



Word list

A guide to terms, abbreviations,
and hyphenation

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Introduction

How do I read the entries?

Entries are formatted as:

Main term (abbreviation) (*part of speech*)
Secondary terms— if applicable.
Defintion— if applicable.
Related terms— if applicable.

Or as:

Abbreviation (definition) (*part of speech*)
Secondary terms— if applicable.
Defintion— if applicable.
Related terms— if applicable.

If an entry begins with an abbreviation, that means you don't need to define the abbreviation unless needed for clarity.

For example, take the entry:

AI (artificial intelligence) (n., adj.)

We can use "AI" without ever defining the abbreviation. But if your audience isn't familiar with the abbreviation, you could write it like:

When talking about AI (artificial intelligence), you might want to consider ...

Or like:

When talking about artificial intelligence (AI), you might want to consider ...

For specific guidance on how to format abbreviations in E Source content, see the **Abbreviations** section of the **E Source style guide**.

Why do we have a word list?

Utility industry terms and business terms can be tough! That's why we built an E Source word list.

This guide shows you how to treat specific industry terms when it comes to spelling, capitalization, hyphenation, and abbreviations. It also includes some definitions to help you familiarize yourself with industry language.

If you're looking for how to treat E Source-specific terms, such as our trademarks, go to the **E Source style guide**.

How do I search the word list?

We recommend using Ctrl + F to search within the PDF. If you're having trouble finding a word or topic, try adjusting your search—for example, removing or adding hyphens, using an abbreviation, etc.

If your search results are coming up blank, try quickly scrolling through the PDF. Sometimes it takes a minute to load.

If you still can't find what you're looking for, [email Editorial](#).

Parts of speech

- adj. = adjective
- ger. = gerund
- n. = noun
- prep. = preposition
- v. = verb

A

AC-installed (n., adj.)

A complete battery system installed and connected to an AC inverter, meaning its ready to be connected to the grid.

advanced distribution management system (ADMS) (n.)

A software platform that integrates utility systems and provides automated outage restoration and optimization of distribution grid performance.

advanced metering infrastructure (AMI) (n., adj.)

An integrated system of smart meters, communications networks, and data management systems that enables two-way communication between utilities and customers.

adviser (n.)

Use adviser everywhere except for the product name Business Energy Advisor.

agile data science (ADS) (n., adj.)

A process combining the agile framework for software delivery with stage-gate development.

AI (artificial intelligence) (n., adj.)

air-handling unit (AHU) (n.)

The indoor part of an air-conditioning or heat-pump system that regulates and circulates air.

air-source heat pump (ASHP) (n.)

A reversible pump that uses outside air as a heat source when in heating mode or as a heat sink when in cooling mode. An ASHP uses the same vapor-compression refrigeration process and external heat exchanger with a fan as an air conditioner.

See also [cold-climate air-source heat pump \(ccASHP\)](#).

Alignment Optimization Technology (AOT) (n.)

SchellingPoint software that enables any size group, anywhere in the world, to measure, maximize, and maintain the greatest degree of alignment around a shared topic. Outputs of AOT include an opinion survey and an alignment index.

API (n.)

A set of rules that allows programmers to develop software for a particular operating system without having to be entirely familiar with that operating system

apparent losses (n.)

The nonphysical losses that occur when water is successfully delivered to the customer but isn't measured or recorded accurately. Apparent losses can result from customer metering inaccuracies (meter under-registration), unauthorized consumption (theft), or systematic data handling errors (meter-reading and billing errors).

See also [real losses](#) and [water losses](#).

as-is/to-be (adj.)

Similar to current state/future state. This process approach clearly defines user roles and responsibilities, opportunities for process improvements, and the use of current technologies.

asset (n.)

A piece of equipment on the grid or gas pipeline.

asset management system (AMS) (n.)

Manages and tracks the life cycle of utility assets and manages the work required to maintain them.

authorized consumption (n.)

The volume of metered or unmetered water taken by registered customers, the water supplier, and others who are authorized to do so from the distribution system.

automated demand response (AutoDR) (n.);
automated demand-response (AutoDR) (adj.)

Automated signaling from an electricity supplier that allows connectivity to a customer's control systems.

automated meter reading (AMR) (n.);
automated meter-reading (AMR) (adj.)

Technology that automatically collects consumption, diagnostic, and status data from water, electric, and gas devices and then transfers that data to a central database for billing and analysis.

average handle time (AHT) (n.)

The time it takes a customer service rep to answer a call, handle the call, and finish the paperwork once they complete the call.

average speed of answer (ASA) (n.)

The time it takes a customer service rep to answer an incoming call.

AWWA water audit (n.)

A formalized methodology by the American Water Works Association (AWWA) to calculate the volume and value of [real losses](#) and [apparent losses](#) in a water distribution system for a given year. A water audit compares the total volumes of water supplied and authorized consumption to calculate the difference—water loss.

B

B2B (business-to-business) (n., adj.)

If also referencing [business-to-customer](#), spell out B2B on first use.

beneficial electrification (BE) (n.);
beneficial-electrification (BE) (adj.)

Sometimes called strategic electrification.

Replacing direct fossil fuel use with electricity in a way that improves social and environmental outcomes.

billion cubic feet (Bcf); billion cubic feet per day (Bcfd)

bounce rate (n.)

Marketing term used in web traffic analysis, representing the percentage of visitors who enter the site and then leave rather than view other pages within the same site. Bounce rate is the number of single-page visits divided by the total visits.

breakpoint (n.)

A predefined threshold in a performance indicator that, when encountered, triggers an intervention, corrective action, or another kind of response.

bring-your-own-device (BYOD) (adj.);
bring-your-own-thermostat (BYOT) (adj.)

Utility program model where a customer uses their own device to participate. For example, using an existing smart thermostat for demand response.

broadband over power lines (BPL) (n.)

Providing broadband services on an electric utility's electric delivery system.

Btu; thousand Btu (kBtu); million Btu (MMBtu)

budget billing (n.); **budget-billing** (adj.)

Also known as levelized billing or equalized billing (a Canadian term). We prefer budget billing in most cases.

building automation system (BAS) (n.)

An intelligent system of hardware and software, connecting HVAC, lighting, security, and other systems to communicate on **one** platform.

building management system (BMS) (n.)

A control system that can monitor and manage the mechanical, electrical, and electromechanical services in a building.

business process transformation (BPT) (n.)

