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AN SJI COMPANY

## Energy Glossary



## A

**Aggregation:** The process of organizing small groups, businesses or residential customers coming together into a larger, more effective bargaining unit that strengthens their purchasing power with utilities.

**Ancillary Services:** Ancillary costs are associated with grid reliability. Some of the sub-components include balancing energy, reserve service, and non-spinning reserve service.

## B

**Backwardation:** A condition where prompt prices for a commodity are higher than the price for future delivery. This signals that the market is currently experiencing tight conditions and scrambling for prompt supplies. In other words, prices are high now but people believe prices will go down so they carry a low inventory. Contango is the situation with opposite circumstances from backwardation.

**Bandwidth:** Bandwidth is the agreed percentage that a customer's usage can vary from the forecasted usage. The forecast is typically based on the customer's most recent twelve months of historical usage.

**Basepoint:** The desired megawatt output sent to a resource.

**Behind-the-Meter Generation:** Generation that is physically located behind the retail meter and does not participate in the wholesale market as a generation resource.

## C

**Carbon Intensity:** Refers to the amount of greenhouse gas emissions that are produced per unit of energy consumed or produced.

**Capacity:** Capacity charges are charged by the system operator on suppliers, and ultimately passed through to customers. Grid operators issue capacity charges to guarantee that sufficient generation is available to meet forecasted power demand. Capacity prices are calculated differently in different regions and can represent a significant portion of a customer's overall energy spend.



**Clean Energy Standards (CES):** The cost incurred by suppliers for securing a portion of their electricity from Class I equivalent renewable energy resources.

**Cogeneration:** The production of heat energy and electrical or mechanical power from the same fuel in the same facility. A typical cogeneration facility produces electricity and steam for industrial process use.

**Contingency:** An event, usually involving the loss of one or more elements that affects the power system at least momentarily.

## D

**Demand Response:** An opportunity for consumers to play a significant role in the operation of the electric grid. This is done by voluntarily reducing or shifting their electricity usage during peak periods in response to time-based rates or other forms of financial incentives. Demand Response programs are being used by some electric service providers as resource options for balancing supply and demand. These programs can lower the cost of electricity in wholesale markets and, in turn, lead to lower retail rates.

**Distributed Generation:** Energy generation and storage performed by a variety of smaller systems that are located near where they are needed, as opposed to centralized sources (e.g. coal, natural gas, nuclear, large hydropower), which transmit large amounts of power over long distances.

**Dual Billing:** A billing option that allows a customer to receive separate invoices from their supplier (for their energy) and from the utility (for the distribution of that energy).

## E

**Early Termination Fee:** Early termination fees specify the potential charges that a customer will incur for terminating a contract prior to the expiration date.

## F

**Federal Energy Regulatory Commission:** The Federal Energy Regulatory Commission (FERC) is an independent regulatory agency within the U.S. Department of Energy. The FERC regulates the transmission and wholesale sales of electricity in interstate commerce.

**Fixed Price, All-in:** Includes all the pricing components into one price per kWh and locks in energy costs 100% through the term, limiting exposure to price fluctuations.

## G

**Generation Charges:** Part of the basic service charges on every customer's bill for producing electricity. Generation service is competitively priced and is not regulated by Public Utility Commissions. This charge depends on the terms of service between the customer and the supplier.

## H

**Holdover Rate:** Holdover rates are applied to customer accounts if the supplier of record continues to serve the accounts beyond the contract expiration date. If the customer does not renew the contract with the incumbent or another supplier, or defaults back to the utility the supplier of record continues to serve the accounts on the hold over rate. In most cases the holdover rate is market based with an adder to ensure the supplier serving the accounts recoup their costs for all components, included, but not limited to energy, capacity, ancillaries, supplier fees, and supplier margins.

## L

**Load Factor:** Load factor is an indication of how efficiently a facility uses power. The load factor is equal to the total electricity used in a billing period (kWh) divided by the peak demand (kW) divided by the number of hours in the billing period. Load factors below 0.5 have periodic spikes in demand and may benefit from demand management initiatives including peak shaving, shifting operations, or battery storage.

