage providing secure premises where clients can store and retrieve their	*Warehouse self storage*	n/a	BEDES-
	Premises with warehousing and storage facilities excluding refrigerated spaces	*Warehouse*	n/a	LBNL
	Religious public assembly premises including funeral parlors, churches,	*Assembly religious*	n/a	BEDES-
	Cultural entertainment premises including museums, libraries, and galleries.	*Assembly cultural entertainment*	n/a	BEDES-Beta/ESPM
	Social entertainment premises include movie theater, non-food-serving venues	*Assembly social entertainment*	n/a	LBNL
	Premises that offers table games along with other activities, such as arcade	*Assembly arcade or casino without*	n/a	ESPM
	Enclosed premises that are leased or rented, including auditoriums, banquet	*Assembly convention center*	n/a	BEDES-
	Open or enclosed premises including arenas, stadiums, and race tracks, and	*Assembly stadium*	n/a	BEDES-
	Indoor or outdoor premises operating a public or nonpublic event.	*Assembly* ~~public~~	n/a	BEDES-Beta/CAST
	Indoor or outdoor recreation premises for swimming or wave pool for fitness or	*Recreation pool*	n/a	BEDES-
	Fitness center premises for active physical fitness conditioning including aerobic	*Recreation fitness center*	n/a	ESPM/NAICS
	Ice rink premises such as gyms, health clubs, training facilities and ice skating	*Recreation ice rink*	n/a	ESPM/NAICS
	Indoor sport premises for aerobic dance or exercise centers including handball	*Recreation indoor sport*	n/a	ESPM/NAICS
	Recreation premises including roller skating rinks, climbing gym, bowling alleys,	*Recreation*	n/a	BEDES-
	Higher education premises including community college, junior college,	*Education higher*	n/a	BEDES-
	Secondary education premises including secondary school, junior high school,	*Education secondary*	n/a	BEDES-
	Primary education premises including primary school, elementary school, and	*Education primary*	n/a	BEDES-Beta
	Preschool education premises including preschool or daycare. Also includes	*Education preschool or daycare*	n/a	LBNL
	School premises for educational purposes.	*Education*	n/a	BEDES-
	Fast food service premises including pizza delivery and take-out shops, take-out	*Food service fast*	n/a	Food Service Survey
	Food service premises which include full waiter/waitress service including diner,	*Food service full*	n/a	Food Service Survey

	Establishments typically without waiter/waitress service in which patrons	*Food service limited*	n/a	Food Service Survey
	An establishment other than full-service or limited-service that serves food, either	*Food service institutional*	n/a	Food Service Survey
	Any premises serving food.	*Food service*	n/a	BEDES-
	Lodging premises including student housing, dormitory, residence hall, fraternity,	*Lodging institutional*	n/a	BEDES-
	Lodging premises including hotels and resort.	*Lodging with extended amenities*	n/a	BEDES-Beta/ESPM/NAICS
	Lodging premises including motels, lodges, inns, camps, cabins, and cottages.	*Lodging with limited amenities*	n/a	BEDES-
	Lodging premises with unconventional or temporary housing type such as a bed	*Lodging*	n/a	BEDES-
	Premises located in one or more buildings comprised of small to large retailers,	*Retail mall*	n/a	LBNL
	An open shopping mall premises that has multiple retail buildings and other	*Retail strip mall*	n/a	BEDES-Beta/ESPM
	A shopping mall premises located in one or more buildings of retailers with	*Retail enclosed mall*	n/a	BEDES-Beta/ESPM
	Individual retail store within a mall or stand-alone that does not sell groceries,	*Retail dry goods retail*	n/a	BEDES-
	Retailer supplying a wide range of products including groceries.	*Retail* supermarket ~~hypermarket~~	n/a	BEDES-Beta/ESPM
	Premises include retailing merchandise such as furniture and home furnishings	*Retail*	n/a	BEDES-Beta
	Premises for mail services that include collection, pick-up, and delivery	*Service postal*	n/a	BEDES-
	Premises for repair services of automotive, appliances, and equipment.	*Service repair*	n/a	LBNL
	Dry cleaning services and laundering services, including coin-operated, that	*Service laundry or dry cleaning*	n/a	NAICS
	A workshop or studio used by an artist, photographer, sculptor, performer, etc.	*Service studio*	n/a	LBNL
	Premises with beauty services including barber shops, hair stylist shops, facial	*Service beauty and health*	n/a	NAICS
	Premises with services for the production of paper products, tailoring, and flower	*Service production and assembly*	n/a	LBNL
	These establishments may provide general services on the premises.	*Service*	n/a	BEDES-Beta/ESPM
	A terminal premises where freight and passengers either departs, arrives, or is	*Transportation terminal*	n/a	LBNL
	A central plant is the energy center of a campus, producing and distributing	*Central plant*	n/a	LBNL
	Wastewater Treatment Plant refers to facilities designed to treat municipal	*Water treatment wastewater*	n/a	ESPM
	Drinking Water Treatment and Distribution refers to premises designed to pump	*Water treatment drinking water and*	n/a	ESPM
	Premises with operating water treatment plants including pumping stations,	*Water treatment*	n/a	EPA
	A premises with a facility designed to produce electric energy from another form	*Energy generation plant*	n/a	OSHA
	A premises with a manufacturing production facility of merchandise using labor,	*Industrial manufacturing plant*	n/a	LBNL
	A premises providing services for the public such as electricity, natural gas,	*Utility*	n/a	CPUC
	Industrial premises including food processing, manufacturing, high tech, metal	*Industrial*	n/a	LBNL
	Premises accommodating dairy farms, cattle ranch, and farms.	*Agricultural estate*	n/a	LBNL
	A commercial premises includes non-manufacturing business establishments	*Mixed use commercial*	n/a	LBNL
	Enclosed, partially enclosed, or open parking premises including attached	*Parking*	n/a	ASHRAE
	A space located below the pitched roof of a residential house or other building.	*Attic*	n/a	LBNL
	Finished, partially-finished, or unfinished.	*Basement*	n/a	LBNL
	A dining room is a room in a residential house for consuming food.	*Dining area*	n/a	LBNL
	A living room is a room in a residential house for relaxing and socializing.	*Living area*	n/a	LBNL
	A sleeping area is a room where people sleep such as a bedroom.	*Sleeping area*	n/a	LBNL
	A laundry area is a room or area where clothes are washed and might include a	*Laundry area*	n/a	LBNL
	A lodging area that is not common to all guests or occupants. For example guest	*Lodging area*	n/a	LBNL
	A dressing area is a room or area designated for changing one's clothes in a	*Dressing area*	n/a	LBNL
	A bathroom is a room containing one, sometimes two toilet fixtures, and a bath	*Bathroom*		
	A restroom is a room or small building containing one or more toilets and/or	*Restroom*	n/a	LBNL
	An auditorium is a large room that enables an audience to hear and watch	*Auditorium*	n/a	LBNL
	A classroom is a room for learning purposes in all types of educational institution	*Classroom*	n/a	LBNL
	A day room, common room, or communal room is a shared lounge area for	*Day room*	n/a	LBNL
	A room for sports, recreation or playing.	*Sport play area*	n/a	LBNL
	A stage is a designated space for the performance of productions, such as music	*Stage*	n/a	LBNL

	A spectator area is a space where the audience may observe, sitting or standing,	*Spectator area*	n/a	LBNL
	An office work area is a room or area where administrative work is performed.	*Office work area*	n/a	LBNL
	A non-office work area is a shared area for administrative work and job duties	*Non office work area*	n/a	LBNL
	A common area is an area for use by more than one person, and often exist in	*Common area*	n/a	LBNL
	A reception area is a space for hospitality after a main event such as a wedding	*Reception area*	n/a	LBNL
	A waiting area is a space where people sit or stand until an event begins and	*Waiting area*	n/a	LBNL
	A transportation waiting area is a space where people wait until an arrival or	*Transportation waiting area*	n/a	LBNL
	A lobby, foyer or entrance hall is an area often located at the entrance of a	*Lobby*	n/a	LBNL
	A conference room is a room provided for an event such as a conference and	*Conference room*	n/a	LBNL
	A computer lab is for computer use and might have printers and scanners that	*Computer lab*	n/a	LBNL
	A data center is a place that houses computer systems and backup power supply,	*Data center*	n/a	LBNL
	A printing room is an area where printing takes place, such as the development	*Printing room*	n/a	LBNL
	A media center is place for researching, viewing and producing a wide range of	*Media center*	n/a	LBNL
	A telephone data entry is a place where services include data entry from	*Telephone data entry*	n/a	LBNL
	A darkroom is an area that can be made dark for the processing of light-sensitive	*Darkroom*	n/a	LBNL
	A courtroom is a space where a judge holds court hearings.	*Courtroom*	n/a	LBNL
	A kitchen is an area for cooking and food preparation, and might include a stove,	*Kitchen*	n/a	LBNL
	A kitchenette is a smaller area than a kitchen for a small refrigerator, a	*Kitchenette*	n/a	LBNL
	Refrigeration is a process in which work is done to move heat from one location	*Refrigerated storage*	n/a	LBNL
	A bar is a counter across which alcoholic drinks or refreshments are served, the	*Bar*	n/a	LBNL
	The dance floor is clear of all furniture so patrons may have room to dance or	*Dance floor*	n/a	LBNL
	A security room houses safety and security equipment as well as personnel.	*Security room*	n/a	LBNL
	Shipping and receiving premises include loading or unloading docks and	*Shipping and receiving*	n/a	LBNL
	The mechanical room is dedicated to the mechanical equipment and its	*Mechanical room*	n/a	LBNL
	Chemical storage rooms follow chemical storage guidelines to protect building	*Chemical storage room*	n/a	LBNL
	Non-chemical storage rooms are pantries, closets, etc.	*Non chemical storage room*	n/a	LBNL
	Janitorial closets are for storage of janitorial supplies and can also including	*Janitorial closet*	n/a	LBNL
		Recycle center		
	A vault is a chamber used for storage of precious property.	*Vault*	n/a	LBNL
	A corridor is a long passage in a building from which doors lead into rooms.	*Corridor*	n/a	LBNL
	A deck is a structure of planks or plates, approximately horizontal, extending out	*Deck*	n/a	LBNL
	A courtyard is an unroofed area that is completely or mostly enclosed by the walls	*Courtyard*	n/a	LBNL
	An atrium is a large open space located within a building, extending several	*Atrium*	n/a	LBNL
	Housing premises provided by public agency.	*Public housing*	n/a	
Market Threshold	Purchase pricing threshold within which a property falls	Constrained List	n/a	CPUC
	A property with an affordability deed restriction to preserve it as a low- and	*Affordable housing*	n/a	CPUC
	A property rated as luxury	*Luxury*	n/a	CPUC
	A market rate property	*Market rate*	n/a	CPUC
NAICS Code	North American Industry Classification System code.	String	n/a	BEDES-Beta
Ownership Intention	A list of the type(s) of possible or best uses of the premises. Probable use gives	Constrained List	n/a	BEDES-Beta
	The premises is a primary place of residence or business.	*Primary*	n/a	LBNL
	The premises is only occupied during vacation periods.	*Vacation*	n/a	LBNL
	The premises was purchased as an investment, which can be a long-term	*Investment*	n/a	LBNL
	The premises is available for or being rented.	*Rental*	n/a	LBNL
	The premises will be occupied during the years of retirement.	*Retirement*	n/a	LBNL
	A cooperative, or co-op, is legally owned and shared by all occupants in the	*Cooperative*	n/a	LBNL
Occupant Type	Type of occupants who are permanently resident in a premises.	Constrained List	n/a	BEDES-Beta
	Legal owner of a premises	*Owner*	n/a	

	Occupant who occupies land or property rented from a landlord	*Tenant*	n/a	
		~~*Owner and renter*~~	~~n/a~~	
	A family consisting of two parents and children.	*Family household*	n/a	BEDES-Beta
	A married couple with no children,	*Married couple no children*	n/a	BEDES-Beta
	A male parent with children and no spouse.	*Male householder no spouse*	n/a	BEDES-Beta
	A female parent with children and no spouse.	*Female householder no spouse*	n/a	BEDES-Beta
	Persons under the age of 18.	*Children*		
	A household of people living together like a family but not in legal relationships or	*Cooperative household*	n/a	BEDES-Beta
	A nonfamily household consists of a householder living alone (a one-person	*Nonfamily household*	n/a	US Census
	One adult male who has never-married, is widowed, or divorced, and living alone.	*Single male*	n/a	US Census
	One adult female who has never-married, is widowed, or divorced, and living	*Single female*	n/a	US Census
	Occupants are exclusively students and associated staff.	*Student community*	n/a	BEDES-Beta
	Occupants are exclusively military personnel and associated staff.	*Military community*	n/a	BEDES-Beta
	Occupants are seniors aged 55 or older who do not require health-related care.	*Independent seniors community*	n/a	BEDES-Beta
	Occupants have special accessibility needs that are met by the design of the	*Special accessibility needs*	n/a	BEDES-Beta
	Occupants participate in subsidized housing, a government sponsored economic	*Government subsidized community*	n/a	BEDES-Beta
	Occupants participate in a group-based approach to to long-term psychotherapy	*Therapeutic community*	n/a	BEDES-Beta
	Occupants do not belong to a specific classification.	*No specific occupant type*	n/a	BEDES-Beta
	Occupants are employees of an organization seeking profit from business	*For profit organization*	n/a	BEDES-Beta
	Occupants are members of a religion-supporting organization.	*Religious organization*	n/a	BEDES-Beta
	Occupants are members or employees of an organization seeking to provide a	*Non profit organization*	n/a	BEDES-Beta
	Occupants are members or employees of a government-sponsored organization.	*Government organization*	n/a	BEDES-Beta
	Occupants are members or employees of the federal government.	*Federal government*	n/a	BEDES-Beta
	Occupants are members or employees of state government.	*State government*	n/a	BEDES-Beta
	Occupants are members or employees of local government.	*Local government*	n/a	BEDES-Beta
	The premises is meant to provide shelter to property rather than people.	*Property*	n/a	LBNL
	The premises is meant to provide shelter to animals rather than people.	*Animals*	n/a	LBNL
Occupant Income Range	Annual income of the household occupants	Constrained List	n/a	BEDES-Beta
	Lowest fifth, or the bottom 20% of the population income distribution.	*Lowest fifth*	n/a	BEDES-Beta
	Second fifth, or the income between 20% and 40% of the population income	*Second fifth*	n/a	BEDES-Beta
	Middle fifth, or the income between 40% and 60% of the population income	*Middle fifth*	n/a	BEDES-Beta
	Fourth fifth, or the income between 60% and 80% of the population income	*Fourth fifth*	n/a	BEDES-Beta
	Highest fifth, or the top 20% of the population income distribution.	*Highest fifth*	n/a	BEDES-Beta
	The top 5% of the income distribution.	*Top 5 percent*	n/a	BEDES-Beta
Highest Level Of Occupant	Highest education level of the household occupants.	Constrained List	n/a	BEDES-Beta
	Occupant received no amount of high school education for grades 9-12.	*No high school*	n/a	BEDES-Beta
	Occupant received a partial high school education, grades 9-12, but not enough	*Some high school*	n/a	BEDES-Beta
	Occupant completed a high school education, grades 9-12, and received a high	*High school graduate*	n/a	BEDES-Beta
	Occupant received some college education beyond high school, but did not	*Some college*	n/a	BEDES-Beta
	Occupant completed a training through a vocational or technical program, and/or	*Vocational technical associates*	n/a	BEDES-Beta
	Occupant completed an undergraduate college education and received a	*Bachelor degree*	n/a	BEDES-Beta
	Occupant received some post-graduate education but did not complete a	*Some postgraduate*	n/a	BEDES-Beta
	Occupant completed a postgraduate program and received a Master's degree.	*Masters degree*	n/a	BEDES-Beta
	Occupant completed a professional degree, which follows education for a	*Professional degree*	n/a	BEDES-Beta
	Occupant completed a graduate program and received a doctoral degree, or	*Doctoral degree*	n/a	BEDES-Beta
Occupant Quantity Type	Type of quantitative measure for capturing occupant information about the	Constrained List	n/a	
	Average number of occupants during the peak occupancy, including	*Peak total occupants*	n/a	
	Number of people over the age of 18 residing in the premises at least 50% of the	*Adults*	n/a	

	Number of people under the age of 18 residing in the premises at least 50% of	*Children*	n/a	
	Average number of residents at any one time.	*Average residents*	n/a	ENERGY STAR
	Total number of workers present during the primary shift. This is not a total count	*Workers on main shift*	n/a	
	Full time equivalent (FTE) workers is the total number of hours worked by all	*Full time equivalent workers*	n/a	
	~~Part~~Less that full time workers	*Part time workers*	n/a	
	Cumulative number of hours per day worked by all salaried employees (e.g.,	*Average daily salaried labor hours*	n/a	
	Number of students registered in the educational facility.	*Registered students*	n/a	
		~~*Staffed beds*~~	~~n/a~~	
	Number of beds for which a health care facility has a license to operate.	*Licensed beds*	n/a	
	Seating capacity of a restaurant, theater, classroom, etc.	*Capacity*	n/a	
	A percentage reflecting the occupancy level of the property. The occupancy is	*Capacity percentage*	n/a	
	Transient occupant, guest, visitor, etc.	*Transient occupant*		
	Permanent occupant	*Permanent occupant*		
Occupied Status	The condition of the premises relative to being occupied by people.	Constrained List	n/a	LBNL
	Occupied by the primary occupant type for this premises: people, property, or	*Occupied*	n/a	LBNL
	Not occupied by the primary occupant type for this premises.	*Vacant*	n/a	LBNL
Occupant Activity Level	The activity level that drives the amount of internal gains due to occupants.	Constrained List	n/a	ASHRAE
	Corresponds to typical office/retail work. Sensible load 250 Btu/hr, Latent load	*Low*	n/a	
	Corresponds to heavier factory work or gymnasiums. Sensible load 580 Btu/hr,	*High*	n/a	
Construction Characteristics				
Construction Status	Indicates whether the premises is in design or in existing operation.	Constrained List	n/a	LBNL/AIA
	Project goals and execution framework are established and big ideas are	*Conceptual design*	n/a	LBNL/AIA
	Conceptual design is refined to illustrate scales and relationships between project	*Schematic design*	n/a	LBNL/AIA
	Drawings for the site, building plans and elevations are further developed, along	*Design development*	n/a	LBNL/AIA
	Mechanical, electrical, plumbing, fire protection and other building systems are	*Construction documents*	n/a	LBNL/AIA
	Construction proceeds based on the detailed construction plan. Addendums and	*Construction administration*	n/a	LBNL/AIA
	Construction is completed and the premises has been commissioned and	*Completed*	n/a	
	Construction is complete and the building is occupied. Actual operational	*Occupancy*	n/a	LBNL/AIA
Construction Status Date	Date when the construction status first applied.	Date Format from Metadata	n/a	
Floor Area Qualifier	Floor area can be defined and described in many different ways for different	Constrained List	n/a	LBNL
	The sum of the floor areas of all the spaces within the premises with no	*Gross*	n/a	ASHRAE 105-2007
	Gross floor area, excluding the area occupied by walls and partitions, the	*Net*	n/a	BEDES-Beta
	The total horizontal area of the vertical span of the premises.	*Footprint*	n/a	LBNL/BEDES-Beta
	Floor area that is being rented or is for rent.	*Rentable*	n/a	BEDES-Beta
	Floor area usable for some specific purpose	*Usable*	n/a	
	Floor area that is sellable	*Sellable*	n/a	
	Floor area that is served by some system or service	*Served*	n/a	
Finished Status	The condition of the premises relative to the amount of work that has been done	Constrained List	n/a	
	To be considered finished, the premises must meet three of the following criteria:	*Finished*	n/a	LBNL
	At least one, but not all of the criteria for a finished premises apply: be heated,	*Partially finished*	n/a	LBNL
	The premises does not meet any of the criteria to be considered finished: be	*Unfinished*	n/a	LBNL
Lighting Status	Description of the how much of the premises is illuminated by daylight during the	Constrained List	n/a	LBNL
	Over 50% of the premises is daylit.	*Substantial daylighting*	n/a	LBNL
	The perimeter (15' to 30' into the space from the facade) is daylit.	*Perimeter daylighting*	n/a	LBNL
	Portions of the premises are daylit, but it is less than 50% of the total premises	*Partial daylighting*	n/a	LBNL
	Primary lighting source is artificial.	*Artificial lighting*	n/a	LBNL
Premises Enclosure	Classification of the enclosure of the premises.	Constrained List	n/a	LBNL
	Premises is completely enclosed by walls, including windows that can be shut,	*Enclosed*	n/a	LBNL

	Premises is not completely enclosed but has a roof and no walls, or only partial	*Non enclosed*	n/a	LBNL
	Premises does not have a roof but may have some walls or partial walls.	*Open*	n/a	LBNL
Height Distribution	Description of height variations in the premises.	Constrained List	n/a	LBNL
	The premises has sections with different numbers of floors.	*Multiple heights*	n/a	LBNL
	The premises has variable height due to grade or roof tilt.	*Variable height*	n/a	LBNL
	The premises has the same number of floors in all sections.	*Uniform height*	n/a	LBNL
Spatial Unit Type	Unit type within the premises.	Constrained List	n/a	LBNL
	Land properties are often sold with multiple land lots.	*Lot*	n/a	
	Designated parking spaces drawn on parking premises.	*Parking space*	n/a	LBNL
	Individual units in multifamily housing that are rented or sold separately.	*Apartment unit*	n/a	LBNL
	Individual business operating in the premises.	*Business*	n/a	LBNL
	Individual guest rooms available for occupation. Rooms that have double	*Guest room*	n/a	LBNL
	Individual stations on the premises, such as workstations in a manufacturer,	*Station*	n/a	LBNL
	A building is a single structure wholly or partially enclosed within exterior walls, or	*Building*	n/a	LBNL
	An area is a section within a building that serves a specific activity and could	*Area*	n/a	LBNL
	Thermal zone is a space or group of spaces within a building with heating and	*Thermal zone*	n/a	LBNL
	Stories or floors made up of spaces that are all on the same level.	*Floor*	n/a	
	Rooms refers to subdivisions of a housing unit. Whole rooms are rooms such as	*Room*	n/a	
	Bedrooms are rooms that are intended for sleeping, even if not presently used for	*Bedroom*	n/a	
	Public room or small building containing one or more toilets and/or urinals	*Restroom*	n/a	
	Generic unit type	*Unit*	n/a	
	Charging station for electric vehicles	*Electric vehicle charging station*	n/a	
Water Fixture Type	A water fixture is an exchangeable device which can be connected to a plumbing	Constrained List	n/a	
	Toilet fixtures including latrines, urinals, and bidets.	*Toilet*	n/a	
	Bath fixtures including showers and tubs.	*Bath*	n/a	
	Kitchen or bathroom fixture with basin and drain	*Sink*	n/a	
	Drinking fountain fixture	*Drinking fountain*	n/a	
	Landscape watering fixture	*Landscape*	n/a	
	Hydroponic loop fixture	*Hydroponic loop*	n/a	
Floor Height Measurement	The method for measuring each floor level, or story, in a premises.	Constrained List	n/a	
	Floor height is measured from the top of the floor to the surface of the ceiling.	*Floor to ceiling height*	n/a	
	Floor height is measured from the top of the floor to the top of the floor above.	*Floor to floor height*	n/a	
Assessment Program				
Assessment Program	Program which issues energy labels, ratings, or sustainability certifications.	Constrained List	n/a	BEDES-Beta
	The US federal government-backed symbol for energy efficiency, providing	*ENERGY STAR*	n/a	
	EPA ENERGY STAR Certified Homes is a set of optional construction practices	*ENERGY STAR Certified Homes*	n/a	RESO
	Leadership in Energy & Environmental Design (LEED) is a green building	*LEED*	n/a	
	Buildings Performance Institute BPI- 2101 Standard Requirements for a	*Home Energy Upgrade Certificate of*	n/a	
	Buildings Performance Institute BPI- 2101 Standard Requirements for a	*Home Energy Upgrade Certificate of*	n/a	
	Local programs verify homes designed for ultra-low energy use.	*Passive House*	n/a	BEDES-Beta
	The Living Building Challenge(TM) is a building certification program, advocacy	*Living Building Challenge*	n/a	RESO
	Green Globes is a green building rating and certification tool, developed by ECD	*Green Globes*	n/a	
	DOE Challenge Home program is a voluntary set of building guidelines designed	*Challenge Home*	n/a	
	EPA WaterSense is a set of optional construction practices and technologies	*WaterSense*	n/a	BEDES-Beta
	EPA Indoor airPLUS is a set of optional construction practices and technologies	*Indoor airPLUS*	n/a	BEDES-Beta
	National Green Building Standard certification program based on the ICC 700	*NGBS ICC 700*	n/a	BEDES-Beta
	The Capital Markets Partnership (CMP) Green Value Score focuses solely on the	*CMP Green Value Score*	n/a	
	The HERS (Home Energy Rating System) Index is the nationally recognized	*RESNET HERS*	n/a	RESO

	The Home Energy Score, managed by the US DOE, is a national system that	*Home Energy Score*	n/a	RESO
	Building Energy Quotient (bEQ) is a building energy rating program that provides	*ASHRAE Building EQ*	n/a	
	The Commercial Building Energy Asset Score is a national standard for a	*Commercial Building Energy Asset*	n/a	
	Energy Star Portfolio Manager Statement of Energy Performance (SEP)	*Statement of Energy Performance*	n/a	
	The WELL Building Standard marries best practices in design and construction	*WELL*	n/a	WELL Building
Assessment Recognition	Different rating systems within an Assessment Program.	Constrained List	n/a	
	LEED certification for neighborhood development practices. Applies to new land	*LEED Certification Neighborhood*	n/a	
	LEED certification for homes	*LEED Certification for Homes*	n/a	BEDES-Beta
	Addresses design and construction activities for both new buildings and major	*LEED Certification for New*	n/a	BEDES-Beta
	For projects where the developer controls the design and construction of the	*LEED Certification for Core and Shell*	n/a	BEDES-Beta
	For interior spaces dedicated to functions other than retail or hospitality.	*LEED Certification for Commercial*	n/a	BEDES-Beta
	Applies to existing buildings that are undergoing improvement work or little to no	*LEED Certification For Existing*	n/a	BEDES-Beta
	The ICC 700 National Green Building Standard™ (NGBS) provides practices for	*NGBS ICC 700 Multifamily*	n/a	Home Innovation
	The ICC 700 National Green Building Standard™ (NGBS) provides practices for	*NGBS ICC 700 Remodeling*	n/a	Home Innovation
	The ICC 700 National Green Building Standard (NGBS) provides practices for the	*NGBS ICC 700 Single Family*	n/a	Home Innovation
	The ICC 700 National Green Building Standard™ (NGBS) provides practices for	*NGBS ICC 700 Land Development*	n/a	Home Innovation
	Passive House Institute US. Super-insulated homes that have met certification	*PHIUS+*	n/a	PHIUS
	The PHIUS+ Certification program is the leading passive building certification	*PHIUS+ Retro*	n/a	PHIUS
	California certification for passive homes.	*Passive House California*	n/a	BEDES-Beta
	New York certification for passive homes.	*New York Passive House*	n/a	BEDES-Beta
	Oregon and Washington state certification for passive homes.	*Passive House NW*	n/a	BEDES-Beta
	New construction or major renovation of buildings that do not primarily serve K-12	LEED BD+C: New Construction	n/a	LEED v4 Guide
	Buildings that are new construction or major renovation for the exterior shell and	LEED BD+C: Core and Shell	n/a	LEED v4 Guide
	Buildings made up of core and ancillary learning spaces on K-12 school grounds.	LEED BD+C: Schools	n/a	LEED v4 Guide
	Buildings used to conduct the retail sale of consumer product goods. Includes	LEED BD+C: Retail	n/a	LEED v4 Guide
	Buildings that serve individuals who seek medical treatment, including licensed	LEED BD+C: Healthcare	n/a	LEED v4 Guide
	Buildings specifically designed and equipped to meet the needs of high density	LEED BD+C: Data Centers	n/a	LEED v4 Guide
	Buildings dedicated to hotels, motels, inns, or other businesses within the service	LEED BD+C: Hospitality	n/a	LEED v4 Guide
	Buildings used to store goods, manufactured products, merchandise, raw	LEED BD+C: Warehouses and Distribution	n/a	LEED v4 Guide
	Interior spaces dedicated to functions other than retail or hospitality.	LEED ID+C: Commercial Interiors	n/a	LEED v4 Guide
	Interior spaces used to conduct the retail sale of consumer product goods.	LEED ID+C: Retail	n/a	LEED v4 Guide
	Interior spaces dedicated to hotels, motels, inns, or other businesses within the	LEED ID+C: Hospitality	n/a	LEED v4 Guide
	Existing buildings that do not primarily serve K-12 educational, retail, data	LEED O+M: Existing Buildings	n/a	LEED v4 Guide
	Existing buildings with performance	LEED O+M: Existing Buildings With Perforr	n/a	
	Existing buildings specifically designed and equipped to meet the needs of high	LEED O+M: Data Centers	n/a	LEED v4 Guide
	Existing buildings used to store goods, manufactured products, merchandise, raw	LEED O+M: Warehouses and Distribution C	n/a	LEED v4 Guide
	Existing buildings dedicated to hotels, motels, inns, or other businesses within the	LEED O+M: Hospitality	n/a	LEED v4 Guide
	Existing buildings made up of core and ancillary learning spaces on K-12 school	LEED O+M: Schools	n/a	LEED v4 Guide
	Existing buildings used to conduct the retail sale of consumer product goods.	LEED O+M: Retail	n/a	LEED v4 Guide
	Existing multi-family residential buildings	LEED O+M: Multifamily	n/a	
	New and Existing Buildings	WELL New and Existing Buildings	n/a	WELL Building
	New and Existing Interiors	WELL New and Existing Interiors	n/a	WELL Building
	New and Existing Interiors in a Core and Shell Compliant Building	WELL New and Existing Interiors in a Core	n/a	WELL Building
	Core and Shell	WELL Core and Shell	n/a	WELL Building
	Commercial and Institutional Office	WELL Commercial and Institutional Office	n/a	WELL Building
	Multifamily Residential applies specifically to projects with at least five dwelling	WELL Multifamily Residential (Pilot)	n/a	WELL Building
	Retail applies to locations where consumers can view and purchase merchandise	WELL Retail (Pilot)	n/a	WELL Building
	Educational Facilities applies to projects where dedicated staff are employed for	WELL Educational Facilities (Pilot)	n/a	WELL Building

	Pilot program for restaurant facilities	WELL Restaurants (Pilot)	n/a	WELL Building
Assessment Program Organization	The name of the body or group providing the verification or certification	Constrained List	n/a	
	U.S. Environmental Protection Agency	*EPA*	n/a	RESO
	U.S. Department of Energy	*DOE*	n/a	RESO
	U.S. Green Building Council	*USGBC*	n/a	RESO
	National Association of Home Builders	*NAHB*		
	Home Innovation Research Labs (formerly the NAHB Research Center) is a	*Home Innovation Research Labs*	n/a	RESO
	State level organization	*State*		
	City or town level organization	*City*		
	Regional area organization	*Regional*		
	An organization that supports the California state utility program Energy Upgrade	*Build It Green California*	n/a	BEDES-Beta
	Seattle city utility program	*Built Green Seattle*	n/a	BEDES-Beta
	Portland, Oregon city utility program	*Earth Advantage Portland OR*	n/a	BEDES-Beta
	Southeast region utility program	*Earthcraft Southeast*	n/a	BEDES-Beta
	Southwest and Southeast program utility program	*Environments for Living*	n/a	BEDES-Beta
	Texas state utility program	*Greenbuilt Texas*	n/a	BEDES-Beta
	DOE program sponsored locally across approximately 35 states	*Home Performance with Energy Star*	n/a	BEDES-Beta
	DOE program with local partners across the US	*Home Energy Score*	n/a	BEDES-Beta
	IWBI is a public benefit corporation whose mission is to improve human health	*International WELL Building Institute,*	n/a	WELL Building
	The New York State Energy Research and Development Authority, known as	*NYSERDA*		
Assessment Recognition Type	Type of recognition awarded through assessment program.	Constrained List	n/a	
	Numeric score, either an absolute number or number within a range such as 1-	*Score*	n/a	
	Non-numeric, relative ranking	*Rating*	n/a	
	Representation that a building or plant meets strict performance standards set by	*Certification*	n/a	
	Recognition of outstanding environmental leadership or green energy	*Award*	n/a	
	Representation that a product meets strict performance standards set by	*Label*	n/a	
	Recognition of participation in an assessment program without associated score,	*Participant*	n/a	
	A DOE Zero Energy Ready Home is a high performance home which is so energy	*Zero Energy Ready Home*	n/a	DOE
Assessment Value	Value from assessment programs that produce a numeric metric, such as Energy	Decimal	n/a	BEDES-Beta
Assessment Level	Value from assessment programs that produce a descriptive (rather than	Constrained List	n/a	
	NGBS level for Multifamily, Single-Family and Remodeling certifications	*Bronze*	n/a	
	NGBS level for Multifamily, Single-Family and Remodeling certifications	*Silver*	n/a	
	NGBS level for Multifamily, Single-Family and Remodeling certifications	*Gold*	n/a	
	NGBS level for Multifamily, Single-Family and Remodeling certifications	*Emerald*	n/a	
	Level of LEED rated at 40-49 points	*Certified*	n/a	
	Level of LEED rated at 50-59 points	*Bronze*	n/a	
	Level of LEED rated at 60-79 points	*Silver*	n/a	
	Level of LEED rated at 40-49 points	*Gold*	n/a	
	Level of LEED rated at 80+ points	*Platinum*	n/a	
	Level of NGBS Land Development	*One Star*	n/a	
	Level of NGBS Land Development	*Two Star*	n/a	
	Level of NGBS Land Development	*Three Star*	n/a	
	Level of NGBS Land Development	*Four Star*	n/a	
Assessment Year	Year the assessment qualifications for recognition were documented.	Year Format from Metadata	n/a	BEDES-Beta
Assessment Version	Version of the assessment documentation, such as "2.0"	String	n/a	LBNL/HPXML
Assessment Program URL	A link to the specific rating or scoring details for the premises directly from and	String	n/a	RESO
Assessment Eligibility	Eligibility of a premises for assessment recognition.	Constrained List	n/a	BEDES-Beta
	Eligible for an assessment recognition, such as an ENERGY STAR label.	*Eligible*	n/a	