Fundamentally changing the elements of business processes to meet new business goals.

business-to-customer (B2C) (n., adj.)

See also [B2B \(business-to-business\)](#).

C

carbon dioxide equivalent (CO₂e)

A metric measure used to compare the emissions from various greenhouse gases based on their global warming potential by converting amounts of other gases to the equivalent amount of carbon dioxide with the same global warming potential.

Celsius (C)

CFL (n.)

A fluorescent light bulb that has been compressed into the size of a standard-issue incandescent light bulb.

change management (n., adj.)

Using well-defined processes, tools, and methods to manage the human requirements and impacts of organizational or cultural change.

charge rate (C-rate) (n.)

The rate at which a battery is charged.

clean energy (n.); **clean-energy** (adj.)

Clean-energy resources don't release pollutants such as carbon dioxide.

See also [green energy](#) and [renewable energy](#).

click-through rate (CTR) (n.)

The ratio of the number of users exposed to a specific link who click the link and view the advertised product or service.

coefficient of performance (COP) (n.)

A performance rating that tells how effective a heat pump or air conditioner is at transferring heat versus the amount of electrical power it consumes.

coincident peak demand (n.)

The electricity you're consuming at the point of system peak load. Noncoincident peak demand would be your personal peak load.

cold-climate air-source heat pump (ccASHP) (n.)

An air-source heat pump with an added inverter-driven compressor that allows the compressor speed to modulate and increase capacity during periods of colder outdoor air temperatures.

See also [air-source heat pump \(ASHP\)](#).

color rendering index (CRI) (n.)

A measure of a light source's ability to accurately reproduce the colors of the object it illuminates in comparison with natural light.

combined cooling, heating, and power (CCHP) (n.)

Also known as trigeneration.

The process by which some heat is produced by a cogeneration plant is used to generate chilled water for air-conditioning or refrigeration.

combined heat and power (CHP) (n.)

Also known as cogeneration.

An energy-efficient technology that generates electricity and captures the heat that would otherwise be wasted to provide useful thermal energy—such as steam or hot water—that can be used for space heating, cooling, domestic hot water, and industrial processes.

commercial and industrial (C&I) (adj.)

A sector of utility business customers.

commercial off-the-shelf (COTS) (adj.)

Software and hardware that already exists and is available from commercial sources.

commissioning (Cx) (n., adj.)

Typically used for new construction, commissioning is the process of testing and calibrating building systems to make sure they're working as designed.

See also [monitoring-based commissioning \(MBCx\)](#), [ongoing commissioning](#), [recommissioning \(RCx\)](#), and [retrocommissioning \(RCx\)](#).

computerized materials management system (CMMS) (n.)

Software that schedules and records operation and preventive or planned maintenance activities associated with facility equipment. The CMMS can generate and prioritize work orders and staff schedules to support trouble calls and perform periodic or planned equipment maintenance.

conservation and demand management (CDM) (n.);
conservation and demand-management (CDM) (adj.)

The Canadian equivalent of [demand-side management](#).

constant air volume (CAV) (n., adj.)

A type of HVAC system that supplies a constant airflow at a variable temperature.

See also [variable air volume \(VAV\)](#).

contact center (n., adj.)

We prefer contact center over call center in most cases.

cooling degree-day (CDD) (n.); **cooling degree-days (CDDs)** (n.)

A measurement designed to quantify the demand for energy needed to cool buildings. It's the number of degrees that a day's average temperature is above 65° Fahrenheit or 18° Celsius.

cooperative utility (co-op) (n.)

A cooperative is owned by its members, who are also its customers. A co-op operates on a nonprofit, cost-of-service basis.

cost-effectiveness tests (n.)

A comparison of the benefits of energy efficiency or demand-response programs to their costs. There are five basic tests:

- Participant Cost Test (PCT)
- Program Administrator Cost (PAC) test
- Ratepayer Impact Measure (RIM) test
- Societal Cost Test (SCT)
- Total Resource Cost (TRC) test

critical peak pricing (CPP) (n., adj.)

The period when utilities anticipate or observe emergency conditions to the power system or higher wholesale market rates.

crown corporation (n.)

Canadian government-owned utilities.

cubic feet (ft³)

A general measurement of volume.

cubic foot (cf); cubic feet (cf)

A measurement for water and natural gas. Other forms include:

- million cubic feet (MMcf)
- billion cubic feet (Bcf)
- trillion cubic feet (Tcf)
- cubic feet per minute (cfm)
- million cubic feet per day (MMcfd)
- million cubic feet of gas equivalent (MMcfe)

cubic meter (m³)**customer care and billing (CC&B) (n., adj.)**

A system that provides customer account tracking, service feature selection, billing rates, invoicing, and details.

customer-centric system (n.)

A [customer information system](#) where all financial information is associated with and follows the customer through their life as a customer regardless of where they live within the service area.

See also [premise-based system](#).

customer-controlled load management (CCLM) (n., adj.)

A demand-side management activity using residential time-of-use rates.

Customer Effort Score (CES) (n.)

Customers rate their effort on a scale of 1–5, where 1 means very little effort and 5 means high effort.

customer engagement portal (CEP) (n.)

Also called a customer web portal (CWS).

Online platform for two-way communications with customers.

customer experience (CX) (n., adj.)

The rational and emotional perceptions customers develop as they interact with a utility.

When used as a noun, generally spell out the term even if you've already defined the abbreviation. Example of use: We implemented a CX (adj.) program to improve the customer experience (n.).

customer information system (CIS) (n.)

Also called a customer information and billing system (CIBS).

A system that houses customer data related to billing and that the utility uses to create and manage customer billing interactions.

See also [customer-centric system](#) and [premise-based system](#).

customer relationship management (CRM) system (n.)

Software that enables companies to manage and analyze detailed records of customer interactions in all forms.

**customer satisfaction (CSAT) (n., adj.);
customer satisfaction score (CSAT) (n.)**

A measure of how satisfied customers are with their interactions with a utility.

customer service (n., adj.)**customer service rep (CSR) (n.);
customer service representative (CSR) (n.)**

D

danger tree (n.)

Also called a hazard tree.

A tree that needs to be removed during vegetation trimming because it presents a danger to the grid.

data collector unit (DCU) (n.)

data science (n., adj.)

