Platts
S&P Global
Commodity Insights

Methodology and Specifications Guide

US Electricity

Latest update: February 2025

Introduction

S&P Global Commodity Insights' Platts methodologies are designed to produce price assessments that are representative of market value, and of the particular markets to which they relate. Methodology documents describe the specifications for various products reflected by Platts assessments and indices, the processes and standards Platts adheres to in collecting data, and the methods by which Platts arrives at final assessment values for publication. These guides are freely available on Platts website for public review.

Platts discloses publicly the days of publication for its price assessments and indices, and the times during each trading day in which Platts considers transactions in determining its assessments and index levels. This schedule of publication is available on Platts website, at the following link: Pricing Holiday Schedule | S&P Global Commodity Insights (spglobal.com) .

The dates of publication and the assessment periods are subject to change in the event of outside circumstances that affect Platts ability to adhere to its normal publication schedule. Such circumstances include network outages, power failures, acts of terrorism and other situations that result in an interruption in Platts operations at one or more of its worldwide offices. In the event that any such circumstance occurs, Platts will endeavor, whenever feasible, to communicate publicly any changes to its publication schedule and assessment periods, with as much advance notice as possible.

Platts methodologies have evolved to reflect changing market conditions through time, and will continue to evolve as markets change. A revision history, a cumulative summary of changes to this and previous updates, is included at the end of methodology and specification documents. Methodology is reviewed regularly to ensure it reflects current market reality.

Such reviews are carried out by Platts editors and their managers, supplemented and supported by price methodology specialists who operate separately from the reporting teams. Platts follows a clearly defined process for public consultation on material changes to its methodologies. This process is based on full transparency and communication with industry stakeholders aimed at gaining market acceptance for any proposed introduction or changes to methodology. For more information on the review and approval procedures, please visit Methodology Review & Change | S&P Global Commodity Insights (spglobal.com)

All Platts methodologies reflect Platts commitment to maintaining best practices in price reporting.

S&P Global's commitment to diversity and inclusion helps us deliver the essential intelligence that markets count on around the world. S&P Global embraces and supports the qualities that make our employees unique, including race, color, religion, sex, gender identity or expression, age, sexual orientation, national or ethnic origin, citizenship status, veteran status and disability. Our commitment to Diversity & Inclusion is available in full online at: https://www.spglobal.com/en/who-we-are/diversity-equity-inclusion/.

How this methodology statement is organized

- This description of methodology for assessments and indices is divided into seven major parts (I-VII) that parallel the entire process of producing the end-of-day assessments and indices.
- Part I describes what goes into Platts assessments and indices, including details on what data market participants are expected to submit, the process for submitting data and criteria for timeliness of market data submissions.
- Part II describes any security and confidentiality practices that Platts uses in handling and treating data, including the separation between Platts price reporting and its news reporting.
- Part III is a detailed account of how Platts collects bids, offers, trades and other market data, and what Platts does with the data to formulate its assessments and indices. It includes descriptions of the methods that Platts uses for reviewing data, and the methods used to convert raw data into assessments and indices, including the procedures used to identify anomalous data. This section describes how and when judgment is applied in this process, the basis upon which transaction data may be excluded from a price assessment, and the relative importance assigned to each criterion used in forming the price assessment. This section describes the criteria for determining which values are indices, and which are assessments, based on reported transactions and other market information. Finally, this section describes how Platts addresses assessment periods where one or more reporting entities submit market data that constitute a significant proportion of the total data upon which the assessment is based.
- Part IV explains the process for verifying that published prices comply with Platts standards.
- Part V lays out the verification and correction process for revising published prices and the criteria Platts uses to determine when it publishes a correction.
- Part VI explains how users of Platts assessments and indices can contact Platts for clarification of data that has been published, or to register a complaint. It also describes how to find out more about Platts complaint policies.
- Part VII is a list of detailed specifications for the trading locations and products for which Platts publishes assessments and indices in this commodity. This section describes what specific units of measurement are used, and what conversion factors are used to move between units of measurement, where relevant.

Part I: Data quality and data submission

Platts objective is to ensure that the submission of transactional information and other data inputs that editors use as the basis for their price assessments is of the highest quality. Ensuring that data used in Platts assessments is of high quality is crucial to maintaining the integrity of Platts various price assessment processes.

Platts encourages entities that submit any market data for consideration in its assessment processes to submit all transaction data that they have which may be relevant to the assessment being made. Under price reporting guidelines issued by the US Federal Energy Regulatory Commission (FERC) in 2003, which apply to US electricity markets, companies should report each bilateral, arm's-length transaction between non-affiliated companies in the physical markets at all trading locations. Platts expects reported data to include all transactions done by the entity at all locations reported by Platts, not a selective subset of those locations.

To that end, Platts requires formalized reporting relationships with market participants in which data is submitted from a central point in the mid- or back-office. If the reporting entity chooses, Platts will sign a standard confidentiality agreement protecting the submitted data. A copy of the standard agreement is available upon request. The data provider must certify that it is making a good-faith effort to report completely and accurately and will have staff assigned to respond to questions concerning data submittals. In addition, reporting entities, in cases of error or omission, have an obligation to make reasonable efforts to inform Platts and, as necessary, modify their internal processes to eliminate or minimize the likelihood of future errors or omissions in their data submissions.

Data submitted to Platts must be detailed, transaction-level data. Below is a summary of what should be reported.

What to report

- For day-ahead indices, report each business day all fixed-price physical and financial deals for next-day and weekend delivery in North America. Trading schedules may vary in the case of holidays.

- Report the price at which the two parties agreed to transact. Do not add estimated transmission cost to make the transaction fit one of Platts delivery location definitions.

- Label deals for delivery at locations not defined or reported by Platts using the name of the control area, tie point or hub or zone. Although Platts may not currently assess all locations reported, if sufficient trading develops at a location and is sustained, Platts would be able to add that pricing point to its daily indices. (Definitions for the locations for which indices and assessments are currently published are in Part VII of this methodology guide.) In addition, information on deals at those points adds to Platts understanding of the market and aids Platts in assessing thinly traded points in that geographic area.

- **List all transactions individually and with the following required information:** location, trade date, start flow date, end flow date, shape (peak or off-peak), deal type (physical or financial), firm or non-firm, price ($/MWh), volume (MW and/or MWh), and side of transaction (buy or sell). Platts also encourages trade time, counterparty name, and intermediary name (broker or trading platform).

- Platts firmly believes that counterparty information is the best single way to verify transactions and encourages all market participants to report counterparty information.

- **Deals should be reported only for transactions done that day. The cutoff for all transactions is 1:**30 p.m. Central Prevailing Time (CPT). The cutoff time applies to the time a trade was transacted, not the time the trade is entered into the company's system. Do not include ?@early?A daily deals done after the cutoff on the previous day. Platts considers these transactions to be non-standard deals done before the opening of the market.

- Platts does include deals done after options expiration in its daily assessments and indices, if those deals are priced within the range of the bulk of the day's trading.

How to report

- Reports of each day's deals should be compiled and sent to Platts by a non-commercial department of the company. Generally, the reporting function is the responsibility of the mid or back office. Even in the case of small entities, the FERC policy statement requires that prices should be provided by individuals separate from trading activities, such as accounting or bookkeeping staff.

- Platts should be provided with at least two contacts (with phone numbers and e-mail addresses for both) who are responsible for submissions and can answer questions about transactions reported to Platts.

- Reports should be sent electronically in either Excel or CSV (comma separated values) format. Platts can provide reporting entities with a sample Excel sheet showing the preferred format and the information needed for each transaction.

Reports should be sent to electricityprice@spglobal.com each day by 3:30 p.m. CPT.

- If a reporting entity is unable to compile the needed information by the deadline set by Platts on a given day, it should notify Platts editors of the delay and the length of the delay by either e-mail or phone. This delay will help Platts editors decide whether to wait for the submission.

Part II: Security and confidentiality

In the North American electricity market, where market participants are expected to submit all fixed-price physical and financial transactions for next-day delivery, Platts will sign confidentiality agreements providing for non-disclosure of submitted data except in circumstances where it is legally required to disclose the data.

- Price data is e-mailed to specific Platts e-mail addresses and enters a secure network protected by firewalls and is accessible only by market editors. Encryption is available upon request of the reporting company.
- The data is then entered into a proprietary software system designed specifically to store and analyze trade data.
- Data is stored in a secure network, in accordance with Platts' policies and procedures.
- Price data is used only for constructing assessments and indices. Platts has a strict internal policy, reflected in its confidentiality agreements, of never using individual price data for news reporting purposes. Nor do Platts news editors have access to individual entities' transaction reports. Data aggregated from all reporting sources – e.g., changes in prices and trading volumes over time – may be used as the basis for news stories.

Part III: Calculating indices and making assessments

The following section describes how Platts uses reported transactions and any other market information it has collected, in the manner described in Part I, to formulate its price and volumetric indices or assessments.

Assessment and index guidelines

As a publisher, S&P Global Platts places independence and impartiality at the heart of its price assessments. Platts has no financial interest in the price of the products or commodities on which it reports. Platts' overall objective is to reflect the transactable value of the commodity assessed.

Platts editors produce price indices for daily (next day) and hourly, markets, a percentage of renewable penetration indices, a volumetric renewable curtailment indices and renewable capture prices.

Price indices for trading hubs are published where there is sufficient liquidity. Editors use volume-weighted averages to calculate an index value. Platts publishes the index price, the change from the previous day, low, high, volume, deal count, and the month to date index price. Index prices, lows, and highs are expressed in $/MWh. The daily change is expressed in US dollars. The volume is expressed in megawatts per hour (MWh). For instance, if a trade is reported in MW such as 50-MW on-peak deals the volume would be expressed the equivalent value of 800 MWh (50-MW deals multiplied by 16 hours).

To identify potential anomalous data, which may be excluded from formulating an index, Platts analyzes reported transactions using, but not limited to, standard deviation, volume, and gaps in trade data. Platts editors will contact the reporting party for more specifics on the potential anomalous transaction. Gaps in reported trade prices are not in themselves anomalous. The trades warrant closer analysis and might not be reflected in our final published assessments and/or indices, depending on the outcome of that further analysis. Examples of potentially anomalous data could include trades that differ in price from the bulk of reported transactions, transactional data containing nonstandard contractual terms, information that is incomplete (lacking full confirmation, or important details), and/or information that otherwise deviates from our methodology.

Daily and Hourly Gaps and Low Liquidity

Gaps in reported trade prices are not in themselves anomalous. The trades warrant closer analysis and might not be reflected in our final published assessments and/or indices, depending on the outcome of that further analysis. Examples of potentially anomalous data could include trades that differ in price from the bulk of reported transactions, transactional data containing nonstandard contractual terms, information that is incomplete (lacking full confirmation, or important details), and/or information that otherwise deviates from our methodology.

For trading locations with low liquidity, Platts will examine reported, transactional-level information to gauge whether it is representative of the trading activity and decide whether to publish a volume-weighted index. If Platts deems reported trades are not representative of trading activity, Platts will assess a price and not publish any volume. Platts assesses such illiquid points using, but not limited to, reported transactions, locational spreads and other market data, such as bids and offers, regional demand, and relevant grid operator information. Platts clearly indicates when it assesses a price rather than calculating a volume-weighted average index by not publishing a volume or deal count for the day. Power assessed by Platts is firm with liquidated damages, or firm LD. Platts does not assess non-firm power except the hourly indices.

Renewable Curtailment Indices (RCI)

The Renewable Curtailment Indices reflect volumes of Independent System Operator (ISO) wind and solar curtailments due to price or lack of transmission. The indices are based on ISO system and local generation volumes and ISO daily generation data. Data is in megawatts per hour for solar and wind generation. Platts calculates and publishes hourly, on-peak and off-peak curtailment indices.

Renewable Penetration Indices (RPI)

The Renewable Penetration Indices represent the percentage of solar and wind generation as compared to total generation on an hourly basis, as well as averaged on-peak and off-peak indices. The RPI indices are applied to the following regions: California Independent System Operator (CAISO), Southwest Power Pool (SPP), Electric Reliability Council of Texas (ERCOT), Midcontinent Independent System Operator (MISO), PJM Interconnection (PJM), New York Independent System Operator (NYISO), and ISO New England.

Renewable Capture Price Indices

The Renewable Capture Price Indices reflect the value that renewable energy generators receive for wind and solar generated electricity, based on hourly wind and solar generation and ISO's pricing data. Separate daily indices for wind and solar are calculated in the following markets: California Independent System Operator (CAISO), Electric Reliability Council of Texas (ERCOT), ISO New England (ISONE), Midcontinent Independent System Operator (MISO), New York Independent System Operator (NYISO), PJM Interconnection (PJM) and Southwest Power Pool (SPP).

Battery Energy Storage Systems (BESS) Indices

The battery revenue indices provide transparency about the value of average battery output revenues in their respective regions, tracking revenues and costs in system operators throughout the day for hours 1-24 using battery storage charge and discharge output and hourly ISO prices. Platts will calculate final net revenues for the day and publish a spread between positive values versus negative values.

Positive values represent profits gained from discharging batteries into the grid, and negative values represent losses or costs associated with charging energy from the grid. Final net revenues represent the difference between profits and costs.

These battery revenue indices are calculated for the following markets: the California Independent System Operator (CAISO) and Electric Reliability Council of Texas (ERCOT).

Brazil Power Forward Curve Assessment

For the Brazil Power price assessment, Platts considers market information including firm bids, offers, trades and indicative values gathered during the normal trading day and publishes such information throughout the day. Platts analyzes all published information in determining its final published price assessments.

Part IV: Platts editorial standards

All Platts employees must adhere to the S&P Global Code of Business Ethics (COBE), which has to be signed annually. The COBE reflects S&P Global's commitment to integrity, honesty and acting in good faith in all its dealings. In addition, Platts requires that all employees attest annually that they do not have any personal relationships or personal financial interests that may influence or be perceived to influence or interfere with their ability to perform their jobs in an objective, impartial and effective manner.

Platts employees whose role involves index creation and publication are required to ensure adherence to published methodologies as well as internal standards that require accurate records are kept in order to document their work.

Platts has a Compliance function that is independent of the editorial group. Compliance is responsible for ensuring the quality and adherence to Platts policies, standards, processes and procedures. The Compliance team conducts regular assessments of editorial operations, including checks for adherence to published methodologies.

S&P Global's internal auditor, an independent group that reports directly to the parent company's board of directors, reviews the Platts risk assessment programs.

Part V: Corrections

Platts is committed to promptly correcting any material errors. When corrections are made, they are limited to corrections to data that was available when the assessment or index was calculated.

Errors that data providers should report to Platts are limited to inaccuracies in the attributes (price, volume, location, etc.) at the time the transaction was done and reported to Platts, and do not include operationally driven, after-the-fact changes in the nature of the transaction.

If Platts is notified of an error in a submission after a price is calculated and published, it will assess the impact of the error. Platts publishes subscriber notes with price correction details on the day they are made.

Part VI: Requests for clarifications of data and complaints

Platts strives to provide critical information of the highest standards, to facilitate greater transparency and efficiency in physical commodity markets.

Platts customers raise questions about its methodologies and the approach taken in price assessments, proposed methodology changes and other editorial decisions in relation to Platts price assessments. Platts strongly values these interactions and encourages dialogue concerning any questions a customer or market stakeholder may have.

However, Platts recognizes that occasionally customers may not be satisfied with responses received or the services provided by Platts and wish to escalate matters. Full information about how to contact Platts to request clarification around an assessment, or make a complaint, is available on the Platts website, at: Complaints | S&P Global Commodity Insights (spglobal.com)

Part VII: Definitions of the trading locations for which Platts publishes Daily AND hourly indices and assessments

The day ahead symbols are listed by trade date and flow date for peak and off-peak periods. Platts publishes a high, low, index, volume, and deal count, when available. For the hourly indices, symbols are also listed for the high, low, index, volume, and deal count, when available. Editors use volume-weighted averages to calculate an index value. Platts publishes the index price, the change from the previous day, low, high, volume, deal count, when available and the month to date index price. The daily change is expressed in US dollars. The volume is expressed in megawatts per hour (MWh). For instance, if a trade is reported in MW such as 50-MW on-peak deals, the volume would be expressed as the equivalent value of 800 MWh (50-MW deals multiplied by 16 hours).

This methodology is current at the time of publication. Platts may issue further updates and enhancements to this methodology and will announce these to subscribers through its usual publications of record. A revision history, a cumulative summary of changes is included at the end of this section.