**Letter of Authorization (LOA):** Specific form required to retrieve a customer's historical monthly and interval consumption data.

**Letter of Exclusivity (LOE):** A form signed by the customer, specifying that they are working exclusively with that broker at a given time.

**Losses:** The cost of energy that dissipates between the generation source and customer's facility.

## M

**Margin and Fees:** A customer's contract has embedded margins and fees. These charges support retail suppliers and other third parties, both in physically delivering energy and additional services.

**Material Change:** Material change is typically considered a 25% shift in consumption (either up or down) over a period of three months. These changes most often occur when a customer changes production schedules, requires extended maintenance on heavy machinery, or adds or subtracts meter from an existing account. Customers that invest in behind-the-meter distributed energy resources must also consider the impact of those resources on their consumption patterns.

## N

**Network Integrated Transmission Service (NITS):** NITS charges are costs that are incurred when customers gain access the Open Access Transmission Tariff (OATT) that allows the delivery of energy from multiple resources under a single transmission contract. NITS' charges are calculated using a customer's NITS tag, annual usage, and zonal NITS rate, which are adjusted in January, June, and July annually.

## O

**Off Peak Hours:** Off-peak hours are a period of time when consumers typically use less electricity: normally weekends, holidays or times of the day when many businesses are not operating.

**On-Peak Hours:** On-peak hours are a period of time when consumers typically use more electricity -- normally on weekdays, when many businesses are operating.

## P

**Pass-through:** Pass-through is a mechanism that allows customers to unbundle specific energy components with no markup. Various non-energy components can be passed-through for greater customer control and transparency, including capacity costs, RPS costs, and transmission costs.



**Peak Demand:** An end-use customer's contribution to the zone's weather normalized summer peak load, as determined by the zone's Electric Distribution Company.

**Peak Load Contribution (PLC) Tag:** PLC tags are determined by a customer's demand during the hour(s) that the grid was most stressed during the previous year. The PLC calculation can vary greatly between grid operators.

**Price Adjusted:** Price-adjusted clauses are mechanism that allow suppliers to adjust specific non-energy components of price agreement (e.g. zonal NITS rates) in response to regulatory rates changes.

## R

**Regulatory Change:** This language is included in all supply agreements and reserves the right of a supplier to pass on cost increases resulting from regulatory change, new laws, or changes to existing laws. The regulatory changes that most frequently affect supply agreements include changes to RPS rates, system capacity rates, and transmission rates.

**Renewable Energy:** Energy that comes from sources that are sustainable or don't run out; Such as solar and wind.

**Renewable Energy Credit (REC):** A REC is a certificate received for power produced from a renewable resource. One REC represents a single mega-watt hour (MWh) of renewable generation.

**Renewable Natural Gas (RNG):** Natural gas that is derived from decomposing organic matter and is fully interchangeable with conventional natural gas.

**Renewable Portfolio Standards (RPS):** RPS costs incur when a state requires energy providers to secure a portion of their energy from renewable resources. When state legislatures change price subsidies or the percentage requirements associated with renewable generation, retail suppliers generally pass those rate changes through to customers by invoking "change in law" clauses in a retail contract.

**Reserve Margin:** Reserve margin is a measure of available capacity over and above the capacity needed to meet normal peak demand levels.

## S

**Service Territory:** The geographic area in which a utility operates and provides energy to customers.

**Solar Renewable Energy Credit (SREC):** An SREC is a certificate received for power produced from a solar generating resource. One SREC represents a single MWh of solar generation.

## T

**Tariffs:** Tariffs are the approved rate schedules, charges, and terms and conditions under which a utility provides service to its customers.

**Transmission Enhancement Charge (TEC):** The cost for maintenance and improvement of the transmission and distribution systems

**Transmission Service Charges (TSC):** TSC charges reflect the cost of embedded transmission systems in New York State.

## U

**Utility Consolidated Billing (UCB):** UCB is a billing option allowing customers to receive a single invoice from the supplier or the utility for energy and the distribution cost of that energy. Consolidated billing arrangements may come with an additional cost and may not be available behind all utilities.

## Z

**Zero Cost Emission (ZEC):** The cost associated with subsidizing nuclear generation.



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