An interdisciplinary field that uses scientific methods, processes, algorithms, and systems to extract knowledge and insights from structured and unstructured data. It also applies knowledge and actionable insights from data across various applications. Data science is related to data mining, machine learning, and big data. Data scientists practice data science.

data science as a service (DsaaS) (n.);

data-science-as-a-service (DsaaS) (adj.)

A model for selling data science that's comprehensive of everything the client needs to make data-driven decisions.

data set (n.)

DC-bus (n., adj.)

A complete battery system that hasn't been connected to an AC inverter.

decision-maker (n.); **decision-making** (n., adj.)

demand response (DR) (n.); **demand-response (DR)** (adj.)

Changes in electric usage by end-use customers from their normal consumption patterns. This can be in response to changes in the price of electricity over time or to incentive payments designed to induce lower electricity use at times of high wholesale market prices or when system reliability is jeopardized.

demand-side management (DSM) (n., adj.)

The planning, implementation, and monitoring activities of electric utilities designed to encourage consumers to modify their level and pattern of electricity usage.

depth of discharge (DoD) (n.); **depth-of-discharge (DoD)** (adj.)

The percentage of a battery's energy capacity that is discharged.

digital business transformation (DBT) (n.)

A company's adoption of digital technology to improve business processes, value for customers, and innovation.

direct load control (DLC) (n., adj.)

The consumer load that can be interrupted at the time of annual peak load by direct control of the utility system operator.

disaster risk management (n., adj.)

The application of disaster risk reduction policies and strategies to prevent new disaster risk, reduce existing disaster risk, and manage residual risk, contributing to the strengthening of resilience and reduction of disaster losses.

distributed energy resource (DER) (n., adj.);

distributed energy resources (DERs) (n.)

A small-scale unit of power generation that operates locally and is connected to a larger power grid at the distribution level. DERs include solar panels, small natural gas-fueled generators, EVs, and controllable loads such as HVAC systems and electric water heaters.

distributed energy resource management system (DERMS) (n.)

The combination of hardware and software that allows real-time communication and control across the batteries, solar panels, and other edge devices that normally exist behind the meter and outside grid operators' direct control.

distributed generation (DG) (n., adj.)

Also called on-site generation or decentralized generation.

A term describing the generation of electricity for use on-site (such as solar panels) rather than transmitting energy over the electric grid from a large, centralized facility or power plant.

district metered area (DMA) (n.)

A hydraulically discrete part of a water distribution system with water supplied by one or more open supply mains that are metered and closely monitored. This arrangement allows for regular loss assessments for each unique DMA. When losses exceed a predetermined threshold, [leak detection](#) technicians can be deployed to find the new leaks and flag them for repair.

drainwater (n.)

Hot water used in showers, bathtubs, sinks, dishwashers, and clothes washers that can be recovered by heat exchangers.

drivepower (n.)

The power used to run systems such as motors, hydraulics, etc.

drone (n.)

Also called uncrewed aerial vehicle (UAV) or unmanned aerial vehicle (UAV). We prefer “drone” in most cases. If you must use UAV, define as “uncrewed aerial vehicle.”

A remote-controlled pilotless aircraft or small flying device that takes aerial photos, used predominantly in [geographic information systems](#).

E

e-bill (n.); **e-billing** (n., adj.)

Also called [paperless billing](#).

e-mobility (n., adj.)

The use of electric-powered vehicles for transportation.

efficiency as a service (EaaS) (n.);
efficiency-as-a-service (EaaS) (adj.)

A model for financing energy efficiency upgrades. Customers can implement projects without any up-front investment. Instead, they pay back the project costs via a monthly, quarterly, or annual fee for the service received based on their energy savings.

encoder receiver transmitter (ERT) (n.)

A packet radio protocol for automated meter reading. The technology transmits data from utility meters over a short distance so a utility vehicle can collect meter data without a worker physically inspecting them.

energy efficiency (n., adj.)**energy efficient** (predicate adj.); **energy-efficient** (adj.)

Examples of use:

- The appliance is energy efficient (predicate adj.)
- The energy-efficient appliance (adj.)

energy efficiency ratio (EER) (n.)

The higher the EER value, the more efficient the equipment.

energy equity (n., adj.)**energy information system (EIS)** (n.)

Software, data acquisition hardware, and communication systems used to store, analyze, and display building energy data.

energy management system (EMS) (n.)

A computer-aided tool used by power system operators to monitor, control, and carry out optimal energy management.

energy service company (ESCO) (n.)

A commercial or nonprofit business providing comprehensive energy solutions, including design and implementation of energy-savings projects, retrofitting, energy conservation, energy infrastructure outsourcing, power generation and energy supply, and risk management.

energy storage system (ESS) (n.)**energy-use intensity (EUI) (n.)**

Measured in kBtu. An expression of a building's energy use as a function of its size or other characteristics.

energy vampire (n.)

A device such as a cable box or TV that uses power, called phantom load, even while not in use.

enterprise asset management (EAM) (n.)

The management of the maintenance of an organization's physical assets throughout each asset's life cycle. EAM is used to plan, optimize, execute, and track the needed maintenance activities with the associated priorities, skills, materials, tools, and information.

enterprise resource planning (ERP) (n.)

The integrated management of main business processes, often in real time and mediated by software and technology.

enterprise service bus (ESB) (n.)

An architectural pattern where a centralized software component performs integrations between applications. It performs transformations of data models, handles connectivity, performs message routing, converts communication protocols, and potentially manages the composition of multiple requests.

EV (electric vehicle) (n., adj.)

A vehicle that uses one or more electric motors.

EV charging

- Level 1 (always capitalized): standard 120-volt household outlet
- Level 2 (always capitalized): more than 200 volts; faster charge than Level 1
- Level 3 (always capitalized) or DC fast charging (DCFC): high voltage; fastest charge

EV supply equipment (EVSE) (n., adj.)

Also called charging stations or charging docks. Never EVSEs.

EVSE provides electric power to the vehicle and uses that to recharge the vehicle's batteries.

evaluation, measurement, and verification (EM&V) (n., adj.)

Methods and processes used to assess the performance of energy efficiency activities so planned results can be achieved with greater certainty, and future activities can be more effective.

See also [measurement and verification \(M&V\)](#).

F

Fahrenheit (F)**fault detection and diagnostics (FDD) (n., adj.)**

The process of uncovering errors in the performance of critical equipment such as boilers, chillers, motors, elevators, pumps, and exhaust fans.

faulted circuit indicator (FCI) (n.)