	Not eligible for assessment program recognition.	*Not eligible*	n/a	
Assessment Recognition Status	Status of recognition for an assessment program.	Constrained List	n/a	BEDES-Beta
	Notice of eligibility for assessment	*Eligible*	n/a	
	Assessment has not yet begun	*Not yet started*	n/a	
	A test assessment has been performed, or test application submitted, to test the	*Test*	n/a	
	Assessment has begun	*Started*	n/a	
	Assessment has been submitted for review	*Submitted*	n/a	
	The first assessment or application approval stage.	*Initial stage*	n/a	
	Stage to review quality assurance of work performed or application materials.	*Quality assurance*	n/a	
	Submitted assessment is under review	*Under review*	n/a	ENERGY STAR
	There is an application under review that has been escalated to a subject matter	*Escalated to expert*	n/a	ENERGY STAR
	Organization has asked applicant questions about the application.	*Questions for applicant*	n/a	ENERGY STAR
	Organization has required a revised application.	*Revised application required*	n/a	ENERGY STAR
	The application data has been corrected.	*Corrected*	n/a	
	Assessment is pending receipt of documentation	*Pending receipt*	n/a	ENERGY STAR
	Assessment is pending final decision	*Pending decision*	n/a	ENERGY STAR
	The application has no outstanding technical questions, however approval is on	*On hold*	n/a	ENERGY STAR
	The final assessment or application approval stage.	*Final stage*	n/a	
	The application has been approved.	*Approved*	n/a	ENERGY STAR
	Recognition award or notification has been sent to approved premises.	*Notified*	n/a	ENERGY STAR
	Submitted assessment results have been publicly published	*Published*	n/a	
	Submitted assessment has been rejected	*Rejected*	n/a	
	Assessment recognition has expired	*Expired*	n/a	ENERGY STAR
Assessment Recognition Status	Date when assessment recognition status first applied.	Date Format from Metadata	n/a	
Assessment Compliance Target	Date a premises is expected to achieve assessment recognition, including in the	Date Format from Metadata	n/a	LBNL/ESPM
Assessment Tool	Tools that provide a performance ranking based on a peer group of similar	Constrained List	n/a	
	An online tool used to measure and track energy and water consumption, as well	*Portfolio Manager*	n/a	
	A dataset of information about the energy-related characteristics of commercial	*Buildings Performance Database Tool*	n/a	
		~~*EnergyIQ*~~	~~n/a~~	
	A tool to compare the energy use of lab buildings with that of similar facilities in	*Labs21*	n/a	
		~~*Fabs21*~~	~~n/a~~	
Benchmark Type	The type of benchmark being used	Constrained List	n/a	
	measure and track energy and water consumption, as well as greenhouse gas	*Portfolio Manager*		
	The Commercial Buildings Energy Consumption Survey (CBECS) is a national	*CBECS*		
	Comparison of a building's performance to that of an equivalent design based on	*Code Minimum*		
	Comparison of a building's performance to that of an equivalent design based on	*Standard Practice*		
Benchmark Percentile	Assessed percentile standing for the premises relative to benchmarking peer	Decimal	Percent	
Benchmark Peer Group	The group of buildings that the premises in question is being compared against.	String	n/a	
Federal Sustainability Checklist	Percentage of the Federal High Performance sustainability Checklist that has	Decimal	Percent	LBNL/BEDES-Beta
National Median Reference Property	The National Median is the median reference point for the premises based on the	String	n/a	ESPM
Tax Information				
Tax Annual Amount	The annual property tax amount as of the last assessment made by the taxing	Decimal	$	
Tax Year	The year in with the last assessment of the property value/tax was made.	Year Format from Metadata	n/a	
Tax Assessed Value	The property value as of the last assessment made by the taxing authority.	Decimal	$	
Tax Exemptions	A list of tax exemptions as they relate to the property.	String	n/a	
Tax Other Assessment Amount	Any other annual taxes, not including the tax reported in the Tax Annual Amount	Decimal	$	
Tax Status Current	The current tax status of the mobile home in cases where the land or space is	String	n/a	
Hazard Zone Information				

Radon Zone	The EPA Radon Zone ~~Number.~~	Constrained List	n/a	EPA
	Counties with predicted average indoor radon screening levels greater than 4	*Zone 1*	n/a	EPA
	Counties with predicted average indoor radon screening levels from 2 to 4	*Zone 2*	n/a	EPA
	Counties with predicted average indoor radon screening levels less than 2	*Zone 3*	n/a	EPA
Fire Hazard Severity Zone	Fire hazard severity zone rating			CalFire
		Low		
		Moderate		
		High		
		Very high		
Termite Zone	Zone in the United States which designates the probability of a particular location	Constrained List	n/a	
		None to slight	n/a	
		Slight to moderate	n/a	
		Moderate to heavy	n/a	
		Very heavy	n/a	
Hurricane Zone	Designation of the premises relative to a Hurricane Zone.	Constrained List	n/a	
	Property is in an identified hurricane zone.	*Hurricane zone*	n/a	
	The premises is in a locally designated hurricane zone	*Local*	n/a	
Flood Zone	If the property is in a flood zone, what is the source of the zone designation.	Constrained List	n/a	
	The premises is in a FEMA flood zone	*FEMA*	n/a	
	The premises is in a locally designated flood zone	*Local*	n/a	
Earthquake Zone	If the property is in an earthquake zone, what is the source of the zone	Constrained List	n/a	
	The premises is shown as being in a significant earthquake area/zone on the	*USGS*	n/a	
	The premises is shows as being in a significant earthquake area/zone on a local	*Local*	n/a	
Climate				
Climate Zone Type	The climate zone type, based on the organization defining it. Many different	Constrained List	n/a	LBNL
	Climate zone map published by the American Society of Heating, Refrigeration	*ASHRAE*	n/a	
	Climate zone map published by the Environmental Protection Agency (EPA) for	*ENERGY STAR*	n/a	
	Climate zone map published by the California Energy Commission (CEC) to be	*California Title 24*	n/a	
	Climate zone map for the United States published in the International Energy	*IECC*	n/a	
	A simplified version of the IECC climate zone map, developed at the National	*Building America*	n/a	
	Climate zone map based on climate divisions developed by the National Oceanic	*CBECS*	n/a	
	A simplified version of the IECC climate zone map, developed at the National	*DOE*	n/a	
Climate Zone	Based on the Climate Zone Type term, this is the climate zone designation. For	Constrained List	n/a	LBNL
	California Title 24 representative city of Arcata.	*1*	n/a	
	ASHRAE. Very hot and humid. 9000 < CDD50F	*1A*	n/a	
	ASHRAE. Very hot and dry. 9000 < CDD50F	*1B*	n/a	
	California Title 24 representative city of Santa Rosa.	*2*	n/a	
	ASHRAE. Hot and humid. 6300 < CDD50F <= 90000	*2A*	n/a	
	ASHRAE. Hot and dry. 6300 < CDD50F <= 90000	*2B*	n/a	
	California Title 24 representative city of Oakland.	*3*	n/a	
	ASHRAE. Warm and humid. 4500 < CDD50F <= 6300	*3A*	n/a	
	ASHRAE. Warm and dry. 4500 < CDD50F <= 6300	*3B*	n/a	
	ASHRAE. Warm marine. CDD50F <= 4500 and HDD65F <= 3600	*3C*	n/a	
	California Title 24 representative city of Sunnyvale.	*4*	n/a	
	ASHRAE. Mixed and humid. CDD50F <= 4500 and 3600 <HDD65F <= 5400	*4A*	n/a	
	ASHRAE. Mixed and dry. CDD50F <= 4500 and 3600 <HDD65F <= 5400	*4B*	n/a	
	ASHRAE. Mixed marine. 3600 <HDD65F <= 5400	*4C*	n/a	
	IECC Zone	*4 except marine*	n/a	

	IECC Zone	*4 marine*	n/a	
	California Title 24 representative city of Santa Marina.	*5*	n/a	
	ASHRAE. Cool and humid. 5400 < HDD65F <= 7200	*5A*	n/a	
	ASHRAE. Cool and dry. 5400 < HDD65F <= 7200	*5B*	n/a	
	ASHRAE. Cool marine. 5400 < HDD65F <= 7200	*5C*	n/a	
	California Title 24 representative city of Los Angeles.	*6*	n/a	
	ASHRAE. Cold and humid. 7200 < HDD65F <= 9000	*6A*	n/a	
	ASHRAE. Cold and dry. 7200 < HDD65F <= 9000	*6B*	n/a	
	ASHRAE. Very cold. 9000 < HDD65F <= 12600.	*7*	n/a	
	ASHRAE. Subarctic. 12600 < HDD65F.	*8*	n/a	
	California Title 24 representative city of Pasadena.	*9*	n/a	
	California Title 24 representative city of Riverside.	*10*	n/a	
	California Title 24 representative city of Red Bluff.	*11*	n/a	
	California Title 24 representative city of Sacramento.	*12*	n/a	
	California Title 24 representative city of Fresno.	*13*	n/a	
	California Title 24 representative city of China Lake.	*14*	n/a	
	California Title 24 representative city of El Centro.	*15*	n/a	
	California Title 24 representative city of Mount Shasta.	*16*	n/a	
	Energy Star zone.	*Northern*	n/a	
	Energy Star zone.	*North Central*	n/a	
	Energy Star zone.	*South Central*	n/a	
	Energy Star zone.	*Southern*	n/a	
	Building America or DOE zone.	*Subarctic*	n/a	
	Building America or DOE zone.	*Marine*	n/a	
	Building America or DOE zone.	*Hot dry*	n/a	
	Building America or DOE zone.	*Mixed dry*	n/a	
	Building America or DOE zone.	*Hot humid*	n/a	
	Building America or DOE zone.	*Mixed humid*	n/a	
	Building America or DOE zone.	*Cold*	n/a	
	Building America or DOE zone.	*Very cold*	n/a	
IECC Year	For Climate Zone Type = IECC, the year of the IECC used for that climate zone	Year Format from Metadata	n/a	LBNL
Weather Station Name	The name of the weather station associated with this premises, which could be	String	n/a	LBNL/NREL
Weather Data Station ID	For an actual weather station, this is the ID assigned by NOAA. For hourly energy	String	n/a	LBNL/NREL
Weather Station Category	Describes the type of weather station used to specify the site's weather.	Constrained List	n/a	LBNL/NREL
	Federal Aviation Administration	*FAA*	n/a	
	International Civil Aviation Organization	*ICAO*	n/a	
	National Weather Service	*NWS*	n/a	
	Weather Bureau Army Navy	*WBAN*	n/a	
	World Meteorological Organization	*WMO*	n/a	
Weather Data Type	For hourly energy simulations, the type of data used in the hourly weather data.	Constrained List	n/a	LBNL/NREL
	The original Typical Meteorological Year (TMY) data was developed at Sandia	*TMY*	n/a	
	TMY2 was completed in March 1994 by the National Renewable Energy	*TMY2*	n/a	
	TMY3 was developed by NREL, contains data for 1020 locations, and represents	*TMY3*	n/a	
	The International Weather for Energy Calculation (IWEC), developed by	*IWEC*	n/a	
	Canadian Weather for Energy Calculations (CWEC); 80 files containing hourly	*CWEC*	n/a	
	California weather data for the 16 California climate zones used to demonstrate	*CZRV2*	n/a	
	Weather data accumulated from on site measurement	*On site measurement*	n/a	BuildingSync
	Weather data directly from weather station	*Weather station*	n/a	BuildingSync

Weather Metric	Metric related to weather.	Constrained List	n/a	
	Cooling degree days are calculated as the sum of the differences between daily	*Cooling degree days*	n/a	LBNL/ASHRAE
	Heating degree days are calculated as the sum of the differences between daily	*Heating degree days*	n/a	LBNL/ASHRAE
	Humidity ratio can be expressed as the ratio between the actual mass of water	*Humidity ratio*	n/a	
	Relative humidity can be expressed by partial vapor and air pressure, density of	*Relative humidity*	n/a	
	The radiation component that strikes a horizontal plane from the sky	*Diffuse horizontal radiation*	W	
	The amount of solar radiation from the direction of the sun	*Direct normal radiation*	W	
	The sum of direct and diffuse solar radiation striking a horizontal plane	*Global horizontal radiation*	W	
	The air temperature measured by a dry temperature sensor or thermometer.	*Dry bulb temperature*	n/a	
	Indicated by a psychrometer when the bulb of one thermometer is covered with a	*Wet bulb temperature*	n/a	
	Wind speed for the site at a height of 10 meters	*Wind speed*	n/a	
Weather Metric Value	Value for the weather metric.	Decimal	TBD	
Elevation	The elevation (distance above sea level) at the site.	Decimal	ft	LBNL
Longitude	Distance measured in degrees east or west from an imaginary line (called the	Decimal	degrees	LBNL
Latitude	Distance north or south of the equator measured in degrees up to 90 degrees.	Decimal	degrees	LBNL
Site Type	Description of surroundings at the site, from the following list:	Constrained List	n/a	LBNL/EPLUS
	A rural area is a geographic area that is located outside cities and towns, often	*Rural*	n/a	
	A suburb is a residential area or a mixed use area, either existing as part of a city	*Suburban*	n/a	
	An urban area is a location characterized by high human population density and	*Urban*	n/a	
~~**Shelter Class ID**~~	~~Local wind shelter class ID.~~	~~Integer~~	~~n/a~~	
Ground Reflectance	Reflectivity of the ground.	Decimal	n/a	LBNL/EPLUS
NREL Wind CLASS	Wind power density (WPD) is a calculation of the mean annual power available	Constrained List	n/a	LBNL/NREL
	At 10 m: WPD: 0-100 W/m^2; Speed: 0-4.4 m/s	*1*	n/a	
	At 10 m: WPD: 100-150 W/m^2; Speed: 4.4-5.1 m/s	*2*	n/a	
	At 10 m: WPD: 150-200 W/m^2; Speed: 5.1-5.6 m/s	*3*	n/a	
	At 10 m: WPD: 200-250 W/m^2; Speed: 5.6-6.0 m/s	*4*	n/a	
	At 10 m: WPD: 250-300 W/m^2; Speed: 6.0-6.4 m/s	*5*	n/a	
	At 10 m: WPD: 300-400 W/m^2; Speed: 6.4-7.0 m/s	*6*	n/a	
	At 10 m: WPD: 400-1000 W/m^2; Speed: 7.0-9.4 m/s	*7*	n/a	
Class Height	Vertical extrapolation of wind speed based on the 1/7 power law	Constrained List	n/a	
		10 meters	n/a	
		50 meters	n/a	
Location Characteristics				
Energy Metered Premises	Designation of what areas within the premises are covered by energy meters.	Constrained List	n/a	
		Total consumption for the whole	n/a	
		Total consumption for landlord areas	n/a	
		Total consumption for tenant areas	n/a	
		Total consumption for common areas	n/a	
		Tenant heating	n/a	
		Tenant cooling	n/a	
		Tenant hot water	n/a	
		Tenant electric plug load	n/a	
		Common area heating	n/a	
		Common area cooling	n/a	
		Common area hot water	n/a	
		Common area electric load	n/a	
		Tenant lighting	n/a	
		Common area lighting	n/a	

Water Metered Premises	Designation of what areas within the premises are covered by water meters.	Constrained List	n/a	
		Total consumption for the whole	n/a	
		Total consumption for tenant areas	n/a	
		Total consumption for common areas	n/a	
Distance To Public Transportation	Distance from premises to the nearest public transportation.	Decimal	n/a	RESO
Type Of Public Transportation	If the Distance to Public Transportation term is used, this term can be used to	Constrained List	n/a	HPXML
		Bus	n/a	
		Train	n/a	
		Subway	n/a	
		Light rail	n/a	
Distance To Freeway	Distance from property to the nearest freeway.	Decimal	n/a	RESO
Walking Score	A walkability index based on the time to walk from a property to nearby essentials	Integer	n/a	RESO
~~**Walking Score Source**~~	~~The source used to generate the walking score. One example is Walk Score~~	~~String~~	~~n/a~~	~~RESO~~
Builder Model	The builders model name or number for the property.	String	n/a	RESO
Presence Of Buried Lines	Indication of whether the site contains buried utility lines.	String	n/a	LBNL/IEP
Presence Of Septic Tanks And	Indication of whether the site contains a septic tank or leach field.	String	n/a	LBNL/IEP
Tractor Trencher Accessible	Indication of whether the site allows access for a tractor or trenching equipment.	String	n/a	LBNL/IEP
eGRID Region Code	The eGRID (Emissions and Generation Resource Database) region code	Constrained List	n/a	BEDES-Beta
	ASCC Alaska Grid / Alaska Power Grid	*AKGD*	n/a	
	ASCC Miscellaneous / Alaska Power Grid	*AKMS*	n/a	
	WECC Southwest / Western Power Grid	*AZNM*	n/a	
	WECC California / Western Power Grid	*CAMX*	n/a	
	ERCOT all / ERCOT Power Grid	*ERCT*	n/a	
	FRCC All / Eastern Power Grid	*FRCC*	n/a	
	HICC Miscellaneous / Hawaii Power Grid	*HIMS*	n/a	
	HICC Oahu / Hawaii Power Grid	*HIOA*	n/a	
	MRO East / Eastern Power Grid	*MORE*	n/a	
	MRO West / Eastern Power Grid	*MROW*	n/a	
	NPCC New England / Eastern Power Grid	*NEWE*	n/a	
	WECC Northwest / Western Power Grid	*NWPP*	n/a	
	NPCC NYC / Westchester / Eastern Power Grid	*NYCW*	n/a	
	NPCC Long Island / Eastern Power Grid	*NYLI*	n/a	
	NPCC Upstate NY / Eastern Power Grid	*NYUP*	n/a	
	RFC East / Eastern Power Grid	*RFCE*	n/a	
	RFC Michigan / Eastern Power Grid	*RFCM*	n/a	
	RFC West / Eastern Power Grid	*RFCW*	n/a	
	WECC Rockies / Western Power Grid	*RMPA*	n/a	
	SPP North / Eastern Power Grid	*SPNO*	n/a	
	SPP South / Eastern Power Grid	*SPSO*	n/a	
	SERC Mississippi Valley / Eastern Power Grid	*SRMV*	n/a	
	SERC Midwest / Eastern Power Grid	*SRMW*	n/a	
	SERC South / Eastern Power Grid	*SRSO*	n/a	
	SERC Tennessee Valley / Eastern Power Grid	*SRTV*	n/a	
	SWERC Virginia / Carolina / Eastern Power Grid	*SRVC*	n/a	

Term	Definition	Data Type	Unit of Measure	Definition Source
Contact Label	Characterization of the contact.	Constrained List	n/a	
	Board or Association of Realtors	*Association of Realtors*	n/a	RESO
	Auditor.	*Auditor*	n/a	
	Business contact	*Business*	n/a	
	Premises	*Premises*	n/a	
	Occupant	*Occupant*	n/a	
	Agency such as the Federal agency, required to designate a facility as a federal	*Agency*	n/a	
	Owner	*Owner*	n/a	
	Customer	*Customer*	n/a	
	California Proposition 39 customer agreement	*Customer agreement*	n/a	
	Administrator of customer accounts.	*Administrator*	n/a	
	An individual qualified to perform an assessment of a premises.	*Qualified assessor*	n/a	
	Contributor of original information. Example: the original Portfolio Manager	*Contributor*	n/a	
	Property management company.	*Property management company*	n/a	
	Property manager.	*Property manager*	n/a	
	Real Estate agents are people who have passed a state exam and received a	*Real estate agent*	n/a	
	Operator of the premises. The operator is in charge of managing the energy use of	*Operator*	n/a	
	Energy auditor.	*Energy auditor*	n/a	
	Energy modeler.	*Energy modeler*	n/a	
	Contractor.	*Contractor*	n/a	
	Subcontractor	*Subcontractor*		
	Project or measure implementer.	*Implementer*	n/a	
	Financier	*Financier*	n/a	
	Commissioning agent.	*Commissioning agent*	n/a	
	M&V agent	*MV agent*	n/a	
	Evaluator	*Evaluator*	n/a	
	Builder.	*Builder*	n/a	
	Service provider	*Service*	n/a	
	Billing department	*Billing*	n/a	
	The architect of record	*Architect*	n/a	
	The mechanical engineer of record	*Mechanical engineer*	n/a	
	The energy consultant of record	*Energy consultant*	n/a	
	The ABS Service and Product Provider associated with a Portfolio Manager	*Service and product provider*	n/a	
	Also known as the "AHJ". The city, county or other authority with jurisdiction over	*Authority having jurisdiction*	n/a	
	An organization that maintains the infrastructure for a public service (often also	*Utility*	n/a	
	Individual power plant	*Power plant*	n/a	
	The company responsible for maintaining the utility lines and the electric	*Electric distribution utility*	n/a	ESPM
	Energy savings/service company	*ESCO*	n/a	
	Project or process facilitator	*Facilitator*	n/a	
	Facility manager	*Facility manager*	n/a	
	Trainer	*Trainer*	n/a	
	The electrical engineer of record	*Electrical engineer*	n/a	
	The controls engineer of record	*Controls engineer*	n/a	
	Lending institution or company	*Lender*	n/a	SEE Action
	Institution with primary responsibility for collecting and tracking a loan borrower	*Servicer*	n/a	SEE Action
	Institution with primary responsibility for processing a loan application.	*Originator*	n/a	SEE Action

	The engineer or engineering firm of record	*Engineer*	n/a	
	The project manager of record	*Project manager*	n/a	
	The agent of record	*Agent*	n/a	
	The environmental assessor of record	*Environmental assessor*	n/a	
Company Name	Company name	String	n/a	
Full Name	The full name, including first, middle, and last names.	String	n/a	
Contact ID	Identification number associated with the contact.	String	n/a	
Contact Name	Name of the contact when not full name or company name	String	n/a	
Contact URL	Uniform Resource Locator (URL) of the contact	String	n/a	
Contact Title	The title or position of the contact within their organization.	String	n/a	RESO
Address Label	Characterization of the address.	Constrained List	n/a	
		Work	n/a	
		Home	n/a	
		Mailing	n/a	
Address Line 1	This address represents a complete street address, including street number,	String	n/a	
Address Line 2	Information other than a prefix or suffix for the street portion of a postal address.	String	n/a	
Address Number Prefix	The portion of the complete address number which precedes the Address Number	String	n/a	FGDC
Address Number	The numeric identifier for a land parcel, house, building, or other location along a	Integer	n/a	FGDC
Address Number Suffix	The portion of the complete address number which follows the Address Number	String	n/a	FGDC
Street Name Pre Modifier	A word or phrase in a complete street name that precedes and modifies the Street	String	n/a	FGDC
Street Name Pre Directional	A word preceding the street name that indicates the directional taken by the	Constrained List	n/a	FGDC
Street Name Pre Type	A word or phrase that precedes the Street Name and identifies a type of	String	n/a	FGDC
Address Separator Element	A symbol, word, or phrase used as a separator between components of a complex	String	n/a	FGDC
Street Name	The portion of the complete street name that identifies the particular thoroughfare	String	n/a	FGDC
Street Name Post Type	The suffix portion of a street address.	Constrained List	n/a	FGDC
	Commonly used street suffix or abbreviations: Allee, Ally, Aly	*Alley*	n/a	USPS
	Commonly used street suffix or abbreviations: Annex, Annx, Anx	*Annex*	n/a	USPS
	Commonly used street suffix or abbreviations: Arc	*Arcade*	n/a	USPS
	Commonly used street suffix or abbreviations: Av, Ave, Aven, Avenu, Avn, Avnue	*Avenue*	n/a	USPS
	Commonly used street suffix or abbreviations: Bayoo	*Bayou*	n/a	USPS
	Commonly used street suffix or abbreviations: Bch	*Beach*	n/a	USPS
	Commonly used street suffix or abbreviations: Bnd	*Bend*	n/a	USPS
	Commonly used street suffix or abbreviations: Blf, Bluf	*Bluff*	n/a	USPS
	Commonly used street suffix or abbreviations: Blfs, Blufs	*Bluffs*	n/a	USPS
	Commonly used street suffix or abbreviations: Bot, Btm, Bottm	*Bottom*	n/a	USPS
	Commonly used street suffix or abbreviations: Blvd, Boul, Boulv	*Boulevard*	n/a	USPS
	Commonly used street suffix or abbreviations: Br, Brnch	*Branch*	n/a	USPS
	Commonly used street suffix or abbreviations: Brdge, Brg	*Bridge*	n/a	USPS
	Commonly used street suffix or abbreviations: Brk	*Brook*	n/a	USPS
	Commonly used street suffix or abbreviations: Brks	*Brooks*	n/a	USPS
	Commonly used street suffix or abbreviations: Bg	*Burg*	n/a	USPS
	Commonly used street suffix or abbreviations: Bgs	*Burgs*	n/a	USPS
	Commonly used street suffix or abbreviations: Byp, Bypa, Bypas, Byps	*Bypass*	n/a	USPS
	Commonly used street suffix or abbreviations: Cp, Cmp	*Camp*	n/a	USPS
	Commonly used street suffix or abbreviations: Canyn, Cnyn	*Canyon*	n/a	USPS
	Commonly used street suffix or abbreviations: Cpe	*Cape*	n/a	USPS
	Commonly used street suffix or abbreviations: Causwa, Cswy	*Causeway*	n/a	USPS

	Commonly used street suffix or abbreviations: Cen, Cent, Centr, Centre, Cnter,	*Center*	n/a	USPS
	Commonly used street suffix or abbreviations: Ctrs	*Centers*	n/a	USPS
	Commonly used street suffix or abbreviations: Cir, Circ, Circl, Crcl, Crcle	*Circle*	n/a	USPS
	Commonly used street suffix or abbreviations: Cirs	*Circles*	n/a	USPS
	Commonly used street suffix or abbreviations: Clf	*Cliff*	n/a	USPS
	Commonly used street suffix or abbreviations: Clfs	*Club*	n/a	USPS
	Commonly used street suffix or abbreviations: Clb	*Common*	n/a	USPS
	Commonly used street suffix or abbreviations: Cmn	*Commons*	n/a	USPS
	Commonly used street suffix or abbreviations: Cor	*Corner*	n/a	USPS
	Commonly used street suffix or abbreviations: Cors	*Corners*	n/a	USPS
	Commonly used street suffix or abbreviations: Crse	*Course*	n/a	USPS
	Commonly used street suffix or abbreviations: Ct	*Court*	n/a	USPS
	Commonly used street suffix or abbreviations: Cts	*Courts*	n/a	USPS
	Commonly used street suffix or abbreviations: Cv	*Cove*	n/a	USPS
	Commonly used street suffix or abbreviations: Cvs	*Coves*	n/a	USPS
	Commonly used street suffix or abbreviations: Crk	*Creek*	n/a	USPS
	Commonly used street suffix or abbreviations: Cres, Crsent, Crsnt	*Crescent*	n/a	USPS
	Commonly used street suffix or abbreviations: Crst	*Crest*	n/a	USPS
	Commonly used street suffix or abbreviations: Crssng, Xing	*Crossing*	n/a	USPS
	Commonly used street suffix or abbreviations: Xrd	*Crossroad*	n/a	USPS
	Commonly used street suffix or abbreviations: Xrds	*Crossroads*	n/a	USPS
	Commonly used street suffix or abbreviations: Curv	*Curve*	n/a	USPS
	Commonly used street suffix or abbreviations: Dl	*Dale*	n/a	USPS
	Commonly used street suffix or abbreviations: Dm	*Dam*	n/a	USPS
	Commonly used street suffix or abbreviations: Div, Dv, Dvd	*Divide*	n/a	USPS
	Commonly used street suffix or abbreviations: Dr, Driv, Drv	*Drive*	n/a	USPS
	Commonly used street suffix or abbreviations: Drs	*Drives*	n/a	USPS
	Commonly used street suffix or abbreviations: Est	*Estate*	n/a	USPS
	Commonly used street suffix or abbreviations: Ests	*Estates*	n/a	USPS
	Commonly used street suffix or abbreviations: Exp, Expr, Express, Expw, Expy	*Expressway*	n/a	USPS
	Commonly used street suffix or abbreviations: Ext, Extn, Extnsn	*Extension*	n/a	USPS
	Commonly used street suffix or abbreviations: Exts	*Extensions*	n/a	USPS
	Commonly used street suffix or abbreviations: Fl	*Fall*	n/a	USPS
	Commonly used street suffix or abbreviations: Fls	*Falls*	n/a	USPS
	Commonly used street suffix or abbreviations: Frry, Fry	*Ferry*	n/a	USPS
	Commonly used street suffix or abbreviations: Fld	*Field*	n/a	USPS
	Commonly used street suffix or abbreviations: Flds	*Fields*	n/a	USPS
	Commonly used street suffix or abbreviations: Flt	*Flat*	n/a	USPS
	Commonly used street suffix or abbreviations: Flts	*Flats*	n/a	USPS
	Commonly used street suffix or abbreviations: Frd	*Ford*	n/a	USPS
	Commonly used street suffix or abbreviations: Frds	*Fords*	n/a	USPS
	Commonly used street suffix or abbreviations: Forests, Frst	*Forest*	n/a	USPS
	Commonly used street suffix or abbreviations: Forg, Frg	*Forge*	n/a	USPS
	Commonly used street suffix or abbreviations: Frgs	*Forges*	n/a	USPS
	Commonly used street suffix or abbreviations: Frk	*Fork*	n/a	USPS
	Commonly used street suffix or abbreviations: Frks	*Forks*	n/a	USPS
	Commonly used street suffix or abbreviations: Frt, Ft	*Fort*	n/a	USPS

	Commonly used street suffix or abbreviations: Freewy, Frway, Frwy, Fwy	*Freeway*	n/a	USPS
	Commonly used street suffix or abbreviations: Gardn, Gdn, Grden, Grdn	*Garden*	n/a	USPS
	Commonly used street suffix or abbreviations: Gdns, Grdns	*Gardens*	n/a	USPS
	Commonly used street suffix or abbreviations: Gatewy, Gatway, Gtway, Gtwy	*Gateway*	n/a	USPS
	Commonly used street suffix or abbreviations: Gln	*Glen*	n/a	USPS
	Commonly used street suffix or abbreviations: Glns	*Glens*	n/a	USPS
	Commonly used street suffix or abbreviations: Grn	*Green*	n/a	USPS
	Commonly used street suffix or abbreviations: Grns	*Greens*	n/a	USPS
	Commonly used street suffix or abbreviations: Grov, Grv	*Grove*	n/a	USPS
	Commonly used street suffix or abbreviations: Grvs	*Groves*	n/a	USPS
	Commonly used street suffix or abbreviations: Harb, Harbr, Hbr, Hrbor	*Harbor*	n/a	USPS
	Commonly used street suffix or abbreviations: Hbrs	*Harbors*	n/a	USPS
	Commonly used street suffix or abbreviations: Hvn	*Haven*	n/a	USPS
	Commonly used street suffix or abbreviations: Ht, Hts	*Heights*	n/a	USPS
	Commonly used street suffix or abbreviations: Highwy, Hiway, Hiwy, Hway, Hwy	*Highway*	n/a	USPS
	Commonly used street suffix or abbreviations: Hl	*Hill*	n/a	USPS
	Commonly used street suffix or abbreviations: Hls	*Hills*	n/a	USPS
	Commonly used street suffix or abbreviations: Hllw, Hollows, Holw, Holws	*Hollow*	n/a	USPS
	Commonly used street suffix or abbreviations: Inlt	*Inlet*	n/a	USPS
	Commonly used street suffix or abbreviations: Is, Islnd	*Island*	n/a	USPS
	Commonly used street suffix or abbreviations: Islnds, Iss	*Islands*	n/a	USPS
	Commonly used street suffix or abbreviations: Isles	*Isle*	n/a	USPS
	Commonly used street suffix or abbreviations: Jct, Jction, Jctn, Junctn, Juncton	*Junction*	n/a	USPS
	Commonly used street suffix or abbreviations: Jctns, Jcts	*Junctions*	n/a	USPS
	Commonly used street suffix or abbreviations: Ky	*Key*	n/a	USPS
	Commonly used street suffix or abbreviations: Kys	*Keys*	n/a	USPS
	Commonly used street suffix or abbreviations: Knl, Knol	*Knoll*	n/a	USPS
	Commonly used street suffix or abbreviations: Knls, Knolls	*Knolls*	n/a	USPS
	Commonly used street suffix or abbreviations: Lk	*Lake*	n/a	USPS
	Commonly used street suffix or abbreviations: Lks	*Lakes*	n/a	USPS
	Commonly used street suffix or abbreviations: Lnd	*Land*	n/a	USPS
	Commonly used street suffix or abbreviations: Lndg, Lndng	*Landing*	n/a	USPS
	Commonly used street suffix or abbreviations: Ln	*Lane*	n/a	USPS
	Commonly used street suffix or abbreviations: Lgt	*Light*	n/a	USPS
	Commonly used street suffix or abbreviations: Lgts	*Lights*	n/a	USPS
	Commonly used street suffix or abbreviations: Lf	*Loaf*	n/a	USPS
	Commonly used street suffix or abbreviations: Lck	*Lock*	n/a	USPS
	Commonly used street suffix or abbreviations: Lcks	*Locks*	n/a	USPS
	Commonly used street suffix or abbreviations: Ldg, Ldge, Lodg	*Lodge*	n/a	USPS
	Commonly used street suffix or abbreviations: Loops	*Loop*	n/a	USPS
	Commonly used street suffix or abbreviations: Mal	*Mall*	n/a	USPS
	Commonly used street suffix or abbreviations: Mnr	*Manor*	n/a	USPS
	Commonly used street suffix or abbreviations: Mnrs	*Manors*	n/a	USPS
	Commonly used street suffix or abbreviations: Mdw	*Meadow*	n/a	USPS
	Commonly used street suffix or abbreviations: Mdws	*Meadows*	n/a	USPS
	Commonly used street suffix or abbreviations: Mws	*Mews*	n/a	USPS
	Commonly used street suffix or abbreviations: Ml	*Mill*	n/a	USPS

