

## **GLOSSARY OF ELECTRIC UTILITY AND RATEMAKING TERMS**

### **Active Power**

See “Real Power.”

### **Alternating Current**

An electric current or voltage that reverses its direction of flow at regular intervals and has alternatively positive and negative values. The average current or voltage over a period of time is zero.

### **Apparent Power**

The product of the volts times amperes. This product generally is multiplied by 1,000 and designated in kilovoltamperes (kVA). It is composed of both real and reactive power.

### **Average System Rate**

Total revenue received from retail customers divided by total kWh sold to retail customers. This rate includes adjustments that are excluded from Base Rates.

### **Base Rates**

These are rates that City Light charge all residential, commercial and industrial customers. These revenues exclude charges such as RSA surcharge, and connection charge.

### **Base Load**

The constant load in a power system which is not subject to variations due to seasons, temperature, or time of day. Generally, the system planner will acquire base load resources to match the base load, i.e., resources which run continuously except for maintenance and scheduled or unscheduled outages.

### **Basis Sales**

These are paired, simultaneous power purchase and sale transactions at different locations that take advantage of the difference in market value of energy at two locations (e.g., Mid-Columbia and California/Oregon border [or COB]). These types of trades may occur at any location where City Light has access to transmission services.

### **Billing Cycle**

The period of time or the dates of occurrence for issuing periodic bills for service. Most residential customers are billed every other month and thus have a billing cycle of approximately 60 days. The billing cycle is also used loosely to refer to the customer's meter read cycle, i.e., the reading of the billing meter as opposed to the calculation of the bill.

### **Billing Determinants**

The measures of consumption used to calculate a customer's bill or to determine the aggregate revenue from rates from all customers. Billing determinants must follow the structure of rates so that if rates are blocked, seasonally differentiated, time-differentiated, or separated by demand and energy measures, then the billing determinants must be organized in the same fashion.

**Block Rate**

A schedule of prices for electricity wherein the price per kilowatt-hour (kWh) or kilowatt (kW) changes at different levels of consumption or demand. For example, if the first 300 kWh of use per month are charged at one rate and all over 300 kWh are charged at a different rate, the rate schedule is a block rate.

**BPA (Bonneville Power Administration)**

The federal agency based in the Pacific Northwest. BPA markets wholesale electrical power from 31 federal hydro projects in the Columbia River Basin, one nonfederal nuclear plant and several other small nonfederal power plants. The dams are operated by the U.S. Army Corps of Engineers and the Bureau of Reclamation. About one-third of the electric power used in the Northwest comes from BPA. BPA also operates and maintains about three-fourths of the high-voltage transmission in its service territory. BPA's service territory includes Idaho, Oregon, Washington, western Montana and small parts of eastern Montana, California, Nevada, Utah and Wyoming. City Light buys over 40% of its firm power and most of its transmission from BPA.

**BPA, Slice**

City Light acquires power under its contract with BPA in two forms: Block and Slice. About one-third of the firm power available through the contract is provided in the form of a "Shaped Block." This means that the monthly pattern of deliveries from BPA to City Light reflects the monthly pattern of City Light's firm resource deficit, i.e., the difference between City Light's firm load and the firm resources (other than BPA) that are available to meet that load.

**BPA, Block**

City Light acquires power under its contract with BPA in two forms: Block and Slice. About two-thirds of the firm power available through the contract is provided in the form of a "Slice of the System." This means that City Light receives a fixed percentage of the actual output of the Federal Columbia River Power System and pays the same percentage of the actual costs of the system. Since both the actual costs and the actual output of the Federal system can vary due to a number of factors, including water conditions, the Slice introduces an added element of uncertainty into City Light's finances and power management.

**BPA pass-through**

The City Council passed an ordinance in 2001 that allows the Department to pass through to its customers the financial impact of any increase or decrease in rates charged by BPA. These rate changes take effect without passage of a new ordinance by the City Council.

**BTU (British Thermal Unit)**

The standard unit for measuring quantity of heat energy. It is the amount of heat energy necessary to raise the temperature of one pound of water one degree Fahrenheit at a specified temperature.