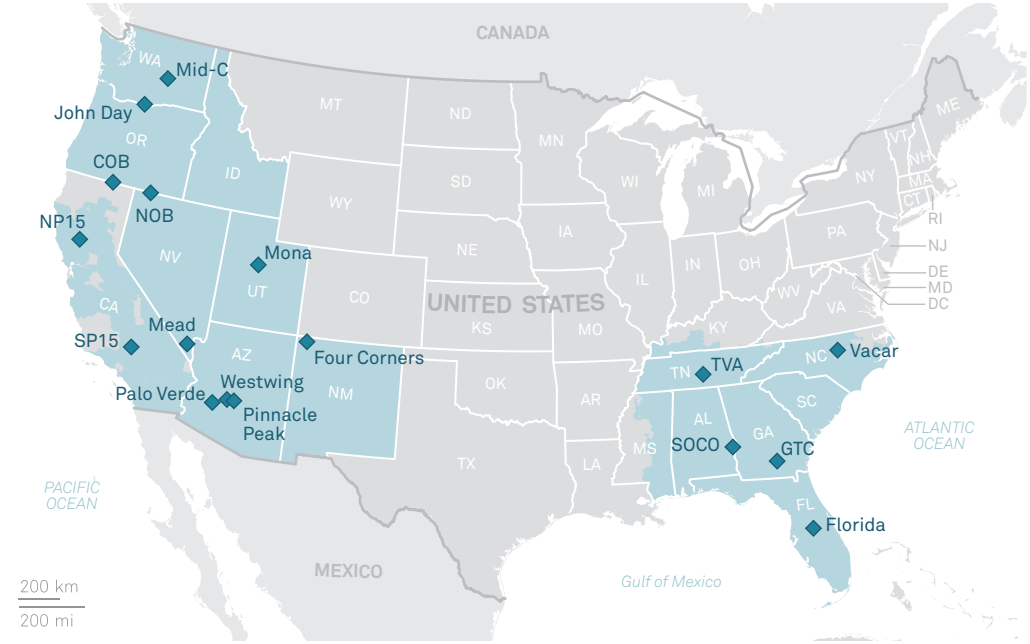
Platts methodology process, timeline and locations are illustrated below:

Electricity daily indices methodology

Time zone: Central Time

8:00am to 1:30pm	1:30pm to 3:30pm	3:30pm to 4:30pm	4:30pm to 5:00pm
• Platts observes markets and reviews fundamental data	• Back office of price submitters email trades to Platts • Platts uploads and validates trades and maps transactions	• Price submitters respond to Platts trade questions regarding potential anomalous data and commences assessment calculation • Platts reviews trades for anomalous data and confirms trades with price submitters if necessary. Judgment is used to exclude anomalous trades and assessments are made in the absence of trades or if volume weighted average is not indicative of trading activity	• Indices are reviewed by manager and published

Platts US assessment locations



Source: S&P Global Commodity Insights

Eastern Markets

Assessment	Trade On-peak Daily l,h,u,w	Trade On-peak Wknd l,h,u,w	Trade Off-peak Daily l,h,u,w	Trade Off-peak Wknd l,h,u,w	Flow On-peak Daily l,h,u,w	Flow On-peak Wknd l,h,u,w	Flow On-peak Wkly Avg l,h,u,w	Flow Off-peak Daily l,h,u,w	Flow Off-peak Wknd l,h,u,w	Flow Off-peak Wkly Avg l,h,u,w
Florida	AAMAV00	AAMAV28	AAMAO00	AAMAO28	AAMAV20	AAMAV21	AAMAZ00	AAMAO20	AAMAO21	AAMAS00
GTC, into	WAMCJ00	WAMCJ28	WAMCC00	WAMCC28	WAMCJ20	WAMCJ21	AAMUN00	WAMCC20	WAMCC21	AAMDA00
Southern, into	AAMBJ00	AAMBJ28	AAMBC00	AAMBC28	AAMBJ20	AAMBJ21	AAMBN00	AAMBC20	AAMBC21	AAMBG00
TVA, into	WEBAB00	WEBAB28	AAJER00	AAJER28	WEBAB20	WEBAB21	WEBAK04	AAJER20	AAJER21	AAJEU00
VACAR	AAMCI00	AAMCI28	AAMCB00	AAMCB28	AAMCI20	AAMCI21	AAMCM00	AAMCB20	AAMCB21	AAMCF00
Number Of Contracts										
Florida	BAMAV00	BAMAV28	BAMAO00	BAMAO28	BAMAV20	BAMAV21	BAMAZ00	BAMAZ00	BAMAO21	BAMAS00
GTC, into	BAMCJ00	BAMCJ28	BAMCC00	BAMCC28	BAMCJ20	BAMCJ21	BAMUN00	BAMUN00	BAMCC21	BAMDA00
Southern, into	BAMBJ00	BAMBJ28	BAMBC00	BAMBC28	BAMBJ20	BAMBJ21	BAMBN00	BAMBN00	BAMBC21	BAMBG00
TVA, into	BEBAB00	BEBAB28	BAJER00	BAJER28	BEBAB20	BEBAB21	BEBAK04	BAMCF00	BAJER21	BAJEU00
VACAR	BAMCI00	BAMCI28	BAMCB00	BAMCB28	BAMCI20	BAMCI21	BAMCM00	BAMCM00	BAMCB21	BAMCF00

Western Markets

Assessment	Trade On-peak Daily l,h,u,w	Trade On-peak Wknd l,h,u,w	Trade Off-peak Daily l,h,u,w	Trade Off-peak Wknd l,h,u,w	Flow On-peak Daily l,h,u,w	Flow On-peak Wknd l,h,u,w	Flow On-peak Wkly Avg l,h,u,w	Flow Off-peak Daily l,h,u,w	Flow Off-peak Wknd l,h,u,w	Flow Off-peak Wkly Avg l,h,u,w
COB	WEABE00	WEABE28	WEACJ05	WEACJ28	WEABE20	WEABE21	WEAAB00	WEACJ20	WEACJ21	WEAAQ00
Four Corners	WEABI00	WEABI28	WEACR05	WEACR28	WEABI20	WEABI21	WEAAJ00	WEACR20	WEACR21	WEAAU00
John Day	WEAHF00	WEAHF28	WEAHL05	WEAHL28	WEAHF20	WEAHF21	WEAHA00	WEAHL20	WEAHL21	WEAHR00
Mead	AAMBW00	AAMBW28	AAMBQ00	AAMBQ28	AAMBW20	AAMBW21	AAMBZ00	AAMBQ20	AAMBQ21	AAMBT00
Mid-Columbia	WEABF00	WEABF28	WEACL05	WEACL28	WEABF20	WEABF21	WEAAA00	WEACL20	WEACL21	WEAAR00
Mona	AARLQ00	AARLQ28	AARLO00	AARLO28	AARLQ20	AARLQ21	AARLR00	AARLO20	AARLO21	AARLP00
NOB	WEAIF00	WEAIF28	WEAIL05	WEAIL28	WEAIF20	WEAIF21	WEAIA00	WEAIL20	WEAIL21	WEAIR00
Palo Verde	WEACC00	WEACC28	WEACT05	WEACT28	WEACC20	WEACC21	WEAAC00	WEACT20	WEACT21	WEAAV00
Pinnacle Peak	WEAKF00	WEAKF28	WEAKL05	WEAKL28	WEAKF20	WEAKF21	WEAKA00	WEAKL20	WEAKL21	WEAKR00
Westwing	WEAJF00	WEAJF28	WEAJL05	WEAJL28	WEAJF20	WEAJF21	WEAJA00	WEAJL20	WEAJL21	WEAJR00
Number Of Contracts										
COB	BEABE00	BEABE28	BEACJ05	BEACJ28	BEABE20	BEABE21	BEAAB00	BEACJ20	BEACJ21	BEAAQ00
Four Corners	BEABI00	BEABI28	BEACR05	BEACR28	BEABI20	BEABI21	BEAAJ00	BEACR20	BEACR21	BEAAU00
John Day	BEAHF00	BEAHF28	BEAHL05	BEAHL28	BEAHF20	BEAHF21	BEAHA00	BEAHL20	BEAHL21	BEAHA00
Mead	BAMBW00	BAMBW28	BAMBQ00	BAMBQ28	BAMBW20	BAMBW21	BAMBZ00	BAMBQ20	BAMBQ21	BAMBT00
Mid-Columbia	BEABF00	BEABF28	BEACL05	BEACL28	BEABF20	BEABF21	BEAAA00	BEACL20	BEACL21	BEAAR00
Mona	BARLQ00	BARLQ28	BARLO00	BARLO28	BARLQ20	BARLQ21	BARLR00	BARLO20	BARLO21	BARLR00
NOB	BEAIF00	BEAIF28	BEAIL05	BEAIL28	BEAIF20	BEAIF21	BEAIA00	BEAIL20	BEAIL21	BEAIR00
Palo Verde	BEACC00	BEACC28	BEACT05	BEACT28	BEACC20	BEACC21	BEAAC00	BEACT20	BEACT21	BEAAV00
Pinnacle Peak	BEAKF00	BEAKF28	BEAKL05	BEAKL28	BEAKF20	BEAKF21	BEAKA00	BEAKL20	BEAKL21	BEAKR00
Westwing	BEAJF00	BEAJF28	BEAJL05	BEAJL28	WEAJF20	BEAJF21	BEAJA00	BEAJL20	BEAJL21	BEAJR00

Daily power indices

Southeast & central markets

Florida (Florida instate)

The Florida instate pricing area comprises control areas within the State of Florida or the Florida Reliability Coordination Council (FRPCC), excluding Gulf Power, which is part of the Southern Company control area. Florida control areas include Progress Energy Florida, Florida Power & Light Company, Tampa Electric Company, Florida Municipal Power Agency, Gainesville Regional Utilities, JEA, City of Lakeland, Orlando Utilities Commission, City of Tallahassee and Seminole Electric Cooperative.

Into GTC (Georgia Transmission Corporation)

GTC comprises power delivered into the GTC transmission system, which includes 38 electric membership corporations that serves nearly all of Georgia.

Into SoCo (Southern)

Into Southern comprises power delivered to an interface with or a delivery point within the Southern Company control area, which spans a swath of the Southeastern Electric Reliability Council (SERC) region from Georgia to Mississippi including a portion of the Florida panhandle.

Into TVA (Tennessee Valley Authority)

Into TVA comprises power delivered to an interface with or a delivery point within the control area of the Tennessee Valley Authority, which includes Tennessee and the northern portion of Alabama. (Control area for purposes of this location description is defined to exclude any other entity's system for which TVA acts as the balancing authority.)

VACAR

VACAR comprises the control areas in the Virginia and Carolinas subregion of the (SERC), including Progress Energy's Carolina Power and Light east and west, Duke, South Carolina Electric and Gas, Santee Cooper, Southeastern Power Administration and APGI Yadkin Division.

Western

California-Oregon Border (COB)

COB comprises the Captain Jack and Malin substations on the AC transmission system between Oregon and California.

Four Corners

Four Corners comprises the switchyard of the coal-fired Four Corners power plant in Fruitland, New Mexico, located in the northwestern corner of the state where Arizona, Colorado, New Mexico and Utah meet.

John Day

John Day comprises the John Day Dam on the Columbia River along with John Day substations in Oregon.

Mead

Mead comprises the switchyard at the Hoover Dam on the Colorado River, forming Lake Mead near Las Vegas, Nevada.

Mid-Columbia (Mid-C) (daily and hourly)

Mid-C is a power trading hub for the Northwest U.S. comprising the control areas of three public utility districts in Washington that run hydro-electric projects on the Columbia River. The three PUDs are Grant, Douglas and Chelan. Hydro projects include Wells, Rocky Reach, Rock Island, Wanapum and Priest Rapids dams.

Mona

Mona comprises the Mona substation in central Utah, directly south of Salt Lake City and linked to major generating units in the region, such as the Intermountain Power Project.

Nevada-Oregon Border (NOB)

NOB is part of the Pacific DC Intertie that connects the Pacific Northwest directly with Southern California. The DC Intertie connects the Celio DC Converter station near The Dalles, Oregon with the Sylmar substation north of Los Angeles, California.

Palo Verde (PV or Palo)

Palo Verde comprises the switchyard at the Palo Verde nuclear power station west of Phoenix, Arizona.

Pinnacle Peak

Pinnacle Peak comprises three substations northeast of Phoenix, Arizona and west of Scottsdale Arizona. The three substations are operated individually by Arizona Public Service, US Bureau of Reclamation Lower Colorado Region and Salt River Project.

Westwing

Westwing comprises a substation northwest of Phoenix, Arizona operated by Arizona Public Service.

Platts Day-ahead LMP Marginal Heat Rates and Spark Spreads

Power/Gas Hub Pairs			On-Peak			Off-Peak		
Power Hub	Gas Hub 1	Gas Hub 2	Mrg Heat Rate Symbol	7K Spark Symbol	12K Spark Symbol	Mrg Heat Rate Symbol	7K Spark Symbol	12K Spark Symbol
CAISO NP15	PG&E CG		ICNGR00	SCBLP07	SCBLP12	ICNGT00	SCBLO07	SCBLO12
CAISO SP15	SoCal Gas	PG&E South	ICSGR00	SCCLP07	SCCLP12	ICSGT00	SCDLO07	SCDLO12
CAISO ZP26	SoCal Gas	PG&E South	ICZGR00	SCELP07	SCELP12	ICZGT00	SCFLO07	SCFLO12
ERCOT AEN	Waha	Transwestn Perm	IERAR00	SCGLP07	SCGLP12	IERAT00	SCHLO07	SCHLO12
ERCOT Bus Average	Waha	Transwestn Perm	IERBR00	SCILP07	SCILP12	IERBT00	SCJLO07	SCJLO12
ERCOT CPS Zone	Tenn Zn0 FDt	Tx. Eastern, STX	IERDR00	SCKLP07	SCKLP12	IERDT00	SCLLO07	SCLLO12
ERCOT Houston Hub	Houston ShipChl	Katy	IERHR00	SCMLP07	SCMLP12	IERHT00	SCNLO07	SCNLO12
ERCOT Houston Zone	Houston ShipChl	Katy	IERZR00	SCOLP07	SCOLP12	IERZT00	SCPLO07	SCPLO12
ERCOT Hub Average	Waha	Transwestn Perm	IERRR00	SCQLP07	SCQLP12	IERRT00	SCRLO07	SCRLO12
ERCOT LCRA Zone	Tenn Zn0 FDt	Tx. Eastern, STX	IERLR00	SCSLP07	SCSLP12	IERLT00	SCTLO07	SCTLO12
ERCOT North Hub	NGPL Texok Zn	Tx. Eastern, ETX	IERNR00	SCULP07	SCULP12	IERNT00	SCVLO07	SCVLO12
ERCOT North Zone	NGPL Texok Zn	Tx. Eastern, ETX	IERTR00	SCWLP07	SCWLP12	IERTT00	SCXLO07	SCXLO12
ERCOT Rayburn Zone	Carthage Hub	Tx. Eastern, ETX	IERUR00	SCYLP07	SCYLP12	IERUT00	SCZLO07	SCZLO12
ERCOT South Hub	Tenn Zn0 FDt	Agua Dulce Hub	IERSR00	SDALP07	SDALP12	IERST00	SDBLO07	SDBLO12
ERCOT South Zone	Tenn Zn0 FDt	Agua Dulce Hub	IERVR00	SDCLP07	SDCLP12	IERVT00	SDDLO07	SDDLO12
ERCOT West Hub	Waha	Transwestn Perm	IERWR00	SDELP07	SDELP12	IERWT00	SDFLO07	SDFLO12
ERCOT West Zone	Waha	Transwestn Perm	IERER00	SDGLP07	SDGLP12	IERET00	SDHLO07	SDHLO12
ISONE Connecticut Zone	Iroquois Zn2	Tenn Zn6 Dlvd	IINCR00	SDILP07	SDILP12	IINCT00	SDJLO07	SDJLO12
ISONE Internal Hub	Algonquin CG	Tenn Zn6 Dlvd	IINIR00	SDKLP07	SDKLP12	IINIT00	SDLLO07	SDLLO12
ISONE Maine Zone	Algonquin CG	Iroquois Recpts	IINMR00	SDMLP07	SDMLP12	IINMT00	SDNLO07	SDNLO12
ISONE NE Mass-Boston Zone	Algonquin CG	Iroquois Recpts	IINNR00	SDOLP07	SDOLP12	IINNT00	SDPLO07	SDPLO12
ISONE New Hampshire Zone	Algonquin CG	Iroquois Recpts	IINHR00	SDQLP07	SDQLP12	IINHT00	SDRLO07	SDRLO12
ISONE Rhode Island Zone	Algonquin CG	Tenn Zn6 Dlvd	IINRR00	SDSLP07	SDSLP12	IINRT00	SDTLO07	SDTLO12
ISONE SE Mass Zone	Algonquin CG	Tenn Zn6 Dlvd	IINSR00	SDULP07	SDULP12	IINST00	SDVLO07	SDVLO12
ISONE Vermont Zone	Algonquin CG	Iroquois Recpts	IINVR00	SDWLP07	SDWLP12	IINVT00	SDXLO07	SDXLO12
ISONE West-Central Mass Zone	Algonquin CG	Tenn Zn6 Dlvd	IINWR00	SDYLP07	SDYLP12	IINWT00	SDZLO07	SDZLO12
MISO Arkansas Hub	Enable Gas Transmission	Trunkline Zn 1A	IMARR00	SIDLP07	SIDLP12	IMART00	SICLP07	SICLP12
MISO Illinois Hub	Chicago CG	Alliance Interstates	IMILR00	SEBLP07	SEBLP12	IMILT00	SECLO07	SECLO12
MISO Indiana Hub	Chicago CG	Lebanon Hub-Ohio	IMIDR00	SEDLP07	SEDLP12	IMIDT00	SEELO07	SEELO12
MISO Louisiana Hub	Col Gulf LA	TX Eastern W LA	IMLAR00	SIBLP07	SIBLP12	IMLAT00	SIALP07	SIALP12
MISO Michigan Hub	Mich Con CG	Cons Energy CG	IMIMR00	SEGLP07	SEGLP12	IMIMT00	SEHLO07	SEHLO12
MISO Minnesota Hub	Nrthrn Ventura	Emerson Viking	IMINR00	SEILP07	SEILP12	IMINT00	SEJLO07	SEJLO12
MISO Texas Hub	NGPL Texok Zn		IMTXR00	SHYLP07	SHYLP12	IMTXT00	SHYLP07	SHYLP12
NYISO Capital Zone	Transco Zn6 NY	Millennium East receipts	INYCR00	SELLP07	SELLP12	INYCT00	SEMLO07	SEMLO12
NYISO Central Zone	Niagara	Dominion S Pt	INYRR00	SENLP07	SENLP12	INYRT00	SEOLO07	SEOLO12
NYISO Dunwood Zone	Iroquois Zn2	Transco Zn6 NY	INYDR00	SEPLP07	SEPLP12	INYDT00	SEQLO07	SEQLO12
NYISO Genesee Zone	Niagara	Dominion S Pt	INYGR00	SERLP07	SERLP12	INYGT00	SESLO07	SESLO12
NYISO Hudson Valley Zone	Iroquois Zn2	Transco Zn6 NY	INYHR00	SETLP07	SETLP12	INYHT00	SEULO07	SEULO12