	Commonly used street suffix or abbreviations: Mls	*Mills*	n/a	USPS
	Commonly used street suffix or abbreviations: Missn, Msn, Mssn	*Mission*	n/a	USPS
	Commonly used street suffix or abbreviations: Mtwy	*Motorway*	n/a	USPS
	Commonly used street suffix or abbreviations: Mnt, Mt	*Mount*	n/a	USPS
	Commonly used street suffix or abbreviations: Mntain, Mntn, Mountin, Mtin, Mtn	*Mountain*	n/a	USPS
	Commonly used street suffix or abbreviations: Mntns	*Mountains*	n/a	USPS
	Commonly used street suffix or abbreviations: Nck	*Neck*	n/a	USPS
	Commonly used street suffix or abbreviations: Orch, Orchrd	*Orchard*	n/a	USPS
	Commonly used street suffix or abbreviations: Ovl	*Oval*	n/a	USPS
	Commonly used street suffix or abbreviations: Opas	*Overpass*	n/a	USPS
	Commonly used street suffix or abbreviations: Prk	*Park*	n/a	USPS
	Commonly used street suffix or abbreviations: Prks	*Parks*	n/a	USPS
	Commonly used street suffix or abbreviations: Parkwy, Pkway, Pkwy, Pky	*Parkway*	n/a	USPS
	Commonly used street suffix or abbreviations: Pkwys	*Parkways*	n/a	USPS
	Commonly used street suffix or abbreviations: Pass	*Pass*	n/a	USPS
	Commonly used street suffix or abbreviations: Psge	*Passage*	n/a	USPS
	Commonly used street suffix or abbreviations: Paths	*Path*	n/a	USPS
	Commonly used street suffix or abbreviations: Pikes	*Pike*	n/a	USPS
	Commonly used street suffix or abbreviations: Pne	*Pine*	n/a	USPS
	Commonly used street suffix or abbreviations: Pnes	*Pines*	n/a	USPS
	Commonly used street suffix or abbreviations: Pl	*Place*	n/a	USPS
	Commonly used street suffix or abbreviations: Pln	*Plain*	n/a	USPS
	Commonly used street suffix or abbreviations: Plns	*Plains*	n/a	USPS
	Commonly used street suffix or abbreviations: Plz, Plza	*Plaza*	n/a	USPS
	Commonly used street suffix or abbreviations: Pt	*Point*	n/a	USPS
	Commonly used street suffix or abbreviations: Pts	*Points*	n/a	USPS
	Commonly used street suffix or abbreviations: Prt	*Port*	n/a	USPS
	Commonly used street suffix or abbreviations: Prts	*Ports*	n/a	USPS
	Commonly used street suffix or abbreviations: Pr, Prr	*Prairie*	n/a	USPS
	Commonly used street suffix or abbreviations: Rad, Radiel, Radl	*Radial*	n/a	USPS
	Commonly used street suffix or abbreviations: Ramp	*Ramp*	n/a	USPS
	Commonly used street suffix or abbreviations: Ranches, Rnch, Rnchs	*Ranch*	n/a	USPS
	Commonly used street suffix or abbreviations: Rpd	*Rapid*	n/a	USPS
	Commonly used street suffix or abbreviations: Rpds	*Rapids*	n/a	USPS
	Commonly used street suffix or abbreviations: Rst	*Rest*	n/a	USPS
	Commonly used street suffix or abbreviations: Rdg, Rdge	*Ridge*	n/a	USPS
	Commonly used street suffix or abbreviations: Rdgs	*Ridges*	n/a	USPS
	Commonly used street suffix or abbreviations: Riv, Rvr, Rivr	*River*	n/a	USPS
	Commonly used street suffix or abbreviations: Rd	*Road*	n/a	USPS
	Commonly used street suffix or abbreviations: Rds	*Roads*	n/a	USPS
	Commonly used street suffix or abbreviations: Rte	*Route*	n/a	USPS
	Commonly used street suffix or abbreviations: Row	*Row*	n/a	USPS
	Commonly used street suffix or abbreviations: Rue	*Rue*	n/a	USPS
	Commonly used street suffix or abbreviations: Run	*Run*	n/a	USPS
	Commonly used street suffix or abbreviations: Shl	*Shoal*	n/a	USPS
	Commonly used street suffix or abbreviations: Shls	*Shoals*	n/a	USPS
	Commonly used street suffix or abbreviations: Shoar, Shr	*Shore*	n/a	USPS

	Commonly used street suffix or abbreviations: Shoars, Shrs	*Shores*	n/a	USPS
	Commonly used street suffix or abbreviations: Skwy	*Skyway*	n/a	USPS
	Commonly used street suffix or abbreviations: Spg, Sprng	*Spring*	n/a	USPS
	Commonly used street suffix or abbreviations: Spgs, Spngs, Sprngs	*Springs*	n/a	USPS
	Commonly used street suffix or abbreviations: Spur	*Spur*	n/a	USPS
	Commonly used street suffix or abbreviations: Spurs	*Spurs*	n/a	USPS
	Commonly used street suffix or abbreviations: Sq, Sqr, Sqre, Squ	*Square*	n/a	USPS
	Commonly used street suffix or abbreviations: Sqrs, Sqs	*Squares*	n/a	USPS
	Commonly used street suffix or abbreviations: Sta, Statn, Stn	*Station*	n/a	USPS
	Commonly used street suffix or abbreviations: Stra, Strav, Straven, Stravn, Strvn,	*Stravenue*	n/a	USPS
	Commonly used street suffix or abbreviations: Steme, Strm	*Stream*	n/a	USPS
	Commonly used street suffix or abbreviations: Strt, St, Str	*Street*	n/a	USPS
	Commonly used street suffix or abbreviations: Sts	*Streets*	n/a	USPS
	Commonly used street suffix or abbreviations: Smt, Sumit, Sumitt	*Summit*	n/a	USPS
	Commonly used street suffix or abbreviations: Ter, Terr	*Terrace*	n/a	USPS
	Commonly used street suffix or abbreviations: Trwy	*Throughway*	n/a	USPS
	Commonly used street suffix or abbreviations: Traces, Trce	*Trace*	n/a	USPS
	Commonly used street suffix or abbreviations: Tracks, Trak, Trk, Trks	*Track*	n/a	USPS
	Commonly used street suffix or abbreviations: Trfy	*Trafficway*	n/a	USPS
	Commonly used street suffix or abbreviations: Trails, Trl, Trls	*Trail*	n/a	USPS
	Commonly used street suffix or abbreviations: Trlr, Trlrs	*Trailer*	n/a	USPS
	Commonly used street suffix or abbreviations: Tunel, Tunl, Tunls, Tunnels, Tunnl	*Tunnel*	n/a	USPS
	Commonly used street suffix or abbreviations: Tpke, Trnpk, Turnpk	*Turnpike*	n/a	USPS
	Commonly used street suffix or abbreviations: Upas	*Underpass*	n/a	USPS
	Commonly used street suffix or abbreviations: Un	*Union*	n/a	USPS
	Commonly used street suffix or abbreviations: Uns	*Unions*	n/a	USPS
	Commonly used street suffix or abbreviations: Vally, Vlly, Vly	*Valley*	n/a	USPS
	Commonly used street suffix or abbreviations: Vlys	*Valleys*	n/a	USPS
	Commonly used street suffix or abbreviations: Vdct, Via, Viadct	*Viaduct*	n/a	USPS
	Commonly used street suffix or abbreviations: Vw	*View*	n/a	USPS
	Commonly used street suffix or abbreviations: Vws	*Views*	n/a	USPS
	Commonly used street suffix or abbreviations: Vill, Villag, Villg, Villiage, Vlg	*Village*	n/a	USPS
	Commonly used street suffix or abbreviations: Vlgs	*Villages*	n/a	USPS
	Commonly used street suffix or abbreviations: Vl	*Ville*	n/a	USPS
	Commonly used street suffix or abbreviations: Vis, Vist, Vst, Vsta	*Vista*	n/a	USPS
	Commonly used street suffix or abbreviations: Wk, Wlk	*Walk*	n/a	USPS
	Commonly used street suffix or abbreviations: Wlks	*Walks*	n/a	USPS
	Commonly used street suffix or abbreviations: Wall	*Wall*	n/a	USPS
	Commonly used street suffix or abbreviations: Wy	*Way*	n/a	USPS
	Commonly used street suffix or abbreviations: Wys	*Ways*	n/a	USPS
	Commonly used street suffix or abbreviations: Wl	*Well*	n/a	USPS
	Commonly used street suffix or abbreviations: Wls	*Wells*	n/a	USPS
Street Name Post Directional	The direction indicator that follows the street name. Refer to Cardinal Direction for	Constrained List	n/a	FGDC
Street Name Post Modifier	A word or phrase in a complete street name that follows and modifies the Street	String	n/a	FGDC
Cross Street	Nearest cross street of location	String	n/a	RESO
Corner Of	A directional word describing a corner formed by the intersection of two	Constrained List	n/a	FGDC
Subaddress Type	The type of subaddress to which the associated Subaddress Identifier applies.	Constrained List	n/a	FGDC

	Common unit abbreviation: Apt	*Apartment*	n/a	USPS
	Common unit abbreviation: Bsmt	*Basement*	n/a	USPS
		Berth	n/a	
		Block	n/a	
	Common unit abbreviation: Bldg	*Building*	n/a	USPS
		Corridor	n/a	
		Cubicle	n/a	
	Common unit abbreviation: Dept	*Department*	n/a	USPS
	Common unit abbreviation: Fl. Can also be Level or Story	*Floor*	n/a	USPS
	Common unit abbreviation: Frnt	*Front*	n/a	USPS
	Common unit abbreviation: Hngr	*Hanger*	n/a	USPS
	Common unit abbreviation: Key	*Key*	n/a	USPS
	Common unit abbreviation: Lbby	*Lobby*	n/a	USPS
	Common unit abbreviation: Lot	*Lot*	n/a	USPS
	Common unit abbreviation: Lowr	*Lower*	n/a	USPS
	Common unit abbreviation: Ofc	*Office*	n/a	USPS
	Common unit abbreviation: Ph	*Penthouse*	n/a	USPS
	Common unit abbreviation: Pier	*Pier*	n/a	USPS
		PO Box	n/a	USPS
	Common unit abbreviation: Rear	*Rear*	n/a	USPS
	Common unit abbreviation: Rm	*Room*	n/a	USPS
		Seat	n/a	
	Common unit abbreviation: Side	*Side*	n/a	USPS
	Common unit abbreviation: Slip	*Slip*	n/a	USPS
	Common unit abbreviation: Spc	*Space*	n/a	USPS
	Common unit abbreviation: Stop	*Stop*	n/a	USPS
	Common unit abbreviation: Ste	*Suite*	n/a	USPS
		Terminal	n/a	
		Tower	n/a	
	Common unit abbreviation: Trlr	*Trailer*	n/a	USPS
	Common unit abbreviation: Unit	*Unit*	n/a	USPS
	Common unit abbreviation: Uppr	*Upper*	n/a	USPS
		Wing	n/a	FGDC
Subaddress Identifier	The letters, numbers, words, or combination thereof used to distinguish different	String	n/a	
City	City	String	n/a	
County	County	String	n/a	
State	State	Constrained List	n/a	USPS
	Armed Forces Americas (except Canada)	*AA*	n/a	
	Armed Forces Europe, the Middle East, and Canada	*AE*	n/a	
	Alabama	*AL*	n/a	
	Alaska	*AK*	n/a	
	Armed Forces Pacific	*AP*	n/a	
	American Samoa	*AS*	n/a	
	Arizona	*AZ*	n/a	
	Arkansas	*AR*	n/a	
	California	*CA*	n/a	
	Colorado	*CO*	n/a	

	Connecticut	*CT*	n/a	
	Delaware	*DE*	n/a	
	District of Columbia	*DC*	n/a	
	Federated States of Micronesia	*FM*	n/a	
	Florida	*FL*	n/a	
	Georgia	*GA*	n/a	
	Guam	*GU*	n/a	
	Hawaii	*HI*	n/a	
	Idaho	*ID*	n/a	
	Illinois	*IL*	n/a	
	Indiana	*IN*	n/a	
	Iowa	*IA*	n/a	
	Kansas	*KS*	n/a	
	Kentucky	*KY*	n/a	
	Louisiana	*LA*	n/a	
	Maine	*ME*	n/a	
	Marshall Islands	*MH*	n/a	
	Maryland	*MD*	n/a	
	Massachusetts	*MA*	n/a	
	Michigan	*MI*	n/a	
	Minnesota	*MN*	n/a	
	Mississippi	*MS*	n/a	
	Missouri	*MO*	n/a	
	Montana	*MT*	n/a	
	Nebraska	*NE*	n/a	
	Nevada	*NV*	n/a	
	New Hampshire	*NH*	n/a	
	New Jersey	*NJ*	n/a	
	New Mexico	*NM*	n/a	
	New York	*NY*	n/a	
	North Carolina	*NC*	n/a	
	North Dakota	*ND*	n/a	
	Northern Mariana Islands	*MP*	n/a	
	Ohio	*OH*	n/a	
	Oklahoma	*OK*	n/a	
	Oregon	*OR*	n/a	
	Palau	*PW*	n/a	
	Pennsylvania	*PA*	n/a	
	Puerto Rico	*PR*	n/a	
	Rhode Island	*RI*	n/a	
	South Carolina	*SC*	n/a	
	South Dakota	*SD*	n/a	
	Tennessee	*TN*	n/a	
	Texas	*TX*	n/a	
	Utah	*UT*	n/a	
	Vermont	*VT*	n/a	
	Virgin Islands	*VI*	n/a	

	Virginia	*VA*	n/a	
	Washington	*WA*	n/a	
	West Virginia	*WV*	n/a	
	Wisconsin	*WI*	n/a	
	Wyoming	*WY*	n/a	
ZIP Code	A system of 5-digit codes that identifies the individual Post Office or metropolitan	String	n/a	FGDC
ZIP Plus 4	A 4-digit extension of the 5-digit ZIP Code (preceded by a hyphen) that, in	String	n/a	FGDC
Country Name	The name of the country in which the address is located.	String	n/a	FGDC
MapURL	URL referencing an online mapping service that indicates the location.	String	n/a	
Federal Department Or Region	Federal department/region. This is required to designate a facility as a federal	String	n/a	
Telephone Number Label	The type of telephone number, to distinguish between multiple instances of	Constrained List	n/a	
	Phone number where contact can be reached during daytime, or regular work	*Day*	n/a	
	Phone number where contact can be reached during evening, or after regular work	*Evening*	n/a	
	Phone number of contact's personal mobile phone.	*Mobile*	n/a	
	Phone number of contact's work.	*Work*	n/a	
		Home		
		Personal		
		Direct		
		Fax		
		Pager		
Telephone Number	Telephone number associated with the contact. Format: Country code (area code)	String	n/a	
Telephone Extension	Extension number to reach the contact.	String		
Email Address Label	The type of email address, to distinguish between multiple instances of Email	Constrained List	n/a	
	Email address used for personal communication.	*Personal*	n/a	
	Email address used for work-related communication.	*Work*	n/a	
Email Address	Electronic mail address with common format: email@serviceprovider.suffix	String	n/a	
Credential	The type of credential held by the person described by the Role term.	Constrained List	n/a	
		Professional Engineer (PE)	n/a	
		Certified Energy Manager (CEM)	n/a	
		Building Operator Certification	n/a	
		Building Performance Institute	n/a	
		Building Performance Institute:	n/a	
		Building Performance Institute:	n/a	
		Building Performance Institute:	n/a	
		Building Performance Institute:	n/a	
		Building Performance Institute:	n/a	
		Building Performance Institute:	n/a	
		Building Performance Institute:	n/a	
		Residential Energy Services	n/a	
		Residential Energy Services	n/a	
		Registered Architect (RA)	n/a	
		Refrigerating System Operating	n/a	
		High Pressure Boiler Operating	n/a	
		Certified Commissioning	n/a	
		Associate Commissioning	n/a	
		Existing Building Commissioning	n/a	
		Commissioning Process	n/a	

		Accredited Commissioning	n/a	
		NYSERDA FlexTech Consultant	n/a	
		Certified Energy Manager (CEM)	n/a	
		Certified Energy Auditor (CEA)	n/a	
		High-Performance Building	n/a	
Credential Number	ID number for the credential held.	String	n/a	
Credential State	State in which the credential is issued. Please see State for a complete list of	Constrained List	n/a	
Years of Experience	Number of years of experience of the person being described by the Role term.	Integer	Years	
Ownership	The type of organization, association, or business, that owns the premises.	Constrained List	n/a	
		Property management company	n/a	
		Corporation partnership LLC	n/a	
		Religious organization	n/a	
		Individual	n/a	
		Franchise	n/a	
	An organization seeking profit from business services owns the premises.	*For profit organization*	n/a	
	An organization seeking to provide a benefit to the public at no profit to the	*Non profit organization*	n/a	
		Other non government	n/a	
	A government-sponsored organization owns the premises.	*Government*	n/a	
	The federal government owns the premises.	*Federal government*	n/a	
	The state government owns the premises.	*State government*	n/a	
	The local government owns the premises.	*Local government*	n/a	
Ownership Status	Ownership status of the premises or equipment with respect to the contact.	Constrained List	n/a	
	Premises are legally owned without a mortgage	*Owned*	n/a	
	Premises are legally owned with a mortgage	*Mortgaged*	n/a	
		~~*Leased*~~	~~n/a~~	
	Premises are rented/leased to a tenant other than the owner	*Rented*	n/a	
		~~*Occupied without payment of rent*~~	~~n/a~~	
	Premises are occupied by the legal owner	*Owner occupied*	n/a	
Customer Relation To Property Owner	If the project customer is not the owner of the premises, what is the relationship to	String	n/a	
Percent Occupied By Owner	Percent of gross floor area that is occupied by the owner.	Decimal	Percent	
Account Status	The status of customer's account or application. Example: the building profile	Constrained List	n/a	
		Draft	n/a	
		Received	n/a	
		Under review	n/a	
		On hold	n/a	
		Reviewed and approved	n/a	
		Reviewed and not approved	n/a	
		Active	n/a	
		Inactive	n/a	
		Closed	n/a	
		Canceled	n/a	
		Approved	n/a	
Utility Services	Energy services offered by the utility, please see ~~Energy Resources and Water~~	Constrained List	n/a	LBNL
Authorization	Designated if third party has been granted authorization.	Constrained List	n/a	
		Authorized	n/a	
		Unauthorized	n/a	
Authorization Date	Date the authorization was granted.	Date Format from Metadata	n/a	

Term	Definition	Data Type	Unit of Measure	Definition Source
Measure Classification				
Reporting Level	Level or boundary of reporting metrics for this record.	Constrained List	n/a	
	A package is a collection of measures	*Package*	n/a	
	A single energy conservation measure.	*Measure*	n/a	
Project Name	Name of the project.	String	n/a	ePB
Action Category	Type of activity associated with a project.	Constrained List	n/a	BuildingSync
	Building commissioning (Cx) is the process of verifying, in new construction, all	*Commissioning*	n/a	
	Individual replacement of equipment	*Replacement*	n/a	
	Modification of existing equipment or system	*Modification*	n/a	
	New addition of space, system, or equipment to existing premises	*Addition*	n/a	
	Removal of space, system, or equipment in existing premises	*Removal*	n/a	
	Authorized or supported program such as rebate	*Program*	n/a	
	Defined modification of equipment, system, or operation	*Measure*	n/a	
	Project	*Project*	n/a	
	Modification of system or equipment possibly including replacement, addition,	*Retrofit*	n/a	
	A behavioral intervention refers to the education, training, or motivating activity	*Behavioral intervention*	n/a	
	Substantial modification of space or system in existing premises	*Major remodel*	n/a	
	Retrocommissioning is a process that seeks to improve how building equipment	*Retrocommissioning*	n/a	
	An audit is an assessment of the energy needs and efficiency of a premises.	*Audit*	n/a	
	Measurement and verification	*MV*	n/a	
	Individual test of equipment or system	*Test*	n/a	
	Energy conservation measure	*ECM*	n/a	
	Training	*Training*	n/a	
	Construction	*Construction*	n/a	
	Monitoring	*Monitoring*	n/a	
	Building or system tune-up	*Tune up*	n/a	Seattle
Application Scale	Scale at which the project or measure is applied, such as an individual system,	Constrained List	n/a	BuildingSync
		Individual system	n/a	
		Multiple systems	n/a	
		Individual premises	n/a	
		Multiple premises	n/a	
		Entire facility	n/a	
		Entire site	n/a	
Technology Category	Authorized technology category as defined by the Federal Energy Management	Constrained List	n/a	CTS
		Boiler plant improvements	n/a	
		Chiller plant improvements	n/a	
	A software system to automate building controls, also known as an Energy	*Building automation systems*	n/a	
		Heating ventilating and air	n/a	
		Lighting improvements	n/a	
		Building envelope modifications	n/a	
		Chilled water hot water and	n/a	
		Electric motors and drives	n/a	
		Refrigeration	n/a	
		Distributed generation	n/a	
		Renewable energy systems	n/a	
	Energy or utility distribution system equipment.	*Energy distribution systems*	n/a	

		Water and sewer conservation	n/a	
		Electrical peak shaving or load	n/a	
		Energy cost reduction through	n/a	
		Energy related process	n/a	
		Advanced metering systems	n/a	
		Plug load reductions	n/a	
	Generic equipment category	*Equipment*	n/a	
Scope	Percentage of the premises affected by the measure that's either proposed,	Decimal	Percent	CTS, ePB
Quantity Affected	Quantity of devices or equipment affected by the measure- e.g, number of	Integer	n/a	ePB
Implementation Status	Implementation status of measure or a project	Constrained List	n/a	AUC
		Accepted	n/a	
		Expected	n/a	
		Proposed	n/a	
		Evaluated	n/a	
		Selected	n/a	
		Recommended	n/a	
		Initiated	n/a	
		Discarded	n/a	
	Currently being implemented.	*In Progress*	n/a	
	The implementation work has been completed.	*Completed*	n/a	
	Measurement and verification	*MV*	n/a	
	Measure or project has been implemented and monitored and verified results to	*Verified*	n/a	
	Measure was implemented but final results were unsatisfactory or completion	*Unsatisfactory*	n/a	
	Interim approval	*Interim approval*	n/a	
	Approved	*Approved*	n/a	
	Extended	*Extended*	n/a	
Implementation Status Date	Date at which the associated status went into effect.	Date Format from Metadata	n/a	
Discard Reason	Reason why the proposed mesure was dicarded.	Constrained List	n/a	
		Long payback	n/a	
		Requires permit	n/a	
Cost & Financials				
Cost Attribution	Type of Costs to implement or maintain the project or measure. This may include	Constrained List	n/a	LBNL
	The cost of financing for projects or measures that are funded over time through	*Financing*	n/a	
	First or initial cost	*First cost*	n/a	
		Recurring	n/a	
	Measurement and verification costs are costs to evaluate the performance of a	*MV*	n/a	
	Commissioning costs are costs to ensure that the installed measure or project is	*Commissioning*	n/a	
	Costs that remains more or less unchanged irrespective of the size of the	*Fixed*	n/a	
	Costs of material needed to implement the measure or project	*Material*	n/a	
		General	n/a	
	Costs of labor to implement the measure or project	*Labor*	n/a	
	Costs incurred to operate the piece of equipment installed as part of the measure	*Operating*	n/a	
		Permits and licenses	n/a	
	Taxes incurred as part of implementing the measure or a project	*Taxes*	n/a	
	Capital cost of the measure at the end of its useful life, in current year dollars.	*Capital*	n/a	
	Costs to maintain the equipment that has been installed as part of the measure	*Maintenance*	n/a	
	Principal repaid periodically as part of debt service payment	*Principal repayment*	n/a	

	Interest payment incurred periodically as part of debt service payment	*Interest payment*	n/a	
	Cost for ~~repair and~~ replacing the equipment	*Replacement*	n/a	
	Costs for managing and administrating the implementation of the project	*Management and administration*	n/a	
	Costs for insuring the equipment or system	*Insurance*	n/a	
	Generally applied to energy or construction projects procured by the Federal	*Markup*	n/a	
	A different manifestation of markup, to cover non-project specific overheads	*Margin*	n/a	
	Profit incurred by the project as part of implementing the measure or project.	*Profit*	n/a	
	Total costs to implement the measure or project	*Total*	n/a	
	The net cost of disposing material or equipment that is being replaced or	*Disposal and salvage costs*	n/a	
	Cost of installation activity	*Installation*	n/a	
	Cost of implementation activity	*Implementation*	n/a	
	Cost associated with health and safety measures	*Health and safety*	n/a	
	Cost associated with a system	*System*	n/a	
	Cost associated with advertising	*Advertising*	n/a	
	Cost without taxes	*Before taxes*	n/a	
	Cost per unit, where unit can be Spatial Unit Type, Resource, other	*Unit*	n/a	
	Gross cost	*Gross*	n/a	
	Net cost	*Net*	n/a	
	Incremental cost	*Incremental*	n/a	
	Generic cost	*Cost*	n/a	
Cost	Cost related to the project or measure. May be associated with "Cost Attribution"	Decimal	$ ~~n/a~~	CTS, ePB
Cost Intensity	Cost per square foot of affected space.	Decimal	$/ft2	ENERGY STAR
Labor Hours	Total number of hours needed to complete a task, each of which represents the	Decimal	hours	BEDES Beta,
Contracting Method	Contracting method for financing capital improvements, which allows cost	Constrained List	n/a	
	Under a guaranteed savings contract the contractor guarantees a certain level of	*Guaranteed savings*	n/a	
	Under a shared savings contract the cost savings are split for a pre-determined	*Shared savings*	n/a	
	Under a build-own-operate-transfer (BOOT) model the contract may involve a	*Build own operate transfer*	n/a	
	Under a chauffage contract the contractor takes over complete responsibility for	*Chauffage*	n/a	
	Under a ‘first out’ contract the contractor is paid 100% of the energy savings until	*First out*	n/a	
	Under a fee for service contract the owner of the asset (lessor – the contractor)	*Fee for service*	n/a	
	Power purchase agreements, or PPAs, are contracts in which the public entity	*Power purchase agreement*	n/a	
	A net metering credit purchase agreement, or NMA, is designed to reduce	*Net metering credit purchase*	n/a	
	In-house assessment and installation does not require any third party contracts,	*In house*	n/a	
Funding Source	Source of funding to implement the measure or a project	Constrained List	n/a	ePB
	Funds derived from public sources.	*Appropriated funds*	n/a	
	Funds from operation and maintenance budgets	*Operating funds*	n/a	
	Funds obtained through loans either directly or through contracting mechanisms	*Loan*	n/a	
	Funds raised through issuing a bond	*Bond*	n/a	
	A sum of money given by an organization for a specific purpose.	*Grant*	n/a	
	Funding obtained through utility or state tax credits to implement the measure or	*Tax credits*	n/a	
	Funding obtained through incentives to implement the measure or project	*Incentive*	n/a	
	Public purpose programs administered by utilities, state agencies, or other third	*Energy efficiency and renewable*	n/a	
	These are programs that provide incentives to curtail demand during peak energy	*Demand response or load*	n/a	
	Financed using internal funds	*Self financed*	n/a	ICP
	Financed through lease arrangement	*Lease*	n/a	ICP
	An Energy Services Agreement (ESA) is a financial vehicle for funding energy	*Energy services agreement*	n/a	ICP
	Property assessed clean energy (PACE) is a means of financing energy	*PACE*	n/a	ICP

	Funding obtained through rebates to implement the measure or project	*Rebate*	n/a	
Funding Amount	Value associated with a funding source	Decimal	$	CTS
Periodically Recurring Costs	Costs to operate the project or measure or equipment or system and can	Decimal	$	
Cost Period	Length of study period: The study period begins with the base date, the date to	TimeDuration	n/a	BuildingSync
Cost Effectiveness Screening Method	Method for calculating cost-effectiveness for measures or project	Constrained List	n/a	BEDES Beta
	The length of time required for an investment to pay for itself.	*Simple payback*	n/a	
	A measure used to evaluate the efficiency of an investment or to compare the	*Return on investment*	n/a	
	Measure of cost effectiveness used to validate this project. Value in $ entered	*Life cycle cost*	n/a	
	Net Present Value (NPV) of a measure or a project	*Net present value*	n/a	
	Internal rate of return (IRR) of a measure or a project	*Internal rate of return*	n/a	
	The Levelized cost of energy (LCOE) is the total cost of installing and operating a	*Levelized cost of energy*	n/a	HPXML
	SIR is a dimensionless measure of performance that expresses the ratio of	*Savings to investment ratio*	n/a	ICP
	The modified internal rate of return (MIRR) formula adds up the negative cash	*Modified internal rate of return*	n/a	ICP
	Net operating income (NOI) is a calculation used to analyze real estate	*Net Operating Income*	*n/a*	
	Total Resource Cost (TRC) Test measures the net costs of a demand-side	*Total Resource Cost Test*	*n/a*	
	Qualifier for calculations performed for the life cycle of equipment or a facility	*Life cycle*	*n/a*	
Cost Effectiveness Value	Metric for evaluating the cost-effectiveness of measures or project	Decimal	Dependent on	
Discount Factor	Discount factor applied to calculate present values of future cash flows	Decimal	Percent	BuildingSync
Escalation Rate	Assumed increase in resource or other costs	Decimal	Percent	BuildingSync
Interest Rate	Interest rate for borrowed funds	Decimal	Percent	ePB
Capitalization Rate	The capitalization rate is the rate of return on a real estate investment property	Decimal	Percent	ICP
FICO Score	The “classic” or “generic" FICO (Fair Isaac Corporation) credit score of the	Integer	n/a	SEE Action
Income	Gross income of the borrower(s). Use Interval Frequency to qualify (e.g., Annual,	Decimal	$	SEE Action
Debt Obligation	Total of all debt obligations for the borrower(s), including housing-related and non-	Decimal	$	SEE Action
Origination Channel	The original point of contact for a loan borrower.	Constrained List	n/a	SEE Action
		Contractor	n/a	SEE Action
		Community organization	n/a	SEE Action
		Lender	n/a	SEE Action
		Program administrator	n/a	SEE Action
Loan Amount	An amount of a borrowed loan. Can be characterized using Loan Label.	Decimal	$	SEE Action
Loan Label	Loan characterization qualifier	Constrained List	n/a	SEE Action
	The amount of a loan borrowed, or the part of the amount borrowed which	*Principal*		SEE Action
	Start of loan	*Original*		SEE Action
	Balance of loan	*Balance*		SEE Action
	Loan proceeds sent by the lender	*Funded*		SEE Action
	Early loan prepayment	*Early repayment*		SEE Action
	End of scheduled loan period	*Maturity*		SEE Action
Loan Repayment Status	The status of the borrower’s repayment obligations at any given time.	Constrained List	n/a	SEE Action
		Current		
		Delinquent		
		Prepaid		
		Charged off		
Loan Security	The collateral pledged, if any, to the lender to secure a loan.	Constrained List	n/a	SEE Action
		Equipment		
		Property senior to mortgage		
		Property junior to mortgage		
Charged Off Reason	The basis for charging off a loan.	Constrained List	n/a	SEE Action

		Job loss		
		Health complications		
		Equipment failure		
		Foreclosure		
Baseline & Savings				
Savings Attribution	Type of savings associated with a measure or project. Complete constrained list	Constrained List	n/a	LBNL
	Savings due to reduction in operating and maintenance costs because a piece of	*Operation and maintenance*	n/a	
	An Energy Savings Certificate (ESC), also known as an Energy Efficiency Credit	*Energy savings certificates*	n/a	
	Savings due to reduction of repair, and replacement activities by existing staff.	*Repair and replacement*	n/a	
	Savings due to sale of Renewable Energy Certificates (RECs), also known as	*Renewable energy credits*	n/a	
	Total savings not including energy or natural resources.	*Total non resource*	n/a	
Cost Savings	Cost savings associated with a measure or project. This term can also further	Decimal	$	LBNL
Cost Savings Intensity	Cost savings associated with a measure or project divided by the floor area	Decimal	$/ft2	
Resource Savings	Energy or water resource savings that can be realized from a measure or a	Decimal	Dependent on	LBNL
Resource Savings Intensity	Resource savings per square foot.	Decimal	Dependent on	
IPMVP Option	Recommended approach for verification of energy savings for this measure,	Constrained List	n/a	ePB, BuildingSync
	Option (A) Retrofit Isolation: Key Parameter Measurement -- Savings are	*Option A*	n/a	IPMVP
	Option (B) Retrofit Isolation: All Parameter Measurement -- Savings are	*Option B*	n/a	
	Option (C) Whole Facility -- Savings are determined by measuring energy use at	*Option C*	n/a	IPMVP
	Option (D) Calibrated Simulation -- Savings are determined through simulation of	*Option D*	n/a	IPMVP
Number Of Permits Replaced	Number of permits replaced as part of measure.	Integer	n/a	BEDES Beta
Number Of Staff Members Trained	Number of staff members trained as part of measure.	Integer	n/a	BEDES Beta
Work Performed By	Entity who performed the work.	Constrained List	n/a	BEDES Beta
		Retro commissioning team	n/a	
		Building staff	n/a	
		Outside contractor	n/a	
Audit Exemption	Conditions under which the building is exempt from a mandated audit.	String	n/a	BEDES Beta
Retro Commissioning Exemption	Conditions under which the building is exempt from a mandated retro-	String	n/a	BEDES Beta
Compliance Status	Status of compliance for ordinances requiring benchmarking or audit.	Constrained List	n/a	BEDES Beta
		Complied early	n/a	
		Complied	n/a	
		Exempted	n/a	
		In violation	n/a	
Compliance Status Date	Date when the associated compliance status changed.	Date Format from Metadata	n/a	
ASHRAE Audit Level	Energy audit level as defined in ASHRAE Procedures for Commercial Building	Constrained List	n/a	LBNL
	Walk-Through Analysis/Preliminary Audit	*Level 1*	n/a	LBNL
	Energy Survey and Analysis	*Level 2*	n/a	LBNL
	Detailed Analysis of Capital Intensive Modifications	*Level 3*	n/a	LBNL