**COB (California-Oregon Border)**

The electricity trading hub in the Pacific Northwest, which is located along the California and Oregon border.

**Capacitor**

A device to store an electrical charge. In the field of electric power transmission and distribution, capacitors are devices used for power factor correction and voltage regulation. Power factor correction improves the capability to deliver useful power (real power) to loads and voltage regulation helps to maintain constant service voltage.

**Capacity**

The maximum amount of electrical load which a device can carry at one time. Capacity is also used synonymously with capability.

**Capacity Costs**

Costs to the utility for provision of sufficient generation, transmission, etc., facilities to meet peak demand.

**Circuit (Electric)**

A conductor or a system of conductors through which electric current flows or is intended to flow. Wires.

**Connection Charge**

An amount to be paid by a customer in a lump sum, or in installments, for connecting the customer's facilities to the supplier's facilities; or a charge for all the capital costs incurred in adding a new customer to the system. Connection costs, then, might include the costs of the service "drop" and the meter, or they might include the capital costs of all the generation, transmission, and distribution facilities that must be added to accommodate the new customer.

**Cost Allocation Policies**

Instructions or statements of direction guiding the apportionment of system costs to the rate classes. These policies are set forth in City Council Resolutions.

**Cost of Service and Cost Allocation Report (COSACAR)**

An analysis, by customer class, of the cost of providing electricity. The purpose of the study is to allocate costs to customer classes and provide the basis for developing rates for these customers.

**Current**

The amount of electrical charge flowing through a conductor, as compared with volts which is the force that drives the electrical charge. The movement of positively or negatively charged electric particles (as electrons) accompanied by observable effects such as the production of heat, a magnetic field, or chemical transformations.

**Customer Charge**

A basic charge added to each customer's bill to cover such costs as meter reading, customer accounting, and billing. The charge does not vary by the amount of electricity used.

**Debt Service**

Payments of interest and principal required to pay off a debt. City Light pays debt service to its bondholders.

**Debt Service Coverage**

Utilities usually set rates at levels that are expected to generate net revenues available to pay debt service that are in excess of projected debt service obligations. This safety margin is called "coverage." It is intended to reassure bondholders that, even if revenues or expenses deviate from their planned levels, the Utility will still be able to pay debt service. The degree of coverage is usually expressed in terms of a "debt service coverage ratio."

**Declining Block Rate**

A schedule of prices for electricity wherein the first "block" (X number of kilowatt-hours or kilowatts) used by a customer is priced at one rate and the next block(s) at successively lower rates. Historically this was a common type of rate schedule used when marginal costs were lower than average costs.

**Demand**

- 1) In an economic context, the quantity of a product that will be purchased at a given price at a particular point in time.
- 2) In a public utility context, the rate at which electric energy is delivered to or by a system, expressed in kilowatts, or kilovoltamperes, or other suitable units at a given instant or averaged over any designated period of time. City Light records demand averaged over a 15-minute interval for rate billing purposes for customers having demand meters.

**Demand Charge**

That portion of a customer's bill for electric service based upon the peak electric capacity (kilowatts) demanded or required by power-consuming equipment and billed under an applicable rate schedule.

**Direct Current (DC)**

An electric current flowing constantly in one direction at one rate. A direct current may have pulsating characteristics but it does not reverse direction.

**Distribution**

The act or process of distributing electric energy from convenient points on the transmission system to the customers. Also a functional classification describing that portion of the utility facilities or plant used for the purpose of delivering electric energy from convenient points on the transmission system to the customers, or describing the expenses relating to the operation and maintenance of the distribution plant.

**Distribution Capacity Charge**

A fee that customers are charged for a stand-by service in a case of emergency.

**Distribution System**

That portion of an electric system used to deliver electric energy from points on the transmission or bulk power system to the customers.

**Efficiency**

Effective operation as measured by a comparison product with resources used to make the product. As applied to devices or systems such as motors or power plants, the ratio of output power or energy to the input power or energy expressed in percent. In economics, the relationship between output and cost or between benefits and costs. Often used by City Light to refer to rates that encourage energy conservation.