A device that can assist in identifying outage locations and reduce outage durations.

feet per minute (fpm)

first-call resolution (FCR) (n.)

A performance metric relating to a contact center's ability to resolve a customer's problems, questions or needs the first time they call, with no follow-up required.

See also [first-contact resolution \(FCR\)](#).

first-contact resolution (FCR) (n.)

A performance metric relating to a contact center's ability to resolve a customer's problems, questions or needs the first time they contact the contact center (via email, chat, etc.), with no follow-up required.

See also [first-call resolution \(FCR\)](#).

first cost (n.)

The initial cost of equipment. Installed first cost is the cost of the equipment plus the cost of on-site installation.

foot-candle (fc); foot-candles (fc)**free rider** (n.); **free-rider** (adj.); **free-ridership** (n.)

When a utility pays a customer to do something they were already going to do, like upgrade to a more efficient refrigerator.

FTE (full-time equivalent) (n.)

FTE doesn't refer to the number of individual employees; 1 FTE is equivalent to one person working full time. For example, two people each working 20 hours per week equals 1 FTE.

fuel adjustment clause (FAC) (n.)

An item on a utility customer's bill that represents the power supplier's costs for fuel and purchased power.

fuel-switching (n., adj.)

Substituting one energy source for another, such as from natural gas to electricity.

G

gallons per minute (gpm)**general packet radio service (GPRS)** (n.)

A packet-oriented mobile data standard on the 2G and 3G cellular communication network's global system for mobile communications. GPRS was established by European Telecommunications Standards Institute in response to the earlier cellular digital packet data (CDPD) and i-mode packet-switched cellular technologies.

geofencing (n., adj.)

A strategy used by smart devices such as thermostats to define a virtual boundary around a real-world geographical area.

geographic information system (GIS) (n.)

A computer system that analyzes and displays geographically referenced information.

gigabit (Gb); gigabits per second (Gbps)**gigabyte (GB); terabyte (TB)****green energy** (n.); **green-energy** (adj.)

Any energy type generated from natural resources, such as sunlight, wind, or water.

See also [clean energy](#) and [renewable energy](#).

greenhouse gas (GHG) (n., adj.)

Any of various gaseous compounds (such as carbon dioxide or methane) that absorb infrared radiation, trap heat in the atmosphere, and contribute to the greenhouse effect.

grid-interactive water heater (GIWH) (n.)

An electric resistance water heater with an added bidirectional control that allows a utility or third party to rapidly toggle it off and on.

ground-source heat pump (GSHP) (n.)

Also known as geothermal heat pump. A central heating or cooling system that transfers heat to or from the ground.

See also [heat-pump water heater \(HPWH\)](#) and [water-source heat pump \(WSHP\)](#).

H

head-end system (n.)

Hardware and software that receives the stream of meter data brought back to the utility through advanced metering infrastructure.

healthcare (n., adj.)**heat-pump water heater (HPWH)** (n.)

A device that uses electricity to move heat from one place to another instead of generating heat directly. It works like a refrigerator in reverse, pulling heat from the surrounding air and dumping it—at a higher temperature—into a tank to heat water.

See also [ground-source heat pump \(GSHP\)](#) and [water-source heat pump \(WSHP\)](#).

heat recovery (n.); **heat-recovery** (adj.)

Technology that harvests heat that would otherwise be rejected by the condenser in a refrigeration cycle, drainwater, or ventilation hoods. A heat exchanger transfers the recovered heat to the supply water or air to reduce the energy required to heat incoming water or air.

heat-recovery steam generator (HRSG) (n.)

An energy recovery heat exchanger that recovers heat from a hot gas stream, such as a combustion turbine or other waste gas stream.

heating degree-day (HDD) (n.); **heating degree-days (HDDs)** (n.)

A measurement designed to quantify the demand for energy needed to heat a building, measuring how cold the temperature was on a given day or during a period of days.

heating seasonal performance factor (HSPF) (n.)

A heating efficiency rating for heat pumps. The higher the HSPF, the more efficient the equipment.

hertz (Hz); kilohertz (kHz); megahertz (MHz); gigahertz (GHz)**high bay lighting** (n., adj.)

Lights used to illuminate spaces with high ceilings.

high-intensity discharge (HID) lamp (n.)

A family of gas-discharge arc lamps which creates light by sending an electrical discharge between two electrodes and through a plasma or ionized gas. Additional gas is generally used, and this gas serves as an easy way to classify the major types of HID lamps: mercury-vapor lamp, sodium-vapor lamp, and [metal-halide lamp](#).

high-pressure sodium (HPS) lamp (n.)

A type of gas-discharge lamp that creates light by sending electricity between electrodes in a bulb filled with a noble gas. HPS lamps produce a high-intensity, yellow-toned light. They're often used in industrial lighting and public outdoor areas such as parking lots and roadways.

home energy management (HEM) (n., adj.);**home energy management system (HEMS)** (n.)

Systems of smart, networked devices that can dynamically adjust energy use within a home. An HEMS is a technology platform with hardware and software that allows the user to monitor energy usage and production and to manually control or automate the use of energy within a household.

home energy report (HER) (n., adj.)

Pronounce the abbreviation as an initialism, saying each letter, rather than as an acronym, saying it as a word. When using an article before the abbreviation, use an or the: an HER program, the HER program.

homebuyer (n.)**homeowners' association (HOA)** (n.)**horsepower (hp)****human-machine interface (HMI)** (n.)

A user interface or dashboard that connects a person to a machine, system, or device.

HVAC (n., adj.)

Heating, ventilation, and air-conditioning is the use of various technologies to control the temperature, humidity, and purity of the air in an enclosed space.

I**in-home display (IHD)** (n.)

Also called energy-use display (EUD). We prefer IHD over EUD in most cases.

Generic term for in-home energy-monitoring device that acts as a behavioral modification aid. It monitors the energy use in a building (usually for residences) and shows a graphic display of current usage. Users can change something (for example, turn off a light) and immediately see the difference in usage.

Infrastructure Leakage Index (ILI) (n.)

Measures the efficiency of water loss control efforts. It's calculated by taking the [real losses](#) and dividing them by the unavoidable real losses.

interactive voice response (IVR) system (n.)

Always include "system" when spelling out; OK to use IVR alone after the first mention.