Platts Day-ahead LMP Marginal Heat Rates and Spark Spreads

Power/Gas Hub Pairs			On-Peak			Off-Peak		
Power Hub	Gas Hub 1	Gas Hub 2	Mrg Heat Rate Symbol	7K Spark Symbol	12K Spark Symbol	Mrg Heat Rate Symbol	7K Spark Symbol	12K Spark Symbol
NYISO Long Island Zone	Transco Zn6 NY	Iroquois Zn2	INYLR00	SEVLP07	SEVLP12	INYLT00	SEWLO07	SEWLO12
NYISO Millwood Zone	Iroquois Zn2	Transco Zn6 NY	INYMR00	SEXLP07	SEXLP12	INYMT00	SEYLO07	SEYLO12
NYISO Mohawk Valley Zone	Transco Zn6 NY	Millennium East receipts	INYVR00	SEZLP07	SEZLP12	INYVT00	SFALO07	SFALO12
NYISO NYC Zone	Iroquois Recpts		INYNR00	SFBLP07	SFBLP12	INYNT00	SFCLO07	SFCLO12
NYISO North Zone	Transco Zn6 NY	Iroquois Zn2	INYOR00	SFDLP07	SFDLP12	INYOT00	SFELO07	SFELO12
NYISO West Zone	Niagara	Dominion S Pt	INYWR00	SFFLP07	SFFLP12	INYWT00	SFGLO07	SFGLO12
PJM AEP Gen Hub	Dominion S Pt	Texas Eastern zone M-2 receipts	IPAGR00	SFILP07	SFILP12	IPAGT00	SFJLO07	SFJLO12
PJM AEP Zone	Dominion S Pt	Texas Eastern zone M-2 receipts	IPAZR00	SFKLP07	SFKLP12	IPAZT00	SFLLO07	SFLLO12
PJM AEP-Dayton Hub	Mich Con CG		IPADR00	SFMLP07	SFMLP12	IPADT00	SFNLO07	SFNLO12
PJM Allegheny Power Zone	Col Gas Appal	Dominion S Pt	IPAPR00	SFOLP07	SFOLP12	IPAPT00	SFPLO07	SFPLO12
PJM Atlantic Electric Zone	Transco Zn6 non-N.Y	TX Eastern M-3	IPAER00	SFQLP07	SFQLP12	IPAET00	SFRLO07	SFRLO12
PJM ATSI Gen Hub	Dominion S Pt	Col Gas Appal	IPATR00	SFSLP07	SFSLP12	IPATT00	SFTLO07	SFTLO12
PJM ATSI Zone	Dominion S Pt	Col Gas Appal	IPASR00	SFULP07	SFULP12	IPAST00	SFVLO07	SFVLO12
PJM BG&E Zone	TX Eastern M-3	Dominion S Pt	IPBER00	SFWLP07	SFWLP12	IPBET00	SFXLO07	SFXLO12
PJM Chicago Gen Hub	Chicago CG		IPCGR00	SFYLP07	SFYLP12	IPCGT00	SFZLO07	SFZLO12
PJM Chicao Hub	Chicago CG		IPCHR00	SGALP07	SGALP12	IPCHT00	SGBLO07	SGBLO12
PJM ComEd Zone	Chicago CG		IPCER00	SGCLP07	SGCLP12	IPCET00	SGDLO07	SGDLO12
PJM Dayton Power and Light Zone	TX Eastern M-3	Lebanon Hub-Ohio	IPDPR00	SGELP07	SGELP12	IPDPT00	SGFLO07	SGFLO12
PJM Delmarva Power and Light Zone	Transco Zn6 non-N.Y	TX Eastern M-3	IPEPR00	SGGLP07	SGGLP12	IPEPT00	SGHLO07	SGHLO12
PJM Dominion Hub	Transco Zn5 Dlv	Col Gas Appal	IPDMR00	SGILP07	SGILP12	IPDMT00	SGJLO07	SGJLO12
PJM Dominion Zone	Transco Zn5 Dlv	Col Gas Appal	IPDZR00	SGKLP07	SGKLP12	IPDZT00	SGLLO07	SGLLO12
PJM Duke Zone	Dominion S Pt	Texas Eastern zone M-2 receipts	IPDKR00	SGMLP07	SGMLP12	IPDKT00	SGNLO07	SGNLO12
PJM Duquesne Light Zone	Dominion S Pt	Col Gas Appal	IPDLR00	SGOLP07	SGOLP12	IPDLT00	SGPLO07	SGPLO12
PJM Eastern Hub	TX Eastern M-3	Transco Zn6 non-N.Y	IPEHR00	SGQLP07	SGQLP12	IPEHT00	SGRLO07	SGRLO12
PJM EKPC Zone	Texas Eastern zone M-2 receipts	Lebanon Hub-Ohio	IPEKR00	SAZLP07	SAZLP12	IPEKT00	SAZLO07	SAZLO12
PJM JCPL Zone	Transco Zn6 non-N.Y	Transco Leidy Line receipts	IPJCR00	SGTLP07	SGTLP12	IPJCT00	SGULO07	SGULO12
PJM MetEd Zone	TX Eastern M-3	Transco Zn6 non-N.Y	IPMER00	SGVLP07	SGVLP12	IPMET00	SGWLO07	SGWLO12
PJM New Jersey Hub	TX Eastern M-3	Transco Zn6 non-N.Y	IPNJR00	SGYLP07	SGYLP12	IPNJT00	SGZLO07	SGZLO12
PJM Northern Illinois Hub	Chicago CG		IPNIR00	SGZLP07	SGZLP12	IPNIT00	SHALO07	SHALO12
PJM Ohio Hub	Dominion S	Texas Eastern zone M-2 receipts	IPOHR00	SHBLP07	SHBLP12	IPOHT00	SHCLO07	SHCLO12
PJM PECO Zone	TX Eastern M-3	Transco Zn6 non-N.Y	IPPCR00	SHDLP07	SHDLP12	IPPCT00	SHELO07	SHELO12
PJM Pennsylvania Electric Zone	Transco Leidy Line receipts	Dominion S Pt	IPPAR00	SHFLP07	SHFLP12	IPPAT00	SHGLO07	SHGLO12
PJM PEPCO Zone	Transco Zn5 Dlv	Dominion S Pt	IPPZR00	SHHLP07	SHHLP12	IPPZT00	SHILO07	SHILO12
PJM PPL Zone	Transco Leidy Line receipts	Transco Zn6 non-N.Y	IPPLR00	SHJLP07	SHJLP12	IPPLT00	SHKLO07	SHKLO12
PJM PSEG Zone	TX Eastern M-3	Transco Zn6 non-N.Y	IPSGR00	SHLLP07	SHLLP12	IPSGT00	SHMLO07	SHMLO12
PJM Rockland Electric Zone	Transco Zn6 non-N.Y	TX Eastern M-3	IPRER00	SHNLP07	SHNLP12	IPRET00	SHOLO07	SHOLO12
PJM West Interface Hub	Col Gas Appal	Texas Eastern zone M-2 receipts	IPWIR00	SHPLP07	SHPLP12	IPWIT00	SHQLO07	SHQLO12
PJM Western Hub	TX Eastern M-3	Dominion S Pt	IPWHR00	SHRLP07	SHRLP12	IPWHT00	SHSLO07	SHSLO12

Platts Day-ahead LMP Marginal Heat Rates and Spark Spreads

	Power/Gas Hub Pairs		On-Peak			Off-Peak		
Power Hub	Gas Hub 1	Gas Hub 2	Mrg Heat Rate Symbol	7K Spark Symbol	12K Spark Symbol	Mrg Heat Rate Symbol	7K Spark Symbol	12K Spark Symbol
SPP North Hub	Nrthrn Ventura	Northern Demarc	ISNOR00	SHTLP07	SHTLP12	ISNOT00	SHULO07	SHULO12
SPP South Hub	Panhandle TX-OK	Oneok OK	ISSOR00	SHVLP07	SHVLP12	ISSOT00	SHWLO07	SHWLO12

Platts Real-Time LMP Marginal Heat Rates and Spark Spreads

	Power/Gas Hub Pairs		On-Peak			Off-Peak		
Power Hub	Gas Hub 1	Gas Hub 2	Mrg Heat Rate Symbol	7K Spark Symbol	12K Spark Symbol	Mrg Heat Rate Symbol	7K Spark Symbol	12K Spark Symbol
Alberta	TC Alb AECO-C		LALBR01	SCALP07	SCALP12	LALBT01	SCALO07	SCALO12
CAISO NP15	PG&E CG		ICNGR01	SHXLP07	SHXLP12	ICNGT01	SCCLO07	SCCLO12
CAISO SP15	SoCal Gas	PG&E South	ICSGR01	SCDLP07	SCDLP12	ICSGT01	SCELO07	SCELO12
CAISO ZP26	SoCal Gas	PG&E South	ICZGR01	SCFLP07	SCFLP12	ICZGT01	SCGLO07	SCGLO12
ERCOT AEN	Waha	Transwestn Perm	IERAR01	SCHLP07	SCHLP12	IERAT01	SCILO07	SCILO12
ERCOT Bus Average	Waha	Transwestn Perm	IERBR01	SCJLP07	SCJLP12	IERBT01	SCKLO07	SCKLO12
ERCOT CPS Zone	Tenn Zn0 FDt	Tx. Eastern, STX	IERDR01	SCLLP07	SCLLP12	IERDT01	SCMLO07	SCMLO12
ERCOT Houston Hub	Houston ShipChl	Katy	IERHR01	SCNLP07	SCNLP12	IERHT01	SCOLO07	SCOLO12
ERCOT Houston Zone	Houston ShipChl	Katy	IERZR01	SCPLP07	SCPLP12	IERZT01	SCQLO07	SCQLO12
ERCOT Hub Average	Waha	Transwestn Perm	IERRR01	SCRLP07	SCRLP12	IERRT01	SCSLO07	SCSLO12
ERCOT LCRA Zone	Tenn Zn0 FDt	Tx. Eastern, STX	IERLR01	SCTLP07	SCTLP12	IERLT01	SCULO07	SCULO12
ERCOT North Hub	NGPL Texok Zn	Tx. Eastern, ETX	IERNR01	SCVLP07	SCVLP12	IERNT01	SCWLO07	SCWLO12
ERCOT North Zone	NGPL Texok Zn	Tx. Eastern, ETX	IERTR01	SCXLP07	SCXLP12	IERTT01	SCYLO07	SCYLO12
ERCOT Rayburn Zone	Carthage Hub	Tx. Eastern, ETX	IERUR01	SCZLP07	SCZLP12	IERUT01	SDALO07	SDALO12
ERCOT South Hub	Tenn Zn0 FDt	Agua Dulce Hub	IERSR01	SDBLP07	SDBLP12	IERST01	SDCLO07	SDCLO12
ERCOT South Zone	Tenn Zn0 FDt	Agua Dulce Hub	IERVR01	SDDLP07	SDDLP12	IERVT01	SDELO07	SDELO12
ERCOT West Hub	Waha	Transwestn Perm	IERWR01	SDFLP07	SDFLP12	IERWT01	SDGLO07	SDGLO12
ERCOT West Zone	Waha	Transwestn Perm	IERER01	SDHLP07	SDHLP12	IERET01	SDILO07	SDILO12
ISONE Connecticut Zone	Iroquois Zn2	Tenn Zn6 Dlvd	IINCR01	SDJLP07	SDJLP12	IINCT01	SDKLO07	SDKLO12
ISONE Internal Hub	Algonquin CG	Tenn Zn6 Dlvd	IINIR01	SDLLP07	SDLLP12	IINIT01	SDMLO07	SDMLO12
ISONE Maine Zone	Algonquin CG	Iroquois Recpts	IINMR01	SDNLP07	SDNLP12	IINMT01	SDOLO07	SDOLO12
ISONE NE Mass-Boston Zone	Algonquin CG	Iroquois Recpts	IINNR01	SDPLP07	SDPLP12	IINNT01	SDQLO07	SDQLO12
ISONE New Hampshire Zone	Algonquin CG	Iroquois Recpts	IINHR01	SDRLP07	SDRLP12	IINHT01	SDSLO07	SDSLO12
ISONE Rhode Island Zone	Algonquin CG	Tenn Zn6 Dlvd	IINRR01	SDTLP07	SDTLP12	IINRT01	SDULO07	SDULO12
ISONE SE Mass Zone	Algonquin CG	Tenn Zn6 Dlvd	IINSR01	SDVLP07	SDVLP12	IINST01	SDWLO07	SDWLO12
ISONE Vermont Zone	Algonquin CG	Iroquois Recpts	IINVR01	SDXLP07	SDXLP12	IINVT01	SDYLO07	SDYLO12
ISONE West-Central Mass Zone	Algonquin CG	Tenn Zn6 Dlvd	IINWR01	SDZLP07	SDZLP12	IINWT01	SEALO07	SEALO12
MISO Arkansas Hub	Enable Gas Transmission	Trunkline Zn 1A	IMARR01	SEALP07	SEALP12	IMART01	SEBLO07	SEBLO12
MISO Illinois Hub	Chicago CG	Alliance Interstates	IMILR01	SECLP07	SECLP12	IMILT01	SEDLO07	SEDLO12

Platts Real-Time LMP Marginal Heat Rates and Spark Spreads

Power/Gas Hub Pairs			On-Peak			Off-Peak		
Power Hub	Gas Hub 1	Gas Hub 2	Mrg Heat Rate Symbol	7K Spark Symbol	12K Spark Symbol	Mrg Heat Rate Symbol	7K Spark Symbol	12K Spark Symbol
MISO Indiana Hub	Chicago CG	Lebanon Hub-Ohio	IMIDR01	SEELP07	SEELP12	IMIDT01	SEFLO07	SEFLO12
MISO Louisiana Hub	Col Gulf LA	TX Eastern W LA	IMLAR01	SEFLP07	SEFLP12	IMLAT01	SEGLO07	SEGLO12
MISO Michigan Hub	Mich Con CG	Cons Energy CG	IMIMR01	SEHLP07	SEHLP12	IMIMT01	SEILO07	SEILO12
MISO Minnesota Hub	Nrthrn Ventura	Emerson Viking	IMINR01	SEJLP07	SEJLP12	IMINT01	SEKLO07	SEKLO12
MISO Texas Hub	NGPL Texok Zn		IMTXR01	SEKLP07	SEKLP12	IMTXT01	SELLO07	SELLO12
NYISO Capital Zone	Transco Zn6 NY	Millennium East receipts	INYCR01	SEMLP07	SEMLP12	INYCT01	SENLO07	SENLO12
NYISO Central Zone	Niagara	Dominion S Pt	INYRR01	SEOLP07	SEOLP12	INYRT01	SEPLO07	SEPLO12
NYISO Dunwood Zone	Iroquois Zn2	Transco Zn6 NY	INYDR01	SEQLP07	SEQLP12	INYDT01	SERLO07	SERLO12
NYISO Genesee Zone	Niagara	Dominion S Pt	INYGR01	SESLP07	SESLP12	INYGT01	SETLO07	SETLO12
NYISO Hudson Valley Zone	Iroquois Zn2	Transco Zn6 NY	INYHR01	SEULP07	SEULP12	INYHT01	SEVLO07	SEVLO12
NYISO Long Island Zone	Transco Zn6 NY	Iroquois Zn2	INYLR01	SEWLP07	SEWLP12	INYLT01	SEXLO07	SEXLO12
NYISO Millwood Zone	Iroquois Zn2	Transco Zn6 NY	INYMR01	SEYLP07	SEYLP12	INYMT01	SEZLO07	SEZLO12
NYISO Mohawk Valley Zone	Transco Zn6 NY	Millennium East receipts	INYVR01	SFALP07	SFALP12	INYVT01	SFBLO07	SFBLO12
NYISO NYC Zone	Iroquois Recpts		INYNR01	SFCLP07	SFCLP12	INYNT01	SFDLO07	SFDLO12
NYISO North Zone	Transco Zn6 NY	Iroquois Zn2	INYOR01	SFELP07	SFELP12	INYOT01	SFFLO07	SFFLO12
NYISO West Zone	Niagara	Dominion S Pt	INYWR01	SFGLP07	SFGLP12	INYWT01	SFHLO07	SFHLO12
Ontario	Dawn Ontario	Mich Con CG	LOTCR01	SFHLP07	SFHLP12	LOTCT01	SFILO07	SFILO12
PJM AEP Gen Hub	Dominion S Pt	Texas Eastern zone M-2 receipts	IPAGR01	SFJLP07	SFJLP12	IPAGT01	SFKLO07	SFKLO12
PJM AEP Zone	Dominion S Pt	Texas Eastern zone M-2 receipts	IPAZR01	SFLLP07	SFLLP12	IPAZT01	SFMLO07	SFMLO12
PJM AEP-Dayton Hub	Mich Con CG		IPADR01	SFNLP07	SFNLP12	IPADT01	SFOLO07	SFOLO12
PJM Allegheny Power Zone	Col Gas Appal	Dominion S Pt	IPAPR01	SFPLP07	SFPLP12	IPAPT01	SFQLO07	SFQLO12
PJM Atlantic Electric Zone	Transco Zn6 non-N.Y	TX Eastern M-3	IPAER01	SFRLP07	SFRLP12	IPAET01	SFSLO07	SFSLO12
PJM ATSI Gen Hub	Dominion S Pt	Col Gas Appal	IPATR01	SFTLP07	SFTLP12	IPATT01	SFULO07	SFULO12
PJM ATSI Zone	Dominion S Pt	Col Gas Appal	IPASR01	SFVLP07	SFVLP12	IPAST01	SFWLO07	SFWLO12
PJM BG&E Zone	TX Eastern M-3	Dominion S Pt	IPBER01	SFXLP07	SFXLP12	IPBET01	SFYLO07	SFYLO12
PJM Chicago Gen Hub	Chicago CG		IPCGR01	SFZLP07	SFZLP12	IPCGT01	SGALO07	SGALO12
PJM Chicao Hub	Chicago CG		IPCHR01	SGBLP07	SGBLP12	IPCHT01	SGCLO07	SGCLO12
PJM ComEd Zone	Chicago CG		IPCER01	SGDLP07	SGDLP12	IPCET01	SGELO07	SGELO12
PJM Dayton Power and Light Zone	TX Eastern M-3	Lebanon Hub-Ohio	IPDPR01	SGFLP07	SGFLP12	IPDPT01	SGGLO07	SGGLO12
PJM Delmarva Power and Light Zone	Transco Zn6 non-N.Y	TX Eastern M-3	IPEPR01	SGHLP07	SGHLP12	IPEPT01	SGILO07	SGILO12
PJM Dominion Hub	Transco Zn5 Dlv	Col Gas Appal	IPDMR01	SGJLP07	SGJLP12	IPDMT01	SGKLO07	SGKLO12
PJM Dominion Zone	Transco Zn5 Dlv	Col Gas Appal	IPDZR01	SGLLP07	SGLLP12	IPDZT01	SGMLO07	SGMLO12
PJM Duke Zone	Dominion S Pt	Texas Eastern zone M-2 receipts	IPDKR01	SGNLP07	SGNLP12	IPDKT01	SGOLO07	SGOLO12
PJM Duquesne Light Zone	Dominion S Pt	Col Gas Appal	IPDLR01	SGPLP07	SGPLP12	IPDLT01	SGQLO07	SGQLO12
PJM Eastern Hub	TX Eastern M-3	Transco Zn6 non-N.Y	IPEHR01	SGRLP07	SGRLP12	IPEHT01	SGSLO07	SGSLO12
PJM EKPC Zone	Texas Eastern zone M-2 receipts	Lebanon Hub-Ohio	IPEKR01	SGSLP07	SGSLP12	IPEKT01	SGTLO07	SGTLO12
PJM JCPL Zone	Transco Zn6 non-N.Y	Transco Leidy Line receipts	IPJCR01	SGULP07	SGULP12	IPJCT01	SGVLO07	SGVLO12