**Elasticity**

A measure of the responsiveness of demand (or supply) of a product to changes in price, income, or other factors. Elasticities are measured by the percentage change in demand (or supply) divided by the percentage change in the factor. Thus, a price elasticity of demand for electricity of  $-0.5$  means that a 20% increase in price will lead to a 10% fall in the demand for electricity (other factors remaining constant).

**ELIA (Emergency Low-Income Assistance)**

Program that provides assistance to pay up to 50 percent of a customer's delinquent bill, with a maximum of \$200, during a 12-month period, for customers in crisis situations who have received a 24-hour shut-off notice.

**End Block**

(Sometimes referred to as Tail Block.) The last block of energy in a block rate structure. See "Block Rate."

**Energy**

Electric energy is a measure of the amount of usage over time and is measured in kilowatt-hours or megawatt-hours.

**Energy Charge**

That portion of a customer's bill for electric service based upon the electric energy (kilowatt-hours) consumed and billed under an applicable rate schedule.

**Energy, Off-Peak**

Energy supplied during periods of relatively low system demand as specified by the supplier. For SCL, this is from 10 p.m. to 6 a.m., Monday through Saturday and all holidays and Sunday.

**Energy, On-Peak**

Energy supplied during periods of relatively high system demand as specified by the supplier. For SCL, this is from 6 a.m. to 10 p.m., Monday through Saturday, excluding all holidays and Sunday.

**FERC (Federal Energy Regulatory Commission)**

Is an independent agency that regulates the interstate transmission of electricity, natural gas, and oil. FERC also reviews proposals to build liquefied natural gas (LNG) terminals and interstate natural gas pipelines as well as licensing hydropower projects.

**Feeder**

Voltage lines used to distribute electric power from a substation to consumers or to smaller substations.

**Financial Policies (Guidelines)**

A set of policies stating the financial parameters the City wants to maintain. For City Light, a comparison of these parameters with the actual (or projected) financial conditions will indicate whether or not a rate increase is necessary.

**Firm Power**

Power or power-producing capacity intended to be available at all times during the period covered by a commitment, even under adverse conditions.

**Flat Rate**

- (1) A fixed charge for electricity for a streetlight, floodlight, or a fixed amount of energy consumption.
- (2) A flat rate schedule is a method of charging for electricity wherein all electricity used by a given customer is priced at the same amount per kilowatt-hour or per kilowatt, regardless of the amount used. See “Declining Block Rate”, “Inverted Rate.”

**General Service Rates**

City Light’s schedules of charges for electric service available to customers who do not qualify for residential or public streetlighting rates, which include commercial and industrial customers. Uses include office lighting, water heating, interior space heating, cooling, the operation of mechanical systems (e.g., elevators), traffic signal systems, and industrial processes.

**Generator**

A rotating machine which converts mechanical energy into electrical energy. In the automotive industry traditional terminology uses generator to refer to only those machines designed to produce Direct Current (DC) current through brushes and a commutator (as opposed to alternator).

**Green Power**

Generally refers to renewable resources. See “Renewables.” At City Light, Green Power is also a voluntary green power program for residential and business customers. Customers who pay into the Green Power program support solar projects in Seattle. This program funds local renewable energy demonstration projects that create awareness of renewable energy within our community, and helps promote the local market for solar and other green technologies.

**Green Tags**

See “RECs.”

**Interruptible Discount**

A discount for customers that agree to interrupt their service at the utility's request during certain times when system demand or wholesale energy costs are very high.

**I-937 (Washington's Renewable Portfolio Standard Initiative 937)**

Was approved by State voters in November 2006. Under I-937, utilities such as the Department with more than 25,000 retail customers are required to serve certain percentages of retail load with eligible renewable resources and/or equivalent renewable energy credits ("RECs"). The requirement increases over time: 3% of load by January 1, 2012, 9% by January 1, 2016, and 15% by January 1, 2020. I-937 also requires utilities to pursue all available conservation that is cost-effective, reliable and feasible and imposes deadlines for meeting conservation targets. I-937 has been codified in the RCW as The Energy Independence Act of 2006 (RCW 19.285).