Term	Definition	Data Type	Unit of Measure	Definition Source
~~**Sustainable Practice**~~		~~Constrained List~~		
		~~*Conserving methods*~~		
		~~*Regionally sourced materials*~~		
		~~*Recycled materials*~~		
		~~*Recyclable materials*~~		
		~~*Renewable materials*~~		
		~~*Salvaged materials*~~		
	~~Passive solar design—also known as climatic design—involves using a building's~~	~~*Passive solar design*~~		~~DOE~~
Dimensions				
Vertical Surroundings	Attachments to the outermost vertical surfaces of the premises.	Constrained List	n/a	LBNL/BEDES Beta 2.4
	Single family, detached premises are stand-alone structures with outside walls that	*Stand alone*	n/a	LBNL/BEDES Beta 2.4
	Single-family, attached residential premises are units that are attached only by	*Attached*	n/a	
		Attached on one side	n/a	LBNL/BEDES Beta 2.4
		Attached on two sides	n/a	LBNL/BEDES Beta 2.4
		Attached on three sides	n/a	LBNL/BEDES Beta 2.4
		Within a premises	n/a	LBNL
Horizontal Surroundings	Attachments to the outermost horizontal surfaces of the premises.	Constrained List	n/a	LBNL/BEDES Beta 2.4
		Stand alone	n/a	LBNL
		Attached from above	n/a	LBNL/BEDES Beta 2.4
		Attached from below	n/a	LBNL/BEDES Beta 2.4
		Attached from above and	n/a	LBNL/BEDES Beta 2.4
Floor Level	Integer value of a floor level beginning in the US at 1 for ground level. Can be	Integer	n/a	LBNL
Footprint Shape	General shape of the premises outlined by the exterior walls. Illustrations will be	Constrained List	n/a	BEDES Beta 2.4
		Rectangular	n/a	BEDES Beta 2.4
		Square	n/a	BEDES Beta 2.4
		Circular	n/a	BEDES Beta 2.4
		Courtyard	n/a	LBNL/CAST
		L shaped	n/a	BEDES Beta 2.4
		U shaped	n/a	BEDES Beta 2.4
		H Shaped	n/a	CAST
		V Shaped	n/a	BEDES Beta 2.4
		T Shape	n/a	BEDES Beta 2.4
Shell Area	The total surface area of the exterior envelope of a building	Decimal	ft2	
Surface				
Opaque Surface	Opaque surface type.	Constrained list	n/a	LBNL
	A vertical (generally) construction in a premises that creates the enclosed space.	*Wall*	n/a	LBNL/CEC
	A finished construction under the roof or adjacent floor	*Ceiling*	n/a	LBNL
	Makes up the top exterior boundary of the premises envelope. It is generally	*Roof*	n/a	LBNL/CEC
	The base construction of the roof.	*Roof deck*	n/a	LBNL
	A terrace is a level paved area or platform next to a building, such as a patio or	*Terrace*	n/a	BEDES Beta
	A horizontal (generally) construction in a premises that creates the base/bottom of	*Floor*	n/a	
	A construction element that supports the structure of the premises. In general it is	*Foundation wall*	n/a	
	A surface component that is operable and separates two spaces in a premises.	*Door*	n/a	
Construction Method	The general description of the main structural construction method used for an	Constrained list	n/a	LBNL
	Masonry a structure built from individual units laid in and bound together by mortar.	*Masonry*	n/a	LBNL/CAST
	Structural brick is a hollow clay brick product.	*Structural brick*	n/a	LBNL/HPXML

	~~Stone is the hard, solid, nonmetallic mineral matter of which rock is made.~~	*Stone*	n/a	LBNL/HPXML
	A concrete masonry unit (CMU) – also called concrete brick, concrete block,	*Concrete masonry unit*	n/a	LBNL/HPXML
		Concrete solid	n/a	LBNL/HPXML
		Concrete lightweight	n/a	LBNL/BEDES Beta
		Concrete panels	n/a	LBNL/BEDES Beta
		Concrete poured	n/a	LBNL/BEDES Beta
		Concrete load bearing	n/a	LBNL/BEDES Beta
		Concrete insulated forms	n/a	LBNL/BEDES Beta
		Concrete aerated	n/a	LBNL/BEDES Beta
		Steel frame	n/a	LBNL/HPXML/CAST
		Wood frame	n/a	LBNL/CAST
		Double wood frame	n/a	LBNL/HPXML
	A structural insulated panel (or structural insulating panel), SIP, are a composite	*Structural insulated panel*	n/a	LBNL/HPXML
		Log solid wood	n/a	LBNL/HPXML
	Straw bale construction uses baled straw from wheat, oats, barley, rye, rice and	*Straw bale*	n/a	LBNL/HPXML
	Built-up means it is made by fastening several layers or sections one on top of the	*Built up*	n/a	LBNL/BEDES Beta
	A cool roof reduces roof temperature with a high solar reflectance (or albedo)	*Cool roof*	n/a	EPA
	A green roof or living roof is a roof of a building that is partially or completely	*Green roof*	n/a	LBNL/BEDES Beta
	A blue roof is a roof design that is explicitly intended to store water, typically	*Blue roof*	n/a	
Finish	The final material applied to a surface, either interior or exterior.	Constrained list	n/a	
	Wood finish materials can include wood siding or wood paneling.	*Wood*	n/a	
	Masonite is a type of hardboard made of steam-cooked and pressure-molded	*Masonite*		
	Stone finish materials can include slate, granite, flagstone, limestone, etc.	*Stone*	n/a	
	Tile finish materials can be made from ceramic, glass, plastic	*Tile*	n/a	
	Brick finish materials can include brick veneer, as well as full dimension brick.	*Brick*	n/a	
	Masonry finish materials can include plaster, adobe.	*Masonry*	n/a	
	Concrete finishes can be smooth or textured.	*Concrete*	n/a	
	Fiber cement is a composite material made of sand, cement and cellulose fibers.	*Fiber cement*		
		Metal	n/a	
		Metal panel	n/a	LBNL/BEDES Beta
	Standing seam metal panels are generally used for wall and roof finishes.	*Metal panel standing seam*	n/a	LBNL/IEP
		Sheet metal	n/a	LBNL/BEDES Beta
	Exterior Insulation and Finish System, a nonload bearing, exterior wall cladding	*EIFS*	n/a	IBC/ASTM
	Shingles, used for example as a finish for a roof or wall, that have some type of	*Shingles asphalt*	n/a	LBNL
	Shingles, used for example as a finish for a roof or wall, that are made of a	*Shingles composition*	n/a	LBNL/IEP
	Shingles, used for example as a finish for a roof or wall, made entirely of wood.	*Shingles wood*	n/a	LBNL
	Shingles, used for example as a finish for a roof or wall, made from a combination	*Shingles asbestos*	n/a	LBNL
	Shingles, applied as a finish to a wall or roof surface, made of slate or tile	*Shingles slate or tile*	n/a	LBNL/IEP
		Shingles		
	Shakes, applied as a finish to a wall or roof surface, made entirely of wood. Wood	*Shakes wood*	n/a	LBNL
	Finish material usually associated with a floor surface	*Carpet*	n/a	LBNL
	Finish material usually associated with a floor surface	*Linoleum*	n/a	LBNL
	Finish material composed primarily of asphalt or fiberglass	*Asphalt or fiberglass*	n/a	LBNL
	Finish material composed primarily of synthetic materials such as plastic or rubber.	*Plastic rubber synthetic*	n/a	LBNL
Material	Material used in the construction of an opaque surface.	Constrained list	n/a	LBNL
	Material made primarily from trees, such as dimension lumber and plywood (which	*Wood*	n/a	LBNL
		Steel	n/a	

		Concrete	n/a	
		Brick	n/a	
		Masonry	n/a	
		Fiberglass	n/a	
	Plant-fiber based material	*Cellulose*	n/a	LBNL
	Expanded Polystyrene	*EPS*	n/a	LBNL
	Extruded Polystyrene	*XPS*	n/a	LBNL
	Material made from molten rock. Also called Mineral Wool	*Rock wool*	n/a	LBNL/BEDES Beta
	Fiberglass blown-in insulation material	*Insulsafe*	n/a	LBNL/BEDES Beta
	Material made from recycled cotton products such as denim. It can be used for	*Recycled cotton*	n/a	LBNL/BEDES Beta
	Material, which can be used for insulation, made from isocyanate.	*ISOCY*	n/a	LBNL/BEDES Beta
	Spray-in-place polyurethane foam insulation material	*Icynene*	n/a	LBNL/BEDES Beta
		Closed cell		
		Vermiculite		
Material Qualifier	A description of how the material is applied.	Constrained list	n/a	LBNL
	The material is used to create an insulation layer	*Insulation*	n/a	LBNL
	The material used to create the structural integrity in an opaque surface. In many	*Framing*	n/a	LBNL
	The material used in a construction layer, that is not Framing or Insulation	*Construction layer*	n/a	LBNL
Framing Factor	Fraction (0-1) of the surface that is composed of structural framing material.	Decimal	n/a	LBNL
Opaque Surface Component	Element or characteristic of an opaque surface	Constrained list	n/a	HPXML
		Home garage connection	n/a	
		Rim joist	n/a	
		Baseboards	n/a	
		Fenestration	n/a	
		Plumbing penetration	n/a	
		HVAC register	n/a	
		Interior sheathing voids	n/a	
		Cantilevers	n/a	
Air Infiltration Description	Description of the infiltration characteristics for an opaque surface, fenestration	Constrained list	n/a	LBNL
	Very low infiltration rate. The Passive House standard for air infiltration rate is <=	*Very tight*	n/a	LBNL
	Low infiltration rate. The 2012 IECC code requires between 3 and 5 ACH (air	*Tight*	n/a	LBNL
	Average infiltration rate.	*Average*	n/a	LBNL
	High infiltration rate, many places in the premises where outside air can come into	*Leaky*	n/a	LBNL
	Very high infiltration rate.	*Very leaky*	n/a	LBNL
Air Infiltration Test	Type of air infiltration test performed on the premises	Constrained list	n/a	LBNL
		Blower door	n/a	LBNL
		Tracer gas	n/a	LBNL
		Checklist	n/a	LBNL
Air Infiltration Blower Door Test	Type of blower door test. Use Air Infiltration Test to qualify these values.	Constrained list	n/a	LBNL
	Blower door pressurization test	*Pressurization*	n/a	LBNL
	Blower door depressurization test	*Depressurization*	n/a	LBNL
	Blower door test conducted by unknown method.	*Conducted*	n/a	
	Blower door test not conducted.	*Not conducted*	n/a	
Air Infiltration Value	The measured value from the Air Infiltration test.	Decimal	Dependent on	LBNL
Air Infiltration Value Units	The units of measure for the Air Infiltration Value field.	Constrained list	n/a	LBNL
	Cubic feet per minute	*CFM*	cfm	
	Cubic feet per minute at 25 Pascals (Pa)	*CFM25*	cfm	LBNL

	Cubic feet per minute at 50 Pascals (Pa)	*CFM50*	cfm	LBNL
	Cubic feet per minute at 75 Pascals (Pa)	*CFM75*	cfm	LBNL
	Cubic feet per minute at natural ~~pressure~~ ~~air leakage rate~~	*CFMnatural*	cfm	LBNL
	Air changes per hour	*ACH*	ACH	
	Air changes per hour at 50 Pascals (Pa) pressure	*ACH50*	ACH	LBNL
	Air changes per hour at natural air leakage rate	*ACHnatural*	ACH	LBNL
	Total area of all the gaps and cracks in a premises which contribute to infiltration. It	*Effective Leakage Area*	in2	LBNL
Radiant Barrier	Type of radiant barrier in the construction	Constrained List	n/a	LBNL
		Foil backed material	n/a	LBNL
		No radiant barrier	n/a	LBNL
Radiant Barrier Location ~~Installation~~	Installed location of radiant barrier	Constrained List	n/a	HPXML
	Radiant barrier is installed on top of the roof rafters (or trusses) before the roof	*Top side of truss under*	n/a	
	Radiant barrier is installed on the bottom chord.	*Below bottom chord*	n/a	
	Radiant barrier is installed on the attic floor, over ceiling insulation.	*Attic floor*	n/a	
Plumbing Penetration Sealing	Type of plumbing penetration sealing	Constrained List	n/a	LBNL
	Metal or plastic flashing attached to the area where plumbing fixtures penetrate a	*Flashing*	n/a	LBNL
	Specially manufactured fittings for different types of plumbing installations that	*Fitting*	n/a	LBNL
Doors				
Door Construction	Type of door construction.	Constrained List	n/a	BEDES Beta
		Solid wood	n/a	BEDES Beta
		Hollow wood	n/a	BEDES Beta
		Uninsulated metal	n/a	BEDES Beta
		Insulated metal	n/a	BEDES Beta
		Glass	n/a	BEDES Beta
Fenestration				
Fenestration	A premises component that contains ~~of~~ some type of transparent or translucent glazing	Constrained List	n/a	LBNL
	Typically a vertical fenestration component.	*Window*	n/a	LBNL
	Openings in the building envelope of the premises	*Drive through window*	n/a	Food Service Survey
	Typically a horizontal or sloped fenestration component.	*Skylight*	n/a	LBNL
	A door that has a glazed component ~~in it.~~ covering over 50% of its area.	*Door*	n/a	LBNL
	An external non-load bearing wall that consists of any combination of framing	*Curtain wall*	n/a	NFRC
	A type of fenestration that does not usually fill the entire wall surface, compared to	*Window wall*	n/a	LBNL
	A non-operable device primarily designed to transmit daylight from a roof surface	*Tubular skylight*	n/a	NFRC
	~~The transparent or translucent component of fenestration~~	~~*Glazing*~~	~~n/a~~	
	~~Fenestration shading device or system~~	~~*Shading*~~	~~n/a~~	
Fenestration Glazing Type	Type of glazing material in the fenestration product.	Constrained List	n/a	LBNL
	Specular glass that has the following values:	*Clear uncoated*	n/a	LBNL
	Specular glass that has the following values:	*Low e*	n/a	LBNL
	Specular glass that has the following values:	*Tinted*	n/a	LBNL
	Specular glass that has the following values:	*Tinted plus low e*	n/a	LBNL
	Specular glass that has the following values:	*Reflective*	n/a	LBNL
	Specular glass that has the following values:	*Reflective on tint*	n/a	LBNL
	Specular glass that has the following values:	*High performance tint*	n/a	LBNL
	Specular glass that has the following values:	*Sunbelt low e low SHGC*	n/a	LBNL
	A film that is suspended between two glass layers that has the following	*Suspended film*	n/a	LBNL
	Glazing material is made of some form of plastic. See the Diffusing term to	*Plastic*	n/a	LBNL
Glazing Diffusing Description	If the Fenestration Glass Type is diffusing (the material is not clear and causes	Constrained List	n/a	LBNL

	The fenestration is uniformly diffusing	*Translucent*	n/a	LBNL
	The fenestration glass type is etched.	*Etched*	n/a	LBNL
	The fenestration glass type has a fritted (finely porous through which gas or liquid may	*Fritted*	n/a	LBNL
	The fenestration glass type is not diffusing	*Not diffusing*	n/a	LBNL
Fenestration Gas Fill	For a sealed glazing system (commonly called an Insulated Glass Unit (IGU), the	Constrained List	n/a	LBNL
	A insulated glass unit (IGU) filled with 100% air	*Air*	n/a	LBNL
	A insulated glass unit (IGU) filled with a mixture of Argon and Air (usually 90%	*Argon*	n/a	LBNL
	A insulated glass unit (IGU) filled with a mixture of Krypton and Air (usually 90%	*Krypton*	n/a	LBNL
Fenestration Glass Layer Description	A description of the number of layers of glass in a fenestration glazing system.	Constrained List	n/a	LBNL
	A fenestration glazing system composed of one layer of glass.	*Single pane*	n/a	LBNL/BEDES Beta
	A fenestration glazing system composed of two layers of glass, with a spacer to	*Double pane*	n/a	LBNL/BEDES Beta
	A fenestration glazing system composed of three layers of glass, with spaces	*Triple pane*	n/a	LBNL/BEDES Beta
	A fenestration glazing system composed of more than one layer of glass, with	*Multi layered*	n/a	LBNL/BEDES Beta
	A fenestration system composed of a single layer of glass, with another system,	*Single paned with storm panel*	n/a	LBNL/BEDES Beta
Fenestration Number Of Glass Layers	The number of layers in a fenestration insulated glass unit (IGU).	Integer	n/a	LBNL/BEDES Beta
Fenestration Frame Material	The construction and material used in the frame of the fenestration product. Some	Constrained List	n/a	LBNL/BEDES Beta
	A fenestration framing system composed of aluminum, when it cannot be	*Aluminum uncategorized*	n/a	LBNL/BEDES Beta
	A fenestration framing system composed of aluminum, but without any low	*Aluminum no thermal break*	n/a	LBNL/BEDES Beta
	A fenestration framing system composed of aluminum, which is a highly	*Aluminum Thermal break*	n/a	LBNL/BEDES Beta
	A fenestration framing system composed of more than one material, such as wood	*Clad*	n/a	LBNL/BEDES Beta
	A fenestration framing system composed of a blend of different materials. The	*Composite*	n/a	LBNL/BEDES Beta
	A fenestration framing system composed of fiberglass	*Fiberglass*	n/a	LBNL/BEDES Beta
	A fenestration framing system composed entirely of steel.	*Steel*	n/a	LBNL/BEDES Beta
	A fenestration framing system composed entirely of vinyl.	*Vinyl*	n/a	LBNL/BEDES Beta
	A fenestration framing system composed entirely of wood.	*Wood*	n/a	LBNL/BEDES Beta
Solar Heat Gain Coefficient	The ratio of the solar heat gain entering the space through the fenestration product	Decimal	Percent	NFRC 200-2014
Visible Transmittance	The fraction of radiation in the visible solar spectrum (0.4 to 0.7 micrometers) that	Decimal	Percent	LBNL
Fenestration Operation	Characterization of whether a fenestration product can be opened.	Constrained List	n/a	LBNL/BEDES Beta
	Fenestration products that can be opened and closed as desired by the occupant	*Operable*	n/a	LBNL/BEDES Beta
	Fenestration products that are fixed shut and cannot be opened by premises	*Non operable*	n/a	LBNL/BEDES Beta
Window To Wall Ratio	Ratio of total window area to total wall area, where the total wall area is calculated	Decimal	n/a	LBNL/BEDES Beta
Fenestration Layout	The pattern of distribution of the fenestration system on the wall.	Constrained List	n/a	LBNL/CAST
	Fenestration systems that do not have a break between them across the wall.	*Continuous*	n/a	LBNL/CAST
	Fenestration systems that have a section of wall between them. This type of layout	*Discrete*	n/a	LBNL/CAST
Sill Height	Distance from the floor to the lower horizontal surface at the window opening.	Decimal	ft	LBNL/CAST
Number Of Fenestration Units	Number of windows, skylights, glass doors, etc associated with a surface, a zone,	Integer	n/a	LBNL/CAST
Shading System	A system that can be added to a fenestration system which blocks or redirects	Constrained List	n/a	LBNL/BEDES Beta
	A horizontal element of a premises that projects out perpendicularly from the face	*Overhang*	n/a	LBNL/BEDES Beta
	A vertical element of a premises that projects perpendicularly from the face of a	*Fin*	n/a	LBNL/BEDES Beta
	An horizontal element of a premises that projects perpendicularly from the face of	*Awning*	n/a	LBNL/BEDES Beta
	A shading system that is generally made of some type of mesh or woven material,	*Solar screen*	n/a	LBNL/BEDES Beta
	A film that used to reduce solar gain that can be applied to the interior or exterior of	*Solar film*	n/a	LBNL/BEDES Beta
	A shading system that can be applied to the exterior of a fenestration system	*Louver*	n/a	LBNL
	A shading system that can be applied to the exterior, interior or between the	*Blind*	n/a	LBNL
	A shading system generally made of some sort of mesh, woven, or felted material.	*Curtain*	n/a	LBNL
	Roller shades, honeycomb shades	*Shade*	n/a	LBNL
	A shading system that is generally made of some sort of mesh or woven material.	*Screen*	n/a	LBNL

		Deciduous foliage	n/a	
		Evergreen foliage	n/a	
		Neighboring building	n/a	
	A horizontal surface placed inside or both inside and outside a window to reflect	*Light shelf*	n/a	BuildingSync
Percent Vision Glazing	The percent of the glass portion of an exterior window, relative to the wall area,	Decimal	Percent	LBNL/BEDES Beta
Percent Skylight Area	The percent of the skylight area relative to the roof area.	Decimal	Percent	LBNL/BEDES Beta
Percent Of Fenestration Area Shaded	The percent of the fenestration area that is shaded by exterior objects such as	Decimal	Percent	LBNL/BEDES Beta
Percent Glazing	The percentage of an opaque surface or door that is glazed	Decimal	Percent	BuildingSync
Weatherstrip Status	Whether a premises or feature, such as a door or window, is weatherstripped.	Constrained List	n/a	LBNL/BEDES Beta
	Weatherstripping is the process of sealing openings such as doors, windows, and	*Weatherstripped*	n/a	LBNL
	There is no weatherstripping on the premises components.	*Not weatherstripped*	n/a	LBNL
Weatherstrip Description	~~Whether a component is weatherstripped or not.~~ Material used in weatherstipping	Constrained List	n/a	LBNL
	Weatherstripping material type is unknown.	*Generic*	n/a	LBNL
	Open or closed cell foam, or EPDM rubber	*Foam*	n/a	LBNL
	Weatherstripping material made from felt	*Felt*	n/a	LBNL
	A manufactured products made of a combination of materials such as plastic and	*Sweep*	n/a	LBNL
	A tubular material made of rubber, vinyl or silicone.	*Tubular*	n/a	LBNL
	Durable plastic or metal strip folded into a V shape that springs open to bridge	*Tension seal*	n/a	LBNL
Fenestration Certification	Type of certification for a fenestration product.	Constrained List	n/a	LBNL/HPXML
	Fenestration rating label from the National Fenestration Rating Council (NFRC)	*NFRC certification*	n/a	LBNL/HPXML
	Fenestration rating that meets the ENERGY STAR rating criteria	*ENERGY STAR*	n/a	LBNL/HPXML
	Fenestration rating produced by a third-party certification body.	*Third party certification*	n/a	LBNL/HPXML
Moveable Insulation	Indication of whether or not a fenestration product has moveable insulation. This	Constrained List	n/a	LBNL/HES-SF
		Moveable insulation present	n/a	LBNL/HES-SF
		Moveable insulation not	n/a	LBNL/HES-SF
Foundation				
Foundation Perimeter Insulation	Is the foundation perimeter insulated.	Constrained List	n/a	LBNL/BEDES Beta
		Insulated	n/a	LBNL/BEDES Beta
		Not insulated	n/a	LBNL/BEDES Beta
Foundation Height	Height of the premises foundation. [NOTE: The Location term can be used to	Decimal	ft	LBNL/BEDES Beta
Foundation Ground Coupling	The type of coupling between foundation and ground. [NOTE: Use Location and	Constrained List	n/a	LBNL/BEDES Beta
	Exposed to ambient air	*Ambient*		
	In contact with rubble stone	*Rubble stone*		
	In direct contact with ground	*Ground*		
Foundation Component	Element or characteristic of a foundation	Constrained List	n/a	
		Access point	n/a	
		Plumbing penetration	n/a	
		Wiring penetration	n/a	
		Service penetration	n/a	
		Chimney or flue chase	n/a	
	Mechanical chases can be large openings between the basement and the living	*Mechanical chase*	n/a	
	The rim, or band, joist refers to the area where the floor joist sits on the exterior	*Rim joist*	n/a	
		Fenestration	n/a	
		Cantilever	n/a	
~~**Thermal Boundary Installation**~~		~~Constrained List~~	~~n/a~~	
		~~*Foundation wall*~~	~~n/a~~	
		~~*Frame floor*~~	~~n/a~~	

Roof & Ceiling				
Ceiling Configuration	Description of the type of ceiling in the premises.	Constrained List	n/a	LBNL
	A construction that does not have space, other than for framing, between the	*Cathedral*	n/a	LBNL/BEDES Beta
	A construction that has a space between the ceiling structural framing and the roof	*Attic*	n/a	LBNL
	A construction that has a non-structural ceiling suspended below the structural	*Drop*	n/a	LBNL/BEDES Beta
	The space between two floors, or between a suspended ceiling and the floor	*Plenum above*	n/a	LBNL
Attic Venting	Description of how the attic is vented.	Constrained List	n/a	LBNL/HPXML
Attic Access Location	Description of where the attic is located, generally thought of as what type of space	Constrained List	n/a	LBNL/BEDES Beta
Roof Shape	Architectural description of the exterior shape of the roof. If the roof has more than	Constrained List	n/a	LBNL/HPXML
	A gable is the generally triangular portion of a wall between the edges of a dual-	*Gable*	n/a	LBNL/HPXML
	A gambrel or gambrel roof is a usually symmetrical two-sided roof with two slopes	*Gambrel*	n/a	LBNL
	A hip roof, hip-roof or hipped roof, is a type of roof where all sides slope	*Hip*	n/a	LBNL
	A mansard or mansard roof is a four-sided gambrel-style hip roof characterized by	*Mansard*	n/a	LBNL
	A flat roof is a roof which is almost level in contrast to the many types of sloped	*Flat*	n/a	LBNL/HPXML
	A single slope roof.	*Shed*	n/a	LBNL
Attic Component	Element of an attic	Constrained List	n/a	HPXML
		Access point	n/a	
		Recessed light	n/a	
		Floor	n/a	
	In split level homes, the attic level will often change. There will be a vertical frame	*Attic level transition*	n/a	
		Top plate	n/a	
		Kneewall transition	n/a	
	A plumbing wet wall is a special type of top plate. This is the wall top plate where	*Plumbing wet wall*	n/a	
	A drop soffit area is usually located above an architectural detail in the living	*Dropped soffit*	n/a	
	Mechanical chases are large openings in the attic plane that allow ducts, pipes or	*Mechanical chase*	n/a	
		Chimney or flue chase	n/a	
Solar Reflectance Index	A measure of a roof's ability to reject solar heat, as shown by a small temperature	Integer	n/a	LBNL

Term	Definition	Data Type	Unit of Measure	Definition Source			
HVAC Category	Category of equpment related to heating, ventilation, and air conditioning (HVAC).	Constrained List	n/a				
		Air distribution	n/a				
		Water distribution	n/a				
		Heating	n/a				
		Cooling	n/a				
		Duct	n/a				
HVAC Distribution System							
Air Distribution Type	Basic configuration of air-distribution equipment.	Constrained List	n/a	BEDES-Beta			
	Factory-made assemblies that normally include an evaporator or cooling coil and a	*Unitary*	n/a	ASHRAE			
	Customized assemblies built to suit a specific application	*Built up*	n/a	ASHRAE			
	System consisting of equipment provided in more than one assembly or enclosure,	*Split*	n/a	ASHRAE			
Zoning System Type	Type of HVAC zoning	Constrained List	n/a	LBNL			
	A single zone system consists of an air handling unit, a heating source and cooling	*Single zone*	n/a				
	A multi-zone system.	*Multi zone*	n/a				
	One system for the entire premises.	*Central*	n/a				
Duct Configuration	Configuration of ducts.	Constrained List	n/a	BEDES-Beta			
	Configuration in which the air, having been conditioned, is distributed to various	*Single*	n/a	ASHRAE			
	Configuration in which conditioned air at two temperatures and humidity levels are	*Dual*	n/a	ASHRAE			
	Configuration in which hot, cold, and tempered conditioned air are supplied	*Three*	n/a	ASHRAE			
	No ducts	*Ductless*	n/a				
Duct Sealing	Condition of duct sealing.	Constrained List	n/a	BEDES-Beta			
		Connections sealed with mastic	n/a				
		No observable leaks	n/a				
		Some observable leaks	n/a				
		Significant leaks	n/a				
		Catastrophic leaks	n/a				
		Sealed	n/a				
Duct Insulation R Value	R-value of duct insulation.	Decimal	ft2-°F-hr/Btu	BEDES-Beta			
Duct Surface Area	Total surface area of ducts associated with this air distribution system.	Decimal	ft2	BuildingSync			
Supply Duct Percent Conditioned	Percentage of supply duct surface area that is located within conditioned space (0-	Decimal	Percent	BuildingSync			
Return Duct Percent Conditioned	Percentage of return duct surface area, including the air handler, that is located	Decimal	Percent	BuildingSync			
Duct Type	Type of duct material.	Constrained List	n/a	BEDES-Beta			
		Flex	n/a				
		Grey flex	n/a				
		Mylar flex	n/a				
		Duct board	n/a				
		Sheet metal	n/a				
		Galvanized	n/a				
		Flexible	n/a				
		Fiberboard	n/a				
		No ducting	n/a				
Duct Leakage Test Method	Method used to estimate duct leakage	Constrained List	n/a	HPXML			
	Diagnostic tool designed to measure the airtightness of forced air heating,	*Duct leakage tester*	n/a	LBNL			
	A technique involving conducting two whole house Blower Door air tightness tests	*Blower door subtract*	n/a				
	A technique involving a register cover with a pressure tap for a hose connection.	*Pressure pan*	n/a	LBNL			
		Visual inspection	n/a				
Duct Pressure Test Leakage Rate	Duct leakage found from pressure test. Reported in cubic feet per minute.	Decimal	cfm	BEDES-Beta			
Supply Fraction Of Duct Leakage	Fraction of total duct leakage that is on the supply side. Remainder is assumed to	Decimal	Percent	BuildingSync			
Duct Pressure Test Leakage	Duct leakage found from pressure test. Reported as a percentage. [%]	Decimal	Percent	BEDES-Beta			
Static Pressure	The expected or installed internal static pressure of the system at full supply fan	Decimal	Pa	BuildingSync			
Sequencing	Sequencing availability of HVAC system	Constrained List	n/a	BuildingSync			
	Sequencing of HVAC system is available (e.g. boiler staging).	*Sequencing*	n/a				
	Sequencing of HVAC system is NOT available.	*No sequencing*	n/a				
Pipe Configuration	Number of pipes for distributing steam, refrigerant, or water to individual zones.	Constrained List	n/a	BuildingSync			
		1 pipe	n/a				
		2 pipe	n/a				
		3 pipe	n/a				
		4 pipe	n/a				
Pipe Insulation Thickness	Defines how thick insulation on pipes in a heating, cooling, water heating system	Decimal	inches	BuildingSync			
Pipe Location	% of pipe length in conditioned space (0-1)	Decimal	Percent	BuildingSync			
Pipe Application	Application of pipe	Constrained List	n/a	HPXML			
		Supply	n/a				

		Return	n/a				
		Suction	n/a				
Heating System							
Heating Type	Source of heat. Heating delivery is recorded in a separate data field. Use of fans or	Constrained List	n/a	BuildingSync			
	Packaged assembly of components that includes a heating source, a fan and an air	*Furnace*	n/a				
	Use "Heating Medium" to further categorize the boiler as hot water or steam, if	*Boiler*	n/a				
	A system that generally consists of two separate units. One that is comprised of the	*Split heat pump*	n/a				
	A Packaged terminal heat pump, or PTHP, is a factory-packaged refrigerant-based	*Packaged terminal heat pump*	n/a				
	Compact through-the-wall packaged system capable of providing total heating and	*Single packaged vertical heat*	n/a				
	Factory-packaged refrigerant-based heat pump with an air distribution system	*Packaged unitary heat pump*	n/a				
	System using refrigerant as the cooling and heating medium, conditioned by a	*Variable refrigerant flow*	n/a	LBNL			
	A centrally located plant that is used for heating. Use "Heating Medium" to further	*District heating*	n/a				
	A centrally located plant that is used to generate steam that is then moved through	*District steam to hot water HX*	n/a				
	Air or water heated using solar collectors	*Solar thermal*	n/a				
		Fireplace	n/a				
		Heating stove	n/a				
	Built-in heater is a category intended to represent wall or floor mounted units that	*Built in heater*	n/a				
	Individual space heater is a category intended to represent a free-standing or self-	*Individual space heater*	n/a				
		No heating	n/a				
	Generic heat pump	*Heat pump*	n/a				
Heating Medium	Medium used to transport heat from a central heating system to individual zones.	Constrained List	n/a	BuildingSync			
		Hot water	n/a				
		Steam	n/a				
		Refrigerant	n/a				
		Air	n/a				
		Glycol	n/a				
Heating Delivery Type	Method for delivering and or distributing heat to the building or Space Function.	Constrained List	n/a	BuildingSync			
		Air handler	n/a				
	Uses nozzles or the velocity of the primary air source to induce a flow of secondary	*Induction units*	n/a	ASHRAE			
	Constant air volume terminal box with reheat	*CAV terminal box with reheat*	n/a				
	Variable-air volume terminal device with fan	*VAV terminal box fan powered no*	n/a				
	Variable-air volume terminal device with fan with a reheat coil mounted on the	*VAV terminal box fan powered*	n/a				
	Variable-air volume terminal device with no fan and no reheat	*VAV terminal box not fan powered*	n/a				
	Variable-air volume terminal device with no fan with reheat	*VAV terminal box not fan powered*	n/a				
		Fan coil 2 pipe	n/a				
		Fan coil 4 pipe	n/a				
	Split system connecting one indoor unit to one outdoor unit	*Mini split*	n/a				
	Split system connecting multiple indoor units to one outdoor unit	*Multi split*	n/a				
	Variable refrigerant flow terminal unit	*VRF terminal units*	n/a				
		Perimeter baseboard	n/a				
		Radiator	n/a				
		Radiant floor or ceiling	n/a				
		Other radiant	n/a				
		Low pressure under floor	n/a				
		Local fan	n/a				
Reheat Source	Energy source used to provide reheat energy at a terminal unit.	Constrained List	n/a	BuildingSync			
		Heating plant	n/a				
		Local electric resistance	n/a				
		Local gas	n/a				
Heating Equipment							
Burner Type	Type of burner on boiler or furnace, if applicable.	Constrained List	n/a	BEDES-Beta			
	An atmospherically vented boiler draws in combustion make-up air from its	*Atmospheric*	n/a	http://energyoptionsexplained.com/sealed-combustion-boilerfurnace/			
	Power burners control the mixture of gas and air that is injected into the boiler's	*Power*	n/a	http://www.furnacecompare.com/faq/definitions/power_burner.html			
	A sealed combustion boiler pipes its air in from outdoors and delivers it to the	*Sealed combustion*	n/a				
	Oil burner that uses centrifugal force to spray fuel oil from a rotary fuel atomizing	*Rotary cup*	n/a	LBNL			
Ignition Type	Ignition mechanism in gas heating equipment. Either pilot light or an intermittent	Constrained List	n/a	BuildingSync			
	Ignition device that is linked to the thermostat on a furnace or boiler and light the	*Intermittent ignition device*	n/a	http://www.furnacecompare.com/faq/definitions/iid.html			
		Pilot light	n/a				
Heating Staging	The method of heating staging used by the unit. Select “Single Stage” for units with	Constrained List	n/a	BuildingSync			
	On/off control	*Single stage*	n/a				
	Multiple discrete stages (low-fire / high-fire)	*Multiple discrete stages*	n/a				
		Variable	n/a				
	Modulating burners are designed to control the burner output (size of flame) to	*Modulating*	n/a	http://www.sabien-tech.co.uk/products/m2g/what-are-modulating-burners			