Platts Real-Time LMP Marginal Heat Rates and Spark Spreads

Power/Gas Hub Pairs			On-Peak			Off-Peak		
Power Hub	Gas Hub 1	Gas Hub 2	Mrg Heat Rate Symbol	7K Spark Symbol	12K Spark Symbol	Mrg Heat Rate Symbol	7K Spark Symbol	12K Spark Symbol
PJM MetEd Zone	TX Eastern M-3	Transco Zn6 non-N.Y	IPMER01	SGWLP07	SGWLP12	IPMET01	SGXLO07	SGXLO12
PJM New Jersey Hub	TX Eastern M-3	Transco Zn6 non-N.Y	IPNJR01	SGXLP07	SGXLP12	IPNJT01	SGYLO07	SGYLO12
PJM Northern Illinois Hub	Chicago CG		IPNIR01	SHALP07	SHALP12	IPNIT01	SHBLO07	SHBLO12
PJM Ohio Hub	Dominion S	Texas Eastern zone M-2 receipts	IPOHR01	SHCLP07	SHCLP12	IPOHT01	SHDLO07	SHDLO12
PJM PECO Zone	TX Eastern M-3	Transco Zn6 non-N.Y	IPPCR01	SHELP07	SHELP12	IPPCT01	SHFLO07	SHFLO12
PJM Pennsylvania Electric Zone	Transco Leidy Line receipts	Dominion S Pt	IPPAR01	SHGLP07	SHGLP12	IPPAT01	SHHLO07	SHHLO12
PJM PEPCO Zone	Transco Zn5 Dlv	Dominion S Pt	IPPZR01	SHILP07	SHILP12	IPPZT01	SHJLO07	SHJLO12
PJM PPL Zone	Transco Leidy Line receipts	Transco Zn6 non-N.Y	IPPLR01	SHKLP07	SHKLP12	IPPLT01	SHLLO07	SHLLO12
PJM PSEG Zone	TX Eastern M-3	Transco Zn6 non-N.Y	IPSGR01	SHMLP07	SHMLP12	IPSGT01	SHNLO07	SHNLO12
PJM Rockland Electric Zone	Transco Zn6 non-N.Y	TX Eastern M-3	IPRER01	SHOLP07	SHOLP12	IPRET01	SHPLO07	SHPLO12
PJM West Interface Hub	Col Gas Appal	Texas Eastern zone M-2 receipts	IPWIR01	SHQLP07	SHQLP12	IPWIT01	SHRLO07	SHRLO12
PJM Western Hub	TX Eastern M-3	Dominion S Pt	IPWHR01	SHSLP07	SHSLP12	IPWHT01	SHTLO07	SHTLO12
SPP North Hub	Nrthrn Ventura	Northern Demarc	ISNOR01	SHULP07	SHULP12	ISNOT01	SHVLO07	SHVLO12
SPP South Hub	Panhandle TX-OK	Oneok OK	ISSOR01	SHWLP07	SHWLP12	ISSOT01	SHXLO07	SHXLO12

Platts Day-Ahead Bilateral Marginal Heat Rates And Spark Spreads

Power/Gas Hub Pairs		On-Peak						Off-Peak					
Power Hub	Gas Hub	Mrg Heat Rate	7K Spark Symbol	8K Spark Symbol	10K Spark Symbol	12K Spark Symbol	15K Spark Symbol	Mrg Heat Rate	7K Spark Symbol	8K Spark Symbol	10K Spark Symbol	12K Spark Symbol	15K Spark Symbol
COB	PG&E Malin	SAANP00	SAANP07	SAANP08	SAANP10	SAANP12	SAANP15	SAANO00	SAANO07	SAANO08	SAANO10	SAANO12	SAANO15
Florida	FL Gas Zn3	SAINP00	SAINP07	SAINP08	SAINP10	SAINP12	SAINP15	SAINO00	SAINO07	SAINO08	SAINO10	SAINO12	SAINO15
Four Corners	El Paso SanJuan	SAJNP00	SAJNP07	SAJNP08	SAJNP10	SAJNP12	SAJNP15	SAJNO00	SAJNO07	SAJNO08	SAJNO10	SAJNO12	SAJNO15
Into GTC	Transco Zn4	SANNR00	SANNR07	SANNR08	SANNR10	SANNR12	SANNR15	SANNQ00	SANNQ07	SANNQ08	SANNQ10	SANNQ12	SANNQ15
Into Southern	Transco Zn4	SANNP00	SANNP07	SANNP08	SANNP10	SANNP12	SANNP15	SANNO00	SANNO07	SANNO08	SANNO10	SANNO12	SANNO15
Into TVA	Texas Gas Zn 1	SAONP00	SAONP07	SAONP08	SAONP10	SAONP12	SAONP15	SAONO00	SAONO07	SAONO08	SAONO10	SAONO12	SAONO15
John Day	NW Can Bd Sumas	SAPOP00	SAPOP07	SAPOP08	SAPOP10	SAPOP12	SAPOP15	SAPOO00	SAPOO07	SAPOO08	SAPOO10	SAPOO12	SAPOO15
Mead	SoCal Gas CG	SBENP00	SBENP07	SBENP08	SBENP10	SBENP12	SBENP15	SBENO00	SBENO07	SBENO08	SBENO10	SBENO12	SBENO15
Mid-Columbia	NW Can Bd Sumas	SAPNP00	SAPNP07	SAPNP08	SAPNP10	SAPNP12	SAPNP15	SAPNO00	SAPNO07	SAPNO08	SAPNO10	SAPNO12	SAPNO15
Mona	Kern Rvr Opal	SBMNP00	SBMNP07	SBMNP08	SBMNP10	SBMNP12	SBMNP15	SBMNO00	SBMNO07	SBMNO08	SBMNO10	SBMNO12	SBMNO15
NOB	NW Can Bd Sumas	SAPPP00	SAPPP07	SAPPP08	SAPPP10	SAPPP12	SAPPP15	SAPPO00	SAPPO07	SAPPO08	SAPPO10	SAPPO12	SAPPO15
Palo Verde	SoCal Gas CG	SAYNP00	SAYNP07	SAYNP08	SAYNP10	SAYNP12	SAYNP15	SAYNO00	SAYNO07	SAYNO08	SAYNO10	SAYNO12	SAYNO15
Pinnacle	SoCal Gas CG	SAPRP00	SAPRP07	SAPRP08	SAPRP10	SAPRP12	SAPRP15	SAPRO00	SAPRO07	SAPRO08	SAPRO10	SAPRO12	SAPRO15
VACAR	Transco Zn5 Dlv	SBCNP00	SBCNP07	SBCNP08	SBCNP10	SBCNP12	SBCNP15	SBCNO00	SBCNO07	SBCNO08	SBCNO10	SBCNO12	SBCNO15
Westwing	SoCal Gas CG	SAPQP00	SAPQP07	SAPQP08	SAPQP10	SAPQP12	SAPQP15	SAPQO00	SAPQO07	SAPQO08	SAPQO10	SAPQO12	SAPQO15

Hourly Bilateral

Mid-C Hourly	Symbol
Hour 1	MCRTH01
Hour 2	MCRTH02
Hour 3	MCRTH03
Hour 4	MCRTH04
Hour 5	MCRTH05
Hour 6	MCRTH06
Hour 7	MCRTH07
Hour 8	MCRTH08
Hour 9	MCRTH09
Hour 10	MCRTH10

Hourly Bilateral

Mid-C Hourly	Symbol
Hour 11	MCRTH11
Hour 12	MCRTH12
Hour 13	MCRTH13
Hour 14	MCRTH14
Hour 15	MCRTH15
Hour 16	MCRTH16
Hour 17	MCRTH17
Hour 18	MCRTH18
Hour 19	MCRTH19
Hour 20	MCRTH20

Hourly Bilateral

Mid-C Hourly	Symbol
Hour 21	MCRTH21
Hour 22	MCRTH22
Hour 23	MCRTH23
Hour 24	MCRTH24
Daily on-peak	MCRTP00
Daily off-peak	MCRTO00
Weekly on-peak	MCRTP04
Weekly off-peak	MCRTO04

Renewable Curtailment Indices

California ISO Local Solar Curtailment Peak	CALSP00
California ISO Local Solar Curtailment Off-Peak	CALSO00
California ISO Local Wind Curtailment Peak	CALWP00
California ISO Local Wind Curtailment Off-Peak	CALWO00
California ISO System Solar Curtailment Peak	CASSP00
California ISO System Solar Curtailment Off-Peak	CASSO00
California ISO System Wind Curtailment Peak	CASWP00
California ISO System Wind Curtailment Off-Peak	CASWO00
Southwest Power Pool Wind Curtailment Peak	SPPWP00
Southwest Power Pool Wind Curtailment Off-Peak	SPPWO00

California ISO Curtailment Indices

Solar on-peak index	CAICA00
Solar off-peak index	CAICB00
Solar 24-hour index	CAICC00
Wind on-peak index	CAICD00
Wind off-peak index	CAICE00
Wind 24-hour index	CAICF00
Combined solar and wind on-peak index	CAICG00
Combined solar and wind off-peak index	CAICH00
Combined solar and wind 24-hour index	CAICI00

Renewable curtailment hourly

CALISO Description	Symbol
California ISO Local Solar Curtailment Hr 1	CNLSP01
California ISO Local Solar Curtailment Hr 2	CNLSP02
California ISO Local Solar Curtailment Hr 3	CNLSP03
California ISO Local Solar Curtailment Hr 4	CNLSP04
California ISO Local Solar Curtailment Hr 5	CNLSP05
California ISO Local Solar Curtailment Hr 6	CNLSP06
California ISO Local Solar Curtailment Hr 7	CNLSP07
California ISO Local Solar Curtailment Hr 8	CNLSP08
California ISO Local Solar Curtailment Hr 9	CNLSP09
California ISO Local Solar Curtailment Hr 10	CNLSP10
California ISO Local Solar Curtailment Hr 11	CNLSP11
California ISO Local Solar Curtailment Hr 12	CNLSP12

Renewable curtailment hourly

CALISO Description	Symbol
California ISO Local Solar Curtailment Hr 13	CNLSP13
California ISO Local Solar Curtailment Hr 14	CNLSP14
California ISO Local Solar Curtailment Hr 15	CNLSP15
California ISO Local Solar Curtailment Hr 16	CNLSP16
California ISO Local Solar Curtailment Hr 17	CNLSP17
California ISO Local Solar Curtailment Hr 18	CNLSP18
California ISO Local Solar Curtailment Hr 19	CNLSP19
California ISO Local Solar Curtailment Hr 20	CNLSP20
California ISO Local Solar Curtailment Hr 21	CNLSP21
California ISO Local Solar Curtailment Hr 22	CNLSP22
California ISO Local Solar Curtailment Hr 23	CNLSP23
California ISO Local Solar Curtailment Hr 24	CNLSP24

Renewable curtailment hourly

CALISO Description	Symbol
California ISO Local Wind Curtailment Hr 1	CNLWP01
California ISO Local Wind Curtailment Hr 2	CNLWP02
California ISO Local Wind Curtailment Hr 3	CNLWP03
California ISO Local Wind Curtailment Hr 4	CNLWP04
California ISO Local Wind Curtailment Hr 5	CNLWP05
California ISO Local Wind Curtailment Hr 6	CNLWP06
California ISO Local Wind Curtailment Hr 7	CNLWP07
California ISO Local Wind Curtailment Hr 8	CNLWP08
California ISO Local Wind Curtailment Hr 9	CNLWP09
California ISO Local Wind Curtailment Hr 10	CNLWP10
California ISO Local Wind Curtailment Hr 11	CNLWP11
California ISO Local Wind Curtailment Hr 12	CNLWP12

Renewable curtailment hourly

CALISO Description	Symbol
California ISO Local Wind Curtailment Hr 13	CNLWP13
California ISO Local Wind Curtailment Hr 14	CNLWP14
California ISO Local Wind Curtailment Hr 15	CNLWP15
California ISO Local Wind Curtailment Hr 16	CNLWP16
California ISO Local Wind Curtailment Hr 17	CNLWP17
California ISO Local Wind Curtailment Hr 18	CNLWP18
California ISO Local Wind Curtailment Hr 19	CNLWP19
California ISO Local Wind Curtailment Hr 20	CNLWP20
California ISO Local Wind Curtailment Hr 21	CNLWP21
California ISO Local Wind Curtailment Hr 22	CNLWP22
California ISO Local Wind Curtailment Hr 23	CNLWP23
California ISO Local Wind Curtailment Hr 24	CNLWP24
California ISO System Solar Curtailment Hr 1	CNSSP01
California ISO System Solar Curtailment Hr 2	CNSSP02
California ISO System Solar Curtailment Hr 3	CNSSP03
California ISO System Solar Curtailment Hr 4	CNSSP04
California ISO System Solar Curtailment Hr 5	CNSSP05
California ISO System Solar Curtailment Hr 6	CNSSP06
California ISO System Solar Curtailment Hr 7	CNSSP07
California ISO System Solar Curtailment Hr 8	CNSSP08
California ISO System Solar Curtailment Hr 9	CNSSP09
California ISO System Solar Curtailment Hr 10	CNSSP10
California ISO System Solar Curtailment Hr 11	CNSSP11
California ISO System Solar Curtailment Hr 12	CNSSP12
California ISO System Solar Curtailment Hr 13	CNSSP13
California ISO System Solar Curtailment Hr 14	CNSSP14
California ISO System Solar Curtailment Hr 15	CNSSP15
California ISO System Solar Curtailment Hr 16	CNSSP16
California ISO System Solar Curtailment Hr 17	CNSSP17

Renewable curtailment hourly

CALISO Description	Symbol
California ISO System Solar Curtailment Hr 18	CNSSP18
California ISO System Solar Curtailment Hr 19	CNSSP19
California ISO System Solar Curtailment Hr 20	CNSSP20
California ISO System Solar Curtailment Hr 21	CNSSP21
California ISO System Solar Curtailment Hr 22	CNSSP22
California ISO System Solar Curtailment Hr 23	CNSSP23
California ISO System Solar Curtailment Hr 24	CNSSP24
California ISO System Wind Curtailment Hr 1	CNSWP01
California ISO System Wind Curtailment Hr 2	CNSWP02
California ISO System Wind Curtailment Hr 3	CNSWP03
California ISO System Wind Curtailment Hr 4	CNSWP04
California ISO System Wind Curtailment Hr 5	CNSWP05
California ISO System Wind Curtailment Hr 6	CNSWP06
California ISO System Wind Curtailment Hr 7	CNSWP07
California ISO System Wind Curtailment Hr 8	CNSWP08
California ISO System Wind Curtailment Hr 9	CNSWP09
California ISO System Wind Curtailment Hr 10	CNSWP10
California ISO System Wind Curtailment Hr 11	CNSWP11
California ISO System Wind Curtailment Hr 12	CNSWP12
California ISO System Wind Curtailment Hr 13	CNSWP13
California ISO System Wind Curtailment Hr 14	CNSWP14
California ISO System Wind Curtailment Hr 15	CNSWP15
California ISO System Wind Curtailment Hr 16	CNSWP16
California ISO System Wind Curtailment Hr 17	CNSWP17
California ISO System Wind Curtailment Hr 18	CNSWP18
California ISO System Wind Curtailment Hr 19	CNSWP19
California ISO System Wind Curtailment Hr 20	CNSWP20
California ISO System Wind Curtailment Hr 21	CNSWP21
California ISO System Wind Curtailment Hr 22	CNSWP22

Renewable curtailment hourly

CALISO Description	Symbol
California ISO System Wind Curtailment Hr 23	CNSWP23
California ISO System Wind Curtailment Hr 24	CNSWP24

SPP Description	**Symbol**
Southwest Power Pool Wind Curtailment Hr 1	SPPWP01
Southwest Power Pool Wind Curtailment Hr 2	SPPWP02
Southwest Power Pool Wind Curtailment Hr 3	SPPWP03
Southwest Power Pool Wind Curtailment Hr 4	SPPWP04
Southwest Power Pool Wind Curtailment Hr 5	SPPWP05
Southwest Power Pool Wind Curtailment Hr 6	SPPWP06
Southwest Power Pool Wind Curtailment Hr 7	SPPWP07
Southwest Power Pool Wind Curtailment Hr 8	SPPWP08
Southwest Power Pool Wind Curtailment Hr 9	SPPWP09
Southwest Power Pool Wind Curtailment Hr 10	SPPWP10
Southwest Power Pool Wind Curtailment Hr 11	SPPWP11
Southwest Power Pool Wind Curtailment Hr 12	SPPWP12
Southwest Power Pool Wind Curtailment Hr 13	SPPWP13
Southwest Power Pool Wind Curtailment Hr 14	SPPWP14
Southwest Power Pool Wind Curtailment Hr 15	SPPWP15
Southwest Power Pool Wind Curtailment Hr 16	SPPWP16
Southwest Power Pool Wind Curtailment Hr 17	SPPWP17
Southwest Power Pool Wind Curtailment Hr 18	SPPWP18
Southwest Power Pool Wind Curtailment Hr 19	SPPWP19
Southwest Power Pool Wind Curtailment Hr 20	SPPWP20
Southwest Power Pool Wind Curtailment Hr 21	SPPWP21
Southwest Power Pool Wind Curtailment Hr 22	SPPWP22
Southwest Power Pool Wind Curtailment Hr 23	SPPWP23
Southwest Power Pool Wind Curtailment Hr 24	SPPWP24

California ISO Curtailment Hourly Weightings

Mid-C Hourly	Symbol
California ISO System-Wide Solar Weighting Curtailment- HE 1	CAISW01
California ISO System-Wide Solar Weighting Curtailment- HE 2	CAISW02
California ISO System-Wide Solar Weighting Curtailment- HE 3	CAISW03
California ISO System-Wide Solar Weighting Curtailment- HE 4	CAISW04
California ISO System-Wide Solar Weighting Curtailment- HE 5	CAISW05
California ISO System-Wide Solar Weighting Curtailment- HE 6	CAISW06
California ISO System-Wide Solar Weighting Curtailment- HE 7	CAISW07
California ISO System-Wide Solar Weighting Curtailment- HE 8	CAISW08
California ISO System-Wide Solar Weighting Curtailment- HE 9	CAISW09
California ISO System-Wide Solar Weighting Curtailment- HE 10	CAISW10
California ISO System-Wide Solar Weighting Curtailment- HE 11	CAISW11
California ISO System-Wide Solar Weighting Curtailment- HE 12	CAISW12
California ISO System-Wide Solar Weighting Curtailment- HE 13	CAISW13
California ISO System-Wide Solar Weighting Curtailment- HE 14	CAISW14
California ISO System-Wide Solar Weighting Curtailment- HE 15	CAISW15
California ISO System-Wide Solar Weighting Curtailment- HE 16	CAISW16
California ISO System-Wide Solar Weighting Curtailment- HE 17	CAISW17
California ISO System-Wide Solar Weighting Curtailment- HE 18	CAISW18
California ISO System-Wide Solar Weighting Curtailment- HE 19	CAISW19
California ISO System-Wide Solar Weighting Curtailment- HE 20	CAISW20
California ISO System-Wide Solar Weighting Curtailment- HE 21	CAISW21
California ISO System-Wide Solar Weighting Curtailment- HE 22	CAISW22
California ISO System-Wide Solar Weighting Curtailment- HE 23	CAISW23
California ISO System-Wide Solar Weighting Curtailment- HE 24	CAISW24