**Inflation**

Measured as a percentage change in Consumer Price Index (CPI) and reflects general increase in prices.

**Investor Owned Utility (IOU)**

A for-profit power company owned by private investors that generate and supply electricity to customers. IOUs are subject to different regulations than municipal (public) utilities.

**Kilovoltampere (kVa)**

1000 voltamperes. The voltamperes of an electric circuit are the mathematical product of the volt and the amperes of the circuit. This is the basic unit of measure of "apparent power" which includes "real power" (the rate of supply of energy, measured in kilowatts) and "reactive power" (a component of power necessary for motors and other magnetic equipment, measured in kilovars).

**Kilovar-hours (kVarh)**

"Kilovar" stands for kilovar-ampere-reactive: the unit of measurement of reactive power (the power supplied to most types of electromagnetic equipment, such as motors). Kvarh is a measure of that reactive power over time (hours).

**Kilowatt (kW)**

1000 watts. Watts and kilowatts are measures of the rate of electric energy use. A one hundred-watt light bulb uses 100 watts of electricity. Ten such bulbs would use one kilowatt. See "Kilowatt-Hour."

**Kilowatt-Hour (kWh)**

A kilowatt-hour is a measure of electric energy equal to one kilowatt of power supplied to or taken from an electric circuit for one hour. A kilowatt-hour could be used to light a 100-watt bulb for 10 hours.

**Lifeline Rate**

An inverted rate schedule for residential customers wherein the first several hundred kilowatt-hours per month are priced at a low, below-cost rate. The amount of electricity priced at this low rate is the amount considered essential for basic use for lights, cooking, and refrigeration (see Inverted Rate). The term “lifeline” comes from telephone companies’ proposals for offering low-cost, limited service to customers who would use the phone only for emergency purposes. The service would thus provide customers with a “lifeline.” For City Light’s lifeline rate, the revenue loss because of charging the low lifeline rate is recovered by raising the end block (or tail block) rate for consumption for all residential customers.

**Load**

The amount of electric power delivered or required at any specified point or points on a system. Load originates primarily at the power-consuming equipment of the customer. Simply put, electricity demand or consumption.

**Load Factor**

The ratio of average demand, in kilowatts, over a stated period of time to the maximum demand in kilowatts occurring in that same time period. Load factor is a measure of the variability of the load over a period of time, usually a day, a week, a month, or a year. A load factor of 1.0 corresponds to a load that is “on” 100% of the time. A load factor of 0.50 means that the load has an average demand equal to 50% of the maximum demand.

**Load Forecasting**

The procedures used to estimate future consumption of electricity. These estimates are used in planning for generation, transmission, and distribution facilities; in calculating future revenue from the sales of electricity; in determining cost allocations for the various rate classes; and in assessing the impact on load of changes in policies or underlying conditions such as the level of employment in the region. Load forecasts are developed either to provide the most likely estimate of future load or to determine what load would be under a set of specific conditions; e.g., extremely cold weather, high rates of inflation, or changes in electricity prices. Forecasting procedures include trending (extrapolating past trends into the future) and econometrics (where statistical relationships are established between electricity use and causal variables such as price, population, income, and employment and then used to forecast load based on projections of these causal variables).

**Load Growth**

The increase in the consumption of electricity from one point in time to another expressed either in absolute or percentage terms. The growth in energy and power demand by a utility’s customers.

**Losses**

The general term applied to energy (kilowatt-hours) and power (kilowatts) lost or unaccounted for in the operation of an electric system. Losses occur primarily as energy transformations from kilowatt-hours to waste heat in electric conductors and apparatus.

**Marginal Cost**

The change in total costs associated with a small change in quantity supplied; e.g., energy.

**Marginal Cost, Long Run**

The change in cost associated with a change in output of one unit where costs are measured over a period of time sufficient to permit all factors of production, including capital, to change so as to produce the new level of output in the least cost manner.

**Marginal Cost, Short Run**

The change in total costs when output is increased or decreased by one unit of output during which system capacity cannot be altered.