An automated business phone system feature that interacts with callers and gathers information by giving them choices via a menu.

internet (n., adj.)**Internet of Things (IoT)** (n.)

The interconnection via the internet of computing devices embedded in everyday objects, enabling them to send and receive data.

investor-owned utility (IOU) (n.)

A for-profit enterprise owned by stockholders who may or may not be customers.

IP (Internet Protocol) (n., adj.)**IT (information technology)** (n., adj.)

J**joule (J)****journey map** (n.); **journey-map** (v.);
journey mapping (ger.); **journey-mapping** (adj.)

A diagram of the steps a customer goes through to resolve an issue or conduct a transaction with a utility.

Examples of use:

- Create a journey map (n.)
- Journey-map your way to success (v.)
- Journey mapping is helpful (ger.)
- Conduct a journey-mapping workshop (adj.)

K

kelvin (K)

key account (n., adj.)

Utilities' largest business customers.

key moment of truth (KMOT) (n.); key moments of truth (KMOTs) (n.)

Don't use MOT.

A key event in a customer journey when an opinion about the brand is formed.

kilopascal (kPa)

L

leak detection (n., adj.)

The process of finding hidden leaks in a water distribution system, usually completed by a trained technician listening to all accessible contact points throughout the system for audible leak noise.

LEED (Leadership in Energy and Environmental Design) (n., adj.)

LED (n., adj.)

A semiconductor light source that emits light when current flows through it.

levelized cost of storage (LCOS) (n.)

The cost of discharged energy from a battery taking everything into account, including capital expenses and operating expenses.

LGBTQ+ (adj.)

Never use as a noun. Use instead of LGBT or LGBTQIA.

lithium-ion (Li-ion) batteries (n.)

A rechargeable battery that uses lithium ions.

Types include (note the abbreviations for the following battery types don't use the chemical symbols):

- lithium cobalt oxide (LCO)
- lithium iron phosphate (LFP)
- lithium manganese iron phosphate (LMFP)
- lithium manganese oxide (LMO)
- lithium nickel cobalt aluminum (NCA)
- lithium nickel manganese cobalt oxide (NMC)
- lithium nickel manganese oxide (LNMO)

load management (n., adj.)

Also known as [demand-side management](#).

The process of balancing the supply of electricity on the network with the electrical load by adjusting or controlling the load or demand rather than the power station output.

local distribution company (LDC) (n.)

A distribution company that maintains the portion of the utility supply grid that's closest to the residential and small commercial consumer.

log in (v.); log on (v.); login (n., adj.); log out (v.)

Examples of use:

- Log in with your username; go to the website to log on (v.)
- The website had 3,000 logins (n.)
- Enter your login credentials (adj.)
- Log out by closing your browser (v.)

low and moderate income (LMI) (n.);
low- and moderate-income (LMI) (adj.)

Never use “low to moderate income” or “low-to-moderate income.”

LMI customers include people or households that have a limited amount of income to meet their needs. They spend a higher proportion of their income on energy than the average person.

low-e (low emissivity) (adj.)

A surface that emits low levels of radiant heat. Usually used in reference to windows.

lumen (lm)

lux (lx)

M

machine learning (n., adj.)

The process of using mathematical models of data to help a computer learn without direct instruction. It’s considered a subset of AI.

maintenance unitization (n., adj.)

A data science solution designed to help utilities use data science to unitize their maintenance work.

measurement and verification (M&V) (n., adj.)

The process of planning, measuring, collecting, and analyzing data to verify and report energy savings within an individual facility, resulting from the implementation of energy conservation measures.

See also [evaluation, measurement, and verification \(EM&V\)](#).

metal-halide (MH) lamp (n.)

A [high-intensity discharge lamp](#) in which ultraviolet and visible light is produced by an electric discharge through a mixture of gases containing metal halides at high temperatures and pressures.

meter data management system (MDMS) (n.)

Collects and stores meter data from a head-end system and processes that data into information that other utility applications can use, including the customer information system and outage management system.

meter data unification and synchronization (MDUS) (n.)

A system that combines the interfaces of different advanced metering systems and synchronizes the data and processes from these systems with those in the back-end system.

meter interface unit (MIU) (n.)

A piece of hardware that lets utilities equip third-party meters with wireless communication technology, enabling the meters to report data. This helps utilities avoid meter replacement.

meter to cash (M2C) (n.); **meter-to-cash (M2C)** (adj.)

A day-to-day process for energy and utility companies with an emphasis on optimizing business processes. It’s often a justification for installing smart meters.

micropersona (n.)

Also called a microsegment or cohort.

Clusters of customers with common characteristics, developed through data science and designed to answer a specific question. For example, “Which customers are most likely to do X, Y, and Z?”

miles per hour of charging

Don't abbreviate this term as "mph of charging."

The number of miles an EV could travel on one hour of charging.

See also [mph \(miles per hour\)](#).

milliamp (mA); milliamper (mA); megavolt-ampere (MVA)**million tons per year (MMtpy)****millisecond (ms)****minisplit heat pump (MSHP) (n., adj.)**

Also called a ductless heating system.

An outdoor condenser and an indoor air-handling unit connected by a power cable and refrigerant tubing.

mobile workforce management system (MWMS) (n.)

Software and services to manage mobile workers. The system pulls data from multiple systems and gives utilities the ability to assign work to crews and track the work as it's performed. Crews use a mobile device to view and complete their fieldwork, including outage restoration, move-in/move-out, etc.

monitoring-based commissioning (MBCx) (n.)

Involves the use of sensors, software, and standard retrocommissioning practices to provide a real-time account of systems within the building, resulting in more-persistent energy savings than achieved with conventional commissioning.

See also [commissioning \(Cx\)](#), [ongoing commissioning](#), [recommissioning \(RCx\)](#), and [retrocommissioning \(RCx\)](#).

mpg (miles per gallon)**mph (miles per hour)**

See also [miles per hour of charging](#).

Multiprotocol Label Switching (MPLS) (n.)

A routing technique in telecommunications networks that directs data from one node to the next based on short path labels rather than long network addresses, therefore avoiding complex lookups in a routing table and speeding traffic flows. The labels identify virtual links (paths) between distant nodes rather than endpoints.

municipal utility (muni) (n.)

Also called community utilities.

Munis are owned and operated by the local government or another state entity to provide a service to the public.

N

negawatt (n., adj.)