California ISO Curtailment Hourly Weightings

Mid-C Hourly	Symbol
California ISO System-Wide Wind Weighting Curtailment- HE 1	CAIWW01
California ISO System-Wide Wind Weighting Curtailment- HE 2	CAIWW02
California ISO System-Wide Wind Weighting Curtailment- HE 3	CAIWW03
California ISO System-Wide Wind Weighting Curtailment- HE 4	CAIWW04
California ISO System-Wide Wind Weighting Curtailment- HE 5	CAIWW05
California ISO System-Wide Wind Weighting Curtailment- HE 6	CAIWW06
California ISO System-Wide Wind Weighting Curtailment- HE 7	CAIWW07
California ISO System-Wide Wind Weighting Curtailment- HE 8	CAIWW08
California ISO System-Wide Wind Weighting Curtailment- HE 9	CAIWW09
California ISO System-Wide Wind Weighting Curtailment- HE 10	CAIWW10
California ISO System-Wide Wind Weighting Curtailment- HE 11	CAIWW11
California ISO System-Wide Wind Weighting Curtailment- HE 12	CAIWW12
California ISO System-Wide Wind Weighting Curtailment- HE 13	CAIWW13
California ISO System-Wide Wind Weighting Curtailment- HE 14	CAIWW14
California ISO System-Wide Wind Weighting Curtailment- HE 15	CAIWW15
California ISO System-Wide Wind Weighting Curtailment- HE 16	CAIWW16
California ISO System-Wide Wind Weighting Curtailment- HE 17	CAIWW17
California ISO System-Wide Wind Weighting Curtailment- HE 18	CAIWW18
California ISO System-Wide Wind Weighting Curtailment- HE 19	CAIWW19
California ISO System-Wide Wind Weighting Curtailment- HE 20	CAIWW20
California ISO System-Wide Wind Weighting Curtailment- HE 21	CAIWW21
California ISO System-Wide Wind Weighting Curtailment- HE 22	CAIWW22
California ISO System-Wide Wind Weighting Curtailment- HE 23	CAIWW23
California ISO System-Wide Wind Weighting Curtailment- HE 24	CAIWW24

California ISO Curtailment Hourly Weightings

Mid-C Hourly	Symbol
California ISO System-Wide Solar and Wind Total Weighting Curtailment- HE 1	CAITW01
California ISO System-Wide Solar and Wind Total Weighting Curtailment- HE 2	CAITW02
California ISO System-Wide Solar and Wind Total Weighting Curtailment- HE 3	CAITW03
California ISO System-Wide Solar and Wind Total Weighting Curtailment- HE 4	CAITW04
California ISO System-Wide Solar and Wind Total Weighting Curtailment- HE 5	CAITW05
California ISO System-Wide Solar and Wind Total Weighting Curtailment- HE 6	CAITW06
California ISO System-Wide Solar and Wind Total Weighting Curtailment- HE 7	CAITW07
California ISO System-Wide Solar and Wind Total Weighting Curtailment HE 8	CAITW08
California ISO System-Wide Solar and Wind Total Weighting Curtailment- HE 9	CAITW09
California ISO System-Wide Solar and Wind Total Weighting Curtailment- HE 10	CAITW10
California ISO System-Wide Solar and Wind Total Weighting Curtailment- HE 11	CAITW11
California ISO System-Wide Solar and Wind Total Weighting Curtailment- HE 12	CAITW12
California ISO System-Wide Solar and Wind Total Weighting Curtailment- HE 13	CAITW13
California ISO System-Wide Solar and Wind Total Weighting Curtailment- HE 14	CAITW14
California ISO System-Wide Solar and Wind Total Weighting Curtailment- HE 15	CAITW15
California ISO System-Wide Solar and Wind Total Weighting Curtailment- HE 16	CAITW16
California ISO System-Wide Solar and Wind Total Weighting Curtailment- HE 17	CAITW17
California ISO System-Wide Solar and Wind Total Weighting Curtailment- HE 18	CAITW18
California ISO System-Wide Solar and Wind Total Weighting Curtailment- HE 19	CAITW19
California ISO System-Wide Solar and Wind Total Weighting Curtailment- HE 20	CAITW20
California ISO System-Wide Solar and Wind Total Weighting Curtailment- HE 21	CAITW21
California ISO System-Wide Solar and Wind Total Weighting Curtailment- HE 22	CAITW22
California ISO System-Wide Solar and Wind Total Weighting Curtailment- HE 23	CAITW23
California ISO System-Wide Solar and Wind Total Weighting Curtailment- HE 24	CAITW24

California ISO Curtailment Hourly Curtailment

Mid-C Hourly	Symbol
California ISO System-Wide Solar Calculated Weighting Curtailment- HE 1	CAISC01
California ISO System-Wide Solar Calculated Weighting Curtailment- HE 2	CAISC02
California ISO System-Wide Solar Calculated Weighting Curtailment- HE 3	CAISC03
California ISO System-Wide Solar Calculated Weighting Curtailment- HE 4	CAISC04
California ISO System-Wide Solar Calculated Weighting Curtailment- HE 5	CAISC05
California ISO System-Wide Solar Calculated Weighting Curtailment- HE 6	CAISC06
California ISO System-Wide Solar Calculated Weighting Curtailment- HE 7	CAISC07
California ISO System-Wide Solar Calculated Weighting Curtailment- HE 8	CAISC08
California ISO System-Wide Solar Calculated Weighting Curtailment- HE 9	CAISC09
California ISO System-Wide Solar Calculated Weighting Curtailment- HE 10	CAISC10
California ISO System-Wide Solar Calculated Weighting Curtailment- HE 11	CAISC11
California ISO System-Wide Solar Calculated Weighting Curtailment- HE 12	CAISC12
California ISO System-Wide Solar Calculated Weighting Curtailment- HE 13	CAISC13
California ISO System-Wide Solar Calculated Weighting Curtailment- HE 14	CAISC14
California ISO System-Wide Solar Calculated Weighting Curtailment- HE 15	CAISC15
California ISO System-Wide Solar Calculated Weighting Curtailment- HE 16	CAISC16
California ISO System-Wide Solar Calculated Weighting Curtailment- HE 17	CAISC17
California ISO System-Wide Solar Calculated Weighting Curtailment- HE 18	CAISC18
California ISO System-Wide Solar Calculated Weighting Curtailment- HE 19	CAISC19
California ISO System-Wide Solar Calculated Weighting Curtailment- HE 20	CAISC20
California ISO System-Wide Solar Calculated Weighting Curtailment- HE 21	CAISC21
California ISO System-Wide Solar Calculated Weighting Curtailment- HE 22	CAISC22
California ISO System-Wide Solar Calculated Weighting Curtailment- HE 23	CAISC23
California ISO System-Wide Solar Calculated Weighting Curtailment- HE 24	CAISC24
California ISO System-Wide Wind Calculated Weighting Curtailment- HE 1	CAIWC01
California ISO System-Wide Wind Calculated Weighting Curtailment- HE 2	CAIWC02
California ISO System-Wide Wind Calculated Weighting Curtailment- HE 3	CAIWC03
California ISO System-Wide Wind Calculated Weighting Curtailment- HE 4	CAIWC04
California ISO System-Wide Wind Calculated Weighting Curtailment- HE 5	CAIWC05
California ISO System-Wide Wind Calculated Weighting Curtailment- HE 6	CAIWC06
California ISO System-Wide Wind Calculated Weighting Curtailment- HE 7	CAIWC07

California ISO Curtailment Hourly Curtailment

Mid-C Hourly	Symbol
California ISO System-Wide Wind Calculated Weighting Curtailment- HE 8	CAIWC08
California ISO System-Wide Wind Calculated Weighting Curtailment- HE 9	CAIWC09
California ISO System-Wide Wind Calculated Weighting Curtailment- HE 10	CAIWC10
California ISO System-Wide Wind Calculated Weighting Curtailment- HE 11	CAIWC11
California ISO System-Wide Wind Calculated Weighting Curtailment- HE 12	CAIWC12
California ISO System-Wide Wind Calculated Weighting Curtailment- HE 13	CAIWC13
California ISO System-Wide Wind Calculated Weighting Curtailment- HE 14	CAIWC14
California ISO System-Wide Wind Calculated Weighting Curtailment- HE 15	CAIWC15
California ISO System-Wide Wind Calculated Weighting Curtailment- HE 16	CAIWC16
California ISO System-Wide Wind Calculated Weighting Curtailment- HE 17	CAIWC17
California ISO System-Wide Wind Calculated Weighting Curtailment- HE 18	CAIWC18
California ISO System-Wide Wind Calculated Weighting Curtailment- HE 19	CAIWC19
California ISO System-Wide Wind Calculated Weighting Curtailment- HE 20	CAIWC20
California ISO System-Wide Wind Calculated Weighting Curtailment- HE 21	CAIWC21
California ISO System-Wide Wind Calculated Weighting Curtailment- HE 22	CAIWC22
California ISO System-Wide Wind Calculated Weighting Curtailment- HE 23	CAIWC23
California ISO System-Wide Wind Calculated Weighting Curtailment- HE 24	CAIWC24
California ISO System-Wide Solar and Wind Total Calculated Weighting Curtailment – HE 1	CAITC01
California ISO System-Wide Solar and Wind Total Calculated Weighting Curtailment- HE 2	CAITC02
California ISO System-Wide Solar and Wind Total Calculated Weighting Curtailment- HE 3	CAITC03
California ISO System-Wide Solar and Wind Total Calculated Weighting Curtailment- HE 4	CAITC04
California ISO System-Wide Solar and Wind Total Calculated Weighting Curtailment- HE 5	CAITC05
California ISO System-Wide Solar and Wind Total Calculated Weighting Curtailment- HE 6	CAITC06
California ISO System-Wide Solar and Wind Total Calculated Weighting Curtailment- HE 7	CAITC07

California ISO Curtailment Hourly Curtailment

Mid-C Hourly	Symbol
California ISO System-Wide Solar and Wind Total Calculated Weighting Curtailment- HE 8	CAITC08
California ISO System-Wide Solar and Wind Total Calculated Weighting Curtailment- HE 9	CAITC09
California ISO System-Wide Solar and Wind Total Calculated Weighting Curtailment- HE 10	CAITC10
California ISO System-Wide Solar and Wind Total Calculated Weighting Curtailment- HE 11	CAITC11
California ISO System-Wide Solar and Wind Total Calculated Weighting Curtailment- HE 12	CAITC12
California ISO System-Wide Solar and Wind Total Calculated Weighting Curtailment- HE 13	CAITC13
California ISO System-Wide Solar and Wind Total Calculated Weighting Curtailment- HE 14	CAITC14
California ISO System-Wide Solar and Wind Total Calculated Weighting Curtailment- HE 15	CAITC15
California ISO System-Wide Solar and Wind Total Calculated Weighting Curtailment- HE 16	CAITC16
California ISO System-Wide Solar and Wind Total Calculated Weighting Curtailment- HE 17	CAITC17
California ISO System-Wide Solar and Wind Total Calculated Weighting Curtailment- HE 18	CAITC18
California ISO System-Wide Solar and Wind Total Calculated Weighting Curtailment- HE 19	CAITC19
California ISO System-Wide Solar and Wind Total Calculated Weighting Curtailment- HE 20	CAITC20
California ISO System-Wide Solar and Wind Total Calculated Weighting Curtailment- HE 21	CAITC21
California ISO System-Wide Solar and Wind Total Calculated Weighting Curtailment- HE 22	CAITC22
California ISO System-Wide Solar and Wind Total Calculated Weighting Curtailment- HE 23	CAITC23
California ISO System-Wide Solar and Wind Total Calculated Weighting Curtailment- HE 24	CAITC24

Renewable penetration indices

Calculated values	Symbol
California ISO RPI Solar Peak	RPCSP00
California ISO RPI Solar Off Peak	RPCSO00
California ISO RPI Wind Peak	RPCWP00
California ISO RPI Wind Off Peak	RPCWO00
Southwest Power Pool RPI Solar Peak	RPSSP00
Southwest Power Pool RPI Solar Off Peak	RPSSO00
Southwest Power Pool RPI Wind Peak	RPSWP00
Southwest Power Pool RPI Wind Off Peak	RPSWO00
ERCOT RPI Solar Peak	RPESP00
ERCOT RPI Solar Off Peak	RPESO00

Renewable penetration indices

Calculated values	Symbol
ERCOT RPI Wind Peak	RPEWP00
ERCOT RPI Wind Off Peak	RPEWO00
MISO RPI Solar Peak	RPMSP00
MISO RPI Solar Off Peak	RPMSO00
MISO RPI Wind Peak	RPMWP00
MISO RPI Wind Off Peak	RPMWO00
PJM Interconnection RPI Solar Peak	RPPSP00
PJM Interconnection RPI Solar Off Peak	RPPSO00
PJM Interconnection RPI Wind Peak	RPPWP00
PJM Interconnection RPI Wind Off Peak	RPPWO00

Renewable penetration indices

Calculated values	Symbol
NYISO RPI Solar Peak	RPNSP00
NYISO RPI Solar Off Peak	RPNSO00
NYISO RPI Wind Peak	RPNWP00
NYISO RPI Wind Off Peak	RPNWO00
ISO New England Solar Peak	RPISP00
ISO New England Solar Off Peak	RPISO00
ISO New England Wind Peak	RPIWP00
ISO New England Wind Off Peak	RPIWO00

Renewable penetration indices - Hourly Solar

Calculated values	Symbol
California ISO RPI Solar Hr 1 Percentage	RPCSC01
California ISO RPI Solar Hr 2 Percentage	RPCSC02
California ISO RPI Solar Hr 3 Percentage	RPCSC03
California ISO RPI Solar Hr 4 Percentage	RPCSC04
California ISO RPI Solar Hr 5 Percentage	RPCSC05
California ISO RPI Solar Hr 6 Percentage	RPCSC06
California ISO RPI Solar Hr 7 Percentage	RPCSC07
California ISO RPI Solar Hr 8 Percentage	RPCSC08
California ISO RPI Solar Hr 9 Percentage	RPCSC09
California ISO RPI Solar Hr 10 Percentage	RPCSC10
California ISO RPI Solar Hr 11 Percentage	RPCSC11
California ISO RPI Solar Hr 12 Percentage	RPCSC12
California ISO RPI Solar Hr 13 Percentage	RPCSC13
California ISO RPI Solar Hr 14 Percentage	RPCSC14
California ISO RPI Solar Hr 15 Percentage	RPCSC15
California ISO RPI Solar Hr 16 Percentage	RPCSC16
California ISO RPI Solar Hr 17 Percentage	RPCSC17
California ISO RPI Solar Hr 18 Percentage	RPCSC18
California ISO RPI Solar Hr 19 Percentage	RPCSC19
California ISO RPI Solar Hr 20 Percentage	RPCSC20
California ISO RPI Solar Hr 21 Percentage	RPCSC21
California ISO RPI Solar Hr 22 Percentage	RPCSC22
California ISO RPI Solar Hr 23 Percentage	RPCSC23
California ISO RPI Solar Hr 24 Percentage	RPCSC24
Southwest Power Pool RPI Solar Hr 1 Percentage	RPSSC01

Renewable penetration indices - Hourly Solar

Calculated values	Symbol
Southwest Power Pool RPI Solar Hr 2 Percentage	RPSSC02
Southwest Power Pool RPI Solar Hr 3 Percentage	RPSSC03
Southwest Power Pool RPI Solar Hr 4 Percentage	RPSSC04
Southwest Power Pool RPI Solar Hr 5 Percentage	RPSSC05
Southwest Power Pool RPI Solar Hr 6 Percentage	RPSSC06
Southwest Power Pool RPI Solar Hr 7 Percentage	RPSSC07
Southwest Power Pool RPI Solar Hr 8 Percentage	RPSSC08
Southwest Power Pool RPI Solar Hr 9 Percentage	RPSSC09
Southwest Power Pool RPI Solar Hr 10 Percentage	RPSSC10
Southwest Power Pool RPI Solar Hr 11 Percentage	RPSSC11
Southwest Power Pool RPI Solar Hr 12 Percentage	RPSSC12
Southwest Power Pool RPI Solar Hr 13 Percentage	RPSSC13
Southwest Power Pool RPI Solar Hr 14 Percentage	RPSSC14
Southwest Power Pool RPI Solar Hr 15 Percentage	RPSSC15
Southwest Power Pool RPI Solar Hr 16 Percentage	RPSSC16
Southwest Power Pool RPI Solar Hr 17 Percentage	RPSSC17
Southwest Power Pool RPI Solar Hr 18 Percentage	RPSSC18
Southwest Power Pool RPI Solar Hr 19 Percentage	RPSSC19
Southwest Power Pool RPI Solar Hr 20 Percentage	RPSSC20
Southwest Power Pool RPI Solar Hr 21 Percentage	RPSSC21
Southwest Power Pool RPI Solar Hr 22 Percentage	RPSSC22
Southwest Power Pool RPI Solar Hr 23 Percentage	RPSSC23
Southwest Power Pool RPI Solar Hr 24 Percentage	RPSSC24
ERCOT RPI Solar Hr 1 Percentage	RPESC01
ERCOT RPI Solar Hr 2 Percentage	RPESC02

Renewable penetration indices - Hourly Solar

Calculated values	Symbol
ERCOT RPI Solar Hr 3 Percentage	RPESC03
ERCOT RPI Solar Hr 4 Percentage	RPESC04
ERCOT RPI Solar Hr 5 Percentage	RPESC05
ERCOT RPI Solar Hr 6 Percentage	RPESC06
ERCOT RPI Solar Hr 7 Percentage	RPESC07
ERCOT RPI Solar Hr 8 Percentage	RPESC08
ERCOT RPI Solar Hr 9 Percentage	RPESC09
ERCOT RPI Solar Hr 10 Percentage	RPESC10
ERCOT RPI Solar Hr 11 Percentage	RPESC11
ERCOT RPI Solar Hr 12 Percentage	RPESC12
ERCOT RPI Solar Hr 13 Percentage	RPESC13
ERCOT RPI Solar Hr 14 Percentage	RPESC14
ERCOT RPI Solar Hr 15 Percentage	RPESC15
ERCOT RPI Solar Hr 16 Percentage	RPESC16
ERCOT RPI Solar Hr 17 Percentage	RPESC17
ERCOT RPI Solar Hr 18 Percentage	RPESC18
ERCOT RPI Solar Hr 19 Percentage	RPESC19
ERCOT RPI Solar Hr 20 Percentage	RPESC20
ERCOT RPI Solar Hr 21 Percentage	RPESC21
ERCOT RPI Solar Hr 22 Percentage	RPESC22
ERCOT RPI Solar Hr 23 Percentage	RPESC23
ERCOT RPI Solar Hr 24 Percentage	RPESC24
MISO RPI Solar Hr 1 Percentage	RPMSC01
MISO RPI Solar Hr 2 Percentage	RPMSC02
MISO RPI Solar Hr 3 Percentage	RPMSC03