**Marginal Value of Energy**

See “Value of Energy.”

**Megavoltampere (MVa)**

1000 kVa. See “Kilovoltampere (kVa).”

**Megawatt**

1,000 kilowatts, or 1,000,000 watts. See “Kilowatt (kW).”

**Metering**

The various devices and associated equipment designed to measure or indicate and record the usage of electricity. The components of electricity commonly measured and recorded, and used in the calculation of bills for services rendered, are kilowatt-hours, kilowatts, and reactive kilovar-hours.

**Mid-C (Mid-Columbia)**

The electricity trading hub in the Pacific Northwest, which is located along the Columbia River. City Light uses electricity prices from Mid-C hub in its power marketing activities and financial planning.

**Mill**

One mill equals one-tenth of a cent. The “mill” is frequently used as a monetary measure when referring to the cost of producing electricity. Ten mills per kilowatt-hour is equal to 10 dollars per megawatt-hour.

**Minimum Charge**

A minimum amount charged to each customer if the sum of other charges is lower than the minimum charge. The minimum charge is meant to cover all or a portion of customer costs. See “Customer Charge.”

**Municipal Utility**

Utility operated and owned by city government. City Light is a municipal utility.

**North American Electric Reliability Corporation (NERC)**

Formed by the electric utility industry in 1968 to promote the reliability of their generation and transmission systems. NERC develops and enforces reliability standards; assesses adequacy annually via a 10-year forecast and winter and summer forecasts; monitors the bulk power system; and educates, trains and certifies industry personnel. NERC is a self-regulatory organization, subject to oversight by the U.S. Federal Energy Regulatory Commission and governmental authorities in Canada.

**Net-metering**

Means measuring the difference between the electricity supplied over the electric distribution system and the electricity generated by an eligible customer generator which is fed back into the electric distribution system over a billing period.

**Network**

A system of interconnected circuit components. In power system usage, a system of transmission (or distribution) lines interconnected and operated so that any principal point has multiple sources of power. Seattle City Light's downtown distribution system is a network system.

**Nonfirm Power**

Power or power-producing capacity supplied or available under an arrangement that does not have the guaranteed continuous availability feature of firm power. Power supplied based on the availability of a generating unit is one type of such power.

**Operating Costs**

Regularly occurring expenses associated with producing and distributing goods and services. The components of City Light's operating costs are customer service expenses, expenses of operating and maintaining facilities, administrative expenses, expenses of purchasing goods (e.g., power, professional services), and taxes. Frequently interest expenses and other similar items are also described as operating expenses.

**Operating Revenues**

The amounts billed by the utility for utility services rendered and for other services incidental thereto.

**Peak Demand**

The maximum demand imposed on a power system or component thereof during a specified time period.

**Peak Load**

The maximum electrical load consumed or produced in a stated period of time. It may be the maximum instantaneous load or the average load within a designated interval of time.

**Power**

The time rate of transferring or transforming energy. Electrically, power is expressed in watts, which is the product of applied voltage and resulting in-phase current. Power is the rate of energy production or transfer. See "Energy."

**Power Factor**

The ratio of real or actual power (kilowatts) to apparent power (kilovolt-amperes) for any given load and time. Power factor is measured in percent and varies from 0 to 100%.

**PURPA (Public Utility Regulatory Policies Act)**

A federal act signed into law November 9, 1978 (Public Law 95-617). PURPA requires consideration and determinations to be made on certain rate-making and policy standards, and on lifeline rates. The purpose of PURPA, as established by Congress, is to:

1. Encourage the conservation of electric energy;
2. Encourage equitable electric rates applied to customer classes; and
3. Encourage the most efficient use of resources and facilities by electric utilities

**PV (Solar Photovoltaic)**

These are arrays of cells containing a material that converts solar radiation into DC electricity.

**Rate Assistance Program**

A program offered to low-income customers of City Light to mitigate the impact of the rising costs of electricity. It consists of:

1. A discounted rate for low-income elderly customers (Schedule REC, RES, or RET) and for other low-income customers (Schedule RLC, RLS, or RLT).
2. A weatherization program (offered to all low-income customers with owner-occupied homes heated electrically)
3. A waiver of trouble call charges and account change fees.