Number of Heating Stages	The number of heating stages, excluding "off."	Integer	n/a	BuildingSync			
Heating Stage Capacity Fraction	Average capacity of each heating stage, at ARI rated conditions, expressed as a	Decimal	n/a	BuildingSync			
Input Capacity	The ~~rate of~~ energy consumption of the heating plant at full load.	Decimal	MMBtu	BuildingSync			
Output Capacity	Output capacity of equipment.	Decimal	MMBtu	BuildingSync			
Draft Type	Draft mechanism used for drawing air through a boiler, furnace, or water heater.	Constrained List	n/a	BuildingSync			
	A natural heater has no blower fan and does not connect to an A/C power source.	*Natural*	n/a				
		Direct ventilation					
	Mechanical forced draught is provided by means of a fan forcing air into the	*Mechanical forced*	n/a				
	In mechanical induced draught exhaust gases are pulled out of the boiler by either	*Mechanical induced*	n/a				
Boiler Insulation R Value	Insulation R-Value of hot water storage tank.	Decimal	hr·ft2·°F/Btu	BuildingSync			
Boiler Insulation Thickness	Insulation thickness of hot water storage tank. [inches]	Decimal	inches	BuildingSync			
Burner Turndown Ratio	If applicable, the turndown ratio for the burner (full input/minimum input).	Decimal	n/a	BuildingSync			
Boiler Percent Condensate Return	The percentage of condensed steam that is returned to the boiler. ~~(0-1)~~	Decimal	Percent	BuildingSync			
Boiler Blowdown Rate	A blowdown of the boiler is a routine operation necessary due to the increased	Decimal	kg/h	BuildingSync			
Condensing Operation	Capability of a boiler or furnace of condensing the water vapor in the exhaust flue	Constrained List	n/a	BuildingSync			
	Boiler or furnace is capable of condensing the water vapor in the exhaust flue gas	*Condensing*	n/a				
	Boiler or furnace is NOT capable of condensing the water vapor in the exhaust flue	*Not condensing*	n/a				
Refrigerant	The type of refrigerant used in the heat pump	Constrained List	n/a	BuildingSync			
		R134a	n/a				
		R123	n/a				
		R22	n/a				
	propane	*R290*	n/a				
		R401a	n/a				
		R404a	n/a				
		R407a	n/a				
		R407c	n/a				
		R408a	n/a				
		R409a	n/a				
		R410a	n/a				
		R500	n/a				
		R502	n/a				
		R600a	n/a				
	CO2	*R744*	n/a				
	ammonia	*R717*	n/a				
	water	*R718*	n/a				
Heat Pump Backup Heating	Minimum outside temperature at which the heat pump can operate	Decimal	°F	HPXML			
Heat Pump Backup System Fuel	Backup fuel used by the heat pump	Constrained List	n/a	HPXML			
Heat Pump Backup AFUE	Annual Fuel Utilization Efficiency of backup system for heat pump	Decimal	n/a	HPXML			
Heat Pump Sink Source Type	~~Sink source of the heat pump~~ The type of thermal sink or source used by a heat pump	Constrained List	n/a				
		Closed tower	n/a				
		Ground source heat exchanger	n/a				
		Lake	n/a				
		Open tower	n/a				
		Outside air	n/a				
		Well	n/a				
Geothermal Loop	The type of loop field used in a geothermal system (e.g., heat pump)	Constrained List	n/a				
	An open loop field, sometimes called "pump & dump", requires an ample source of	*Open*	n/a				
	Most systems are closed loop, meaning that the same water & environmentally	*Closed*	n/a				
Cooling System							
Cooling Type	Source of cooling. Cooling delivery is recorded in a separate data field. Use of fans	Constrained List	n/a	BuildingSync			
	Split direct expansion	*Split DX air conditioner*	n/a				
		Vapor compression chiller	n/a				
		Absorption chiller	n/a				
		District chilled water	n/a				
	A cooler that cools indoor air by moisture evaporation, thereby lowering its dry-bulb	*Evaporative cooler*	n/a				
	A packaged terminal air conditioner, or PTAC, is a self-contained air conditioning	*Packaged terminal air conditioner*	n/a				
	A system that generally consists of two separate units. One comprised of the	*Split heat pump*	n/a				
	A Packaged terminal heat pump, or PTHP, is a factory-packaged refrigerant-based	*Packaged terminal heat pump*	n/a				
	System supporting variable motor speed and thus variable refrigerant flow rather	*Variable refrigerant flow*	n/a				
	A unit that includes all the components- evaporative coil, compressor, expansion	*Packaged unitary direct expansion*	n/a				
	Factory-packaged refrigerant-based heat pump with an air distribution system and	*Packaged unitary heat pump*	n/a				
	Compact through-the-wall packaged system capable of providing total heating and	*Single package vertical air*	n/a				
	Compact through-the-wall packaged system with heat pump, capable of providing	*Single package vertical heat pump*	n/a				

		No cooling	n/a				
	Generic chiller	*Chiller*	n/a				
	Generic heat pump	*Heat pump*	n/a				
Cooling Medium	Medium used to transport cooling energy from a central cooling system to	Constrained List	n/a	BuildingSync			
		Chilled water	n/a				
		Refrigerant	n/a				
		Air	n/a				
		Glycol	n/a				
Air Side Economizer	Presence of air-side economizer to provide free cooling.	Constrained List	n/a	BuildingSync			
		Is present	n/a				
		Is not present	n/a				
Air Side Economizer Type	Type of air economizer system associated with a cooling system.	Constrained List	n/a	BEDES-Beta			
		Dry bulb temperature	n/a				
		Enthalpy	n/a				
		Demand controlled ventilation	n/a				
		Nonintegrated	n/a				
Water Side Economizer	Presence of water-side economizer to provide free cooling.	Constrained List	n/a	BuildingSync			
		Is present	n/a				
		Is not present	n/a				
Water Side Economizer Type	Type of waterside economizer providing free cooling.	Constrained List	n/a	CEC			
		Parallel plate and frame heat	n/a				
		Series plate and frame heat	n/a				
		Strainer cycle	n/a				
		Thermo cycle	n/a				
~~Cooling~~ Equipment Redundancy	~~Availability of backup cooling equipment.~~ Redundancy availability or formal redundancy	Constrained List	n/a	ENERGY STAR			
	Redundancy is available for a given piece of equipment	*Is available*	n/a				
	Redundancy is not available for a given piece of equipment	*Is not available*	n/a				
	N is the amount of capacity needed to operate. There is no backup system so if the	*N*	n/a				
	N+1 represents the amount required for operation plus a backup. It ensures system	*Nplus1*	n/a				
	N+2 represents the amount required for operation plus two backups. For example,	*Nplus2*	n/a				
	2N means two times the capacity required for operation. Two units of equal size,	*2N*	n/a				
	Greater than 2N means more than two times the capacity required for operation.	*Greater than 2N*	n/a				
Cooling Delivery Type	Method of delivering cooling to the zone.	Constrained List	n/a	BEDES-Beta			
		Central air handler single duct	n/a				
		Central air handler dual duct	n/a				
		Mini split	n/a				
		Multi split	n/a				
		Terminal reheat	n/a				
		Fan coil 2 pipe	n/a				
		Fan coil 4 pipe	n/a				
		VRF terminal units	n/a				
		Radiant ceiling	n/a				
		Chilled beam	n/a				
		VAV terminal box modulating	n/a				
		VAV terminal box fan powered	n/a				
		VAV terminal box not fan powered	n/a				
		Under floor	n/a				
		Local fan	n/a				
Cooling Equipment							
Chiller Compressor Driver	~~Vehicle for~~ Equipment driving the compressor used in a chiller	Constrained List	n/a	BuildingSync			
		Electric motor	n/a				
		Steam	n/a				
		Gas turbine	n/a				
Chiller Compressor Type	Type of compressor in the chiller.	Constrained List	n/a	BEDES-Beta			
	A positive-displacement compressor that uses pistons driven by a crankshaft to	*Reciprocating*	n/a	ASHRAE Wiki			
	A positive displacement rotary compressor that produces compression with two	*Screw*	n/a	ASHRAE Wiki, AUC?			
	Positive displacement compressor in which the reduction in internal volume of the	*Scroll*	n/a	ASHRAE Wiki, AUC?			
	A non-positive displacement compressor that depends, in part, on centrifugal	*Centrifugal*	n/a	ASHRAE Wiki, AUC?			
	Air is used to cool the compressor	*Air cooled*	n/a				
	Water is used to cool the compressor	*Water cooled*	n/a				
Compressor Staging	The compressor staging for the unit. Select "Single Stage" for units with single	Constrained List	n/a	TPE/BCL			
	Operated with single stage (on/off) control	*Single stage*	n/a				
	Operated with multiple, discrete stages, discrete unloading stages, or with stepped	*Multiple discrete stages*	n/a				

	Operated at variable speeds or with modulating unloading	*Variable*	n/a				
Condenser Type	Type of condenser used for DX cooling plant.	Constrained List	n/a	BEDES-Beta			
	Air is used to cool the compressor	*Air cooled*	n/a				
		Water cooled cooling tower	n/a				
		Water cooled open loop ground	n/a				
		Water cooled closed loop ground	n/a				
	Glycol is used to cool the compressor	*Glycol cooled dry cooler*	n/a				
Absorption Heat Source	Source of heating energy for regeneration	Constrained List	n/a	BuildingSync			
		Steam	n/a				
		Solar energy	n/a				
		Combustion	n/a				
	Waste is used to heat the compressor	*Waste heat*	n/a				
Absorption Stages	Number of stages in regeneration process	Constrained List	n/a	BuildingSync			
		Single effect	n/a				
		Double effect	n/a				
Number Of Discrete Cooling Stages	The number of discrete operating stages, excluding "off."	Integer	n/a	TPE/BCL			
Cooling Stage Capacity	Average capacity of each cooling stage, at ARI rated conditions, expressed as a	Decimal	n/a	BuildingSync			
Condenser Fan Speed Operation	The condenser fan control option used by the unit. If the unit has several constant-	Constrained List	n/a	TPE/BCL			
		Variable volume	n/a				
		Stepped speed	n/a				
		Constant volume	n/a				
Refrigerant Charge Factor	Used to adjust cooling efficiency for assumed slightly degraded performance if	Decimal	Percent	CEC			
Minimum Part Load Ratio	The minimum part load ratio at which the equipment is able to operate (0-1).	Decimal	n/a	TPE/BCL			
Part Load Ratio Below Which Hot Gas	The part load ratio of a chiller below which hot gas bypass (HGBP) operates.	Decimal	n/a	TPE/BCL			
Evaporative Cooling Type	Defines the type of evaporative cooler operation	Constrained List	n/a	CEC			
		Direct	n/a				
		Direct indirect	n/a				
		Indirect	n/a				
Cell Count	The number of cells in the cooling tower. Each cell has its own fan, water flow	Integer	n/a	CEC			
Active Dehumidification	Availability of an active dehumidification system (in addition to the dehumidification	Constrained List	n/a	TPE/BCL			
		Is available	n/a				
		Is not available	n/a				
Evaporatively Cooled Condenser	Availability of evaporative cooling to enhance heat rejection from the condenser	Constrained List	n/a	TPE/BCL			
		Is available	n/a				
		Is not available	n/a				
Evaporative Wet Bulb Effectiveness	The ratio of the difference between inlet and outlet air temperature to the difference	Decimal	n/a				
Other HVAC							
Other HVAC Type	Type of space conditioning equipment that is not classified as heating, cooling, or	Constrained List	n/a	BEDES-Beta			
		Humidifier	n/a				
	A self-contained, electrically operated, and mechanically refrigerated encased	*Dehumidifier*	n/a				
		Air cleaner	n/a				
		Mechanical ventilation	n/a				
		Exhaust hood kitchen	n/a				
		Exhaust hood laboratory	n/a				
Ventilation Rate	Installed flow rate for mechanical ventilation system.	Decimal	cfm	CEC			
Required Ventilation Rate	Minimum ventilation rate required by local code.	Decimal	cfm	CEC			
Ventilation Type	Type of ventilation, and use of heat recovery	Constrained List	n/a	HPXML			
		Exhaust only	n/a				
		Supply only	n/a				
		Heat recovery ventilator	n/a				
		Energy recovery ventilator	n/a				
Natural Ventilation ~~Method~~ Metric	~~Strategy for introducing~~ Method of measuring rate of natural ventilation	Constrained List	n/a	CEC			
		Air changes per hour	n/a				
		Flow per area	n/a				
		Flow per person	n/a				
		Flow per zone	n/a				
		Wind and stack open area	n/a				
Natural Ventilation Rate	Average rate of natural ventilation when used. Units depend on ventilation method	Decimal	Dependent on	BuildingSync			
Humidification Type	Humidification type in air-distribution system.	Constrained List	n/a	BEDES-Beta			
		Steam	n/a				
		Water spray	n/a				
Dehumidification Type	Dehumidification type in air-distribution system.	Constrained List	n/a	BEDES-Beta			
		Desiccant wheel	n/a				

		Liquid desiccant	n/a				
System Performance Ratio	Ratio of annual system load to the annual system energy consumption (similar to a	Decimal	n/a	BuildingSync			
Fan							
Size	Maximum air flow produced by the fan.	Decimal	cfm	BEDES-Beta			
Installed Flow Rate	Actual flow rate of fan under normal operating conditions	Decimal	cfm	BuildingSync			
Minimum Flow Rate	The lowest flow rate rated for a fan	Decimal	cfm	CEC			
Maximum Fan Power	Fan power at maximum flow rate (full load)	Decimal	W	CEC			
Fan Power Minimum Ratio	The minimum power draw of the fan, expressed as a ratio of the full load fan	Decimal	n/a	CEC			
Fan Type	Method of generating air flow	Constrained List	n/a	BuildingSync			
		Axial	n/a				
		Centrifugal	n/a				
Fan Application	Application of fan (supply, return, or exhaust)	Constrained List	n/a	BuildingSync			
		Supply	n/a				
		Return	n/a				
		Exhaust	n/a				
Flow Control Type	Type of air flow control.	Constrained List	n/a	BEDES-Beta			
		Variable volume	n/a				
		Stepped	n/a				
		Constant volume	n/a				
Fan Placement	Placement of fan relative to the air stream.	Constrained List	n/a	BEDES-Beta			
		Series	n/a				
		Parallel	n/a				
		Draw through	n/a				
		Blow through	n/a				
Motor Location Relative To Air Stream	Location of the fan motor relative to the air stream.	Constrained List	n/a	BuildingSync			
		Within air stream	n/a				
		Not within air stream	n/a				
Design Static Pressure	The design static pressure for the fan	Decimal	Pa	CEC			
Number Of Discrete Fan Speeds	The number of discrete operating speeds for the supply-fan motor, excluding "off."	Integer	n/a	TPE/BCL			
Belt Type	Type of belt drive in fan unit	Constrained List	n/a	BuildingSync			
		Direct drive	n/a				
		Standard belt	n/a				
		Cogged belt	n/a				
		Synchronous belts	n/a				
Heat Recovery							
Heat Recovery Type	Type of heat recovery between two systems.	Constrained List	n/a	BEDES-Beta			
		Run around coil	n/a				
		Thermal wheel	n/a				
		Heat pipe	n/a				
		Water to air heat exchanger	n/a				
		Water to water heat exchanger	n/a				
		Air to air heat exchanger	n/a				
		Earth to air heat exchanger	n/a				
		Earth to water heat exchanger	n/a				

Term	Definition	Data Type	Unit of	Definition Source
Load Category	Category of internal or external load either directly to energy use (e.g., lighting electric	Constrained List	n/a	
		Lighting	n/a	
		Domestic hot water	n/a	
	Elevators, escalators, etc.	*Conveyance*	n/a	
	Industrial process such as air compression	*Process*	n/a	
		Water feature	n/a	
		Water treatment	n/a	
	Equipment such as computers, monitors, copiers, etc.	*Electronic equipment*	n/a	
		Cooking	n/a	
		Refrigeration	n/a	
		Dishwasher	n/a	
		Laundry	n/a	
	Occupants	*People*	n/a	
	Latent heat is related to changes in phase between liquids, gases, and solids	*Latent*	n/a	
	Sensible heat is related to changes in temperature of a gas or object with no	*Sensible*	n/a	
	Heat gain is a measure of the transfer of heat to an interior space either from	*Heat gain*	n/a	
	Heat loss is a measure of the transfer of heat through the fabric of a building from	*Heat loss*	n/a	
		Appliance	n/a	
		Fan	n/a	
Load Value	Value of load associated with Load Category or HVAC Category	Decimal	Dependent on	
Uninterruptible Power Supply Mode	Uninterruptible power supply (UPS) is emergency power delivered when the main	Constrained List	n/a	LBNL
	Stable mode:	*Normal*	n/a	EPA
	Stable mode:	*Stored energy*	n/a	EPA
	Equipment operating the load supplied via the Bypass only.	*Bypass*	n/a	EPA
External Power Supply Mode	Designed to convert line voltage AC input into lower voltage AC or DC output,	Constrained List	n/a	EPA
	An external AC-AC power supply is an EPS designed to convert line voltage AC	*AC to AC*	n/a	EPA
	An external AC-DC power supply is an EPS designed to convert line voltage AC	*AC to DC*	n/a	EPA
	A low voltage model is an external power supply with a nameplate output voltage	*Low voltage*	n/a	EPA
	The condition in which the input of a power supply is connected to an AC source	*No load*	n/a	EPA
Lighting				
Lighting Component	Components that together make a lighting module.	Constrained List	n/a	
		Fixture	n/a	
		Ballast	n/a	
		Reflector	n/a	
		Lamp	n/a	
		Luminaire	n/a	
Fixture Configuration	Arrangement of lamps within a fixture	Constrained List	n/a	energyOrbit Tracksys
		1x4		
		2x2		
		2x4		
Lamp Type	A lamp is a replaceable component, or bulb, which is designed to produce light	Constrained List	n/a	
	An incandescent bulb is an electric light which produces light with a wire filament	*Incandescent*	n/a	
	A fluorescent lamp or a fluorescent tube is a low pressure mercury-vapor gas-	*Fluorescent*	n/a	
	A compact fluorescent lamp (CFL), also called compact fluorescent light, energy-	*Compact fluorescent*	n/a	
	High-intensity discharge lamps (HID lamps) are a type of electrical gas-discharge	*High intensity discharge*	n/a	
	A halogen lamp is an incandescent lamp that has a small amount of a halogen	*Halogen*	n/a	

	Solid state lighting (SSL) include both light-emitting diode (LED) and organic light	*Solid state lighting*	n/a	
	The internal electrodeless lamp or induction light is a gas discharge lamp in which	*Induction*	n/a	
	A neon lamp (also neon glow lamp) is a miniature gas discharge lamp. The lamp	*Neon*	n/a	
	Plasma lamps are a type of gas discharge lamp energized by radio frequency (RF)	*Plasma*	n/a	
	Photoluminescent lighting is similar to self-luminous lighting, in that it does not use	*Photoluminescent*	n/a	
	Self-Luminous lighting is similar to photoluminescent lighting given that it does not	*Self luminous*	n/a	
Lamp Label	Label of a given Lamp Type.	Constrained List	n/a	
	2D are Compact Fluorescent Lamps (CFLS) that share uniform light with a unique	*2D*	n/a	
	The A-series light bulb is the "classic" type of light bulb that has been the most	*A series*	n/a	
	A19 is the most commonly used A-series light bulb type. It is 23⁄8 inches (60 mm)	*A19*	n/a	
	A21 bulbs are A-series with a diameter of 21/8 inches.	*A21*	n/a	
	A23 bulbs are A-series with a diameter of 23/8 inches.	*A23*	n/a	
	Bulged reflector (BR) lamps are used in recessed lighting. An BR bulb comes with	*BR30*	n/a	
	Bulged reflector (BR) lamps are used in recessed lighting. An BR bulb comes with	*BR40*	n/a	
	The ceramic discharge metal-halide (CDM) lamp, mostly referred to as Ceramic	*Ceramic metal halide*	n/a	
	Fluorescent tube in a circular shape.	*Circline*	n/a	
	G16C LED light bulbs are clear round bulbs with a diameter of 2 inches (16/8	*G16C*	n/a	
	G25M LED light bulbs are round with a diameter of 25/8 inches.	*G25M*	n/a	
	G40M LED light bulbs are round with a diameter of 5 inches (40/8 inches).	*G40M*	n/a	
	An LED lamp is comprised of light-emitting diode chips, which together emit	*LED*	n/a	
	A mercury-vapor lamp is a gas discharge lamp that uses an electric arc through	*Mercury vapor*	n/a	
	A metal-halide lamp is an electric lamp that produces light by an electric arc	*Metal halide*	n/a	
	Multifaceted reflector (MR) lamps have reflectors on the inside. The facets help	*MR11*	n/a	
	)Multifaceted reflector (MR) lamps have reflectors on the inside. The facets help	*MR16*	n/a	
	Multifaceted reflector (MR) lamps have reflectors on the inside. The facets help	*MR8*	n/a	
	An OLED (organic light-emitting diode) is a light-emitting diode (LED) in which the	*OLED*	n/a	
	Parabolic aluminized reflector (PAR) lamps direct light out with PAR coating which	*PAR16*	n/a	
	Parabolic aluminized reflector (PAR) lamps direct light out with PAR coating which	*PAR20*	n/a	
	Parabolic aluminized reflector (PAR) lamps direct light out with PAR coating which	*PAR30*	n/a	
	Parabolic aluminized reflector (PAR) lamps direct light out with PAR coating which	*PAR38*	n/a	
	Pin base light bulbs have two pins extending from the base that connect the light	*Pin base*	n/a	
	The PS series bulb is similar to the A-series, but with an elongated neck.	*PS series*	n/a	
	R20 bulbs have reflectors that direct light forward and produce more narrow soft-	*R20*	n/a	
	R20 bulbs have reflectors that direct light forward and produce more narrow soft-	*R30*	n/a	
	R20 bulbs have reflectors that direct light forward and produce more narrow soft-	*R40*	n/a	
	Single-ended lightbulbs are tubes that have only one base that connects to the	*Single ended tubular*	n/a	
	Double-ended light bulbs are tubes that connects to the voltage from two bases on	*Double ended tubular*	n/a	
	A sodium-vapor lamp is a gas-discharge lamp that uses sodium in an excited state	*Sodium vapor*	n/a	
	High-pressure sodium lamps have a broader spectrum of light than the low	*Sodium vapor high pressure*	n/a	
	Low-pressure sodium lamps only give monochromatic yellow light and so inhibit	*Sodium vapor low pressure*	n/a	
	Spiral light bulbs are common compact fluorescent lamp (CFL) design.	*Spiral*	n/a	
	Fluorescent tube with a 1 1/4 inch (31.75 mm) diameter.	*T10*	n/a	
	Fluorescent tube with a 1 1/2 inch diameter.	*T12*	n/a	
	Fluorescent U-shaped tube with a 1 1/2 inch diameter.	*T12U*	n/a	
	Fluorescent tube with a 5/8 inch (15.9 mm) diameter.	*T16*	n/a	
	Fluorescent tube with a 2 1/8 inch diameter.	*T17*	n/a	
	Fluorescent tube with a 1/4 inch (7 mm) diameter.	*T2*	n/a	

	Fluorescent tube with a 1 inch (25.4 mm) diameter.	*T26*	n/a	
	Fluorescent tube with a 1 1/8 inch (28.6 mm) diameter.	*T29*	n/a	
	Fluorescent tube with a 1 1/2 inch diameter.	*T38*	n/a	
	Fluorescent tube with a 1/2 inch (12.7 mm) diameter.	*T4*	n/a	
	Fluorescent tube with a 5/8 inch (15.9 mm) diameter.	*T5*	n/a	
	Fluorescent tube with a 5/8 inch (15.9 mm) diameter with a High Output.	*T5HO*	n/a	
	Fluorescent tube with a 1 inch (25.4 mm) diameter.	*T8*	n/a	
	Fluorescent U-shaped tube with a 1 inch (25.4 mm) diameter.	*T8U*	n/a	
	Super T8 lamps are 32W T8 lamps but with a barrier-coat design, high lumen	*Super T8*	n/a	
	Fluorescent tube with a 1 1/8 inch (28.6 mm) diameter.	*T9*	n/a	
		~~*TC*~~	~~n/a~~	
		~~*TM*~~	~~n/a~~	
	Tungsten is a type of incandescent lighting using a bulb with a filament made of	*Tungsten*	n/a	
	A xenon arc lamp, a type of HID, is a specialized type of gas discharge lamp, an	*Xenon short arc*	n/a	
Installation Type	Installation of lamp relative to mounting surface.	Constrained List	n/a	
	A Plug-in lamp is a single lighting system in which the whole system is directly	*Plug in*	n/a	
	A recessed fixture is installed in a ceiling, rather than being mounted on the face	*Recessed*	n/a	
	A recessed fixture is installed on a surface, such as on a wall or ceiling, rather	*Surface*	n/a	
	A suspended fixture is installed from a surface, such as on a wall or ceiling, rather	*Suspended*	n/a	
Reflector Type	Characteristics of the lamp fixture.	Constrained List	n/a	
	A specular reflector is a luminaire component that has a highly polished surface,	*Specular reflector*	n/a	
	A prismatic reflector is a glass dome over the lamp with prism-like cuts in the	*Prismatic reflector*	n/a	
Lighting Direction	Directional design of lighting fixture(s).	Constrained List	n/a	
	Direct lighting, also known as down lighting, casts downwards from a fixture to	*Direct*	n/a	
	Indirect lighting, also known as uplighting, casts upwards from a fixture and	*Indirect*	n/a	
	Direct/Indirect (DID) lighting casts upwards and downwards from a fixture to	*Direct indirect*	n/a	
	A spotlight projects a narrow, intense beam of light directly onto a place or person,	*Spotlight*	n/a	
	A system designed for lighting a scene or object to a luminance greater than its	*Floodlighting*	n/a	
	A system emits the majority of light produced in an even distribution.	*Omnidirectional*	n/a	
Ballast Type	A ballast is a piece of equipment required to control the starting and operating	Constrained List	n/a	
	An electronic control uses solid state electronic circuitry to provide the proper	*Electronic*	n/a	
	Electromagnetic, core and coil, or simply magnetic, ballast control is very common	*Electromagnetic*	n/a	
	An instant start ballast does not preheat the electrodes, instead using a relatively	*Instant start*	n/a	
	A rapid start ballast applies voltage and heats the cathodes simultaneously. It	*Rapid start*	n/a	
	A programmed start ballast applies power to the filaments first, it allows the	*Programmed start*	n/a	
	A probe-start metal halide lamp has three electrodes in the arc tube: a starting	*Probe start*	n/a	
	A pulse-start metal halide lamp does not have the starting probe electrode (Figure	*Pulse start*	n/a	
	A hybrid ballast has a magnetic core-and-coil transformer and an electronic switch	*Hybrid*	n/a	
	An integrated ballast is a built-in component of the lamp.	*Integrated*	n/a	
	F-Can ballasts are contained within an insulated cans to reduce noise.	*F can*	n/a	
Transformer Needs	Halogen lamp dependence on a transformer.	Constrained List	n/a	
	Halogen lamps that are low voltage (12V or 24V) require a transformer to operate.	*Transformer needed*	n/a	
	Halogen lamps that are not low voltage (12V or 24V) do not require a transformer	*No transformer needed*	n/a	
Input Voltage	Voltage rating for lighting system.	Decimal	V	
Task Lighting Availability	Task light is used to increase illuminance or improve contrast on the reading area.	Constrained List	n/a	
	Task lights are available for individuals to operate.	*Available*	n/a	
	Task lighting is not available, the main source of lighting is ambient.	*Not available*	n/a	

Lighting Characteristics	Characteristics of lamps that indicate performance levels of functionality.	Constrained List	n/a	
	Color Rendering Index of a Light Source (CRI) is the measured degree of color	*Color rendering index of a light*	n/a	
	Correlated Color Temperature of a Light Source (CCT) is the absolute temperature	*Correlated color temperature of a*	n/a	
	The angle between the two directions for which the intensity is 10% of the	*Field angle*	n/a	
	The impression of unsteadiness of visual perception induced by a light stimulus	*Flicker*	n/a	
	A measure of the cyclic variation in output of a light source taking into account the	*Flicker index*	n/a	
	LED Temperature Measurement Point (TMP) is a location on an LED	*LED temperature measurement*	n/a	
	A relative measure of the cyclic variation in output of a light source (percent	*Percent flicker*	n/a	
	The frequency at which the entire periodic flicker waveform pattern repeats. Hertz	*Periodic frequency*	n/a	
	Rated Lumen Maintenance Life (LP) is the elapsed operating time over which the	*Rated lumen maintenance life*	n/a	
	Run-up Time is the time between the application of power to the device and the	*Run up time*	n/a	
	Distance from the finished floor to the work plane. Used to calculate vertical	*Work plane height*	n/a	BuildingSync
	Quantity of visible light emitted by a source	*Output*	lumens	
Lighting Characteristic Value	Value associated with the Lighting Characteristic.	Decimal	Dependent on	
LED Driver Case Temperature	(TMPC) is a location on an LED driver case, designated by its manufacturer, which	String	n/a	
Domestic Hot Water				
Domestic Hot Water Type	Type of water heating equipment for hot running water.	Constrained List	n/a	
	A hot water storage tank (also hot water tank, thermal storage tank, hot water	*Storage tank*	n/a	
	Instantaneous, or tankless, water heaters use high-powered burners to quickly	*Instantaneous*	n/a	
	A heat exchanger is a piece of equipment built for efficient heat transfer from one	*Heat exchanger*	n/a	
Tank Heating Type	Hot water tank or distribution type	Constrained List	n/a	
	Direct fired water heaters store 20 or more gallons of hot water in a storage tank.	*Direct*	n/a	
	Indirect water heaters work like a direct fired water heater. But instead of having its	*Indirect*	n/a	
	A central heating system provides domestic hot water from one point to multiple	*Centralized*	n/a	
	A distributed heating system provides domestic hot water for only one unit in the	*Distributed*	n/a	
	In a hot water plumbing loop, also know as a closed loop or a sometimes a gravity	*Looped*	n/a	
Indirect Tank Heating Source	Source of heat for indirect-fired hot water tank.	Constrained List	n/a	
	The geothermal heat pump, also known as the ground source heat pump, is a	*Heat pump*	n/a	
	Solar water heating systems use the sun's energy to heat water. A solar water	*Solar*	n/a	
	Domestic hot water tanks are heated indirectly by primary water from the space	*Space heating system*	n/a	
Recirculation Loop Count	The total number of hot water recirculation loops coming from and returning to a	Integer	n/a	
Pipe Characteristic	Additional characteristics of pipes	Constrained List	n/a	
	Pipe is insulated	*Insulated pipe*	n/a	
	Pipe is not insulated	*Non* sinsulated pipe	n/a	
Conveyance				
Conveyance System Type	Equipment used to transporting someone or something from one place to another.	Constrained List	n/a	
	An escalator is a moving staircase consisting of an endlessly circulating belt of	*Escalator*	n/a	
	An elevator is a platform or compartment housed in a shaft for raising and	*Elevator*	n/a	
	a continuous moving band of fabric, rubber, or metal used for moving objects from	*Conveyor belt*	n/a	
	Overhead conveyor systems utilize a combination of hooks, trolleys, and chains to	*Overhead conveyor*	n/a	
	Lift systems are for lifting of immobile individuals from beds, pools, restrooms, etc.	*Lift system*	n/a	
Conveyance Load Type	Type of load that the conveyance system usually transports.	Constrained List	n/a	
	~~People are human beings.~~	*People*	n/a	
	Freight is goods packaged in bulk for long-distance travel.	*Freight*	n/a	
	Goods are any foods or manufactured items.	*Goods*	n/a	
		Animals	n/a	
Distance Covered	The vertical distance traveled by to elevator, diagonal distance by an escalator, or	Decimal	ft	

Inclination	Inclination grade of the conveyor system.	Decimal	degrees	
Process Load				
Process Load Type	Plug load essential to routine processes.	Constrained List	n/a	
	Equipment used specifically for the practice of medicine.	*Medical equipment*	n/a	
		Laboratory equipment	n/a	
		Machinery	n/a	
		Motor	n/a	
		Pump	n/a	
		Air compressor	n/a	
		Fume hood	n/a	
		~~*Infrastructure*~~	~~n/a~~	
		Electric vehicle charging	n/a	
	Hot water near the surface of the Earth can be used for heat for a variety of	*Direct use geothermal*	n/a	
Motor Characteristic	Descriptive metrics that characterize the motor.	Constrained List	n/a	
	The number of full revolutions in a unit of time and is used to assign Motor	*RPM*	n/a	
	The brake horsepower of the motor before the loss in power caused by the	*Brake horsepower*	n/a	
	The nameplate (rated) horsepower of the motor.	*Horsepower*	n/a	
	Current draw of motor at full capacity.	*Full load amps*	n/a	
	The number of pole electromagnetic windings in the motor's stator and used to	*Pole count*	n/a	
	Type of adjustable-speed drive used in electro-mechanical drive systems to	*Variable frequency drive*	n/a	
	The phase of the motor	*Phase*	n/a	
Motor Characteristic Value	Value associated with the Motor Characteristic.	Decimal	n/a	
Motor Enclosure	Enclosing environment of the motor.	Constrained List	n/a	
	Drip-proof enclosures have ventilation openings in the shield or frame to prevent	*Drip proof*	n/a	
	TEAO, or totally enclosed air over, enclosures are dust-tight for fan and blower	*Totally enclosed air over* ~~EAO~~	n/a	
	TENV, or totally enclosed non-ventilated, enclosures have no ventilation to prevent	*Totally enclosed non-ventilated*	n/a	
	TEFC, or totally enclosed fan cooled, enclosures are the same as TENV covers	*Totally enclosed fan cooled* ~~EFC~~	n/a	
	Totally enclosed hostile and severe environment enclosures are designed for use	*Totally enclosed hostile and*	n/a	
	Totally enclosed blower cooled covers are the same as TEFC enclosures with	*Totally enclosed blower cooled*	n/a	
	Explosion-proof enclosures for Class ! (gases and vapors) and Class II	*Explosion proof*	n/a	
		Enclosed	n/a	
	Non-enclosed	*Open*	n/a	
Pump Application	Type of system served by a pump	Constrained List	n/a	
		Boiler	n/a	
		Chilled Water	n/a	
		Domestic Hot Water	n/a	
		Solar Hot Water	n/a	
		Condenser	n/a	
		Cooling Tower	n/a	
		Ground Loop	n/a	
		Pool	n/a	
		Recirculation	n/a	
		Process Hot Water	n/a	
		Process Cold Water	n/a	
		Potable Cold Water	n/a	
		Refrigerant	n/a	
		Air	n/a	