Power that has been saved due to conservation or avoided anticipated energy demand.

net energy metering (NEM) (n., adj.)

Also called net metering.

A utility program that uses the electric grid to store the energy produced by customers' solar panels for later use.

Net Promoter Score (NPS) (n.)

NPS is the percentage of promoters (respondents rating a 9 or 10 on a scale from 0 to 10, where 0 means not at all likely and 10 means extremely likely) minus the percentage of detractors (respondents rating a 0–6). An NPS that falls between 0 and 50 is good, while a score above 50 is excellent.

net-to-gross (NTG) (adj.)

Savings caused by the presence of an energy efficiency program.

network as a service (NaaS) (n.);
network-as-a-service (NaaS) (adj.)

Services for network transport connectivity. NaaS involves the optimization of resource allocations by considering network and computing resources as a unified whole.

new construction (n.); **new-construction** (adj.)

Pertaining to a newly built residential or commercial building.

non-energy benefit (NEB) (n.)

Costs and benefits that aren't part of the costs, or the avoided cost, of the energy from the utility.

nonrevenue water (NRW) (n., adj.)

Water that has been produced and lost before it reaches the customer. Losses can be [real losses](#) or [apparent losses](#). High levels of NRW hurt the financial viability of water utilities and the quality of water. NRW is typically measured as the volume of water lost as a share of net water produced.

See also [revenue water](#).

not available (NA); not applicable (NA)

O

OLED (n.)

An LED in which the light-emitting material is made from an organic compound.

ongoing commissioning (n., adj.)

Use ongoing commissioning instead of [Continuous Commissioning](#) to avoid the trademarked term.

See also [commissioning \(Cx\)](#), [monitoring-based commissioning \(MBCx\)](#), [recommissioning \(RCx\)](#), and [retrocommissioning \(RCx\)](#).

OpenADR (n.)

Internet messaging protocol many utilities use to communicate with equipment at customer facilities to automatically reduce demand during demand-response program events.

operations and maintenance (O&M) (n., adj.)

The day-to-day activities necessary for the building and its systems, equipment, and occupants to perform their intended functions.

opt-in (adj.); **opt-out** (adj.); **opt in** (v.); **opt out** (v.)

Examples of use:

- An opt-in versus an opt-out program model (adj.)
- Opt in to the program; opt out of notifications (v.)

outage management system (OMS) (n.)

A utility network management software application that models network topology for safe, efficient field operations related to outage restoration. OMSs integrate with contact centers to provide timely, accurate, customer-specific outage information and with [supervisory control and data acquisition](#) systems for real-time-confirmed switching and breaker operations. These systems track, group, and display outages to manage service-restoration activities safely and efficiently.

P

paperless billing (n., adj.)

Also called [e-billing](#).

parts per million (ppm); parts per million volume (ppmv)

peak-time rebate (PTR) (n., adj.)

Rewards customers for shifting and reducing their energy use when energy demand and prices are at their highest and renewable resources are less available.

phantom load (n.)

The energy an appliance draws while it's idle. That appliance is called an energy vampire.

See also [vampire load](#).

phosphoric acid fuel cell (PAFC) (n.)

A type of fuel cell that uses liquid phosphoric acid as an electrolyte.

photosensor (n.)

A type of electronic component that enables the detection of light, infrared, and other forms of electromagnetic energy.

pipes-and-wires (adj.)

Used to describe utilities that distribute only energy; they don't own power plants.

platform as a service (PaaS) (n.);**platform-as-a-service (PaaS)** (adj.)

A cloud computing model where a third-party provider delivers hardware and software tools to users over the internet.

policy-maker (n.)**power factor (PF)**

When adding a descriptor, such as low or high, don't hyphenate—low power factor, high power factor.

The ratio of the mean actual power in an alternating-current circuit measured in watts to the apparent power measured in volt-amperes, being equal to the cosine of the phase difference between electromotive force and current.

power line (n., adj.)**power line carrier (PLC)** (adj.)

The process of communication using high-voltage power lines as the means for transmission.

power quality (PQ) (n., adj.)

The ability of electrical equipment to consume the energy being supplied to it efficiently and effectively.

power usage effectiveness (PUE) (n.)

A ratio that describes how efficiently a computer data center uses energy; specifically, how much energy is used by the computing equipment (in contrast to cooling and other overhead that supports the equipment).

predictive modeling (n., adj.)

The stage in data science where a prediction is generated based on historical data.

premise-based system (n.)

A [customer information system](#) where all the billing and customer information is associated with the premise—address.

See also [customer-centric system](#).

pressure management (n., adj.)

Modifying distribution system pressures to reduce or increase service pressures, reduce unnecessary variability in system pressure, and mitigate transients, which are nearly instantaneous high-pressure waves traveling through the pipe network.

proton exchange membrane (PEM) (n.)

Also called a polymer electrolyte membrane (PEM). We prefer proton exchange membrane in most cases. Both terms refer to the same type of fuel cell technology.

public service commission (PSC) (n.)

A governing body that regulates the rates and services of a public utility.

See also [public utilities commission \(PUC\)](#).

public utilities commission (PUC) (n.)

A governing body that regulates the rates and services of a public utility.

See also [public service commission \(PSC\)](#).

public utility district (PUD) (n.)

A community-owned, locally regulated utility created by a vote of the people.

pulse-width modulated (PWM) (adj.)

A drive technology that delivers power in the form of voltage pulses.

Q

QR code (n.)

A machine-readable code consisting of an array of black and white squares, typically used for storing URLs or other information for reading by the camera on a smartphone.

R

R&D (research and development) (n., adj.)**radio frequency (RF)** (n., adj.)

Any of the electromagnetic wave frequencies that lie in the range extending from below 3 kilohertz to about 300 gigahertz, and that include the frequencies used for communications signals (as for radio and television broadcasting and cell phone and satellite transmissions) or radar signals.

ratchet charge (n.)

A ratchet charge is an addition to a demand charge (not the energy portion of the bill). Typically, a ratchet requires the end user to pay either the current month's peak demand or a fraction (frequently 50%–90%) of the actual peak demand that occurred over the previous 11 months, whichever is greater. Then you have the actual demand and the billed demand that may or may not be the same.

rate base (n., v.); **rate-based** (adj.)

The verb form means to pass costs onto the customer rather than paying out of capital funds. It's jargon; avoid it if possible.

ratemaking (v.)