**Rate Base**

The value, specified by a regulatory authority, upon which a utility (usually an IOU) is permitted to earn a specified rate of return. Generally, this represents the amount of property used and useful in public service and may be based on the following values or combinations thereof: fair value, prudent investment, reproduction cost, or original cost; and may provide for cash working capital, materials and supplies, and deductions for accumulated depreciation, contributions in aid of construction, and accumulated deferred income taxes.

**Rate Case**

The process, in which a utility appears before its regulatory authority to determine the rates that can be charged to customers.

**Rate Class**

A group of customers identifies as a class subject to a rate different from rates of other groups.

**Rate Design**

Terminology used to denote those steps or principles used to plan or construct the rate schedules for the rate classes. This step follows the cost allocation step wherein determinations are made as to how much revenue to collect from each rate class. Rate design governs the relative level of the

rate charges such as customer, energy and demand charges, block structure, and the components to be included in the schedules.

### **Rate Schedule**

A statement of the electric rate and the terms and conditions governing its application. The electric rate part of the schedule generally consists of one or more of the following charge components: customer (or basic) charge, energy charge, demand charge, and minimum charge.

### **Rate Structure**

The design and organization of billing charges for a group of customers. The rate structure may incorporate demand, energy, and customer or minimum charges; energy and/or demand blocks; seasonal differentiation; and/or other special features.

### **Reactive power**

The power involved in the alternating exchange of stored inductive and capacitive energies in a circuit. The portion of “Apparent Power” that does not work. It is measured in kilovars. Reactive power must be supplied to most types of magnetic equipment, such as motors.

### **Real power**

This is the part of “Apparent Power” that does useful work. It is the rate of supply of energy measured in kilowatts. The term real power is often used in place of the term power alone to differentiate from reactive power. Also called “Active Power.”

### **Renewables**

These are non-fossil energy resources. Energy Information Administration (EIA) defines them as energy resources that are naturally replenishing but flow-limited. They are virtually inexhaustible in duration but limited in the amount of energy that is available per unit of time. Renewable energy resources include biomass, hydro, geothermal, solar, wind, ocean thermal, wave action, and tidal action. However, there is a restriction on which renewable resources can be used to meet I-937 standards.

### **RECs (Renewable Energy Credits)**

Also called “Green tags” are created when a qualifying renewable energy facility generates electricity, and represent the broad environmental and economic benefits of green power. RECs are sold separately from commodity power and provide customers a means to green their power supply at a low premium rate. RECs allow customers to purchase green power whether or not they have access to renewable electricity generation and without having to switch electricity suppliers.

### **Residential Class**

A customer, sales, and revenue classification used for load forecasting, reporting sales figures to the Federal Energy Regulatory Commission, and for cost allocations. Basically, this class consists of customers individually metered for electricity consumption in a residence.

### **Revenue Requirement**

The revenue level necessary to financially sustain the operations of the utility; as commonly used at City Light, that part of the utility's required revenues that must be collected through retail customer rates. Utilities normally use one of two procedures for determining the revenue requirement: rate base/rate-of-return and cash. Under the rate base/rate-of-return method, revenues are set so that a designated rate of return is earned on the rate base, as measured by the difference between operating revenues and operating expenses divided by the total amount of invested capital. The "cash" basis, used by City Light, calculates the revenue required from customers as:  $1.8 \times \text{debt service} + \text{power costs} + \text{operations and maintenance costs} + \text{other costs} - \text{other revenue}$  (such as revenues from surplus power sales).