Water Feature				
Water Feature Type	~~A water feature is a general name for a pool, fountain, or hot tub.~~ Type of water feature.	Constrained List	n/a	
		Hot tub	n/a	
		Pool	n/a	
		Fountain	n/a	
		Water fall	n/a	
		Stream	n/a	
		Aquarium	n/a	
Pool Size Category	Categorical size of a pool.	Constrained List	n/a	
	A pool the size of olympic training with dimensions 50 meters long by 25 meters	*Olympic*	n/a	
	Pool is predominantly used for recreation rather than training and size is not	*Recreational*	n/a	
	A pool that is 25 meters long, half the slength of an olympic-sized pool.	*Short course*	n/a	
Water Feature Heating Method	Water feature heating methods.	Constrained List	n/a	
	The pool is heated by an artificial heating system that consumes fuel.	*Artificial*	n/a	
	The pool is heated by a passive heating system that relies on renewable energy,	*Passive*	n/a	
Cover Type	A pool cover can serve many purposes, including insulation, weather protection,	Constrained List	n/a	
	A solar pool covers utilize the sun's energy to generate heat for the pool. These	*Solar cover*	n/a	
	Solar rings are designed to provide heat for a pool similar to a standard solar pool	*Solar rings*	n/a	
	Leaf nets are basic covers designed to keep leaves and other larger contaminants	*Leaf net*	n/a	
	Winter pool covers are designed to protect a pool from debris as well as other	*Winter cover*	n/a	
	Safety pool covers are solid covers that are designed to be anchored down and	*Safety cover*	n/a	
	Safety nets are designed with gaps too small for a child to fall through, but too big	*Safety net*	n/a	
Water Treatment				
Flow Qualifier	Flow of water in a water treatment and distribution plant or wastewater treatment	Constrained List	n/a	ENERGY STAR
	Average Flow is the total average daily flow of water through a Water Treatment	*Average*	n/a	ENERGY STAR
	Plant Design Flow Rate is the capacity for which a water or wastewater treatment	*Plant design*	n/a	ENERGY STAR
Flow Value	Flow value associated with the Flow Qualifier.	Decimal	Mgal/day	ENERGY STAR
Average Effluent Biological Oxygen	wastewater after it is treated and is leaving a Wastewater Treatment Plant. The	Decimal	mg/l	ENERGY STAR
Average Influent Biological Oxygen	Average Influent Biological Oxygen Demand (BOD5) is the BOD5 concentration of	Decimal	mg/l	ENERGY STAR
Trickle Filtration Process	Trickle Filtration is a method of biological treatment by wastewater treatment	Constrained List	n/a	ENERGY STAR
	Fixed Film Trickle Filtration is a process used to reduce Biological Oxygen	*Fixed film*	n/a	ENERGY STAR
Nutrient Removal Process	Nutrient removal is considered to be any process included for the purpose of	Constrained List	n/a	ENERGY STAR
	There is a nutrient removal process(es). This may include biological nitrification,	*Implemented*	n/a	ENERGY STAR
	There is no nutrient removal process	*Not implemented*	n/a	
Electronic Equipment				
Electronic Equipment Type	The type of electronic equipment.	Constrained List	n/a	
		Computer	n/a	
		Server	n/a	
		Imaging	n/a	
		Display	n/a	
		Telephone	n/a	
		Set top box	n/a	
		Video recording	n/a	
		Audio	n/a	
		Charger	n/a	
	A cash register is a mechanical or electronic device for registering and calculating	*Cash register*	n/a	
Uninterruptible Power Supplies	The type of uninterruptible power supply (UPS).	Constrained List	n/a	

	Combination of converters, switches, and energy storage devices (such as	*UPS*	n/a	ENERGY STAR
	A UPS comprised of two or more single UPS units, sharing one or more common	*Modular UPS*	n/a	ENERGY STAR
UPS Power Conversion	The type of UPS power conversion.	Constrained List	n/a	
	UPS where solid-state power electronic components provide the output voltage.	*Static UPS*	n/a	ENERGY STAR
	UPS where one or more electrical rotating machines provide the output voltage.	*Rotary UPS*	n/a	ENERGY STAR
UPS Power Output	The type of power output, such as AC or DC, for a UPS.	Constrained List	n/a	
	UPS that supplies power with a continuous flow of electric charge that periodically	*Alternating current output UPS*	n/a	ENERGY STAR
	UPS that supplies power with a continuous flow of electric charge that is	*Direct current output UPS*	n/a	ENERGY STAR
UPS Input Dependency Characteristics	The input dependency characteristics of a uninterruptible power supply (UPS).	Constrained List	n/a	
	Capable of protecting the load from power outage.	*Voltage and frequency dependent*	n/a	ENERGY STAR
	A Voltage Independent (VI) is capable of protecting the load as required for VFD	*Voltage independent*	n/a	ENERGY STAR
	A Voltage and Frequency Independent (VFI) is independent of voltage and	*Voltage and frequency*	n/a	ENERGY STAR
~~**UPS System Redundancy**~~	~~UPS System Redundancy describes the redundant capacity of the Uninterruptible~~	~~Constrained List~~	~~n/a~~	~~ENERGY STAR~~
		~~*N*~~	~~n/a~~	
		~~*Nplus1*~~	~~n/a~~	
		~~*Nplus2*~~	~~n/a~~	
		~~*2N*~~	~~n/a~~	
		~~*Greater than 2N*~~	~~n/a~~	
UPS Support	Load supported by the UPS.	Constrained List	n/a	
	Uninterruptible Power Supply (UPS) supports only IT equipment.	*Only IT equipment*	n/a	
	Uninterruptible Power Supply (UPS) supports IT equipment plus non-IT loads less	*Load less than 10 percent*	n/a	
	Uninterruptible Power Supply (UPS) supports IT equipment plus non-IT loads	*Load greater than 10 percent*	n/a	
	Uninterruptible Power Supply (UPS) supports IT equipment plus non-IT loads	*Load greater than 10 percent not*	n/a	
	There is no Uninterruptible Power Supply (UPS).	*No UPS*	n/a	
Telephone Type	A Telephone is a commercially available electronic product whose primary	Constrained List	n/a	ENERGY STAR
	A Telephone or component of a Telephone system that ultimately converts sound	*Analog telephone*	n/a	ENERGY STAR
	A Voice over Internet Protocol (VoIP) Telephone is a telephone or component of a	*Voice over internet protocol*	n/a	ENERGY STAR
	A Telephone or component of a Telephone system that has the ability to ultimately	*Hybrid*	n/a	ENERGY STAR
	A Telephone that converts sound into multiple-access (e.g., Code-Division Multiple	*Cellular*	n/a	ENERGY STAR
Telephone Configuration	Telephone configuration to the network.	Constrained List	n/a	
	A Telephone with a base station and a handset. The cradle of a Cordless	*Cordless*	n/a	ENERGY STAR
	A Telephone with a permanent physical connection between the handset and the	*Corded*	n/a	ENERGY STAR
	A Telephone without a handset that utilizes a speakerphone for all	*Conference*	n/a	ENERGY STAR
	A Telephone consisting of a handset, cradle, and battery, designed for use with a	*Handset*	n/a	ENERGY STAR
	A Wireless (Wi-Fi) Telephone is a Telephone consisting of a handset, cradle, and	*Wireless*	n/a	ENERGY STAR
Telephone Functionality	Available services on the telephone.	Constrained List	n/a	
	The capability of a Telephone to convert both full-motion video and sound into	*Video calling*	n/a	ENERGY STAR
	A secondary Ethernet port on a telephone that provides the capability to pass data	*Data switch port*	n/a	ENERGY STAR
Set Top Box Type	A Set-top Box (STB) is a device combining hardware components with software	Constrained List	n/a	ENERGY STAR
	Displayless Video Gateway (DVG) is a device combining hardware components	*Displayless video gateway*	n/a	ENERGY STAR
	A STB or DVG that can receive television signals from a broadband, hybrid	*Cable*	n/a	ENERGY STAR
	A STB or DVG that can receive and decode video content as delivered from a	*Satellite*	n/a	ENERGY STAR
	Cable Digital Transport Adapter (DTA) is a minimally-configured Cable STB that	*Cable digital transport adapter*	n/a	ENERGY STAR
	Over-the-top (OTT) Internet Protocol (IP) is an IP STB that cannot receive signals	*Over the top internet protocol*	n/a	ENERGY STAR
	Multichannel Video Programming Distributor (MVPD) Internet Protocol (IP) is an IP	*Multichannel video programming*	n/a	ENERGY STAR
	A STB that can receive television signals over the air (OTA) or via community	*Terrestrial*	n/a	ENERGY STAR
	Thin-client or Remote is a STB that can receive content over an HNI from another	*Thin client*	n/a	ENERGY STAR

IP Functionality	Functions provided by the Internet Protocol (IP) equipment.	Constrained List	n/a	
	The capability to decrypt premium audio/video content and services and provide	*CableCARD*	n/a	ENERGY STAR
	Digital Video Recorder (DVR) is a feature that records television signals on a hard	*Digital video recorder*	n/a	ENERGY STAR
	The capability to distribute data and audio/video content over cable television	*DOCSIS*	n/a	ENERGY STAR
	An interface with external devices over a local area network (example: Institute of	*Home network interface*	n/a	ENERGY STAR
	IEEE 802.11n/ac and related MIMO enabled Wi-Fi functionality that supports more	*Multi input multi output wireless*	n/a	ENERGY STAR
	The capability to provide independent live audio/video content to multiple devices	*Multi room*	n/a	ENERGY STAR
	A STB or DVG feature that allows the device to receive multiple independent	*Multi stream*	n/a	ENERGY STAR
	Video decoding providing compression efficiency significantly higher than	*High efficiency video processing*	n/a	ENERGY STAR
	The capability to provide wireless network connectivity to multiple clients. For the	*Access point*	n/a	ENERGY STAR
	The capability to determine the optimal path along which network traffic should be	*Router*	n/a	ENERGY STAR
	The ability to provide analog telephone service through one or more RJ11 or RJ14	*Telephony*	n/a	ENERGY STAR
Battery Charger Type	A device intended to replenish the charge in a rechargeable battery. A battery	Constrained List	n/a	ENERGY STAR
	A battery charger that is individually packaged without batteries. Batteries that the	*A la carte*	n/a	ENERGY STAR
	A battery charger that, by design, may charge a variety of batteries that have	*Multi voltage*	n/a	ENERGY STAR
	A battery charger that, by design, is capable of simultaneously charging two or	*Multi port*	n/a	ENERGY STAR
	A battery charger that, by design, charges separable batteries that are	*Stand alone*	n/a	ENERGY STAR
	A multi-port charger, such as a universal AA battery charger, that charges	*Batch*	n/a	ENERGY STAR
	A combination of a Battery Charger and a detachable or integral Battery that is	*Battery charging system*	n/a	ENERGY STAR
Battery Device Type	A type of battery device.	Constrained List	n/a	
	A cordless product or appliance fully powered by the battery at least part of the	*Battery operated end use product*	n/a	ENERGY STAR
	A product or appliance designed to operate on battery power or directly from the	*Cordless*	n/a	ENERGY STAR
	A system in which power is transferred between windings in two separate	*Inductive coupling*	n/a	ENERGY STAR
Computer Type	A device which performs logical operations and processes data. For the purposes	Constrained List	n/a	ENERGY STAR
	A computer where the main unit is intended to be located in a permanent location,	*Desktop*	n/a	ENERGY STAR
	A desktop system in which the computer and computer display function as a	*Integrated desktop*	n/a	
	A laptop or notebook designed specifically for portability and to be operated for	*Laptop*	n/a	ENERGY STAR
	A computer that typically uses desktop components in a desktop form factor, but	*Small scale server*	n/a	ENERGY STAR
	A resilient/scalable server which ships as a pre-integrated/pre-tested system	*Large scale server*	n/a	ENERGY STAR
	An independently-powered computer that relies on a connection to remote	*Thin client*	n/a	ENERGY STAR
	A tablet computer, or simply tablet, is a mobile computer with display, circuitry and	*Tablet*	n/a	Wikipedia
	A high-performance desktop computer designed for professional video editing,	*Workstation*	n/a	ENERGY STAR
	~~A cash register is a mechanical or electronic device for registering and calculating~~	~~*Cash register*~~	~~n/a~~	
Imaging Equipment Type	Single purpose or multi-purpose system.	Constrained List	n/a	
	Produces paper duplicates from paper originals. Includes upgradeable digital	*Copier*	n/a	ENERGY STAR
	Generates paper output from electronic input. A printer is capable of receiving	*Printer*	n/a	ENERGY STAR
	A fax, or facsimile, machine whose primary functions are (1) to scan paper	*Fax machine*	n/a	ENERGY STAR
	Converts paper originals into electronic images that can be stored, edited,	*Scanner*	n/a	ENERGY STAR
	Prints postage on mail pieces.	*Mailing machine*	n/a	ENERGY STAR
	A product sold as a fully-automated duplicator system through the method of	*Digital duplicator*	n/a	ENERGY STAR
	A Multi-Function Device (MFD) product that performs two or more of the core	*Multi function device*	n/a	ENERGY STAR
Display Type	A display screen and associated electronics, often encased in a single housing,	Constrained List	n/a	ENERGY STAR
	An electronic device, typically with a diagonal screen size greater than 12 inches	*Computer monitor*	n/a	ENERGY STAR
	An electronic device typically with a diagonal screen size greater than 12 inches	*Signage display*	n/a	ENERGY STAR
	An electronic device, typically with a diagonal screen size less than 12 inches,	*Digital picture frame*	n/a	ENERGY STAR
	A CRT, also known as cathode ray tube or computer display terminal, is a type of	*CRT*	n/a	ENERGY STAR
Television Type	A type of television product.	Constrained List	n/a	

	A television product in which the display device is a projector that focuses images	*Rear projection*	n/a	ENERGY STAR
	A television product in which the display device emits light either directly from the	*Direct view*	n/a	ENERGY STAR
	A television product in which the TV and one or more additional devices (e.g.,	*Combination unit*	n/a	ENERGY STAR
	A television product composed of two or more separate components (e.g., display	*Component*	n/a	ENERGY STAR
	A television product which includes the following features: a) A control port for bi-	*Hospitality*	n/a	ENERGY STAR
	A television product which has an NTSC, PAL, or SECAM tuner, and may have	*Analog*	n/a	ENERGY STAR
	A television product which has at least one digital tuner or at least one digital video	*Digital*	n/a	ENERGY STAR
	A plasma display panel (PDP) is a type of flat panel display common to large TV	*Plasma*		
Audio Visual Characteristics	Audio and visual equipment characteristics or features installed standard or post-	Constrained List	n/a	
	A High-Definition Multimedia Interface (HDMI) is a compact audio/video interface	*High definition multimedia*	n/a	ENERGY STAR
	High Definition Resolution (HD) is video output with resolution greater than 480	*High definition resolution*	n/a	ENERGY STAR
	Standard Definition Resolution (SD) is video output with resolution less than or	*Standard definition resolution*	n/a	ENERGY STAR
	A Full-spectrum Audio Amplifier is an amplifier capable of full audible frequency	*Full-spectrum audio amplifier*	n/a	ENERGY STAR
	A Limited-bandwidth Audio Amplifier is an amplifier limited to less than full audible	*Limited bandwidth audio amplifier*	n/a	ENERGY STAR
	A function by which a device increases the amplitude of an audio signal for	*Audio amplification*	n/a	ENERGY STAR
	A function by which a device modifies an audio signal for a purpose other than	*Audio signal processing*	n/a	ENERGY STAR
	A function by which a product provides a visual display of less than 480 x 234 pixel	*Status display*	n/a	ENERGY STAR
	A function by which a device can playback streaming digital video content	*IP video tuner*	n/a	ENERGY STAR
	A function by which a device can connect to a network for transmission and	*Networking protocol*	n/a	ENERGY STAR
	Networking connections that have been defined to require additional power for	*Wifi and gigabit ethernet protocols*	n/a	ENERGY STAR
	A function by which a device can read and/or write data to removable disk media	*Optical disc player*	n/a	ENERGY STAR
	The capability to transmit or display video signals with a minimum output	*Ultra HD resolution*	n/a	ENERGY STAR
	The capability to transmit or display video signals with 3D depth information for	*Three dimensional capability*	n/a	ENERGY STAR
Display Resolution	Resolution is screen resolution in pixels.	Integer	pixel	LBNL
Display Pixel Density	Pixel density is equal to the resolution in pixels divided by viewable screen area in	Decimal	pixel/in2	LBNL
Server Type	The types of computer servers.	Constrained List	n/a	
	A computer server that is designed for a high level of availability in a highly	*Managed*	n/a	ENERGY STAR
	A system comprised of a blade chassis and one or more removable blade servers	*Blade system*	n/a	ENERGY STAR
	A computer server that is designed with complete hardware redundancy, in which	*Fully fault tolerant server*	n/a	ENERGY STAR
	A computer server designed with extensive Reliability, Availability, Serviceability	*Resilient server*	n/a	ENERGY STAR
	A computer server that is designed with two or more independent server nodes	*Multi node server*	n/a	ENERGY STAR
	A computer server that is bundled with a pre-installed OS and application software	*Server appliance*	n/a	ENERGY STAR
	A computing system which is designed and optimized to execute highly parallel	*High performance computing*	n/a	ENERGY STAR
	A computer server that is designed solely to operate on a dc power source.	*Direct current server*	n/a	ENERGY STAR
	A computer server that is designed for deployment in a standard 19- inch data	*Rack mounted server*	n/a	ENERGY STAR
	A pedestal server, also known as a tower server, self-contained computer server	*Pedestal server*	n/a	ENERGY STAR
Server Components	Server components that are used by a server.	Constrained List	n/a	
	Power Supply Unit (PSU) is a device that converts AC or DC input power to one or	*Power supply unit*	n/a	ENERGY STAR
	A device which provides data input and output capability between a computer	*IO device*	n/a	ENERGY STAR
	The main circuit board of the server. For purposes of this specification, the	*Motherboard*	n/a	ENERGY STAR
	The logic circuitry that responds to and processes the basic instructions that drive	*Processor*	n/a	ENERGY STAR
	For purposes of this specification, memory is a part of a server external to the	*Memory*	n/a	ENERGY STAR
	Hard Drive (HDD) is the primary computer storage device which reads and writes	*Hard drive*	n/a	ENERGY STAR
	Solid State Drive (SSD) is a storage device that uses memory chips instead of	*Solid state drive*	n/a	ENERGY STAR
Network Equipment Type	A type of network equipment.	Constrained List	n/a	
	A device whose primary function is to pass Internet Protocol (IP) traffic among	*Network equipment*	n/a	ENERGY STAR
	Network Equipment that is intended to serve users in either small networks or a	*Small network equipment*	n/a	ENERGY STAR

	Network Equipment that is rack-mounted, intended for use in standard equipment	*Large network equipment*	n/a	ENERGY STAR
	A device that transmits and receives digitally-modulated analog signals over a	*Broadband modem*	n/a	ENERGY STAR
	A network device with a modem and one or more of the following functions: wired	*Integrated access device*	n/a	ENERGY STAR
	A type of device that converts signals between copper (wired) or wireless	*Optical network termination device*	n/a	ENERGY STAR
	A device that provides wireless network connectivity to multiple clients as its	*Access point*	n/a	ENERGY STAR
	A network device that determines the optimal path along which network traffic	*Router*	n/a	ENERGY STAR
	A network device that filters, forwards, and floods frames based on the destination	*Switch*	n/a	ENERGY STAR
Network Shipment	Associated functions for network traffic or shipment that enables data to network	Constrained List	n/a	
	A device that functions as either an originator or destination for network traffic	*End point device*	n/a	ENERGY STAR
	Energy Efficient Ethernet (EEE) is a technology which enables reduced power	*Energy efficient ethernet*	n/a	ENERGY STAR
	The maximum PHY bit rate possible on a particular link (e.g., 1000BASE-T	*Link rate*	n/a	ENERGY STAR
	An integrated physical connection point primarily intended to accept non- IP data.	*Physical data port*	n/a	ENERGY STAR
	An integrated physical connection point primarily intended to accept IP or similar	*Physical network port*	n/a	ENERGY STAR
	A technology which enables transfer of electrical power, along with data, to	*Power over ethernet*	n/a	ENERGY STAR
	An equipment enclosure commonly seen in data centers or managed facilities and	*Standard equipment rack*	n/a	ENERGY STAR
	The network equipment device being tested. (UUT)	*Unit under test*	n/a	ENERGY STAR
	A device that is capable of establishing an 802.11x link with an Access Point (AP)	*Wireless local area network test*	n/a	ENERGY STAR
	The ability of an Endpoint Device to maintain network presence while in Sleep	*Full network connectivity*	n/a	ENERGY STAR
Network Auxiliary Equipment	Auxiliary equipment enabling and maintaining data storage services.	Constrained List	n/a	
	A device whose primary function is to pass data among various network	*Network equipment*	n/a	ENERGY STAR
	A fully-functional storage system that supplies data storage services to clients and	*Storage product*	n/a	ENERGY STAR
	Uninterruptible Power Supply (UPS) is a combination of converters, switches, and	*Uninterruptible power supply*	n/a	ENERGY STAR
Network Key Terms	Key terms related to server activities.	Constrained List	n/a	
	A computer or computer server that manages a benchmark evaluation process.	*Controller system*	n/a	ENERGY STAR
	A computer or computer server that generates workload traffic for transmission to	*Network client testing*	n/a	ENERGY STAR
	An acronym for reliability, availability, and serviceability features. RAS is	*RAS features*	n/a	ENERGY STAR
	The ratio of processor computing activity to full-load processor computing activity	*Server processor utilization*	n/a	ENERGY STAR
	A type of hardware virtualization technique that enables multiple guest operating	*Hypervisor*	n/a	ENERGY STAR
	Computing expansion add-in cards installed in general-purpose add-in expansion	*Auxiliary processing accelerators*	n/a	ENERGY STAR
	Channel or Memory Port connecting a Memory Controller to a defined number of	*Buffered DDR channel*	n/a	ENERGY STAR
Uninterruptible Power Supply Type	Uninterruptible Power Supply (UPS) is a combination of converters, switches, and	Constrained List	n/a	
	Uninterruptible Power Supply (UPS) is a combination of converters, switches, and	*Standard UPS*	n/a	ENERGY STAR
	A UPS comprised of two or more single UPS units, sharing one or more common	*Modular UPS*	n/a	ENERGY STAR
	UPS where solid-state power electronic components provide the output voltage.	*Static UPS*	n/a	ENERGY STAR
	A Rotary UPS is where one or more electrical rotating machines provide the output	*Rotary UPS without diesel*	n/a	ENERGY STAR
	A Rotary UPS is where one or more electrical rotating machines provide the output	*Diesel-coupled rotary UPS*	n/a	ENERGY STAR
	UPS that supplies power with a continuous flow of electric charge that periodically	*Alternating current output UPS*	n/a	ENERGY STAR
	UPS that supplies power with a continuous flow of electric charge that is	*Direct current output UPS*	n/a	ENERGY STAR
Cooking				
Cooking Appliance Type	Appliance or equipment used to cook food.	Constrained List	n/a	
	Range combines a stove and oven in one appliance	*Range*	n/a	
	Hot top ranges, or French top ranges, consist of burners or elements that apply	*Hot top range*	n/a	Food Service Survey
	Open burner ranges consist of burners or elements that apply heat directly to pots	*Open burner range*	n/a	Food Service Survey
	A self-contained range has one or more chambers or wells (openings) over which	*Wok range*	n/a	PG&E
	A braising pan or skillet cooks food and also serves as a steam table to hold warm	*Braising pan*	n/a	PG&E
	Underfired broilers, also called charbroilers, cook food on a grid placed over a heat	*Underfired broiler*	n/a	Food Service Survey
	Overfired broilers cook food on a grid placed under a heat source.	*Overfired broiler*	n/a	Food Service Survey

	Conveyer/chain broilers apply heat to both the top and bottom of the food as it	*Conveyor broiler*	n/a	Food Service Survey
	Salamander broiler, or cheesemelter, is a type of overfired broiler intended for a	*Salamander broiler*	n/a	Food Service Survey
	A direct, super-concentrated heating element usually positioned above an item to	*Broiler*	n/a	
	Microwave ovens cook or heat food by means of microwave energy. Some	*Microwave oven*	n/a	ENERGY STAR
	Toasters are countertop appliances designed for toasting, defrosting, and warming	*Toaster*	n/a	ENERGY STAR
	A fryer with a vat that measures >12 inches and < 18 inches wide, and a	*Standard fryer*	n/a	ENERGY STAR
	A fryer with a vat that measures > 18 inches and < 24 inches wide, and a	*Large vat fryer*	n/a	ENERGY STAR
	A standard or large vat fryer with an internal wall that separates the vat into two	*Split vat fryer*	n/a	ENERGY STAR
	A general-purpose oven that cooks food by forcing hot dry air over the surface of	*Convection oven*	n/a	ENERGY STAR
	A device that combines the function of hot air convection (oven mode), saturated	*Combination oven*	n/a	ENERGY STAR
	An oven that cooks food primarily using the naturally occurring hot air currents to	*Standard oven*	n/a	ENERGY STAR
	An oven designed to carry food product on a moving belt into and through a	*Conveyor oven*	n/a	ENERGY STAR
	An oven designed specifically for low-temperature (e.g., less than 300°F) cooking,	*Slow cook and hold oven*	n/a	ENERGY STAR
	An oven that cooks food product directly on the floor of a heated chamber. The	*Deck oven*	n/a	ENERGY STAR
	A rack oven that has the ability to produce steam internally and includes an	*Mini rack oven*	n/a	ENERGY STAR
	A high-capacity oven, with the ability to produce steam internally and fitted with a	*Rack roll in oven*	n/a	ENERGY STAR
	An oven base built into a range. Range ovens may use either standard or	*Range oven*	n/a	ENERGY STAR
	An oven that utilizes one or more non-traditional heat transfer technologies to cook	*Rapid cook oven*	n/a	ENERGY STAR
	An oven fitted with a mechanism to move or turn food past a fixed heat source	*Rotisserie oven*	n/a	ENERGY STAR
	An oven cabinet that allows venting of humidity while adjusting food moisture to	*Retherm oven*	n/a	PG&E
	Designed for toasting, baking, and broiling. Standard accessories include a baking	*Convection toaster oven*	n/a	
	Also referred to as a “compartment steamer,” a device with one or more food	*Steam cooker*	n/a	ENERGY STAR
	Steam kettles are a self-contained version of a stockpot used to simmer or boil	*Steam kettle*	n/a	Food Service Survey
	An appliance that consists of one or more heated drawers and that is designed to	*Drawer warmer*	n/a	ENERGY STAR
	An appliance with a heated compartment that is designed to display and maintain	*Heated transparent merchandising*	n/a	ENERGY STAR
	A multiple-mode appliance intended for cooking food that may be used to hold the	*Cook and hold appliance*	n/a	ENERGY STAR
	An enclosed mobile, portable, or stationary appliance designed to maintain the	*Proofing cabinet*	n/a	ENERGY STAR
	A commercial appliance designed for cooking food in oil or its own juices by direct	*Single sided griddle*	n/a	ENERGY STAR
	A commercial appliance designed for cooking food in oil or its own juices by direct	*Double sided griddle*	n/a	ENERGY STAR
	A commercial appliance designed for cooking food in oil or its own juices by direct	*Griddle*	n/a	ENERGY STAR
	A multi-purpose appliance used for surface cooking by direct contact with a heated	*Fry top griddle*	n/a	ENERGY STAR
	Brews coffee by percolating hot water through a brew basket of coffee grounds.	*Automatic drip filter coffee maker*	n/a	ENERGY STAR
	Brews coffee product by forcing a precise amount of hot water through a small	*Single serve coffee maker*	n/a	ENERGY STAR
	Produces a coffee product called espresso by forcing hot water through coffee	*Espresso machine*	n/a	ENERGY STAR
Oven Size	Capacity of combination oven in terms of standard sizing.	Constrained List	n/a	
	A combination oven capable of accommodating two 12 x 20 x 2 1⁄2-inch steam	*Full size*	n/a	ENERGY STAR
	A combination oven capable of accommodating a single 12 x 20 x 2 1⁄2-inch	*Half size*	n/a	ENERGY STAR
	A combination oven capable of accommodating a single 12 x 10 x 2 1⁄2-inch	*Two thirds size*	n/a	ENERGY STAR
Number Of Oven Racks	Number of full rack of sheet pans of product an oven is able to hold based on	Integer	n/a	ENERGY STAR
Coffee Maker Components	Components of a coffee maker for brewing coffee.	Constrained List	n/a	
	An electric resistance heating element in the water reservoir is used to heat up	*Heating element*	n/a	ENERGY STAR
	Decanter or carafe is a glass or multi-layer insulated stainless steel carafes are	*Decanter*	n/a	ENERGY STAR
	An electric motor powers a grinder to prepare whole coffee beans for brewing.	*Grinder*	n/a	ENERGY STAR
	An electric resistance heater is used to maintain brewed coffee at a temperature	*Warming plate*	n/a	ENERGY STAR
	A microprocessor is used to control various user-selectable product functions,	*Microprocessor*	n/a	ENERGY STAR
	A boiler or thermoblock are espresso machine components create hot water for	*Thermoblock*	n/a	ENERGY STAR
	An electric pump or piston is allows the brewing process to pump cold water from	*Electric pump*	n/a	ENERGY STAR

	Vessel in which a steam-air mixture is discharged to froth milk. Contains a conduit	*Steam wand*	n/a	ENERGY STAR
Refrigeration				
Refrigeration Type	Refrigeration equipment includes a refrigerator or freezer used for storing food	Constrained List	n/a	ENERGY STAR
	A cabinet designed for the refrigerated storage of food, designed to be capable of	*Refrigerator*	n/a	ENERGY STAR
	A cabinet designed as a unit for the freezing and storage of food at temperatures	*Freezer*	n/a	ENERGY STAR
	A cabinet which consists of two or more compartments with at least one of the	*Combination*	n/a	ENERGY STAR
Ice Machine	A factory-made assembly (not necessarily shipped in one package) consisting of a	Constrained List	n/a	ENERGY STAR
	An ice making head (IMH) is a model with the ice-making mechanism and the	*Ice making head*	n/a	ENERGY STAR
	A Remote condensing unit (RCU) or split system unit is a model in which the ice-	*Remote condensing unit*	n/a	ENERGY STAR
	Self-Contained (SCU): A model in which the ice-making mechanism and storage	*Self contained unit*	n/a	ENERGY STAR
	Air-Cooled: An ice machine wherein motor driven fans or centrifugal blowers move	*Air cooled*	n/a	ENERGY STAR
	Cubed: Cubed ice machines have an alternate freezing and harvesting period.	*Cubed*	n/a	ENERGY STAR
	Flake: Flake ice machines produce ice continuously, usually in a barrel-shaped	*Flake*	n/a	ENERGY STAR
	Nugget: Nugget ice machines use the same process as flake machines but	*Nugget*	n/a	ENERGY STAR
Cabinet Configuration	Configuration can include refrigeration cases and walk-ins, not central refrigeration	Constrained List	n/a	
	A display or holding refrigerator where product is accessible for removal by	*Closed case*	n/a	ENERGY STAR
	An open case, or reach-in, refrigeration unit allows foodservice staff or customers	*Open case*	n/a	Food Service Survey
	A refrigeration case, also known as a refrigeration cabinet, designed for easy	*Case*	n/a	
	A large refrigeration room that allows walk-in accessibility.	*Walk in*	n/a	ENERGY STAR
	A cabinet that has one door and is full-sized according to national standards.	*Full sized one door*	n/a	ENERGY STAR
	A cabinet that has two doors and is full-sized according to national standards.	*Full sized two doors*	n/a	ENERGY STAR
	A cabinet that is half-sized or quarter-sized relative to the standard residential	*Half or quarter size*	n/a	ENERGY STAR
Equipment Features	Features of a refrigerator or freezer equipment.	Constrained List	n/a	
	Manual defrost refers to the type of defrosting system included for a freezer.	*Manual defrost*	n/a	ENERGY STAR
	Frost free or a self-defrost freezer cycles off/on automatically to effect a discharge	*Frost free*	n/a	ENERGY STAR
	A vending machine that requires refrigeration capabilities.	*Refrigerated vending machine*	n/a	ENERGY STAR
Door Configuration	Door configuration of the refrigerator/freezer unit.	Constrained List	n/a	
	The side-by-side door configuration is a cabinet that is divided in half lengthwise.	*Side by side*	n/a	ENERGY STAR
	The top-and-bottom door configuration is a cabinet that is divided in half	*Top and bottom*	n/a	ENERGY STAR
	A combination configuration may have a freezer on one side and a refrigerator on	*Combination*	n/a	ENERGY STAR
	An enclosed refrigeration cabinet to which access is gained only through a top-	*Chest*	n/a	ENERGY STAR
	Less than 75% of the front surface area is glass.	*Solid door*	n/a	ENERGY STAR
	Greater than, or equal to, 75% of the front surface area is glass.	*Glass door*	n/a	ENERGY STAR
Case Door Orientation	Orientation of refrigerated case doors used for display cases at stores, food-	Constrained List	n/a	
	Horizontal case doors have sliding doors on the top of a cabinet, often made of	*Horizontal*	n/a	ENERGY STAR
	Vertical case doors have sliding doors on the side of a cabinet, often made of	*Vertical*	n/a	ENERGY STAR
	Combination case doors have one or more sliding doors on a certain part of a	*Combination*	n/a	ENERGY STAR
Defrosting Type	Type of defrost method used for commercial refrigerated display and storage	Constrained List	n/a	
	Electric defrost systems typically have heat applied externally, however, systems	*Electric*	n/a	ENERGY STAR
	Defrosting in which the temperature of the evaporator coils is allowed to rise	*Off cycle*	n/a	ENERGY STAR
	Hot Gas Defrosting is a method that utilizes heat internally, from inside the pipes	*Hot gas*	n/a	ENERGY STAR
	defrosting an evaporator by reversing its function with that of the condenser.	*Reverse cycle*	n/a	ENERGY STAR
	defrosting in which water is sprayed or poured over the frosted surface.	*Water*	n/a	ENERGY STAR
	Defrosting that uses cool gas (or vapor) from the top of the receiver instead of hot	*Cool gas*	n/a	ENERGY STAR
Refrigeration Components	Components that make up the refrigeration equipment.	Constrained List	n/a	
	An anti-sweat heater feature for glass display doors for a refrigerated case. May	*Anti sweat heater equipment*	n/a	ASHRAE Wiki
	A crankcase heater that prevents condensation when the refrigeration equipment	*Crankcase heater*	n/a	AUC