Renewable penetration indices - Hourly Solar

Calculated values	Symbol
MISO RPI Solar Hr 4 Percentage	RPMSC04
MISO RPI Solar Hr 5 Percentage	RPMSC05
MISO RPI Solar Hr 6 Percentage	RPMSC06
MISO RPI Solar Hr 7 Percentage	RPMSC07
MISO RPI Solar Hr 8 Percentage	RPMSC08
MISO RPI Solar Hr 9 Percentage	RPMSC09
MISO RPI Solar Hr 10 Percentage	RPMSC10
MISO RPI Solar Hr 11 Percentage	RPMSC11
MISO RPI Solar Hr 12 Percentage	RPMSC12
MISO RPI Solar Hr 13 Percentage	RPMSC13
MISO RPI Solar Hr 14 Percentage	RPMSC14
MISO RPI Solar Hr 15 Percentage	RPMSC15
MISO RPI Solar Hr 16 Percentage	RPMSC16
MISO RPI Solar Hr 17 Percentage	RPMSC17
MISO RPI Solar Hr 18 Percentage	RPMSC18
MISO RPI Solar Hr 19 Percentage	RPMSC19
MISO RPI Solar Hr 20 Percentage	RPMSC20
MISO RPI Solar Hr 21 Percentage	RPMSC21
MISO RPI Solar Hr 22 Percentage	RPMSC22
MISO RPI Solar Hr 23 Percentage	RPMSC23
MISO RPI Solar Hr 24 Percentage	RPMSC24
PJM Interconnection RPI Solar Hr 1 Percentage	RPPSC01
PJM Interconnection RPI Solar Hr 2 Percentage	RPPSC02
PJM Interconnection RPI Solar Hr 3 Percentage	RPPSC03
PJM Interconnection RPI Solar Hr 4 Percentage	RPPSC04
PJM Interconnection RPI Solar Hr 5 Percentage	RPPSC05
PJM Interconnection RPI Solar Hr 6 Percentage	RPPSC06
PJM Interconnection RPI Solar Hr 7 Percentage	RPPSC07
PJM Interconnection RPI Solar Hr 8 Percentage	RPPSC08
PJM Interconnection RPI Solar Hr 9 Percentage	RPPSC09
PJM Interconnection RPI Solar Hr 10 Percentage	RPPSC10
PJM Interconnection RPI Solar Hr 11 Percentage	RPPSC11

Renewable penetration indices - Hourly Solar

Calculated values	Symbol
PJM Interconnection RPI Solar Hr 12 Percentage	RPPSC12
PJM Interconnection RPI Solar Hr 13 Percentage	RPPSC13
PJM Interconnection RPI Solar Hr 14 Percentage	RPPSC14
PJM Interconnection RPI Solar Hr 15 Percentage	RPPSC15
PJM Interconnection RPI Solar Hr 16 Percentage	RPPSC16
PJM Interconnection RPI Solar Hr 17 Percentage	RPPSC17
PJM Interconnection RPI Solar Hr 18 Percentage	RPPSC18
PJM Interconnection RPI Solar Hr 19 Percentage	RPPSC19
PJM Interconnection RPI Solar Hr 20 Percentage	RPPSC20
PJM Interconnection RPI Solar Hr 21 Percentage	RPPSC21
PJM Interconnection RPI Solar Hr 22 Percentage	RPPSC22
PJM Interconnection RPI Solar Hr 23 Percentage	RPPSC23
PJM Interconnection RPI Solar Hr 24 Percentage	RPPSC24
NYISO RPI Solar Hr 1 Percentage	RPNSC01
NYISO RPI Solar Hr 2 Percentage	RPNSC02
NYISO RPI Solar Hr 3 Percentage	RPNSC03
NYISO RPI Solar Hr 4 Percentage	RPNSC04
NYISO RPI Solar Hr 5 Percentage	RPNSC05
NYISO RPI Solar Hr 6 Percentage	RPNSC06
NYISO RPI Solar Hr 7 Percentage	RPNSC07
NYISO RPI Solar Hr 8 Percentage	RPNSC08
NYISO RPI Solar Hr 9 Percentage	RPNSC09
NYISO RPI Solar Hr 10 Percentage	RPNSC10
NYISO RPI Solar Hr 11 Percentage	RPNSC11
NYISO RPI Solar Hr 12 Percentage	RPNSC12
NYISO RPI Solar Hr 13 Percentage	RPNSC13
NYISO RPI Solar Hr 14 Percentage	RPNSC14
NYISO RPI Solar Hr 15 Percentage	RPNSC15
NYISO RPI Solar Hr 16 Percentage	RPNSC16
NYISO RPI Solar Hr 17 Percentage	RPNSC17
NYISO RPI Solar Hr 18 Percentage	RPNSC18
NYISO RPI Solar Hr 19 Percentage	RPNSC19

Renewable penetration indices - Hourly Solar

Calculated values	Symbol
NYISO RPI Solar Hr 20 Percentage	RPNSC20
NYISO RPI Solar Hr 21 Percentage	RPNSC21
NYISO RPI Solar Hr 22 Percentage	RPNSC22
NYISO RPI Solar Hr 23 Percentage	RPNSC23
NYISO RPI Solar Hr 24 Percentage	RPNSC24
ISO New England RPI Solar Hr 1 Percentage	RPISC01
ISO New England RPI Solar Hr 2 Percentage	RPISC02
ISO New England RPI Solar Hr 3 Percentage	RPISC03
ISO New England RPI Solar Hr 4 Percentage	RPISC04
ISO New England RPI Solar Hr 5 Percentage	RPISC05
ISO New England RPI Solar Hr 6 Percentage	RPISC06
ISO New England RPI Solar Hr 7 Percentage	RPISC07
ISO New England RPI Solar Hr 8 Percentage	RPISC08
ISO New England RPI Solar Hr 9 Percentage	RPISC09
ISO New England RPI Solar Hr 10 Percentage	RPISC10
ISO New England RPI Solar Hr 11 Percentage	RPISC11
ISO New England RPI Solar Hr 12 Percentage	RPISC12
ISO New England RPI Solar Hr 13 Percentage	RPISC13
ISO New England RPI Solar Hr 14 Percentage	RPISC14
ISO New England RPI Solar Hr 15 Percentage	RPISC15
ISO New England RPI Solar Hr 16 Percentage	RPISC16
ISO New England RPI Solar Hr 17 Percentage	RPISC17
ISO New England RPI Solar Hr 18 Percentage	RPISC18
ISO New England RPI Solar Hr 19 Percentage	RPISC19
ISO New England RPI Solar Hr 20 Percentage	RPISC20
ISO New England RPI Solar Hr 21 Percentage	RPISC21
ISO New England RPI Solar Hr 22 Percentage	RPISC22
ISO New England RPI Solar Hr 23 Percentage	RPISC23
ISO New England RPI Solar Hr 24 Percentage	RPISC24

Renewable penetration indices - Hourly Wind

Calculated values	Symbol
California ISO RPI Wind Hr 1 Percentage	RPCWC01
California ISO RPI Wind Hr 2 Percentage	RPCWC02
California ISO RPI Wind Hr 3 Percentage	RPCWC03
California ISO RPI Wind Hr 4 Percentage	RPCWC04
California ISO RPI Wind Hr 5 Percentage	RPCWC05
California ISO RPI Wind Hr 6 Percentage	RPCWC06
California ISO RPI Wind Hr 7 Percentage	RPCWC07
California ISO RPI Wind Hr 8 Percentage	RPCWC08
California ISO RPI Wind Hr 9 Percentage	RPCWC09
California ISO RPI Wind Hr 10 Percentage	RPCWC10
California ISO RPI Wind Hr 11 Percentage	RPCWC11
California ISO RPI Wind Hr 12 Percentage	RPCWC12
California ISO RPI Wind Hr 13 Percentage	RPCWC13
California ISO RPI Wind Hr 14 Percentage	RPCWC14
California ISO RPI Wind Hr 15 Percentage	RPCWC15
California ISO RPI Wind Hr 16 Percentage	RPCWC16
California ISO RPI Wind Hr 17 Percentage	RPCWC17
California ISO RPI Wind Hr 18 Percentage	RPCWC18
California ISO RPI Wind Hr 19 Percentage	RPCWC19
California ISO RPI Wind Hr 20 Percentage	RPCWC20
California ISO RPI Wind Hr 21 Percentage	RPCWC21
California ISO RPI Wind Hr 22 Percentage	RPCWC22
California ISO RPI Wind Hr 23 Percentage	RPCWC23
California ISO RPI Wind Hr 24 Percentage	RPCWC24
Southwest Power Pool RPI Wind Hr 1 Percentage	RPSWC01
Southwest Power Pool RPI Wind Hr 2 Percentage	RPSWC02
Southwest Power Pool RPI Wind Hr 3 Percentage	RPSWC03
Southwest Power Pool RPI Wind Hr 4 Percentage	RPSWC04
Southwest Power Pool RPI Wind Hr 5 Percentage	RPSWC05
Southwest Power Pool RPI Wind Hr 6 Percentage	RPSWC06
Southwest Power Pool RPI Wind Hr 7 Percentage	RPSWC07
Southwest Power Pool RPI Wind Hr 8 Percentage	RPSWC08
Southwest Power Pool RPI Wind Hr 9 Percentage	RPSWC09
Southwest Power Pool RPI Wind Hr 10 Percentage	RPSWC10
Southwest Power Pool RPI Wind Hr 11 Percentage	RPSWC11
Southwest Power Pool RPI Wind Hr 12 Percentage	RPSWC12
Southwest Power Pool RPI Wind Hr 13 Percentage	RPSWC13
Southwest Power Pool RPI Wind Hr 14 Percentage	RPSWC14
Southwest Power Pool RPI Wind Hr 15 Percentage	RPSWC15

Renewable penetration indices - Hourly Wind

Calculated values	Symbol
Southwest Power Pool RPI Wind Hr 16 Percentage	RPSWC16
Southwest Power Pool RPI Wind Hr 17 Percentage	RPSWC17
Southwest Power Pool RPI Wind Hr 18 Percentage	RPSWC18
Southwest Power Pool RPI Wind Hr 19 Percentage	RPSWC19
Southwest Power Pool RPI Wind Hr 20 Percentage	RPSWC20
Southwest Power Pool RPI Wind Hr 21 Percentage	RPSWC21
Southwest Power Pool RPI Wind Hr 22 Percentage	RPSWC22
Southwest Power Pool RPI Wind Hr 23 Percentage	RPSWC23
Southwest Power Pool RPI Wind Hr 24 Percentage	RPSWC24
ERCOT RPI Wind Hr 1 Percentage	RPEWC01
ERCOT RPI Wind Hr 2 Percentage	RPEWC02
ERCOT RPI Wind Hr 3 Percentage	RPEWC03
ERCOT RPI Wind Hr 4 Percentage	RPEWC04
ERCOT RPI Wind Hr 5 Percentage	RPEWC05
ERCOT RPI Wind Hr 6 Percentage	RPEWC06
ERCOT RPI Wind Hr 7 Percentage	RPEWC07
ERCOT RPI Wind Hr 8 Percentage	RPEWC08
ERCOT RPI Wind Hr 9 Percentage	RPEWC09
ERCOT RPI Wind Hr 10 Percentage	RPEWC10
ERCOT RPI Wind Hr 11 Percentage	RPEWC11
ERCOT RPI Wind Hr 12 Percentage	RPEWC12
ERCOT RPI Wind Hr 13 Percentage	RPEWC13
ERCOT RPI Wind Hr 14 Percentage	RPEWC14
ERCOT RPI Wind Hr 15 Percentage	RPEWC15
ERCOT RPI Wind Hr 16 Percentage	RPEWC16
ERCOT RPI Wind Hr 17 Percentage	RPEWC17
ERCOT RPI Wind Hr 18 Percentage	RPEWC18
ERCOT RPI Wind Hr 19 Percentage	RPEWC19
ERCOT RPI Wind Hr 20 Percentage	RPEWC20
ERCOT RPI Wind Hr 21 Percentage	RPEWC21
ERCOT RPI Wind Hr 22 Percentage	RPEWC22
ERCOT RPI Wind Hr 23 Percentage	RPEWC23
ERCOT RPI Wind Hr 24 Percentage	RPEWC24
MISO RPI Wind Hr 1 Percentage	RPMWC01
MISO RPI Wind Hr 2 Percentage	RPMWC02
MISO RPI Wind Hr 3 Percentage	RPMWC03
MISO RPI Wind Hr 4 Percentage	RPMWC04
MISO RPI Wind Hr 5 Percentage	RPMWC05
MISO RPI Wind Hr 6 Percentage	RPMWC06

Renewable penetration indices - Hourly Wind

Calculated values	Symbol
MISO RPI Wind Hr 7 Percentage	RPMWC07
MISO RPI Wind Hr 8 Percentage	RPMWC08
MISO RPI Wind Hr 9 Percentage	RPMWC09
MISO RPI Wind Hr 10 Percentage	RPMWC10
MISO RPI Wind Hr 11 Percentage	RPMWC11
MISO RPI Wind Hr 12 Percentage	RPMWC12
MISO RPI Wind Hr 13 Percentage	RPMWC13
MISO RPI Wind Hr 14 Percentage	RPMWC14
MISO RPI Wind Hr 15 Percentage	RPMWC15
MISO RPI Wind Hr 16 Percentage	RPMWC16
MISO RPI Wind Hr 17 Percentage	RPMWC17
MISO RPI Wind Hr 18 Percentage	RPMWC18
MISO RPI Wind Hr 19 Percentage	RPMWC19
MISO RPI Wind Hr 20 Percentage	RPMWC20
MISO RPI Wind Hr 21 Percentage	RPMWC21
MISO RPI Wind Hr 22 Percentage	RPMWC22
MISO RPI Wind Hr 23 Percentage	RPMWC23
MISO RPI Wind Hr 24 Percentage	RPMWC24
PJM Interconnection RPI Wind Hr 1 Percentage	RPPWC01
PJM Interconnection RPI Wind Hr 2 Percentage	RPPWC02
PJM Interconnection RPI Wind Hr 3 Percentage	RPPWC03
PJM Interconnection RPI Wind Hr 4 Percentage	RPPWC04
PJM Interconnection RPI Wind Hr 5 Percentage	RPPWC05
PJM Interconnection RPI Wind Hr 6 Percentage	RPPWC06
PJM Interconnection RPI Wind Hr 7 Percentage	RPPWC07
PJM Interconnection RPI Wind Hr 8 Percentage	RPPWC08
PJM Interconnection RPI Wind Hr 9 Percentage	RPPWC09
PJM Interconnection RPI Wind Hr 10 Percentage	RPPWC10
PJM Interconnection RPI Wind Hr 11 Percentage	RPPWC11
PJM Interconnection RPI Wind Hr 12 Percentage	RPPWC12
PJM Interconnection RPI Wind Hr 13 Percentage	RPPWC13
PJM Interconnection RPI Wind Hr 14 Percentage	RPPWC14
PJM Interconnection RPI Wind Hr 15 Percentage	RPPWC15
PJM Interconnection RPI Wind Hr 16 Percentage	RPPWC16
PJM Interconnection RPI Wind Hr 17 Percentage	RPPWC17
PJM Interconnection RPI Wind Hr 18 Percentage	RPPWC18
PJM Interconnection RPI Wind Hr 19 Percentage	RPPWC19
PJM Interconnection RPI Wind Hr 20 Percentage	RPPWC20
PJM Interconnection RPI Wind Hr 21 Percentage	RPPWC21

Renewable penetration indices - Hourly Wind

Calculated values	Symbol
PJM Interconnection RPI Wind Hr 22 Percentage	RPPWC22
PJM Interconnection RPI Wind Hr 23 Percentage	RPPWC23
PJM Interconnection RPI Wind Hr 24 Percentage	RPPWC24
NYISO RPI Wind Hr 1 Percentage	RPNWC01
NYISO RPI Wind Hr 2 Percentage	RPNWC02
NYISO RPI Wind Hr 3 Percentage	RPNWC03
NYISO RPI Wind Hr 4 Percentage	RPNWC04
NYISO RPI Wind Hr 5 Percentage	RPNWC05
NYISO RPI Wind Hr 6 Percentage	RPNWC06
NYISO RPI Wind Hr 7 Percentage	RPNWC07
NYISO RPI Wind Hr 8 Percentage	RPNWC08
NYISO RPI Wind Hr 9 Percentage	RPNWC09
NYISO RPI Wind Hr 10 Percentage	RPNWC10
NYISO RPI Wind Hr 11 Percentage	RPNWC11
NYISO RPI Wind Hr 12 Percentage	RPNWC12
NYISO RPI Wind Hr 13 Percentage	RPNWC13
NYISO RPI Wind Hr 14 Percentage	RPNWC14
NYISO RPI Wind Hr 15 Percentage	RPNWC15

Renewable penetration indices - Hourly Wind

Calculated values	Symbol
NYISO RPI Wind Hr 16 Percentage	RPNWC16
NYISO RPI Wind Hr 17 Percentage	RPNWC17
NYISO RPI Wind Hr 18 Percentage	RPNWC18
NYISO RPI Wind Hr 19 Percentage	RPNWC19
NYISO RPI Wind Hr 20 Percentage	RPNWC20
NYISO RPI Wind Hr 21 Percentage	RPNWC21
NYISO RPI Wind Hr 22 Percentage	RPNWC22
NYISO RPI Wind Hr 23 Percentage	RPNWC23
NYISO RPI Wind Hr 24 Percentage	RPNWC24
ISO New England RPI Wind Hr 1 Percentage	RPIWC01
ISO New England RPI Wind Hr 2 Percentage	RPIWC02
ISO New England RPI Wind Hr 3 Percentage	RPIWC03
ISO New England RPI Wind Hr 4 Percentage	RPIWC04
ISO New England RPI Wind Hr 5 Percentage	RPIWC05
ISO New England RPI Wind Hr 6 Percentage	RPIWC06
ISO New England RPI Wind Hr 7 Percentage	RPIWC07
ISO New England RPI Wind Hr 8 Percentage	RPIWC08
ISO New England RPI Wind Hr 9 Percentage	RPIWC09

Renewable penetration indices - Hourly Wind

Calculated values	Symbol
ISO New England RPI Wind Hr 10 Percentage	RPIWC10
ISO New England RPI Wind Hr 11 Percentage	RPIWC11
ISO New England RPI Wind Hr 12 Percentage	RPIWC12
ISO New England RPI Wind Hr 13 Percentage	RPIWC13
ISO New England RPI Wind Hr 14 Percentage	RPIWC14
ISO New England RPI Wind Hr 15 Percentage	RPIWC15
ISO New England RPI Wind Hr 16 Percentage	RPIWC16
ISO New England RPI Wind Hr 17 Percentage	RPIWC17
ISO New England RPI Wind Hr 18 Percentage	RPIWC18
ISO New England RPI Wind Hr 19 Percentage	RPIWC19
ISO New England RPI Wind Hr 20 Percentage	RPIWC20
ISO New England RPI Wind Hr 21 Percentage	RPIWC21
ISO New England RPI Wind Hr 22 Percentage	RPIWC22
ISO New England RPI Wind Hr 23 Percentage	RPIWC23
ISO New England RPI Wind Hr 24 Percentage	RPIWC24