### **Revenue Stabilization Account (RSA)**

In March 2010 the Seattle City Council adopted legislation (City Ordinance 123260) to create a \$100 million Rate Stabilization Account (RSA). The account will provide a financial buffer against City Light's exposure to volatile wholesale revenue, helping to stabilize City Light's operating revenues. In fiscal quarters where actual wholesale revenues are less than planned, the shortfall will be made up by transfers from the RSA account into the operating account. In fiscal quarters where actual wholesale revenue is higher than planned, the surplus revenue will be transferred into the RSA. If the RSA balance falls below \$90 million, a retail rate surcharge will be placed on energy sales until the fund returns to \$100 million. If the RSA balance exceeds \$125 million, the additional funds will be removed from the RSA and, subject to City Council approval, used to decrease retail rates, contribute to the capital program, defease existing debt, and/or put towards new or expanded operating programs. The automatic temporary surcharges on electric rates range between 1.5% and 4.5%, depending on the amount the RSA is below the minimum target of \$100 million.

### **Review Panel**

The City Light Review Panel ("the Review Panel") was created in March 2010 to replace the City Light Advisory Committee and the Rates Advisory Committee, which terminated on January 31, 2010. The Review Panel is comprised of nine members drawn from among City Light's customers. The Mayor and City Council appoint members of the Review Panel, and the term of appointment is generally three years. The Review Panel is charged with reviewing, assessing and providing feedback on the Department's strategic plan, financial policies and rates in order to protect the financial integrity of the utility and ensure that customers are charged rates that encourage the efficient use of electricity.

### **Run-of-the River**

A term used in reference to hydro facilities with limited storage capability whose output over short periods of time such as a day or week is governed by the amount of stream flow over the same period of time.

### **Seasonal Rate**

A charge for electricity that is imposed only during one season of the year; e.g., winter rates. A utility may have different rates for different seasons of the year because the cost of delivering electricity is higher during certain seasons.

**Service Area**

The land area that receives its electrical power supply from a utility. The City Light 131-square-mile service area consists of the City plus areas extending three to four miles north and south of the City limits. It has an estimated population of 788,500.

**Service Drop**

The overhead conductors from the utility's pole to the customer's point of attachment.

**Streetlighting Rates**

City Light's schedule of charges for electric service available to all customers, including the City of Seattle, for dusk to dawn lighting of streets, alleys, and other public thoroughfares.

**Surcharge**

The imposition of an extra charge for a specified time period. For example, a 4.5% rate surcharge went into effect on May 1, 2010, to help initially fund the RSA.

**Surplus Energy**

Energy that is not needed to meet a utility or marketing agency's commitments to supply firm or nonfirm power.

**Tiered Rates**

A rate structure consisting of a lower rate level for an established level of service to existing customers and a higher rate for deliveries that serve either additional requirements of such existing customers or the requirements of new customers. Also used synonymously with "block rate." See "Block Rate."

**Transformer**

An electromagnetic device for changing the voltage of AC electricity to the level appropriate for the load served.

**Transmission**

The movement or transfer of electric energy in bulk from a source or sources of supply to other principal parts of the system or to other utility systems.

**Transmission System**

An interconnected group of electric transmission lines and associated equipment for the movement or transfer of electric energy in bulk between points of supply and points at which it is transferred for delivery to ultimate consumers, or is delivered to electric systems of other utilities.

**Undergrounding**

The act or program for placing the overhead transmission or distribution system underground.

**Value of Energy**

A measure of the opportunity cost of electricity; a measure of the value of resources used to produce or save one more kWh. Value is measured by the cost of resources added (or postponed)

to meet increments (or decrements) in load. The value of energy can be used in the benefit/cost assessment of new resources, in cost of service analysis, and as a design guideline in rate setting.

**Water Year**

The water year deals with the surface-water supply for a 12-month period, October 1 through September 30. The water year is designated by the calendar year in which it ends and which includes 9 of the 12 months. Thus, the year ending September 30, 2011, is called the “2011 water year.”

**Watt**

A unit of measurement of the rate of electric energy use. One watt is the rate of energy transfer equivalent to one ampere flowing under a pressure of one volt at unity power factor. See “Kilowatt.”

**Weatherization**

The process or program for increasing the thermal efficiency of a building by such means as caulking of windows, weather stripping, and adding insulation to the wall, ceilings, and floors.

**Wheeling**

The use of transmission facilities belonging to one system to transmit power of and for another system.