The process of establishing rates, especially for public transportation or utilities.

real-time pricing (RTP) (n., adj.)

Also known as dynamic pricing.

RTP is a utility rate structure where the per-kilowatt-hour charge varies each hour based on the utility's real-time production costs.

real losses (n.)

Also called physical losses.

The physical loss of water from the system because of leaks, breaks, or spillage that occur before customer consumption—the customer meter in metered systems and the point of transfer of responsibility in unmetered systems. Customer-side leaks aren't considered real losses.

See also [apparent losses](#) and [water losses](#).

real losses per service connection per day (n.)

A performance indicator for the level of leakage in the water system in a normalized fashion (gallons per service connection per day) for means of assessment over time. This approach is conceptually similar to normalizing other common metrics per capita, for example, GDP per capita.

recommissioning (RCx) (n., adj.)

The process of testing and calibrating existing building systems that have been previously commissioned to ensure they're working as designed. Utilities usually offer re- and retrocommissioning within the same RCx program; if you're discussing both in the same piece of content, don't use the abbreviation.

See also [commissioning \(Cx\)](#), [monitoring-based commissioning \(MBCx\)](#), [ongoing commissioning](#), and [retrocommissioning \(RCx\)](#).

regional transmission organization (RTO) (n.)

An electric power transmission system operator (TSO) that coordinates, controls, and monitors a multistate electric grid.

remote terminal unit (RTU) (n.)

An electronic device with a microprocessor that links objects in the physical world with an automation system.

See also [rooftop unit \(RTU\)](#).

renewable energy (n.); renewable-energy (adj.)

Renewable energy comes from sources or processes that are constantly replenished, including solar energy, wind energy, geothermal energy, and hydroelectric power. Not all renewable-energy sources are considered clean or green energy.

See also [clean energy](#) and [green energy](#).

renewable energy certificate (REC) (n.)

A market-based instrument that represents the property rights to the environmental, social, and other nonpower attributes of renewable electricity generation.

renewable portfolio standard (RPS) (n.)

Also called a renewable electricity standard (RES).

An RPS is a policy designed to increase the use of renewable-energy sources for electricity generation.

research, development, and demonstration (RD&D) (n.)

Utility programs to develop new technologies and prove their commercial feasibility.

retrocommissioning (RCx) (n., adj.)

The process of testing and calibrating existing building systems that have never been commissioned to ensure they're working as designed. Utilities usually offer re- and retrocommissioning within the same RCx program; if you're discussing both in the same piece of content, don't use the abbreviation.

See also [commissioning \(Cx\)](#), [monitoring-based commissioning \(MBCx\)](#), [ongoing commissioning](#), and [recommissioning \(RCx\)](#).

request for information (RFI) (n.);

requests for information (RFIs) (n.)

A common business process whose purpose is to collect written information about the capabilities of various suppliers.

See also [request for quotation \(RFQ\)](#) and [RFP \(request for proposal\)](#).

request for quotation (RFQ) (n.);

requests for quotation (RFQs) (n.)

A business process in which a company requests a quote from a supplier for the purchase of specific products or services.

See also [request for information \(RFI\)](#) and [RFP \(request for proposal\)](#).

revenue water (n.)

Water that generates revenue for the utility. It consists of billed authorized consumption and billed water exported in the expanded version of the AWWA water audit.

See also [nonrevenue water \(NRW\)](#).

RFP (request for proposal) (n.); **RFPs (requests for proposal)** (n.)

A business document that announces a project, describes it, and solicits bids from qualified contractors to complete it.

See also [request for information \(RFI\)](#) and [request for quotation \(RFQ\)](#).

ROI (return on investment) (n.)**rooftop unit (RTU)** (n.)

An HVAC unit installed on a roof.

See also [remote terminal unit \(RTU\)](#).

roadmap (n, adj.)**rpm (revolutions per minute)****run time** (n.); **run hours** (n.)

The time during which a program is running.

R-value

The capacity of an insulating material to resist heat flow. The higher the R-value, the greater the insulating power.

S

Scope 1, Scope 2, Scope 3 emissions (n.)

Scope 1 emissions come directly from operations, like the natural gas an office burns for space heating. Scope 2 emissions result from electricity consumption, like the emissions from a coal plant that supplies electricity to an office. Scope 3 emissions are all of the other emissions in the value chain, which means the emissions upstream and downstream of a business's immediate activities. An example of this would be the emissions associated with the production of the laptop computers workers use in the office.

seasonal energy efficiency ratio (SEER) (n.)

The higher the SEER value, the more efficient the equipment.

self-service (n., adj.)**service level agreement (SLA)** (n.)

A documented agreement between a service provider and a customer that identifies both the services required and the expected level of service.

service-oriented architecture (SOA) (n.)

Defines a way to make software components reusable and interoperable via service interfaces. Services use common interface standards and an architectural pattern so they can be rapidly incorporated into new applications. This removes tasks from the application developer who previously redeveloped or duplicated existing functionality or had to know how to connect or provide interoperability with existing functions.

setpoint (n., adj.)

The temperature at which a thermostat is set.

small and midsize business (SMB) (n., adj.)

A category of business customers encompassing those that are smaller than large businesses or key accounts. Utilities often treat SMBs like residential customers regarding account management and program marketing.

smart city (n., adj.)

A technologically modern urban area that uses different types of electronic methods, voice activation methods, and sensors to collect data. Information gained from that data is used to efficiently manage assets, resources, and services; in return, that data is used to improve the operations across the city. This includes data collected from citizens, devices, buildings, and assets that are processed and analyzed to monitor and manage traffic and transportation systems, power plants, utilities, water supply networks, waste, crime detection, information systems, schools, libraries, hospitals, and other community services.

smart grid (n., adj.)

An electricity supply network that uses digital communications technology to detect and react to local changes in usage.

snapback (n.)

The increase in energy consumption after a setback period when the HVAC system works harder to return temperatures to their usual settings.

software as a service (SaaS) (n.);
software-as-a-service (SaaS) (adj.)

A subscription-based software licensing model where the software is located on external servers, managed by vendors.

solid-state battery (n.)

A type of battery that uses a solid electrolyte rather than a liquid or polymer gel electrolyte.

span (n.)

The horizontal distance between two electricity transmission towers.

state of charge (SoC) (n.)

The metric used to describe a battery's charge level. Typically expressed as a percentage. For example, batteries are usually shipped at a 15% SoC.