Renewable Capture Prices

Calculated values	Symbol
CAISO NP15 Gen Hub Solar Capture Price Index	ACPIC00
CAISO NP15 Gen Hub Wind Capture Price Index	ACPIA00
CAISO SP15 Gen Hub Solar Capture Price Index	ACPID00
CAISO SP15 Gen Hub Wind Capture Price Index	ACPIB00
CAISO ZP26 Gen Hub Solar Capture Price Index	ACPIE00
ERCOT North Hub Solar Capture Price Index	ACPIL00
ERCOT North Zn Weighted Average LMP Solar Capture Price Index	AERCA00
ERCOT North Zn Weighted Average LMP Wind Capture Price Index	ACPII00
ERCOT South Hub Solar Capture Price Index	ACPIN00
ERCOT South Zn Weighted Average LMP Solar Capture Price Index	AERCC00

Renewable Capture Prices

Calculated values	Symbol
ERCOT South Zn Weighted Average LMP Wind Capture Price Index	ACPIK00
ERCOT West Hub Solar Capture Price Index	ACPIM00
ERCOT West Zn Weighted Average LMP Solar Capture Price Index	AERCB00
ERCOT West Zn Weighted Average LMP Wind Capture Price Index	ACPIJ00
ISONE Internal Hub Solar Capture Price Index	ACPXE00
ISONE Internal Hub Wind Capture Price Index	ACPXD00
MISO Indiana Hub Solar Capture Price Index	ACPIT00
MISO Indiana Hub Wind Capture Price Index	ACPIR00
MISO Louisiana Hub Solar Capture Price Index	ACPIU00
MISO Minnesota Hub Solar Capture Price Index	ACPIS00
MISO Minnesota Hub Wind Capture Price Index	ACPIQ00

Renewable Capture Prices

Calculated values	Symbol
NYISO Hudson Valley Zone Wind Capture Price Index	ACPXB00
NYISO West Zone Wind Capture Price Index	ACPXC00
PJM Dominion Hub Solar Capture Price Index	ACPXA00
PJM Dominion Hub Wind Capture Price Index	ACPIX00
PJM Northern Illinois Hub Solar Capture Price Index	ACPIZ00
PJM Northern Illinois Hub Wind Capture Price Index	ACPIW00
PJM Western Hub Solar Capture Price Index	ACPIY00
PJM Western Hub Wind Capture Price Index	ACPIV00
SPP North Hub Wind Capture Price Index	ACPIO00
SPP South Hub Wind Capture Price Index	ACPIP00

Renewable indices

Renewable Curtailment Indices (RCI)

Real-time Generation Weightings

The CAISO and SPP report curtailment data each day for the prior calendar day. Data is in megawatts per hour for solar and wind generation. For CAISO, Platts uses the ISO curtailments that are reported at both the local and system levels, separating the two to differentiate between curtailment due to nodal congestion (local) or oversupply (system). For SPP, Platts uses the curtailments provided for wind power specifically.

Curtailment data for a given day is weighted against real-time generation data from that same day in the respective regions. For example, daily curtailment index for January 9, 2024, would be based on weightings from generation data on January 9, 2024. Generation data is reported by both the CAISO and SPP in five-minute increments. Platts calculates an average for solar generation and wind generation for each hour in the day. For hour ending 1, for example, Platts will calculate the average solar generation during that hour for that day only. For each hour, the calculated average solar generation is divided by the average total generation for solar power to determine the hourly solar weighting. For wind generation, the calculated average wind generation per hour is divided by the average total generation for wind power to determine the hourly wind weighting. This process happens in both CAISO and SPP. For CAISO, both local and system curtailments of the same fuel type will share the same weight. New hourly weightings are generated daily to correspond with the curtailment data for that day.

Daily Weighted curtailment

The weighted curtailment for each hour is determined daily by multiplying hourly curtailment reported by CAISO and SPP by the corresponding hourly weighting.

For example, the CAISO weighted local solar curtailment for hour ending 1 is calculated by multiplying the reported megawatts of local solar generation curtailed for that hour by the corresponding weighting for solar generation for the same hour (calculation method described in paragraph above).

During some hours of the day, no wind or solar curtailment occurs. For those hours, hourly curtailment is calculated as a zero.

Renewable Curtailment Indices

The sum of the hourly weighted curtailment for hours ending 7 through 22 is calculated to generate the on-peak indices and hours ending 1 through 6 and 23 through 24 for off-peak. The on-peak and off-peak indices produced for CAISO are local solar, system solar, local wind, and system wind. The on-peak and off-peak indices for the SPP are for wind.

Renewable Penetration Indices (RPI)

Renewable Penetration Indices track the penetration of solar and wind energy into the overall generation stack on an hourly basis, as well as averaged on-peak and off-peak indices. The RPIs are applied to the following regions: CAISO, SPP, ERCOT, MISO, PJM, NYISO, and ISO New England.

The published indices for all ISO's will include on-peak and off-peak calculated values, 24 hour solar and 24 hour wind indices. The calculated on-peak indices will reflect averages for hours ending 7 through 22. Off-peak indices are derived from the averages for hours ending 1 through 6, and 23 through 24. The indices will be calculated for each hour, each day of the week, in percentages.

The Renewable Penetration Indices represent the percentage of solar and wind generation as compared to total generation on an hourly basis. The numerator represents the amount of solar or wind generation per hour, removing negative values and subtracting the curtailed amount, as required. The denominator represents total hourly generation. For example, for the hour ending 1 wind RPI, Platts will calculate the wind generation for that hour, remove negatives, subtract curtailments, if applicable, and divide that amount by the total ISO generation for the hour. The indices that will have curtailments subtracted are CAISO solar and wind and SPP wind. The indices, in which solar and wind generation will include curtailments, if any, are: SPP solar, ERCOT solar and wind, MISO solar and wind, PJM solar and wind and NYISO solar and wind. The data represents actual generation reported by each ISO. In case of missing data, Platts will be utilizing the previously available data for the corresponding ISO. For example, for the hour ending 1 solar RPI, the index will represent the most recent available data for that hour.

NYISO solar renewable penetration indices reflect behind-the-meter solar generation as reported by NYISO.

Renewable Capture Price Indices

Platts Renewable Capture Price Indices track value that renewable energy generators receive for the electricity they produce throughout the day, based on hourly generation and ISO's pricing data.

The published prices are calculated by the sum of actual hourly generation multiplied by the previous day's day-ahead hourly prices, divided by total generation across the day.

Daily Renewable Capture Prices are published as follows:

Wind and Solar: CAISO, ERCOT, ISONE, MISO, PJM

Wind: NYISO, SPP

Unit: $/MWh.

The published prices are calculated using the following variables: ISO day-ahead hourly prices and wind, solar generation, where available.

For ERCOT wind and solar weighted average LMP prices, Platts uses Energy Information Administration capacity data, ISO locational marginal pricing by resource nodes and hourly wind and solar generation.

The indices will have a two-day lag to account for the operational generation data and reported by ISOs day-ahead prices. PJM will have a five-day lag to account for the delay in reported ISO data. Data for Fridays and the weekend are published on the next working day.

Battery Energy Storage Systems Daily

Description	Symbol
CAISO NP15 Gen Hub BESS Capture Price	ABESP00
CAISO SP15 Gen Hub BESS Capture Price	ABESQ00
ERCOT North Zone BESS Capture Price	ABESR00
ERCOT South Zone BESS Capture Price	ABESS00
ERCOT West Zone BESS Capture Price	ABEST00
CAISO NP15 Gen Hub BESS Cost Index	ABESA00
CAISO NP15 Gen Hub BESS Net Revenue Index	ABESC00
CAISO NP15 Gen Hub BESS Profit Index	ABESB00
CAISO SP15 Gen Hub BESS Cost Index	ABESD00
CAISO SP15 Gen Hub BESS Net Revenue Index	ABESF00

Battery Energy Storage Systems Daily

Description	Symbol
CAISO SP15 Gen Hub BESS Profit Index	ABESE00
ERCOT North Zone BESS Cost Index	ABESG00
ERCOT North Zone BESS Net Revenue Index	ABESI00
ERCOT North Zone BESS Profit Index	ABESH00
ERCOT South Zone BESS Cost Index	ABESJ00
ERCOT South Zone BESS Net Revenue Index	ABESL00
ERCOT South Zone BESS Profit Index	ABESK00
ERCOT West Zone BESS Cost Index	ABESM00
ERCOT West Zone BESS Net Revenue Index	ABESO00
ERCOT West Zone BESS Profit Index	ABESN00

Battery Energy Storage Systems Hourly

Description	Symbol
CAISO NP15 Hub Battery Revenue Hour 1	AREVA01
CAISO NP15 Hub Battery Revenue Hour 2	AREVA02
CAISO NP15 Hub Battery Revenue Hour 3	AREVA03
CAISO NP15 Hub Battery Revenue Hour 4	AREVA04
CAISO NP15 Hub Battery Revenue Hour 5	AREVA05
CAISO NP15 Hub Battery Revenue Hour 6	AREVA06
CAISO NP15 Hub Battery Revenue Hour 7	AREVA07
CAISO NP15 Hub Battery Revenue Hour 8	AREVA08
CAISO NP15 Hub Battery Revenue Hour 9	AREVA09
CAISO NP15 Hub Battery Revenue Hour 10	AREVA10
CAISO NP15 Hub Battery Revenue Hour 11	AREVA11
CAISO NP15 Hub Battery Revenue Hour 12	AREVA12
CAISO NP15 Hub Battery Revenue Hour 13	AREVA13
CAISO NP15 Hub Battery Revenue Hour 14	AREVA14
CAISO NP15 Hub Battery Revenue Hour 15	AREVA15
CAISO NP15 Hub Battery Revenue Hour 16	AREVA16
CAISO NP15 Hub Battery Revenue Hour 17	AREVA17
CAISO NP15 Hub Battery Revenue Hour 18	AREVA18
CAISO NP15 Hub Battery Revenue Hour 19	AREVA19
CAISO NP15 Hub Battery Revenue Hour 20	AREVA20
CAISO NP15 Hub Battery Revenue Hour 21	AREVA21
CAISO NP15 Hub Battery Revenue Hour 22	AREVA22
CAISO NP15 Hub Battery Revenue Hour 23	AREVA23
CAISO NP15 Hub Battery Revenue Hour 24	AREVA24
CAISO SP15 Hub Battery Revenue Hour 1	AREVB01

Battery Energy Storage Systems Hourly

Description	Symbol
CAISO SP15 Hub Battery Revenue Hour 2	AREVB02
CAISO SP15 Hub Battery Revenue Hour 3	AREVB03
CAISO SP15 Hub Battery Revenue Hour 4	AREVB04
CAISO SP15 Hub Battery Revenue Hour 5	AREVB05
CAISO SP15 Hub Battery Revenue Hour 6	AREVB06
CAISO SP15 Hub Battery Revenue Hour 7	AREVB07
CAISO SP15 Hub Battery Revenue Hour 8	AREVB08
CAISO SP15 Hub Battery Revenue Hour 9	AREVB09
CAISO SP15 Hub Battery Revenue Hour 10	AREVB10
CAISO SP15 Hub Battery Revenue Hour 11	AREVB11
CAISO SP15 Hub Battery Revenue Hour 12	AREVB12
CAISO SP15 Hub Battery Revenue Hour 13	AREVB13
CAISO SP15 Hub Battery Revenue Hour 14	AREVB14
CAISO SP15 Hub Battery Revenue Hour 15	AREVB15
CAISO SP15 Hub Battery Revenue Hour 16	AREVB16
CAISO SP15 Hub Battery Revenue Hour 17	AREVB17
CAISO SP15 Hub Battery Revenue Hour 18	AREVB18
CAISO SP15 Hub Battery Revenue Hour 19	AREVB19
CAISO SP15 Hub Battery Revenue Hour 20	AREVB20
CAISO SP15 Hub Battery Revenue Hour 21	AREVB21
CAISO SP15 Hub Battery Revenue Hour 22	AREVB22
CAISO SP15 Hub Battery Revenue Hour 23	AREVB23
CAISO SP15 Hub Battery Revenue Hour 24	AREVB24
ERCOT Load Zone West Battery Revenue Hour 1	AREVC01
ERCOT Load Zone West Battery Revenue Hour 2	AREVC02

Battery Energy Storage Systems Hourly

Description	Symbol
ERCOT Load Zone West Battery Revenue Hour 3	AREVC03
ERCOT Load Zone West Battery Revenue Hour 4	AREVC04
ERCOT Load Zone West Battery Revenue Hour 5	AREVC05
ERCOT Load Zone West Battery Revenue Hour 6	AREVC06
ERCOT Load Zone West Battery Revenue Hour 7	AREVC07
ERCOT Load Zone West Battery Revenue Hour 8	AREVC08
ERCOT Load Zone West Battery Revenue Hour 9	AREVC09
ERCOT Load Zone West Battery Revenue Hour 10	AREVC10
ERCOT Load Zone West Battery Revenue Hour 11	AREVC11
ERCOT Load Zone West Battery Revenue Hour 12	AREVC12
ERCOT Load Zone West Battery Revenue Hour 13	AREVC13
ERCOT Load Zone West Battery Revenue Hour 14	AREVC14
ERCOT Load Zone West Battery Revenue Hour 15	AREVC15
ERCOT Load Zone West Battery Revenue Hour 16	AREVC16
ERCOT Load Zone West Battery Revenue Hour 17	AREVC17
ERCOT Load Zone West Battery Revenue Hour 18	AREVC18
ERCOT Load Zone West Battery Revenue Hour 19	AREVC19
ERCOT Load Zone West Battery Revenue Hour 20	AREVC20
ERCOT Load Zone West Battery Revenue Hour 21	AREVC21
ERCOT Load Zone West Battery Revenue Hour 22	AREVC22
ERCOT Load Zone West Battery Revenue Hour 23	AREVC23
ERCOT Load Zone West Battery Revenue Hour 24	AREVC24
ERCOT Load Zone North Battery Revenue Hour 1	AREVD01
ERCOT Load Zone North Battery Revenue Hour 2	AREVD02
ERCOT Load Zone North Battery Revenue Hour 3	AREVD03

Battery Energy Storage Systems Hourly

Description	Symbol
ERCOT Load Zone North Battery Revenue Hour 4	AREVD04
ERCOT Load Zone North Battery Revenue Hour 5	AREVD05
ERCOT Load Zone North Battery Revenue Hour 6	AREVD06
ERCOT Load Zone North Battery Revenue Hour 7	AREVD07
ERCOT Load Zone North Battery Revenue Hour 8	AREVD08
ERCOT Load Zone North Battery Revenue Hour 9	AREVD09
ERCOT Load Zone North Battery Revenue Hour 10	AREVD10
ERCOT Load Zone North Battery Revenue Hour 11	AREVD11
ERCOT Load Zone North Battery Revenue Hour 12	AREVD12
ERCOT Load Zone North Battery Revenue Hour 13	AREVD13
ERCOT Load Zone North Battery Revenue Hour 14	AREVD14
ERCOT Load Zone North Battery Revenue Hour 15	AREVD15
ERCOT Load Zone North Battery Revenue Hour 16	AREVD16
ERCOT Load Zone North Battery Revenue Hour 17	AREVD17
ERCOT Load Zone North Battery Revenue Hour 18	AREVD18

Battery Energy Storage Systems Hourly

Description	Symbol
ERCOT Load Zone North Battery Revenue Hour 19	AREVD19
ERCOT Load Zone North Battery Revenue Hour 20	AREVD20
ERCOT Load Zone North Battery Revenue Hour 21	AREVD21
ERCOT Load Zone North Battery Revenue Hour 22	AREVD22
ERCOT Load Zone North Battery Revenue Hour 23	AREVD23
ERCOT Load Zone North Battery Revenue Hour 24	AREVD24
ERCOT Load Zone South Battery Revenue Hour 1	AREVE01
ERCOT Load Zone South Battery Revenue Hour 2	AREVE02
ERCOT Load Zone South Battery Revenue Hour 3	AREVE03
ERCOT Load Zone South Battery Revenue Hour 4	AREVE04
ERCOT Load Zone South Battery Revenue Hour 5	AREVE05
ERCOT Load Zone South Battery Revenue Hour 6	AREVE06
ERCOT Load Zone South Battery Revenue Hour 7	AREVE07
ERCOT Load Zone South Battery Revenue Hour 8	AREVE08
ERCOT Load Zone South Battery Revenue Hour 9	AREVE09

Battery Energy Storage Systems Hourly

Description	Symbol
ERCOT Load Zone South Battery Revenue Hour 10	AREVE10
ERCOT Load Zone South Battery Revenue Hour 11	AREVE11
ERCOT Load Zone South Battery Revenue Hour 12	AREVE12
ERCOT Load Zone South Battery Revenue Hour 13	AREVE13
ERCOT Load Zone South Battery Revenue Hour 14	AREVE14
ERCOT Load Zone South Battery Revenue Hour 15	AREVE15
ERCOT Load Zone South Battery Revenue Hour 16	AREVE16
ERCOT Load Zone South Battery Revenue Hour 17	AREVE17
ERCOT Load Zone South Battery Revenue Hour 18	AREVE18
ERCOT Load Zone South Battery Revenue Hour 19	AREVE19
ERCOT Load Zone South Battery Revenue Hour 20	AREVE20
ERCOT Load Zone South Battery Revenue Hour 21	AREVE21
ERCOT Load Zone South Battery Revenue Hour 22	AREVE22
ERCOT Load Zone South Battery Revenue Hour 23	AREVE23
ERCOT Load Zone South Battery Revenue Hour 24	AREVE24

Battery Energy Storage Systems (BESS) Indices

The Battery Energy Storage Systems Indices track the value that battery operators receive for the electricity they discharge throughout the day in the day-ahead markets, as well as associated costs, based on hourly generation and ISO's pricing data.

The CAISO and ERCOT battery storage indices are databased for the prior calendar day. The calculation for hourly indices is as follows:

The 5-min CAISO and ERCOT actual systemwide discharge/charge MW battery storage output is averaged to hourly values. Hourly systemwide battery storage output is then allocated between hubs/zones based on the number of active units in respective zones/hubs, compared to the total number of active units in ISOs, excluding units below 10 MW. Finally, the published hourly indices are calculated by multiplying the hub/zonal average hourly battery output by that day's day-ahead hourly prices. So, the CAISO NP15 hourly index for the hour ending 20 CT July 20 represents the average $/MW revenue, received by the average battery based on the hub battery storage output during that hour of the day and NP15 hourly day-ahead price.