	The level of refrigerant superheater is controlled using a desuperheater valve. A	*Desuperheater valve*	n/a	ASHRAE Wiki
	Condenser comprising several heat-exchanging components operating on one or	*Split condenser*	n/a	ASHRAE Wiki, AUC
	Automatic valve or control device used to maintain the pressure, and thereby the	*Evaporator pressure regulators*	n/a	ASHRAE Wiki, AUC
	Heat exchanger, after the condenser, for subcooling the condensed refrigerant.	*Refrigerant subcooler*	n/a	ASHRAE Wiki
	Compressor unloader is (1) device for controlling compressor capacity by	*Compressor unloader*	n/a	ASHRAE Wiki
	A device or unit used to condense a substance from its gaseous to its liquid state,	*Condenser*	n/a	
	A device that uses pistons or some other method to compress the refrigerant gas	*Compressor*	n/a	
Refrigeration Compressor Type	Type of compressor in the refrigeration system. See Chiller Compressor Type for	Constrained List	n/a	
Number Of Cycles	Number of stages or cycles available for unloading the compressor in a	Integer	n/a	AUC
Refrigeration Characteristics ~~Dimensions~~	Dimensions of refrigeration equipment components.	Constrained List	n/a	
	That portion of the total refrigeration capacity of a liquid cooler that produces	*Net refrigeration capacity*	n/a	ASHRAE Wiki
	Diameter of the return line of the refrigerant coming back from refrigerated cases.	*Refrigerant return line diameter*	n/a	ENERGY STAR
	Number of return lines from refrigerated cases to the compressor.	*Number of refrigerant return lines*	n/a	ENERGY STAR
Water Cooler Unit	A freestanding device that consumes energy to cool and/or heat potable water.	Constrained List	n/a	
	Units that dispense cold water only.	*Cold only*	n/a	ENERGY STAR
	Units that dispense both hot and cold water. Some units may also offer room-	*Hot and cold*	n/a	ENERGY STAR
	Units that dispense both cold and room-temperature water.	*Cool and cold*	n/a	ENERGY STAR
	A water cooler which, in addition to the primary function of cooling and dispensing	*Compartment type water cooler*	n/a	ENERGY STAR
Water Cooler Source	The water source of a particular water cooler.	Constrained List	n/a	
	A bottle or reservoir supplies water to the water cooler.	*Bottle type*	n/a	ENERGY STAR
	The Point of Use (POU) refers to the water cooler that is connected to a	*Point of use*	n/a	ENERGY STAR
	A unit that ships as either Bottle-type or POU and includes a conversion kit	*Conversion type water cooler*	n/a	ENERGY STAR
Water Cooler Storage	The type of water storage of a water cooler.	Constrained List	n/a	
	Thermally conditioned water is stored in a tank in the water cooler and is available	*Storage*	n/a	ENERGY STAR
	The water cooler heats water as it is requested, which typically takes a few	*On demand*	n/a	ENERGY STAR
Dishwasher				
Dishwasher Machine Type	They type of dishwasher machine such as being either stationary rack or	Constrained List	n/a	
	A dishwashing machine in which a rack of dishes remains stationary within the	*Stationary rack*	n/a	ENERGY STAR
	A dishwashing machine that employs a conveyor or similar mechanism to carry	*Conveyor*	n/a	ENERGY STAR
Dishwasher Configuration	A machine designed to clean and sanitize plates, pots, pans, glasses, cups,	Constrained List	n/a	ENERGY STAR, DOE,
	Available in both caster-equipped floor models and more compact countertop	*Counter top*	n/a	ENERGY STAR
	A dishwasher which is not permanently connected to the household water and	*Portable*	n/a	ENERGY STAR
	A stationary rack machine with an overall height of 38 inches or less, designed to	*Stationary under counter*	n/a	ENERGY STAR
	A stationary rack machine designed to accept a standard 20 inch x 20 inch dish	*Stationary single tank door type*	n/a	ENERGY STAR
	A stationary rack, door type machine designed to clean and sanitize pots, pans,	*Stationary pot pan utensil*	n/a	ENERGY STAR
	A stationary rack, under counter machine specifically designed to clean and	*Stationary glasswashing*	n/a	ENERGY STAR
	A conveyor machine that includes a tank for wash water followed by a sanitizing	*Single tank conveyor*	n/a	ENERGY STAR
	A conveyor type machine that includes one or more tanks for wash water and one	*Multiple tank conveyor*	n/a	ENERGY STAR
	A single conveyor machine where the dishes are loaded directly on the conveyor	*Single tank flight conveyor*	n/a	ENERGY STAR
	A multiple conveyor machine where the dishes are loaded directly on the conveyor	*Multiple tank flight conveyor*	n/a	ENERGY STAR
Dishwasher Sanitization	The dishwater sanitization method for cleaning and preparing the dishwashing	Constrained List	n/a	
	A machine that applies hot water to the surfaces of dishes to achieve sanitization.	*Hot water sanitizing high*	n/a	ENERGY STAR
	A machine that applies a chemical sanitizing solution to the surfaces of dishes to	*Chemical sanitizing low*	n/a	ENERGY STAR
	A low temp, stationary rack machine with a pumped recirculated sanitizing rinse.	*Chemical dump*	n/a	ENERGY STAR
	A machine designed to operate as either a high temp or low temp machine.	*Dual sanitizing*	n/a	ENERGY STAR
Dishwasher Capacity	Dishwasher capacity can use the amount of dishes that can fit on a dishwasher	Constrained List	n/a	
	A dishwasher that has a capacity of less than eight place settings plus six serving	*Compact*	n/a	ENERGY STAR

	A dishwasher that has a capacity equal to or greater than eight place settings plus	*Standard*	n/a	ENERGY STAR
Laundry				
Laundry Appliance Type	Type of Laundry appliance according to its function such as washer only, dryer	Constrained List	n/a	
	A product designed to clean clothes, utilizing a water solution of soap and/or	*Clothes washer*	n/a	ENERGY STAR
	A clothes washer that has an optional add-on dry cycle, where drying is	*Clothes washer with dry cycle*	n/a	ENERGY STAR
	An appliance for drying loads of laundry.	*Clothes dryer*	n/a	
	A consumer product designed to clean and dry fabrics in a single drum, where a	*Combination all in one clothes*	n/a	ENERGY STAR
	A washer and dryer is stacked on top of one another as one set while having	*Unitized stacked washer dryer pair*	n/a	ENERGY STAR
Laundry Configuration	The type of configuration of a laundry appliance. Such as front and top loading	Constrained List	n/a	
	Load laundry from the front of the machine.	*Front*	n/a	ENERGY STAR
	Load laundry from the top of the machine.	*Top*	n/a	ENERGY STAR
Clothes Washer Modified Energy	Modified Energy Factor, MEF, is the energy performance metric for ENERGY	Decimal	ft3/kWh/cycle	ENERGY STAR
Clothes Washer Integrated Modified	The quotient of the cubic foot (or liter) capacity of the clothes container divided by	Decimal	ft3/kWh/cycle	ENERGY STAR
Clothes Dryer Type	The type of clothes dryer appliance.	Constrained List	n/a	ENERGY STAR
	A clothes dryer with a drum capacity of less than 4.4 cubic feet.	*Compact*	n/a	ENERGY STAR
	A clothes dryer with a drum capacity of 4.4 cubic feet or greater.	*Standard*	n/a	ENERGY STAR
	A clothes dryer that exhausts the evaporated moisture from the cabinet.	*Conventional vented*	n/a	ENERGY STAR
	A clothes dryer that uses a closed-loop system with an internal condenser to	*Ventless*	n/a	ENERGY STAR
	A ventless clothes dryer that uses cold tap water for internal condenser cooling.	*Water cooled ventless*	n/a	ENERGY STAR
Clothes Dryer Drum Capacity	This is the drum capacity of the clothes dryers in cubic feet as measured by the	Decimal	ft3	ENERGY STAR

Term	Definition	Data Type	Unit of Measure	Definition Source
Operation				
Operation Event	An operation event is an activity that is performed at the premises as part of	Constrained List	n/a	
	~~Number of~~ individual meal~~s~~ served. One meal includes the main entree as well as	*Meal served*	n/a	
	Load of laundry	*Laundry load~~s~~*	n/a	
	Event performed on ice (e.g., skating)	*Ice performance*	n/a	
	Such as baseball game	*Sporting event*	n/a	
	Such as a show, concert, seminar, religious service, etc.	*Non-sporting event*	n/a	
	Such as surgeries in an outpatient hospital.	*Procedure*	n/a	
	Such as individual classes held in educational institutions.	*Class*	n/a	
	~~Total number of~~ customer~~s~~ served. Each individual visit by the same customer counts as a	*Service*	n/a	
	Such as items produced by a manufacturer.	*Item production*	n/a	
	Event that passes as an organization's threshold for a single customer transaction.	*Customer transaction*	n/a	
	A receipt transaction is any time money is exchanged for goods or service and can	*Receipt transaction*	n/a	
Operation Events Per Year	Number of operation events that take place in a year.	Integer	n/a	
Operational Control Actor	The actor who has authority to introduce and implement any or all operating and/or	Constrained List		BuildingSync and
		Owner		
		Tenant		
		Landlord		
		Occupant		
Meal Type	The type of meal served in this operation event.	Constrained List	n/a	
	The first meal of the day, usually eaten in the morning.	*Breakfast*	n/a	Food Service Survey
	A meal eaten in the middle of the day, typically one that is lighter or less formal	*Lunch*	n/a	Food Service Survey
	The main meal of the day, typically more formal and in the evening.	*Dinner*	n/a	Food Service Survey
	A beverage, portion of food, or light meal, between larger meals, including hot or	*Coffee Snack*	n/a	Food Service Survey
	The sweet course eaten at the end of a meal or in between meals.	*Dessert*	n/a	Food Service Survey
	Party-sized meals are prepared within the premises to be served and consumed	*Catered*	n/a	Food Service Survey
	Meals prepared within the premises, to be consumed within the establishment or	*Dine-in*	n/a	Food Service Survey
	Meals prepared within the premises, to be consumed at some other location. Meal	*Carry-out*	n/a	Food Service Survey
	Meals prepared within the premises, to be consumed at some other location. Meal	*Drive through*	n/a	LBNL
Laundry Load Type	Type of materials laundered.	Constrained List	n/a	ENERGY STAR
		Linens	n/a	
		Terry	n/a	
		Dry clean	n/a	
		Delicates	n/a	
		Permanent press	n/a	
		Clothing	n/a	
Schedule				
Schedule Period	The period label for the schedule.	Constrained List	n/a	
	The default schedule in effect the majority of the year.	*Primary*	n/a	
	A period of time that is different than the primary schedule due to seasonal	*Seasonal*	n/a	
	Period when the premises or equipment is closed or not in use.	*Dormant*	n/a	
		~~*Rate structure*~~	~~n/a~~	
		~~*TOU rate*~~	~~n/a~~	
		Demand window	n/a	
		Spring	n/a	
		Summer	n/a	

		Fall	n/a	
		Winter	n/a	
Schedule Period Begin Month	The month when this schedule period takes effect.	Integer	Month	
Schedule Period Begin Day	The day when this schedule period takes effect.	Integer	Day	
Schedule Period End Month	The month when this schedule period ends.	Integer	Month	
Schedule Period End Day	The day when this schedule period ends.	Integer	Day	
Schedule Category	The category this schedule applies to.	Constrained List	n/a	
	The schedule during which business is commonly conducted.	*Business*	n/a	
	Occupants on premises.	*Occupied*	n/a	
	Occupants not on premises.	*Unoccupied*	n/a	
	Occupants sleeping in premises.	*Sleeping*	n/a	
	Non-employee occupants allowed on premises	*Public access*	n/a	
	A time when the load is reduced, typically when occupants are away from the	*Setback*	n/a	
	The schedule during which general equipment is in operation. This may be hours	*Operating*	n/a	
	The schedule during which HVAC equipment is in operation. This may be hours	*HVAC equipment*	n/a	
	The schedule during which cooling equipment is in operation. This may be hours	*Cooling equipment*	n/a	
	The schedule during which heating equipment is in operation. This may be hours	*Heating equipment*	n/a	
	The schedule during which majority of lights are on.	*Lighting*	n/a	
	The schedule during which cooking equipment is utilized.	*Cooking equipment*	n/a	
	Plug loads	*Miscellaneous equipment*	n/a	
	Period of higher, non-discounted energy prices during specific times generally	*On peak*	n/a	
	Period of lower, discounted energy prices during specific times generally when	*Off peak*	n/a	
	Period of lowest, most discounted energy prices during specific times generally	*Super off peak*	n/a	
Schedule Day	Day(s) this schedule applies to.	Constrained List	n/a	
	Sunday is the day of the week following Saturday and preceding Saturday, and	*Sunday*	n/a	
	Monday is the first weekday following Sunday and preceding Tuesday.	*Monday*	n/a	
	Tuesday is the second weekday following Monday and preceding Wednesday.	*Tuesday*	n/a	
	Wednesday is the third weekday following Tuesday and preceding Thursday.	*Wednesday*	n/a	
	Thursday is the fourth weekday following Wednesday and preceding Friday.	*Thursday*	n/a	
	Friday is the fifth weekday following Thursday and preceding Saturday.	*Friday*	n/a	
	Saturday is the day of the week following Friday and preceding Sunday, and	*Saturday*	n/a	
	The schedule is the same every day Monday through Friday.	*Weekday*	n/a	
	The schedule is the same on Saturday and Sunday.	*Weekend*	n/a	
	A holiday is a day of festivity or recreation when traditionally no work may be	*Holiday*	n/a	
	Every day of the week that is not an observed holiday.	~~All week~~ Non holiday	n/a	
Day Start Time	In military time (0000 start of day). If the night before the schedule runs into this	TimeStamp	Military time	
Day End Time	In military time (0000 start of day). If the end hour is the next day, then this day	TimeStamp	Military time	
Average Daily Hours	If exact start and end hours are unknown, then the total number of hours per day.	Integer	hours/day	
Average Weekly Hours	Number of hours in a typical week.	Integer	hours/week	
Average Annual Hours	Number of hours in a typical year.	Integer	hours/year	
Average Annual Weeks	The number of weeks that the premises or equipment is in use. For example, a	Integer	weeks/year	
Observed Holidays	Holidays in which the operations follow a holiday schedule that is different from the	Constrained List	n/a	
	New Year's Eve is celebrated on December 31 as the last day of the Western	*New Years Eve*	n/a	
	New Year's Day is federal holiday celebrated on January 1 as the first day of the	*New Years Day*	n/a	
	New Year's Day Observed is the nearest weekday to January 1. If New Year's Day	*New Years Day Observed*	n/a	
	Martin Luther King Day is a federal holiday held on the third Monday of January	*Martin Luther King Day*	n/a	
	President's D, or Washington's Birthday, is a federal holiday celebrated on the third	*President's Day*	n/a	

	Memorial Day is a federal holiday observed on the last Monday of May to	*Memorial Day*	n/a	
	Flag Day of the United States is a holiday celebrated on June 14 to commemorate	*Flag Day*	n/a	
	Independence Day in the United States is a federally celebrated holiday on July 4,	*Independence Day*	n/a	
	Independence Day Observed is the nearest weekday to July 4. If Independence	*Independence Day Observed*	n/a	
	Labor day is a federal holiday observed on the first Monday of September to	*Labor Day*	n/a	
	Columbus Day is a federal holiday observed on the second Monday of October to	*Columbus Day*	n/a	
	Veterans Day is an international holiday, observed federally on November 11 to	*Veterans Day*	n/a	
	Thanksgiving is a federal holiday observed on the third Thursday of November to	*Thanksgiving*	n/a	
	Thanksgiving Friday is the Friday following Thanksgiving, though not a federally	*Thanksgiving Friday*	n/a	
	Christmas Eve is the day before the Christmas Day Holiday on December 24.	*Christmas Eve*	n/a	
	Christmas Day is an international holiday observed on December 25 to traditionally	*Christmas Day*	n/a	
	Christmas Day Observed is the nearest weekday to December 25 if it falls on a	*Christmas Day Celebrated*	n/a	
	Caesar Chavez Day is a commemorative holiday to celebrate the birth of the civil	*Caesar Chavez Day*	n/a	
Partial Operation Percentage	Percent of category that is in operation. If Schedule Category is Occupancy, then	Decimal	Percent	
Operational Mode	The equipment state of connection to a power source for use, and providing one or	Constrained List	n/a	
	Connected to a power source, activated, receiving a main charge or ready to use,	*On*	n/a	
	The power state in which a product is not producing output, has reached operating	*Ready state*	n/a	
	The operational state in which the machine is carrying out primary work.	*Active*	n/a	
	Not connected to a power source, produces no function, and cannot be switched	*Off*	n/a	
	A reduced power state that a product enters either automatically after a period of	*Sleep*	n/a	
	The machine server is operational, but not performing any useful work.	*Idle*	n/a	
	Energy saver mode is a setting that consumes less energy than it does in idle	*Energy saver*	n/a	
	Traffic is passed across ports of equipment at relatively slow data rate. For	*Low Data Rate*	n/a	
	Traffic is passed across ports of equipment at a selected reference rate,	*High Data Rate*	n/a	
	The lowest power consumption state which cannot be switched off by the user and	*Standby*	n/a	
	Produces no functional output, but can be switched into another mode with the	*Passive standby*	n/a	
	Produces no functional output, but can be switched into another mode with the	*High activity standby*	n/a	
	Produces no functional output, but can be switched into another mode with the	*Low activity standby*	n/a	
	Actively engaged in system maintenance or download updated functionality after	*Updating*	n/a	
	Wash mode is when the machine is actively running a cycle and is spraying wash	*Wash*	n/a	
	Rinse mode is when the machine is at the end of the actively running cycle and is	*Rinse*	n/a	
	For stationary rack machines, the dishwasher is in dwell mode when it is actively	*Dwell*	n/a	
	Power is supplied as it is required by demand	*On demand*	n/a	
	Power is supplied according to an associated schedule	*Schedule*	n/a	
Controls				
Control Technology	Technological device that enables control of the system.	Constrained List	n/a	
	A thermostat is a device that automatically regulates temperature, or that activates	*Thermostat*	n/a	
	A thermostatic radiator valve (TRV) is a self-regulating valve fitted to hot water	*Thermostatic radiator valve*	n/a	
	A zone valve is a specific type of valve used to control the flow of water or steam in	*Thermostatic zone valve*	n/a	
		Sensor	n/a	
		Timer	n/a	
		Meter	n/a	
	Advanced Power Strips (APS) have built-in features that are designed to reduce	*Advanced power strip*	n/a	
	Refrigeration anti-sweat heaters	*Anti sweat heaters*	n/a	
	EMCS	*Energy management and controls*	n/a	
	BAS	*Building automation system*	n/a	
	~~Manual operation of on and off switch.~~	~~*Manual*~~	~~n/a~~	

		~~*Manual dimming*~~	~~n/a~~	
		~~*Always on*~~	~~n/a~~	
Control Strategy	Control logic or strategy that is programed into the system.	Constrained List	n/a	
	Demand control ventilation (DCV) is a ventilation system capability that provides	*Demand control ventilation*	n/a	DOE
	Direct digital control (DDC) is a control system that uses digital processors to	*Direct digital control*	n/a	DOE
	Dual maximum logic comes from the fact that there are two maximum airflow	*Dual maximum logic*	n/a	
	With single maximum logic the damper will remain at the minimum airflow rate	*Single maximum logic*	n/a	
	The coldest reset strategy is used in dual duct systems to reset the setpoint	*Coldest reset*	n/a	
		Warmest reset	n/a	
		Wet Bulb reset	n/a	
		Outside air reset	n/a	
		Fixed	n/a	
		Differential	n/a	
		Pneumatic	n/a	
	An electronic control uses solid state electronic circuitry to provide the proper	*Electronic*	n/a	
	Or scheduled	*Programmable*	n/a	
		Scheduled	n/a	
		Staged setpoint	n/a	
		Max cells	n/a	
		Min cells	n/a	
		Two position flow	n/a	
		Variable flow	n/a	
		Average flow	n/a	
		Critical zone	n/a	
		Daylight dimming	n/a	
		Bi level	n/a	
		Multi level	n/a	
		Recirculation	n/a	
	Resetting duct static pressure to keep it only as high as is needed to satisfy the	*Static pressure reset*	n/a	
	Resetting the supply-air-temperature set point based on the outside air	*Supply air temperature reset*	n/a	
	The capability to automatically switch a device from On Mode to Sleep Mode after a	*Auto power down*	n/a	
	Reheat control strategy. Use additional qualifiers (e.g., dual maximum logic) to	*Reheat*	n/a	
	Lighting can be continuously dimmed from full power to minimum power	*Continuous dimming*	n/a	
	Lighting can be continuously dimmed from full power to minimum power and can	*Continuous dimming plus off*	n/a	
	Lighting can be dimmed in discrete steps	*Stepped dimming*	n/a	
	Generic control strategy	*Controlled*	n/a	
	Manual operation of on and off switch.	*Manual*	n/a	
		Manual dimming	n/a	
		Always on	n/a	
Percent Of Area Controlled	Percentage of the premises gross floor area that is controlled by this system.	Decimal	Percent	
Setpoint Type	Setpoint type that this control systems adheres to.	Constrained List	n/a	
	~~°F~~	*Room temperature*	n/a	
	Temperature setting of supply air for heating or cooling. °F	*Supply air temperature*	n/a	
	Outside air temperature where supply air temperature is reset for heating or	*Outside air temperature limit*	n/a	
	The percent of the total volume of delivered air that is outdoor air to be mixed with	*Outside air percentage*	n/a	
	The flow rate of outside air that the system is able to deliver. For systems with	*Outside air flow rate*	n/a	
	Dry bulb temperature setting for use of control equipment, such as economizer and	*Dry bulb control point*	n/a	

	Enthalpy setting for use of economizer for cooling. Btu/lb	*Enthalpy control point*	n/a	
	The outside air temperature which the economizer will return to the minimum	*Temperature lockout*	n/a	
	The water temperature that the equipment supplies, such as the chilled water	*Supply water temperature*	n/a	
	The water temperature that the equipment receives from return duct. °F	*Return water temperature*	n/a	
	The temperature of the mixed water container, such as the water in a pool, or the	*Mixed water temperature*	n/a	
	~~cfm~~	*Flow rate*	n/a	
	Percent	*Humidity*	n/a	
	Lighting level used for controlling electric lights when daylighting is available.	*Daylight illuminance*	n/a	
	~~Pa~~	*Pressure*	n/a	
	~~m/s~~	~~*Speed*~~	~~n/a~~	
	The part load ratio at which the system is able to operate.	*Part load ratio*	n/a	
	The part load ratio of the chiller below which hot gas bypass (HGBP) operates.	*Part load ratio for HGBP*	n/a	
	The temperature of the refrigerant vapor returning to the compressor or	*Suction vapor temperature*	n/a	ASHRAE Wiki
	The saturation temperature, in degrees, corresponding to the measured refrigerant	*Condensing temperature*	n/a	ASHRAE Wiki
	The ambient air temperature under design conditions. °F	*Design ambient temperature*	n/a	
	The difference between the condensing temperature of the refrigerant in the	*Design temperature difference*	n/a	
	The fraction of maximum lighting output a lighting system produces, at the	*Output fraction*	n/a	
	The fraction of maximum power input to a dimmed lighting system	*Power fraction*	n/a	
	The flow rate of supply air	*Supply air flow rate*	n/a	
	The flow rate of return air	*Return air flow rate*	n/a	
	Generic temperature setpoint	*Temperature*	n/a	
Setpoint Setting Condition	Setpoint settings conditions that apply to this setpoint.	Constrained List	n/a	
	Setpoint applies to reset conditions.	*Reset*	n/a	
	Setpoint applies to normal operating conditions.	*Normal*	n/a	
	Setpoint applies to setback operating conditions, generally for unoccupied times.	*Setback*	n/a	
	Setpoint qualifier for design conditions	*Design*	n/a	
Setpoint Low	The lowest allowed range in setpoint. If there is no range, then the low and high	Decimal	Dependent on	
Setpoint High	The highest allowed range in setpoint. If there is no range, then the low and high	Decimal	Dependent on	
Setpoint	The single target value for a setpoint that does not include a range.	Decimal	Dependent on	
Sensor Type	Physical property measured by the sensor.	Constrained List	n/a	
	°F	*Temperature*	n/a	
	Percent	*Humidity*	n/a	
	psi	*Static pressure*	n/a	
	ft3/min	*Air flow*	n/a	
	m/s	*Speed*	n/a	
	dB	*Sound*	n/a	
	ft3/min	*Water flow*	n/a	
	n/a	*Motion*	n/a	
	n/a	*Vacancy*	n/a	
	n/a	*Occupancy*	n/a	
	n/a	*Status*	n/a	
	Percent	*Oxygen*	n/a	
	n/a	*Carbon dioxide*	n/a	
	n/a	*Carbon monoxide*	n/a	
	fc	*Photosensor*	n/a	
Meter Type	Meters can be divided into several categories based on their capabilities	Constrained List	n/a	LBNL
		Revenue grade meter	n/a	

		Advanced resource meter	n/a	
		Analog	n/a	
		Interval	n/a	
		Net	n/a	
	A smart meter is usually an electronic device that records consumption of electric	*Smart meter*	n/a	
		PDU input meter	n/a	
		IT equipment input meter	n/a	
		Supply UPS output meter	n/a	
		PDU output meter	n/a	
	Mater meter	*Master meter*	n/a	
	Submeter	*Submeter*	n/a	
Reset Routine	Times when the HVAC equipment is setback. For example, when the heat is	Constrained List	n/a	
		During the day	n/a	
		At night	n/a	
		During sleeping and unoccupied	n/a	
		Seasonal	n/a	
		Never or rarely	n/a	
HVAC Systems Controlled	HVAC system that are monitored by this control.	Constrained List	n/a	
		All HVAC		
		Heating	n/a	
		Cooling	n/a	
		Distribution terminals	n/a	
	Ventilation system	*Ventilation*	n/a	
Maintenance				
Maintenance Type	Maintenance is the process of maintaining or preserving someone or something.	Constrained List	n/a	
		Inspection	n/a	
		Cleaning	n/a	
		Calibration	n/a	
		Repair	n/a	
		Replace	n/a	
		Tune	n/a	
Frequency Of Maintenance	Frequency of maintenance on the premises or equipment.	Constrained List	n/a	
		As needed	n/a	
		Daily	n/a	
		Weekly	n/a	
		Bi weekly	n/a	
		Monthly	n/a	
		Semi quarterly	n/a	
		Quarterly	n/a	
		Semi annually	n/a	
		Annually	n/a	
Maintenance Events Per Year	The number of maintenance events performed on the premises or equipment in	Integer	n/a	
Date Of Most Recent Maintenance	The date of the most recent maintenance that was performed on the premises or	Date Format from Metadata	n/a	

Term	Definition	Data Type	Unit of Measure	Definition Source
Energy Generation Technology	Technology utilized on the premises to generate non-purchased energy, including	Constrained List	n/a	
	Standby generator installed on-premises for back-up electricity production.	*Standby generator*	n/a	
	Turbines generate electricity from mechanical energy exerted by a renewable	*Turbine*	n/a	EPA
	Microturbines are small electricity generators that can burn a wide variety of fuels	*Microturbine*	n/a	DOE
	A single fuel cell consists of an electrolyte sandwiched between two electrodes.	*Fuel cell*	n/a	NREL
	Gasification is a process that converts organic or fossil fuel based carbonaceous	*Gasification*	n/a	Gasification
	Binary cycle geothermal power generation plants differ from Dry Steam and Flash	*Binary cycle*	n/a	DOE
	An anaerobic biodigester, contains methane, a natural by-product of anaerobic	*Anaerobic biodigester*	n/a	EPA
	Systems that use the natural flow of water rather than damming or diverting flow	*Hydrokinetic*	n/a	
	Photovoltaic (PV) systems derive energy from incoming solar radiation that is	*Photovoltaic*	n/a	ANSI/ASHRAE, CEC
	Solar parabolic troughs are a type of linear concentrator system that collects the	*Solar parabolic trough*	n/a	NREL
	Linear Fresnel reflector systems are a type of linear concentrating systems that	*Linear fresnel reflector*	n/a	NREL
	A power tower system uses a large field of flat, sun-tracking mirrors known as	*Solar power tower*	n/a	NREL
	A solar dish/engine system uses a mirrored dish similar to a very large satellite	*Solar dish*	n/a	NREL
	Generic solar thermal system collector	*Solar thermal system collector*	n/a	
	Generic energy generation system powered by wind	*Wind*	n/a	
	The concurrent production of electricity or mechanical power and useful thermal	*Cogeneration*	n/a	USDOE
Energy Storage Technology	Type of energy storage technology	Constrained List	n/a	
	Batteries are energy storage systems consisting of one or more cells, in which	*Battery*	n/a	
	Storage of a chilled or heated elements to be be utilized at a later time. (TES)	*Thermal energy storage*	n/a	
	Pumped hydroelectric energy storage is a type of potential energy storage where	*Pumped-storage hydroelectricity*	n/a	
	Flywheel energy storage is a form of kinetic energy comprised of a rotating	*Flywheel*	n/a	
	Device used to store an electric charge, consisting of one or more pairs of	*Capacitor*	n/a	
Water Storage Technology	Type of technology used for containing or recycling water	Constrained List	n/a	
	Containers that collect and store roof runoff for later reuse. They can provide an	*Rain barrel*	n/a	
	System for recycling water	*Reclaimed water system*	n/a	
Thermal Medium	Type of material used in thermal energy storage technology.	Constrained List	n/a	
	Air as a thermal medium is used for space heating or cooling.	*Air*	n/a	
	Ice is usually stored to provide cooling services.	*Ice*	n/a	
	Pool water heated by solar thermal collectors.	*Pool water*	n/a	
	Domestic hot water is typically used for bathing, cooking, cleaning, and space	*Domestic water*	n/a	
	Molten salt is a means of storing heat at a high temperature. This is a current	*Molten salt*	n/a	
	Sand storage includes sand particles as the heat collector, heat transfer and	*Sand*	n/a	
	Rock storage material has thermal transfer medium characteristics include air,	*Rock*	n/a	
	Solar energy is stored chemically in reduced solid oxides. Heat is released at a	*Chemical oxides*	n/a	
	Common soil	*Regular soil*	n/a	
Technology Component	Component of energy storing, generating, or converting equipment.	Constrained List	n/a	
		Array	n/a	
		Racking system	n/a	
		Module	n/a	
		Rotor	n/a	
		Hub	n/a	
		Drive shaft	n/a	
		Inverter	n/a	
		Coil	n/a	
		Filter	n/a	

		Fan	n/a	
		Pipe	n/a	
		Pump	n/a	
		Collector	n/a	
		Motor	n/a	
		Tank	n/a	
		Drive	n/a	
Turbine Rotation Axis	The orientation of the line axis about which the turbine rotates.	Constrained List	n/a	
	Axis is parallel to the plane of the horizon.	*Horizontal*	n/a	
	Axis is perpendicular to the plane of the horizon.	*Vertical*	n/a	
Rated Wind Speed	The rated, or nominal, wind speed is the speed at which the turbine produces	Decimal	m/s	
Installation Status	States the status of installation for a generation and storage equipment.	Constrained List	n/a	
	The premises is set up for installation of the generation equipment.	*Ready*	n/a	
	The premises is unavailable or not ready for installation of the generation	*Unavailable*	n/a	
Solar Thermal System Collector Type	Type of solar energy collector used in a solar hot water or space heating system	Constrained List	n/a	
		Single glazing black	n/a	
		Single glazing selective	n/a	
		Double glazing black	n/a	
		Double glazing selective	n/a	
		Evacuated tube	n/a	
		Integrated collector storage	n/a	
		Drain back panel	n/a	
Thermal Loop Configuration	Heat transfer medium and controls used for the solar collector loop	Constrained List	n/a	
		Direct	n/a	
		Indirect	n/a	
		Passive thermosyphon	n/a	

Term	Definition	Data Type	Unit of Measure	Definition Source
Resource	Type of energy resource fuel. This can be applied at the premises or individual	Constrained List	n/a	LBNL
	Water used for irrigation	*Irrigation water*	n/a	
	Combination of multiple resource fuels.	*Energy*	n/a	
		Electricity	n/a	
		~~*Electric power*~~	~~n/a~~	
	Natural gas is a hydrocarbon gas mixture consisting primarily of methane, but	*Natural gas*	n/a	
		Fuel oil	n/a	
		Fuel oil no 1	n/a	
		Fuel oil no 2	n/a	
		Fuel oil no 4	n/a	
		Fuel oil no 5 and no 6	n/a	
		District steam	n/a	
		District hot water	n/a	
		District chilled water	n/a	
		District energy	n/a	
		Propane	n/a	
		Liquid propane	n/a	
		Kerosene	n/a	
		Diesel	n/a	
		Coal	n/a	
		Coal anthracite	n/a	
		Coal bituminous	n/a	
		Coke	n/a	
		Wood	n/a	
		Wood pellets	n/a	
	Hydropower projects capture the kinetic energy of moving water to produce	*Hydropower*	n/a	
	Biofuel or biogas. Biofuels can also be used for transportation.	*Biofuel*	n/a	
	Wind turbines harness the kinetic energy in the wind and is converted to	*Wind*	n/a	
	Geothermal systems capture the earth’s heat for use in generating electricity.	*Geothermal*	n/a	
	Solar energy uses the sun's energy for HVAC, heating water and producing	*Solar*	n/a	
	Biomass refers to the combustion of solid biomass feedstocks, such as energy	*Biomass*	n/a	
	A hydrothermal resource is a geothermal resource that often involves fluid, heat,	*Hydrothermal*	n/a	
	Dry steam geothermal power plants use hydrothermal fluids that are primarily	*Dry steam*	n/a	
	Flash steam plants are the most common type of geothermal power generation	*Flash steam*	n/a	
	Ethanol, also known as ethyl alcohol, grain alcohol, and EtOH, comes from the	*Ethanol*	n/a	
	Biodiesel is made by converting natural oils—usually new or used vegetable oils	*Biodiesel*	n/a	
	Byproduct heat resource from a type of equipment that's captured and may be	*Waste heat*	n/a	
		Water	n/a	
	Water that is of sufficient quality for human consumption and that is obtained	*Potable water*	n/a	ESPM
	Wastewater is any water that has been adversely affected in quality by	*Wastewater*	n/a	
	Greywater or sullage is defined as wastewater generated from plates and wash-	*Greywater*	n/a	
	Reclaimed water or recycled water, is former wastewater (sewage) that is treated	*Reclaimed water*	n/a	
		Captured rainwater	n/a	
	Water that is not obtained from a surface water source, groundwater source, nor	*Alternative water*	n/a	ESPM
	Generic steam resource such as for industrial use	*Steam*	n/a	
End Use	~~End use that the resource primarily applies to.~~ Resource end use. This can ~~be~~ also be	Constrained List	n/a	LBNL