SoC is also used to describe a charge window or the upper limit that a battery is charged to and the lower limit that it is discharged to. In this case, one might say a battery has a 90/10 SoC window. This means the battery is charged to a maximum of 90% and discharged until only 10% of the energy capacity remains.

square foot (ft²); square feet (ft²)**subject-matter expert (SME)** (n.)**supervisory control and data acquisition (SCADA)** (n., adj.)

A means for monitoring utilities remotely. SCADA systems collect the data and automate it across the utility's applications.

T**technical reference manual (TRM)** (n.)

An operating manual that describes standardized approaches for estimating savings from installing energy efficiency measures or adopting efficiency practices.

therm

A unit of heat equivalent to 100,000 Btu.

thermal management system (TMS) (n.)

Regulates the temperature of batteries in a stationary storage system or an EV pack. A liquid-cooled TMS uses heat transfer fluid, pumps, and other components to dissipate heat within a battery system. Other types of TMSs include passive air cooled systems, active air cooled systems, immersive systems, and hybrid systems.

time of use (TOU) (n.); **time-of-use (TOU)** (adj.)

A utility rate mechanism based on how much energy a customer uses and when they use it. A customer can lower their bill by shifting some electricity usage to times when costs are less and demand is down.

top-2 box (n., adj.)

Market research term meaning the top two ratings on a scale, usually 9 and 10.

touchpoint (n., adj.)

An occasion when a business or organization is in contact with or communicating with its customers.

trade ally (n., adj.)

A contractor or service provider who partners with a utility.

transmission and distribution (T&D) (n.)

The high-voltage (transmission) and low-voltage (distribution) components of the electric grid.

transportation electrification (TE) (n., adj.)**truck roll** (n.)

Dispatching a truck to a customer's home or facility. It's jargon; avoid it if possible.

true up (v.); **truing up** (v.); **true-up** (n.)

Examples of use:

- True up the bill (v.)
- Now's the time for a true-up (n.)

U

uninterruptible power supply (UPS) (n.)

An electrical apparatus that provides emergency power to a load when the input power source or main power fails.

US (United States) (n.)**user acceptance testing (UAT)** (n.)

Customer-led, real-world testing validates the system's ability to support daily business and user requirements.

U-value

A measure of the rate at which heat is lost through a given material, such as insulation or glass. A lower U-value indicates a more energy-efficient product.

V

vampire load (n.)

When an appliance is off but in standby mode (like a TV that's turned off but has a light on).

See also [phantom load](#).

variable air volume (VAV) (n., adj.)

A type of HVAC system that varies the airflow at a constant temperature.

See also [constant air volume \(CAV\)](#).

variable-frequency drive (VFD) (n.)

A VFD is a specific type of [variable- or adjustable-speed drive](#).

variable-speed drive (VSD) (n.)

Also called adjustable-speed drive (ASD). We prefer VSD in most cases.

Equipment used to control the speed of machinery.

vegetation management (n., adj.)

Preventive tree trimming related to maintaining grid performance.

vehicle-to-grid (V2G) (n., adj.)

versus (prep.)

Never abbreviate in text. If it's abbreviated in a table due to space limitations, make it "vs." with a period. When citing legal cases, use "v" with no period.

VPN (virtual private network) (n.)

voice of the customer (VOC) (n.);
voice-of-the-customer (VOC) (adj.)

The implied and expressed needs, desires, hopes, and preferences of a utility's customers that are used by the utility to design and deliver the optimal customer experience efficiently and effectively. Also, the process of gathering these inputs.

voice of the employee (VOE) (n.);
voice-of-the-employee (VOE) (adj.)

The implied and expressed needs, desires, hopes, and preferences of a utility's employees that are used by the utility to design and deliver the optimal customer experience efficiently and effectively. Also, the process of gathering these inputs.

voice of the utility (VOU) (n.); **voice-of-the utility (VOU)** (adj.)

A type of market research in which the utility shares data on its operations.

volt (V); kilovolt (kV)

volt-ampere reactive (VAR); volt-amperes reactive (VAR)

Reactive power is measured in VAR, a form of electrical power required by some equipment just to get ready to do actual work. For example, lighting ballasts and motor windings need VAR to create the necessary electrical stability to do actual work.

W

water heater (n.); **water heating** (n.); **water-heating** (adj.)

Avoid using hot-water heater.

Examples of use:

- Install a water heater (n.)
- Use the equipment for water heating (n.)
- Design a water-heating program (adj.)

water loss (n., adj.); **water losses** (n.)

Consists of [real losses](#) and [apparent losses](#). Can also be found by subtracting authorized consumption from [water supplied](#).

water supplied (n.)

The volume of treated and pressurized water input to the retail water distribution system.

water-source heat pump (WSHP) (n.)

A heat pump that extracts and dissipates heat by way of water instead of air.

See also [ground-source heat pump \(GSHP\)](#) and [heat-pump water heater \(HPWH\)](#).

watt (W); kilowatt (kW); megawatt (MW); gigawatt (GW); terawatt (TW)

The instantaneous amount of power an electrical device demands when operating. In the case of generating electricity, it's the amount of power produced in a single moment.

- 1 kW = 1,000 W
- 1 MW = 1,000,000 W
- 1 GW = 1,000,000,000 W
- 1 TW = 1,000,000,000,000 W

watt-hour (Wh); kilowatt-hour (kWh); megawatt-hour (MWh); gigawatt-hour (GWh); terawatt-hour (TWh)

The amount of electrical power demanded, produced, or delivered over time. By multiplying power (kW) by time (hours), you can estimate this. For example, a device demanding 2 kW of power to run continuously for one hour consumes 2 kWh of electricity.

- 1 kWh = 1,000 Wh
- 1 MWh = 1,000,000 Wh
- 1 GWh = 1,000,000,000 Wh
- 1 TWh = 1,000,000,000,000 Wh

whole-house (adj.)

Also called whole-home.

A program model that includes measures for the entire home.

Wi-Fi (n., adj.)**work management system (WMS)** (n.);**workflow management system (WMS)** (n.)

Software and processes to manage custom workflows and workloads.

Z

zero net energy (ZNE) (n.); **zero-net-energy (ZNE)** (adj.)

Also called net-zero energy (NZE). We prefer ZNE in most cases.

The use of energy conservation, energy efficiency, and on-site renewable generation to account for 100% of a building's or community's energy usage.