	Entire premises	*Whole premise* ~~Premises~~	n/a	
	Baseload is the energy consumed for the day-to-day operation of a premises that	*Baseload*	n/a	HPXML
		Total lighting	n/a	
		Interior lighting	n/a	
		Exterior lighting	n/a	
		Heating	n/a	
		Cooling	n/a	
		Ventilation	n/a	
		Pump	n/a	
		IT equipment	n/a	
		Plug in electric vehicle	n/a	
		Plug load	n/a	
		Process load	n/a	
		Conveyance	n/a	
		Domestic hot water	n/a	
		Refrigeration	n/a	
		Cooking	n/a	
		Dishwasher	n/a	
		Laundry	n/a	
		Pool heating	n/a	
	Resource used to fuel a generator, which delivers energy on-site.	*Generator*	n/a	
		Task lighting	n/a	ICP
		Miscellaneous equipment	n/a	ICP
		Heat rejection	n/a	ICP
		Heat pump supplemental	n/a	ICP
Resource Generation	Type of resource generation	Constrained List	n/a	BEDES-Beta
	Resource is delivered by an off site utility	*Delivered*	n/a	
	Resource is generated onsite	*Generated*	n/a	
	Resource is generated using renewable technology	*Renewable*	n/a	
	Resource is generated onsite and exported off site	*Exported*	n/a	
Grid Connection	Indicates whether the onsite resource generation is connected to the grid.	Constrained List	n/a	LBNL
		Stand alone	n/a	
		Grid Connected	n/a	
Metering Configuration	The structure of how the various meters are arranged	Constrained List	n/a	BEDES Beta
	Tenants are directly metered individually	*Direct metering*	n/a	
	Tenants not directly metered or sub-metered	*Master meter without sub*	n/a	
	Tenants sub-metered by building owner	*Master meter with sub metering*	n/a	
	~~The is the master meter~~	~~*Master meter*~~	~~n/a~~	
	~~This is a sub-meter~~	~~*Sub-meter*~~	~~n/a~~	
~~**Fuel Interruptibility**~~	~~This refers to the practice of supplementing fuel (electricity, natural gas, fuel oil.)~~	~~Constrained List~~	~~n/a~~	~~BEDES-Beta~~
		~~*Interruptible*~~	~~n/a~~	
		~~*Firm*~~	~~n/a~~	
Shared Resource Configuration	Situation that applies if a resource is shared with multiple premises, such as	Constrained List	n/a	BEDES-Beta
	Shared resource systems or meters for multiple units or buildings	*Shared*		
	Shared resource systems or meters for multiple buildings on a single lot	*Multiple buildings on a single lot*	n/a	
	Shared resource systems or meter for multiple buildings on multiple lots	*Multiple buildings on multiple lots*	n/a	
	Resource system or meter not shared	*Not shared*	n/a	

Resource Value	The amount of resource consumed, generated, or exported from the premises.	Single	Dependent on	BEDES-Beta
Resource Intensity	The resource value divided by the premises gross floor area.	Single	Dependent on	LBNL
Percent of Total	The percentage this value makes up of the total.	Decimal	Percent	LBNL
Resource Cost	The cost of a resource over a selected time period.	Decimal	$	
Resource Cost Intensity	The cost per square foot associated with a selected time period for a premises. It	Decimal	$/ft2	
Resource Boundary	The boundary that encompases the measured resource.	Constrained List	n/a	
	The resource amount consumed on the site and not including transmission	*Site*	n/a	
	The associated resource includes losses that take place during generation,	*Source*	n/a	
	The associated resource is consumed or generated on-site	*Onsite*	n/a	
	The associated resource is consumed or generated off-site	*Offsite*	n/a	
	The amount of the associated resource generated on-site that is consumed on-	*Net*	n/a	
	The total amount of the associated resource generated on-site	*Gross*	n/a	
Temporal Status	Temporal charcateristic of this measurement.	Constrained List	n/a	
	~~Intended to represent~~ Representing conditions~~,~~ prior to making any resource impacting	*Pre retrofit*	n/a	
	~~Intended to represent~~ Representing conditions~~,~~ after implementing resource impacting	*Post retrofit*	n/a	
	Representng specified reference conditions for comparison with alternative	*Baseline*	n/a	
	Representing current conditions	*Current*	n/a	
	Intended to serve as a reference for comparing the actual value and to track	*Target*	n/a	
	Intended to serve as a reference for comparing the actual value with a design	*Design target*	n/a	
		Last billing period	n/a	
	Since the last referenced billing period	*Additional to last billing period*	n/a	
		Current billing period	n/a	
		~~*Billed to date*~~	~~n/a~~	
		Current day	n/a	
		Current day last year	n/a	
		Previous day	n/a	
		Previous day last year	n/a	
Normalization	Normalization criteria to shift or scaled the measurement, where the intention is	Constrained List	n/a	
	Intended to serve as a comparison metric to show the relative performance in a	*National median*	n/a	
	Intended to serve as a comparison metric to show the relative performance in a	*Regional median*	n/a	
	The expected value if the new operations were revised to reflect the operations in	*Adjusted to specific year*	n/a	
	The expected value, if the current year weather conditions were revised to reflect	*Weather normalized*	n/a	
Percent Improvement	Percent improvement over a baseline. This will enable comparison of actual	Decimal	Percent	LBNL
Source Site Ratio	Ratio of energy consumed at a central power plant to that delivered to a	Decimal	n/a	
Renewable Energy Credits (RECs)	Percentage of Renewable Energy Credits (RECs) that were kept compared to the	Decimal	Percent	ESPMGlossary
Resource Flow Intensity	For Water and Waste-water treatment facilities, the Energy Use, divided by the	Single	kBtu/gpd	ESPMGlossary
Interval Start Date	The start date that marks the beginning of the time interval for a value. Format for	Date Format from Metada	n/a	BEDES Beta
Interval End Date	The end date that marks the ending of the time interval for a value. Format for the	Date Format from Metada	n/a	BEDES Beta
Interval Start Time	The start time that marks the beginning of a time interval	TimeStamp	n/a	
Interval End Time	The end time that marks the beginning of a time interval	TimeStamp	n/a	
Interval Frequency	Indicates frequency of data that's available for a given variable. Data that's	Constrained List	n/a	LBNL
		1 minute	n/a	
		10 minute	n/a	
		15 minute	n/a	
		30 minute	n/a	
		Hour	n/a	
		Day	n/a	

		Week	n/a	
		Month	n/a	
		Annual	n/a	
		Quarter	n/a	
Interval Duration	Length of interval reading ~~in seconds~~	Decimal	Dependent on	CEC Proposition 39
Power Metric	Measurement of power.	Constrained List	n/a	
	Amps	*Current*	n/a	
	degrees	*Current angle*	n/a	
	Hz	*Frequency*	n/a	
	Power factor is the ratio of the real power flowing to the load, to the apparent	*Power factor*	n/a	
	V	*Voltage*	n/a	
	degrees	*Voltage angle*	n/a	
	The distortion power factor describes how the harmonic distortion of a load	*Distortion power factor*	n/a	
	A measurement of long term Rapid Voltage Change in hundredths of a Volt. This	*Power line flicker long term pst*	n/a	
	A value measured over 10 minutes that characterizes the likelihood that the	*Power line flicker short term pst*	n/a	
	A measurement of the Harmonic Voltage during the period. For DC, distortion is	*Harmonic voltage*	n/a	
	A count of Long Interruption events (as defined by measurement-Protocol) during	*Long interruptions*	n/a	
	A measurement of the Mains [Signaling] Voltage during the summary interval	*Mains voltage*	n/a	
	A measurement of the power frequency during the summary interval period micro	*Power frequency*	n/a	
	A count of Rapid Voltage Change events during the summary interval period	*Rapid voltage changes*	n/a	
	A count of Short Interruption events during the summary interval period	*Short interruptions*	n/a	
	Interval of summary period	*Summary interval*	n/a	
	A count of Supply Voltage Dip events during the summary interval period	*Supply voltage dips*	n/a	
	A count of Supply Voltage Imbalance events during the summary interval period	*Supply voltage imbalance*	n/a	
	A count of Supply Voltage Variations during the summary interval period	*Supply voltage variations*	n/a	
	A count of Temporary Over-voltage events (as defined by measurement-Protocol)	*Temporary over voltage*	n/a	
	Power	*Power*	n/a	
	Volumetric flow such as for natural gas or other fuels	*Volumetric flow*	n/a	BuildingSync
Power Metric Value	Value of the measurement of associated power metric	Decimal	Dependent on	
Time Zone Code	The 3 letter code for the time zone	Constrained List	n/a	LBNL
		EDT	n/a	
		EST	n/a	
		CDT	n/a	
		CST	n/a	
		MDT	n/a	
		MST	n/a	
		PDT	n/a	
		PST	n/a	
		HST	n/a	
		HDT	n/a	
		AKST	n/a	
		AKDT	n/a	
		GMT	n/a	
		UTC	n/a	
Interval Measure	Type of data recorded by the meter	Constrained List	n/a	BEDES Beta
		Point	n/a	
		Median	n/a	

		Average	n/a	
		Minimum	n/a	
		Maximum	n/a	
		Total	n/a	
		On peak	n/a	
		Semi peak	n/a	
		Off peak	n/a	
		Demand	n/a	
		Ratchet demand	n/a	
Phase	Phase information associated with Readings	Constrained List	n/a	Greenbutton
		Phase AN	n/a	
		Phase A	n/a	
		Phase AB	n/a	
		Phase BN	n/a	
		Phase B	n/a	
		Phase CN	n/a	
		Phase C	n/a	
		Phase ABC	n/a	
		Phase BC	n/a	
		Phase CA	n/a	
		Phase S1	n/a	
		Phase S2	n/a	
		Phase S1S2	n/a	
		Phase S1N	n/a	
		Phase S2N	n/a	
		Phase S1S2N	n/a	
Current Flow Direction	Direction associated with current related time series data	Constrained List	n/a	Greenbutton
		Forward	n/a	
		Reverse	n/a	
Rate Structure				
Rate Structure ID	The name or title of the rate structure	String	n/a	Open EI
Rate Structure	Rates that determine how charges are levied by the utility	Constrained List	n/a	LBNL
	A consumer will pay one flat rate no matter what the usage level is	*Flat rate*	n/a	
	Time of use, or TOU, rates vary by time of day and time of year	*Time of use ~~rate~~*	n/a	
	Tiered rates increase the per-unit	*Tiered rate increasing*	n/a	
	Tiered rates decrease the per-unit	*Tiered rate decreasing*	n/a	
	A rate that keep raising based on highest demand to date for a set period of time.	*Ratchet*	n/a	
	(RTP) - pricing rates generally apply to usage on an hourly basis.	*Real time pricing*	n/a	SmartGrid.gov
	(VPP) - a hybrid of time-of-use and real-time pricing where the different periods	*Variable peak pricing*	n/a	SmartGrid.gov
	(CPP) - when utilities observe or anticipate high wholesale market prices or	*Critical peak pricing*	n/a	SmartGrid.gov
	(CPR) - when utilities observe or anticipate high wholesale market prices or	*Critical peak rebates*	n/a	SmartGrid.gov
	Standard rate structure	*Standard*	n/a	SEE Action
	Low income rate structure	*Low income*	n/a	SEE Action
Rate Structure Name	The name or title of TOU period	String	n/a	Greenbutton
Rate Structure Reference	Reference or hyperlink for the rate schedule, tariff book	String	n/a	OpenEI
Charge Rate	Charge per unit of resource.	Constrained List	n/a	
	The fixed monthly charge or fee billed monthly regardless of consumption	*Fixed monthly*	n/a	

	Charge rate to buy a unit of resource consumption.	*Buy*	n/a	
	Charge rate to sell a unit of resource back to the utility from customer site	*Sell*	n/a	
	The annual average cost of providing an additional unit of resource.	*Average marginal buy*	n/a	BuildingSync
	Annual average rate to sell a unit of electricity back to the utility from customer	*Average marginal sell*	n/a	BuildingSync
	Charge rate adjustments for any fees, riders, fuel adjustments, etc.	*Adjustment*	n/a	
	The additional charge for low power factor	*Reactive power charge*	n/a	
Rate Charge Value	Charge rate value, in $ per unit.	Decimal	$/unit	
Tier ID	This term is intended to capture the tier designation for a particular rate structure.	Integer	n/a	Greenbutton
Tier Maximum	The maximum amount of resource used at which a tier rate is applied for a given	Decimal	n/a	OpenEI/LBNL
Tier Minimum	Minimum energy for this rate structure range.	Decimal	n/a	
Rate Designation	Energy or demand designation to determine the rate.	Constrained List	n/a	OpenEI/LBNL
		Energy	n/a	
		Demand	n/a	
Demand Ratchet Percentage	Certain rate schedules incorporate demand ratchet percentage to ensure	Decimal	Percent	OpenEI/LBNL
Minimum Power Factor Without	Minimum power factor that needs to be maintained without any penalties	Decimal	Percent	LBNL

Term	Definition	Data Type	Unit of Measure	Definition Source
Emission Boundary	The boundary that encompasses the measured emissions.	Constrained List	n/a	
	This is used in association with GHG emissions, associated with on-site fuel	*Direct*	n/a	
	This is used in association with GHG emissions, associated with purchases of fuel,	*Indirect*	n/a	
	This is used in association with emissions, premises' GHG emissions minus the	*Net*	n/a	
Emission Source	Source of emissions.	Constrained List	n/a	
	This is used in association with GHG emissions, associated with biogenic fuels	*Biomass*	n/a	
	Emissions due to treatment of water	*Water treatment*	n/a	
	Emissions due to transportation activities	*Transportation*	n/a	
	Emission reductions that occur outside of a product's life cycle or value chain, as a	*Avoided*	n/a	
Emissions Factor	Emissions factor associated with a Resource	Decimal	kg/unit	BEDES Beta
Emission Gas Type	Emission gas type	*Constrained List*	n/a	ESPMGlossary
	General greenhouse gas emissions	*GHG*		
	Carbon dioxide equivalent" or "CO2e" is a term for describing different greenhouse gases in a common unit. For any quantity and type of greenhouse gas, CO2e signifies the amount of CO2 which would have the equivalent global warming impact. ~~CO2e (equivalent) allows other greenhouse gas emissions to be expressed in terms of CO2 based on their relative global warming potential (GWP).~~ CO2 has a GWP of	*CO2e*	n/a	
	Carbon dioxide, or CO2, is a natural, colorless and odorless greenhouse gas that is emitted when fossil fuels (i.e. natural gas, oil, coal etc.) are burnt.	*CO2*	n/a	
	Methane	*CH4*	n/a	
	Nitrous oxide	*N2O*	n/a	
	Nitric oxide (NO) and nitrogen dioxide (NO2) are together referred to as nitrogen oxides (NOx)	*NOx*	n/a	
	Sulfer dioxide	*SO2*		
	Smoke from residential wood heaters containing particle pollution, also known as	*Smoke*	n/a	
Emissions Value	Emissions that result in gases that trap heat in the atmosphere.	Decimal	Dependent on Qualifier	EPA
Emissions Savings	Emissions savings that result from a given action	Decimal	Dependent on Qualifier	
Emissions Intensity	The Greenhouse Gas (GHG) emissions for the premises, divided by the gross	Decimal	Dependent on Qualifier	ESPMGlossary
Emissions Flow Intensity	The resulting GHG Emissions for Water and Wastewater treatment facilities	Decimal	Dependent on Qualifier	ESPMGlossary

Term	Definition	Data Type	Unit of Measure	Definition Source
Hazardous Waste Weight	Total weight of hazardous waste	Decimal	lbs	GRESB
Non Hazardous Waste Weight	Total weight of non-hazardous waste	Decimal	lbs	GRESB
Waste Recycling Percentage	Recycling percentage of waste by disposal route (% of total waste)	Decimal	Percent	GRESB
Waste Incineration Percentage	Incineration percentage of waste by disposal route (% of total waste)	Decimal	Percent	GRESB
Waste Landfill Percentage	Landfill percentage of waste by disposal route (% of total waste)	Decimal	Percent	GRESB

Term	Definition	Data Type
Unit Of Measure	Unit of measurement for the data value.	Constrained List
	Degree	degree
	U.S dollars	$
	Dollar per square feet	$/ft2
	Dollar per cubic feet	$/ft3
	Dollar per cubic feet per minute	$/(ft3/min)
	Dollar per Btu per hour-degree Fahrenheit	$/(Btu/h-F)
	Dollar per kBtu-hour per hour (equivalent to $/kW)	$/(kBtuh/h)
	Dollar per volt-ampere reactive (reactive power)	$/kVAR
	Dollar per kilowatt (demand)	$/kW
	Dollar per kilowatt hour (energy)	$/kWh
	Amperes	A
	Acres	Acres
	Air changes per hour	ACH
	British Thermal Unit (energy)	Btu
	Unit of Thermal Conductivity ~~Conductance~~	Btu/h·ft·°F
	British thermal units per second	*Btu/s*
	British thermal unit per hour (energy rate)	Btu/hr
	Unit of Thermal Conductance	Btu/hr·ft2·°F
	British thermal unit (energy) per pound per degree ~~temperature~~ Fahrenheit, used to	Btu/lb-°F
	British thermal unit per watt hour	Btu/Wh
	Hundred cubic feet	ccf
	calorie/hour	*cal/h*
	Celsius	C
	Cubic feet per minute	cfm
	Cubic feet per hour	cfh
	Cubic meter per hour	cmh
	Full cord	Cord
	cycles/kWh	cycles/kWh
	days	days
	degree	degree
	Fahrenheit	F
	foot-candle	fc
	feet	ft
	square feet	ft2
	unit of insulation resistance	ft2-°F-hr/Btu
	cubic meters	*Cubic Meters*

	cubic feet	ft3
	million cubic feet	*MCF*
	capacity (volume) divided by the energy consumption per cycle	ft3/kWh/cycle
	cubic feet per minute	ft3/min
	thousand cubic feet per hour	*kcf/h*
	million cubic feet per day	*MCF/day*
	Foot-Pound Force Per Hour	*ft-lbf/h*
	Foot-Pound Force Per Minute	*ft-lbf/min*
	gallons	gallons
	gallons/cycle	gallons/cycle
	gallons/cycle/cubic feet	gallons/cycle/ft3
	Gallons per minute	*gpm*
	gallons/day	gallons/day
	grams per hour	gram/hr
	hour	hour
	hours/day	hours/day
	hours/week	hours/week
	horsepower	hp
	Unit of thermal resistance	hr·ft2·°F/Btu
	Hertz- unit of frequency	Hz
	inches	inches
	square inches	in2
	thousand British thermal unit	kBtu
	thousand British thermal unit per square feet	kBtu/ft2
	thousand British thermal unit per gallons per day	kBtu/gpd
	thousand British thermal unit per unit hour	kBtu/hr
	thousand cubic feet	kcf
	kilogram	kg
	kilogram per hour	kg/h
	kilogram per MMBtu of energy	kg/MMBtu
	Thousand gallons	kgal
	Thousand gallons per square feet	kgal/ft2
	kilogram of CO2 ~~co2~~ equivalent	kgCO2e
	kilogram of CO2 ~~co2~~ equivalent per gallons per day	kgCO2e/gpd
	kilogram of CO2 ~~co2~~ equivalent per million british thermal unit	kgCO2e/MMBtu
	Thousand pounds	klbs
	pounds per cubic feet	lb/ft3
	pounds	lbs

	pounds per kilowatt hour	lbs/kWh
	pounds per hour	*lbs/h*
	linear feet	linear ft
	Liters per kilowatt hour	Liters/kWh
	loads/week	loads/week
	million gallons	*Mgal*
	million pounds	*Mlbs*
	kilowatt	kW
	kilowatt per ton	kW/ton
	million Watt	*MW*
	Watt hours	*Wh*
	kilowatt hour	kWh
	thousand pounds per hour	*Klbs/h*
	million pounds per hour	*Mlbs/h*
	Luminous power per unit solid angle per unit projected source area. Units are	cd/m2
	The SI derived unit of luminous flux, a measure of the quantity of visible light emitted	lumens
	Luminous power emitted from a surface.	lux
	meters per second	m/s
	Million cubic feet	mcf
	milligrams per day	mg/l
	million gallons per day	Mgal/d
	microhertz	micro Hz
	microvolts	micro V
	minutes	min
	Thousand pounds	Mlbs
	million British Thermal Unit	MMBtu
	million British Thermal Unit per hour	MMBtu/hr
	months	Month
	Miles per hour	mph
	Metric Ton of CO2 ~~Co2~~ equivalent	MtCO2e
	Megawatt hours	MWh
	Pascal	Pa
	percent	Percent
	Pixel	pixel
	pixels per inch	ppi
	pixels per square inch	pixel/in2
	pounds per square inch	psi
	revolutions per minute	rpm

	second	s
	Therms	Therm
	therms per hour	*therms/h*
	Metric ton or tonnes	Mass ton
	Ton of refrigeration	Cooling ton
	Ton hours	Ton-hour
	Volt	V
	Watt	W
	Watt per ft2	W/ft2
	Watt-hour	Wh
	Weeks/year	weeks/year
	Years	Years

Term	Definition	Data Type	Unit of Measure	Definition Source
Date Format	Formatting for the date data.	Constrained List	n/a	
	Format: CCYY	*Year*	n/a	
	Format: CCYY-MM	*MonthYear*	n/a	
	Format: CCYY-MM-DD	*Date*	n/a	
	Format: CCYY-MM-DDTHH:MM:SS.SSS	*DateTime*	n/a	
	Format: CCYY-MM-DDTHH:MM:SS.SSS:TimeZone	*DateTimeStamp*	n/a	
Solicitation	Specify if the data field is required or optional.	Constrained List	n/a	
	This field is required in the software tool the data is coming from, or is it required by	*Required*	n/a	
	This field is optional in the software tool the data is coming from, or is it optional by	*Optional*	n/a	
Derivation Method	The method by which the data was learned.	Constrained List	n/a	
	The data was noted as a fact through visual observation.	*Observed*	n/a	
	The data is calculated ~~from direct measurements made on site.~~	*Calculated*	n/a	
	The value was ascertained using a device.	*Measured*	n/a	
	The data point is an estimation of the actual value or condition.	*Estimated*	n/a	
	Data value was replaced by a machine computed value based on analysis of histor	*Historical analysis* ~~Reference day e~~	n/a	
	Data value was estimated using linear interpolation	~~Linear i~~ Interpolation	n/a	
	Defaulted	*Default*	n/a	
	A temporary value that will be updated later	*Temporary*	n/a	
	The accuracy of this data was confirmed by an appropriate entity.	*Confirmed*	n/a	
	Data value was determined using a test procedure	*Tested*	n/a	
	Data value was calculated using a model	*Modeled*	n/a	
	Data value was estimated using extrapolation	Extrapolated ~~ion~~	n/a	
	~~Calculated using logic or mathematical operations~~	~~*Derived*~~	~~n/a~~	~~Green Button~~
	Revised to reflect average weather conditions	*Normalized for weather*	n/a	Green Button
	The data has been calibrated to improve accuracy	*Calibrated*	n/a	ICP
	Data value is from manufacturer rating	*Rated*	n/a	
	~~Data value as reported~~	~~*Reported*~~	~~n/a~~	
	Data value has been adjusted by some procedure	*Adjusted*	n/a	
	The value was entered manually by a user, either through direct typing or spreadsh	*Direct input upload*	n/a	
	The value was transferred via a web services or other software connection directly	*API transfer*	n/a	
Confirmed By	Entity that confirmed the accuracy of the data.	String	n/a	
~~**Collection Process**~~	~~The method by which the data was collected or entered.~~	~~Constrained List~~	~~n/a~~	
	~~The value was entered manually by a user, either through direct typing or spreadsh~~	~~*Direct input upload*~~	~~n/a~~	
	~~The value was transferred via a web services or other software connection directly~~	~~*API transfer*~~	~~n/a~~	
	~~Data that has been calculated (using logic or mathematical operations), not necess~~	~~*Derived*~~	~~n/a~~	
	~~The value is a default value~~	~~*Default*~~	~~n/a~~	
	~~Aggregated usage for multiple tenant tenant spaces provided by Utility~~	~~*Aggregated utility data*~~	~~n/a~~	
Origin	What is the origin of the data value?	Constrained List	n/a	
	The data came from government records, such as property tax assessor records	*Government record*	n/a	
	Property management agent or realtor provided the floor area value.	*Agent*	n/a	
	A qualified person who evaluates the quality or value of something	*Assessor*	n/a	
	An accredited auditor ~~measured the floor area value.~~	*Auditor*	n/a	
	As specified in the Product Specification	*Product specification*	n/a	
	As specified in the Building Component Library (BCL)	*Building component library*	n/a	
	~~The data came automatically and directly from a utility, such as in a green button c~~	~~*Utility transfer*~~	~~n/a~~	
	Transfer through an intermediate tool such as an Energy Management System (EM	*Energy management system*	n/a	
	~~Data was~~ calculated based on building plans, and then input by hand	*Drawings*	n/a	

	~~Data was~~ directly measured (e.g. building floor area or product size)	*Direct measurement*	n/a	
	~~The data came~~ from a design program (e.g. CAD/BIM files)	*Design files*	n/a	
	~~The data source is a~~ computer simulation of the building. See the Software Tools term for a	*Simulation*	n/a	
	~~The data~~ came from, or was calculated by, ENERGY STAR Portfolio Manager	*ENERGY STAR Portfolio Manage*	n/a	
	US Environmental Protection Agency	*US EPA*	n/a	
	US Energy Information Administration	*US EIA*	n/a	
	~~The data came~~ from the EPA Target Finder calculator	*Target Finder*	n/a	
	Architecture 2030 is a non-profit organization established to transform the global bu	*Arch2030*	n/a	
	~~The data came~~ from an ASHRAE calculation	*ASHRAE*	n/a	
	~~The data came~~ from a utility	*Utility*	n/a	
~~**Confidence**~~	~~Confidence in the accuracy of the data~~	~~Percent~~	~~n/a~~	
Record Scope	The extent to which the record fulfills the intended scope. For example, the extent t	Constrained List	n/a	LBNL
	The record does not meet the scope.	*Partial*	n/a	
	The record meets the scope without excess.	*Complete*	n/a	
	The record data exceeds the scope.	*Excess*	n/a	
~~**Quality Alert**~~	~~Field to capture alert relating to data quality.~~	~~String~~	~~n/a~~	
Quality	Indication of the quality of the data	Constrained List	n/a	
	Replaced or approved by a human	*Manually edited*	n/a	
	Data that has failed one or more checks	*Questionable*	n/a	
	Data that has been calculated as a projection or forecast of future readings	*Projected*	n/a	
	~~Data value was computed using linear interpolation based on the readings before a~~	~~*Mixed*~~	~~n/a~~	
	Data that has not gone through the validation, editing and estimation process	*Raw*	n/a	
	Data has been guaranteed by an authorized person or method	*Guaranteed*	n/a	
	Data that has been validated and possibly edited and/or estimated in accordance w	*Validated*	n/a	
	Data that failed at least one of the required validation checks but was determined t	*Verified*	n/a	
	Data determined to accurately represent actual conditions	*Actual*	n/a	
	Sufficient accuracy to settle DR transactions. PBI eligible data must have at least	*Revenue quality*	n/a	Green Button
Measurement Protocol	A reference to the source standard used as the measurement protocol definition. E	String	n/a	Green Button
Range Value Inclusivity	Determines if the lower and higher values in a range are inclusive or exclusive of th	Constrained List	n/a	
		Less than	n/a	
		Greater than	n/a	
		Equal to	n/a	
Low Range Value	Minimum value in a range.	Decimal	n/a	
High Range Value	Maximum value in a range.	Decimal	n/a	

Composite Term	Atomic Terms	Data Type	Unit of Measure	
Absorption Chiller Capacity	Cooling Type = Absorption chiller	Decimal	Cooling ton	
	Capacity = [volume]			
	Unit of Measure = Cooling ton			
Annual Heating AFUE Efficiency Value	Efficiency Qualifier = Annual heating	Decimal	n/a	
	Efficiency Metric Qualifier = AFUE			
	Efficiency Value = [value]			
Annual Onsite Renewable Electricity Resource Value	Interval Frequency = Annual	Decimal	kWh	
	Resource Boundary = Onsite			
	Resource Generation = Renewable			
	Resource = Electricity			
	Resource Value = [value]			
	Unit of Measure = kWh			
Annual Photovoltaic Exported Electricity Resource Value	Interval Frequency = Annual	Decimal	kWh	
	Energy Generation Technology = Photovoltaic			
	Resource Generation = Exported			
	Resource = Electricity			
	Resource Value = [value]			
	Unit of Measure = kWh			
Annual Site Energy Resource Intensity	Interval Frequency = Annual	Decimal	kBtu/ft2	
	Resource Boundary = Site			
	Resource = Energy			
	Resource Intensity = [value]			
	Unit of Measure = kBtu/ft2			
Annual Source Energy Resource Intensity	Interval Frequency = Annual	Decimal	kBtu/ft2	
	Resource Boundary = Source			
	Resource = Energy			
	Resource Intensity = [value]			
	Unit of Measure = kBtu/ft2			
Annual Weather Normalized Heating Resource Value	Interval Frequency = Annual	Decimal	kBtu	
	Normalization = Weather normalized			
	End Use = Heating			
	Resource Value = [value]			
	Unit of Measure = kBtu			
Audit Complied Compliance Status Date	Action Category = Audit	Date	MonthYear ~~MM-YYYY~~	
	Compliance Status = Complied			
	Compliance Status Date = [value]			
	Date Format = YearMonth			
Baseline Annual Energy Resource Intensity	Temporal Status = Baseline	Decimal	kBtu/ft2	
	Interval Frequency = Annual			
	Resource = Energy			
	Resource Intensity = [value]			

	Unit of Measure = kBtu/ft2			
Building Footprint Area	Premises Level = Building	Decimal	ft2	
	Floor Area Qualifier = Footprint			
	Area = [value]			
Chiller Plant Improvements Commissioning Cost	Technology Category = Chiller plant improvements	Decimal	$	
	Action Category = Commissioning			
	Cost = [value]			
Completed Construction Status Date	Construction Status = Completed	Date	YYYY	
	Construction Status Date = [value]			
	Date Format = Year			
Conditioned Building Volume	Conditioning Status = Conditioned	Decimal	ft3	
	Premises Level = Building			
	Volume = [value]			
Cooled Gross Area	Conditioning Status = Cooled	Decimal	ft2	
	Floor Area Qualifier = Gross			
	Area = [value]			
Created Date	Date Status = Created	Date	CCYY-MM-DD	
	Date = [value]			
Direct Annual CO2e Emissions Value	Emission Boundary = Direct	Decimal	kgCO2e	
	Interval Frequency = Annual			
	Emission Gas Type = CO2e			
	Emissions Value = [value]			
	Unit of Measure = kgCO2e			
Electricity Demand Rate Charge Value	Resource = Electricity	Decimal	$/kW	
	Rate Designation = Demand			
	Rate Charge Value = [value]			
	Unit of Measure = $/kW			
Electricity Demand Tier Maximum	Resource = Electricity	Decimal	kW	
	Rate Designation = Demand			
	Tier Maximum = [value]			
	Unit of Measure = kW			
Energy Auditor Credential	Contact Label = Energy Auditor	Constrained List	n/a	
	Credential = [value]			
Exterior Shading System	Location = Exterior	Constrained List	n/a	
	Shading System = [value]			
Floor Quantity	Spatial Unit Type = Floor	Integer	n/a	
	Quantity = [value]			
Gross Area	Floor Area Qualifier = Gross	Decimal	ft2	
	Area = [value]			
Gross Floor Area	Floor Area Qualifier = Gross	Decimal	ft2	
	Opaque Surface = Floor			
	Area = [value]			

Ground Floor Bedroom Quantity	Location = Ground floor	Integer	n/a	
	Spatial Unit Type = Bedroom			
	Quantity = [value]			
Heating Capacity	HVAC Category = Heating	Decimal	Btu/hr	
	Capacity = [value]			
	Unit of Measure = Btu/hr			
Package Estimated Energy Cost Savings	Reporting Level = Package	Decimal	$	
	Derivation Method = Estimated			
	Resource = Energy			
	Cost Savings = [value]			
Pre Retrofit Watts Per Lamp Consumption Rate	Temporal Status = Pre retrofit	Decimal	W	
	Consumption Rate Type = Watts per lamp			
	Consumption Rate = [value]			
	Unit of Measure = W			
Primary Occupancy Classification	Premises Level = Primary	Constrained List	n/a	
	Occupancy Classification = [List Option]			
Thermal Zone Area	Spatial Unit Type = Thermal zone	Decimal	ft2	
	Area = [value]			
Water Meter Quantity	Resource = Water	Integer	n/a	
	Control Technology = Meter			
	Quantity = [value]			

References for Definition Sources	
ASHRAE	American Society of Heating, Refrigeration and Air Conditioning Engineers
AUC	Audit Use Case- A former name for BuildingSync
BEDES TWG	BEDES Technical Working Group (2014)
BEDES-Beta	BEDES Beta Version 2.4
BuildingSync	DOE/NREL official name for the project formerly known as BEDES Audit Use Case (AUC)
CAST	Commercial Asset Score Tool
CEC	California Energy Commission
CEC Proposition 39	California Energy Commission Proposition 39
CENSUS	United States Census Bureau
CMS	Centers for Medicare and Medical Services
CTS	Compliance Tracking System- FEMP's system that hold EISA compliance data for various agencies
EIA	U;S. Energy Information Administration
ENERGY STAR	EnergyPlus Simulation Software (US Department of Energy/NREL)
EPA	U.S. Environmental Protection Agency
ePB	eProjectBuilder- FEMP's system that houses ESPC data
EPLUS	Energyplus Simulation Software (US Department of Energy/NREL)
ESPM	EPA ENERGY STAR Qualified Home Program
FGDC	Federal Geographic Data Committee - United States Thoroughfare, Landmark, and Postal Address Data Standard
Food Service Survey	http://www.rfmaonline.com/?page=TestPageFSSurveyGG
HES-SF	Home Energy Saver, Single Family
HPXML	Home Performance XML
IBC/ASTM	International Building Code and ASTM International
IBPS-USA	International Building Performance Simulation Association - USA Affiliate.
ICP	Investor Confidence Project http://www.eeperformance.org/
LBNL	Definition created from original thinking by LBNL staff as well as researching multiple sources to come up with final
NAICS	U.S. Census Bureau: North American Industry Classification System
NFRC	National Fenestration Rating Council
NREL	National Renewable Energy Laboratory
OSHA	U.S. Occupational Safety and Health Administration
PG&E	PG& E Food Service Technology Center
RESO	Real Estate Standards Organization
Solar Cells	http://aerostudents.com/files/solarCells/CH5SolarCellConversionEfficiencyLimits.pdf
USDOE	U.S. Department of Energy
USGBC	U.S. Green Building Council
USGBC	WELL Building Standard
USGBC	LEED v4 Guide

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