Platts will also publish daily indices for its five zones/hubs, calculating total profit indices by the sum of positive hourly revenues, cost indices by the sum of hourly costs and net revenues, which represent the difference between profits and costs for the day. So, the CAISO NP15 BESS profit index for July 20 represents total profits, received by the average battery in the NP15 interface, CAISO NP15 BESS cost index represents total costs, associated with charging the battery, and CAISO NP15 BESS net revenue represents the difference between profit and cost that day.

Hourly indices:

CAISO NP15 BESS revenue indices hours 1-24

CAISO SP15 BESS revenue indices hours 1-24

ERCOT North BESS revenue indices hours 1-24

ERCOT South BESS revenue indices hours 1-24

ERCOT West BESS revenue indices hours 1-24

Daily indices:

CAISO NP15 BESS cost

CAISO NP15 BESS profit

CAISO NP15 BESS net revenue

CAISO SP15 BESS cost

CAISO SP15 BESS profit

CAISO SP15 BESS net revenue

ERCOT North BESS cost

ERCOT North BESS profit

ERCOT North BESS revenue

ERCOT South BESS cost

ERCOT South BESS profit

ERCOT South BESS net revenue

ERCOT West BESS cost

ERCOT West BESS profit

ERCOT West BESS net revenue

Unit: $/MW.

For CAISO indices, Platts uses SP15 and NP15 Generation Hub day-ahead hourly prices. For ERCOT, Platts uses North, West and South Loading Zones day-ahead hourly prices.

Battery data from ERCOT represents systemwide net output from Energy Storage Resources using real-time telemetered data. Battery data from CAISO represents systemwide net battery output.

In cases of missing data from ERCOT or CAISO, Platts will publish last available data and update when new data becomes available. If no new data becomes available, Platts will not publish indices for that day.

Brazil Forward Curve

Description	Symbol
Brazil Conventional Power (Southeast-Central West Forward) Front Mo $/MGW	BCPSB00
Brazil Conventional Power (Southeast-Central West Forward) Front Mo BRL/MGW	BCPSA00
Brazil Conventional Power (Southeast-Central West Forward) Front Mo01 $/MGW	BCPSB01
Brazil Conventional Power (Southeast-Central West Forward) Front Mo01 BRL/MGW	BCPSA01
Brazil Conventional Power (Southeast-Central West Forward) Front Mo02 $/MGW	BCPSB02
Brazil Conventional Power (Southeast-Central West Forward) Front Mo02 BRL/MGW	BCPSA02
Brazil Conventional Power (Southeast-Central West Forward) Front Mo03 $/MGW	BCPSB03
Brazil Conventional Power (Southeast-Central West Forward) Front Mo03 BRL/MGW	BCPSA03
Brazil Conventional Power (Southeast-Central West Forward) Front Mo04 $/MGW	BCPSB04
Brazil Conventional Power (Southeast-Central West Forward) Front Mo04 BRL/MGW	BCPSA04
Brazil Conventional Power (Southeast-Central West Forward) Front Mo05 $/MGW	BCPSB05
Brazil Conventional Power (Southeast-Central West Forward) Front Mo05 BRL/MGW	BCPSA05
Brazil Conventional Power (Southeast-Central West Forward) Front Mo06 $/MGW	BCPSB06
Brazil Conventional Power (Southeast-Central West Forward) Front Mo06 BRL/MGW	BCPSA06
Brazil Conventional Power (Southeast-Central West Forward) Front Mo07 $/MGW	BCPSB07
Brazil Conventional Power (Southeast-Central West Forward) Front Mo07 BRL/MGW	BCPSA07
Brazil Conventional Power (Southeast-Central West Forward) Front Mo08 $/MGW	BCPSB08
Brazil Conventional Power (Southeast-Central West Forward) Front Mo08 BRL/MGW	BCPSA08
Brazil Conventional Power (Southeast-Central West Forward) Front Mo09 $/MGW	BCPSB09
Brazil Conventional Power (Southeast-Central West Forward) Front Mo09 BRL/MGW	BCPSA09
Brazil Conventional Power (Southeast-Central West Forward) Front Mo10 $/MGW	BCPSB10
Brazil Conventional Power (Southeast-Central West Forward) Front Mo10 BRL/MGW	BCPSA10
Brazil Conventional Power (Southeast-Central West Forward) Front Mo11 $/MGW	BCPSB11
Brazil Conventional Power (Southeast-Central West Forward) Front Mo11 BRL/MGW	BCPSA11
Brazil Conventional Power (Southeast-Central West Forward) Front Mo12 $/MGW	BCPSB12
Brazil Conventional Power (Southeast-Central West Forward) Front Mo12 BRL/MGW	BCPSA12

Brazil Forward Curve

Description	Symbol
Brazil Conventional Power (Southeast-Central West Forward) Front Mo13 $/MGW	BCPSB13
Brazil Conventional Power (Southeast-Central West Forward) Front Mo13 BRL/MGW	BCPSA13
Brazil Conventional Power (Southeast-Central West Forward) Front Mo14 $/MGW	BCPSB14
Brazil Conventional Power (Southeast-Central West Forward) Front Mo14 BRL/MGW	BCPSA14
Brazil Conventional Power (Southeast-Central West Forward) Front Qr05 $/MGW	BCPSR05
Brazil Conventional Power (Southeast-Central West Forward) Front Qr05 BRL/MGW	BCPSQ05
Brazil Conventional Power (Southeast-Central West Forward) Front Qr06 $/MGW	BCPSR06
Brazil Conventional Power (Southeast-Central West Forward) Front Qr06 BRL/MGW	BCPSQ06
Brazil Conventional Power (Southeast-Central West Forward) Front Qr07 $/MGW	BCPSR07
Brazil Conventional Power (Southeast-Central West Forward) Front Qr07 BRL/MGW	BCPSQ07
Brazil Conventional Power (Southeast-Central West Forward) Front Qr08 $/MGW	BCPSR08
Brazil Conventional Power (Southeast-Central West Forward) Front Qr08 BRL/MGW	BCPSQ08
Brazil Conventional Power (Southeast-Central West Forward) Front Yr03 $/MGW	BCPSZ03
Brazil Conventional Power (Southeast-Central West Forward) Front Yr03 BRL/MGW	BCPSY03
Brazil Conventional Power (Southeast-Central West Forward) Front Yr04 $/MGW	BCPSZ04
Brazil Conventional Power (Southeast-Central West Forward) Front Yr04 BRL/MGW	BCPSY04
Brazil Conventional Power (Southeast-Central West Forward) Front Yr05 $/MGW	BCPSZ05
Brazil Conventional Power (Southeast-Central West Forward) Front Yr05 BRL/MGW	BCPSY05
Brazil Conventional Power (Southeast-Central West Forward) Front Yr06 $/MGW	BCPSZ06
Brazil Conventional Power (Southeast-Central West Forward) Front Yr06 BRL/MGW	BCPSY06
Brazil Conventional Power (Southeast-Central West Forward) Front Yr07 $/MGW	BCPSZ07
Brazil Conventional Power (Southeast-Central West Forward) Front Yr07 BRL/MGW	BCPSY07
Brazil Conventional Power (Southeast-Central West Forward) Front Yr08 $/MGW	BCPSZ08
Brazil Conventional Power (Southeast-Central West Forward) Front Yr08 BRL/MGW	BCPSY08

Brazil Power Forward Curve

Platts Brazil Power Forward price assessments represent conventional power delivered in Brazil's Southeast/Central-West subsystem, as defined by the Operador Nacional do Sistema Elétrico, and are published as a value in Brazilian reals per Megawatt hour (Real/MWh) and US dollars per Megawatt hour ($/MWh). The assessments follow the Platts US publishing schedule and consider market information reported to Platts and published throughout the day until 1600 Houston time, including firm bids and offers, trades, and indicative values, as well as any other data deemed relevant to the assessment process. The assessments reflect electricity for delivery within stated months, quarters and years, as follows:

M

M+1

M+2

M+3

M+4

M+5

M+6

M+7

M+8

M+9

M+10

M+11

M+12

M+13

M+14

Q+5

Q+6

Q+7

Q+8

Y+3

Y+4

Y+5

Y+6

Y+7

Y+8

Bitcoin Quarq spreads

North America ($/MWh)

Description	Symbols		
	Spread	Renewable Any Tech	Solar
ERCOT AEN Zone Spot Baseload Bitcoin Quarq Spread $/MWh	ABIEO00	ABIEP00	ABIEQ00
ERCOT Bus Average Spot Baseload Bitcoin Quarq Spread $/MWh	ABIER00	ABIES00	ABIET00
ERCOT CPS Zone Spot Baseload Bitcoin Quarq Spread $/MWh	ABIEU00	ABIEV00	ABIEW00
ERCOT Houston Hub Spot Baseload Bitcoin Quarq Spread $/MWh	ABIEX00	ABIEY00	ABIEZ00
ERCOT Houston Zone Spot Baseload Bitcoin Quarq Spread $/MWh	ABIFA00	ABIFB00	ABIFC00
ERCOT Hub Average Spot Baseload Bitcoin Quarq Spread $/MWh	ABIFD00	ABIFE00	ABIFF00
ERCOT LCRA Zone Spot Baseload Bitcoin Quarq Spread $/MWh	ABIFG00	ABIFH00	ABIFI00
ERCOT North Hub Spot Baseload Bitcoin Quarq Spread $/MWh	ABIFJ00	ABIFK00	ABIFL00
ERCOT North Zone Spot Baseload Bitcoin Quarq Spread $/MWh	ABIFM00	ABIFN00	ABIFO00
ERCOT Rayburn Zone Spot Baseload Bitcoin Quarq Spread $/MWh	ABIFP00	ABIFQ00	ABIFR00
ERCOT South Hub Spot Baseload Bitcoin Quarq Spread $/MWh	ABIFS00	ABIFT00	ABIFU00
ERCOT South Zone Spot Baseload Bitcoin Quarq Spread $/MWh	ABIFV00	ABIFW00	ABIFX00
ERCOT West Hub Spot Baseload Bitcoin Quarq Spread $/MWh	ABIGB00	ABIGC00	ABIGD00
ERCOT West Zone Spot Baseload Bitcoin Quarq Spread $/MWh	ABIFY00	ABIFZ00	ABIGA00
SPP North Hub Spot Baseload Bitcoin Quarq Spread $/MWh	ABIGE00	ABIGF00	ABIGG00
SPP South Hub Spot Baseload Bitcoin Quarq Spread $/MWh	ABIGH00	ABIGI00	ABIGJ00

Europe ($/MWh)

Nordics and Germany Description	Symbols			
	Spread	Hydro	Wind	Solar
DK1 West Denmark Spot Baseload Bitcoin Quarq Spread $/MWh	ABIDQ00	ABIDR00	ABIDX00	ABIDS00
DK2 East Denmark Spot Baseload Bitcoin Quarq Spread $/MWh	ABIDY00	ABIDZ00	ABIEF00	ABIEA00
FI Finland Spot Baseload Bitcoin Quarq Spread $/MWh	ABIDM00	ABIDN00	ABIDP00	ABIDO00
NO1 Oslo Spot Baseload Bitcoin Quarq Spread $/MWh	ABIAS00	ABIAT00	ABIAV00	ABIAU00
NO2 Kristiansand Spot Baseload Bitcoin Quarq Spread $/MWh	ABIBA00	ABIBB00	ABIBD00	ABIBC00
NO3 Molde Trondheim Spot Baseload Bitcoin Quarq Spread $/MWh	ABIBE00	ABIBJ00	ABIBL00	ABIBK00
NO4 Tromso Spot Baseload Bitcoin Quarq Spread $/MWh	ABIBQ00	ABIBN00	ABIBT00	ABIBS00
NO5 Bergen Spot Baseload Bitcoin Quarq Spread $/MWh	ABIBY00	ABIBZ00	ABICB00	ABICA00
Nord Pool systemwide Spot Baseload Bitcoin Quarq Spread $/MWh	ABIEK00	ABIEL00	ABIEN00	ABIEM00
SE1 Lulea Spot Baseload Bitcoin Quarq Spread $/MWh	ABICG00	ABICH00	ABICJ00	ABICI00
SE2 Sundsvall Spot Baseload Bitcoin Quarq Spread $/MWh	ABICO00	ABICP00	ABICR00	ABICQ00
SE3 Stockholm Spot Baseload Bitcoin Quarq Spread $/MWh	ABICW00	ABICX00	ABICZ00	ABICY00
SE4 Malmo Spot Baseload Bitcoin Quarq Spread $/MWh	ABIDE00	ABIDF00	ABIDH00	ABIDG00
Germany	ABIAE00	ABIAF00	ABIAH00	ABIAG00
	Spread	Biomass	Non-biomass	
United Kingdom	ABIAL00	ABIAN00	ABIAM00	

Europe (Eur/MWh)

Nordics and Germany Description	Symbols			
	Spread	Hydro	Wind	Solar
DK1 West Denmark Spot Baseload Bitcoin Quarq Spread Eur/MWh	ABIDU00	ABIDV00	ABIDT00	ABIDW00
DK2 East Denmark Spot Baseload Bitcoin Quarq Spread Eur/MWh	ABIEC00	ABIED00	ABIEB00	ABIEE00
FI Finland Spot Baseload Bitcoin Quarq Spread Eur/MWh	ABIDI00	ABIDJ00	ABIDL00	ABIDK00
NO1 Oslo Spot Baseload Bitcoin Quarq Spread Eur/MWh	ABIAO00	ABIAP00	ABIAR00	ABIAQ00
NO2 Kristiansand Spot Baseload Bitcoin Quarq Spread Eur/MWh	ABIAW00	ABIAX00	ABIAZ00	ABIAY00
NO3 Molde Trondheim Spot Baseload Bitcoin Quarq Spread Eur/MWh	ABIBF00	ABIBF00	ABIBH00	ABIBG00
NO4 Tromso Spot Baseload Bitcoin Quarq Spread Eur/MWh	ABIBM00	ABIBR00	ABIBP00	ABIBO00
NO5 Bergen Spot Baseload Bitcoin Quarq Spread Eur/MWh	ABIBU00	ABIBV00	ABIBX00	ABIBW00
Nord Pool systemwide Spot Baseload Bitcoin Quarq Spread Eur/MWh	ABIEG00	ABIEH00	ABIEJ00	ABIEI00
SE1 Lulea Spot Baseload Bitcoin Quarq Spread Eur/MWh	ABICC00	ABICD00	ABICF00	ABICE00
SE2 Sundsvall Spot Baseload Bitcoin Quarq Spread Eur/MWh	ABICK00	ABICL00	ABICN00	ABICM00
SE3 Stockholm Spot Baseload Bitcoin Quarq Spread Eur/MWh	ABICS00	ABICT00	ABICV00	ABICU00
SE4 Malmo Spot Baseload Bitcoin Quarq Spread Eur/MWh	ABIDA00	ABIDB00	ABIDD00	ABIDC00
Germany	ABIAA00	ABIAB00	ABIAD00	ABIAC00
	Spread	Biomass	Non-biomass	
United Kingdom	ABIAI00	ABIAK00	ABIAJ00	

Bitcoin Quarq spreads

Platts Bitcoin Quarq spreads are daily values calculated for 31 locations using the local electricity cost and Bitcoin price of the day. The Bitcoin price is the simple average of Bitcoin prices during the day. The electricity consumed to mine one Bitcoin is calculated using the hashrate required on the day as well as the average electricity usage of a standard graphic card Antminer S19 Pro, which has an average 110 TeraHashes per second (TH/s) using 3.25 Kilowatts. The corresponding day-ahead power price of each location is then used to calculate the cost of power to mine Bitcoin. In the UK, Platts power price assessments are used. Third party data is used for Texas, Germany and Nordics. The Platts Bitcoin Quarq Spreads are derived from the difference between the Bitcoin price and the electricity cost.

In addition to the Bitcoin Quarq spreads, Platts publishes Renewable Quarq spreads that use renewable sourced market-based attribute equivalents. The cost of relevant Renewable Energy Certificates (RECs) or Guarantee of Origin Certificates (GOs) are subtracted from the spread to calculate the mining profitability using renewable electricity.

The calculation typically references the REC or GO contract most relevant to the production period for the spread. In the UK and in Texas the production period is matched by rolling with the compliance period (April of year 1 to March of year 2), to match the rest of the certificates that run on a 12-month rolling calendar basis.

All calculations are converted to USD per MWh to have a like for like comparison across the world.

Revision History

February 2025: Platts added Brazil Power Forward Curve assessments.

August 2024: Platts launched Brazil Power Forwards Curve and Battery Energy Storage Systems (BESS) Indices.

April 2024: Reviewed the guide and made few minor edits.

October 2023: Platts launched revised NYISO solar RPI to reflect behind-the-meter solar generation as reported by NYISO.

August 2023: Reviewed the guide and made few minor edits. Platts added new ERCOT weighted average LMP solar capture prices.

April 2023: Platts completed an annual review of this guide, reviewing all content, correcting typos, and making edits to language throughout.

February 2023: Reviewed the guide and made some small edits. Restated the required information expected from price submitters and clarified that wind and solar power sources specifically are reflected in our Renewable, Curtailment, Penetration and Capture price indices. The changes were made to add clarity and do not affect published values.

May 2022: Platts launched Bitcoin Quarq spreads on May 19, 2022.

April 2022: Platts completed an annual review of this guide, reviewing all content, correcting typos, and making edits to language throughout. Platts further added information on S&P Global' s commitment to diversity and inclusion.

March 2022: Platts added new Renewable Capture Prices for CAISO, ERCOT, ISONE, MISO, PJM, NYISO and SPP. Platts added new ISONE wind and solar Renewable Penetration Indices.

May 2021: Platts added deal count symbols for power price indices, added new symbols that reflect hourly percentage of Renewable Penetration Indices for CAISO, SPP, ERCOT, MISO, PJM, and NYISO, and completed an annual update to the US Electricity Methodology Guide,

December 2020: Platts added solar and wind Renewable Penetration Indices for CAISO, SPP, ERCOT, MISO, PJM, and NYISO. Platts added new symbols for CAISO and SPP Curtailment indices

November 2020: Platts discontinued the renewable CASO Curtailment indices. September 2020: Platts added Renewable Curtailment Indices section and hourly curtailment symbols.

April 2020: Platts completed an annual update to the US Electricity Methodology Guide in April 2020. In this update, Platts reviewed all content and made layout-format and a few edits throughout.

February 2020: Platts added CASO Curtailment hourly weightings and hourly curtailment symbols. Additionally, Platts added Northeast and California carbon assessments symbols.

December 2019: Platts added Mid-C Hourly (Hourly Bilateral) Indices and Renewable Energy CAISO Curtailment Indices sections.

April 2019: Platts completed an annual update to the North American Electricity Methodology Guide in April 2019. In this update, Platts reviewed all content and made minor edits throughout.

January 2019: Platts eliminated deal count, volume thresholds, limit on trade size for North American power indexes on January 31.

October 2018: Platts discontinued non-firm daily assessments at all Western locations on July 31.

May 2018: Platts discontinued and removed references to near-term power assessments in North American markets on April 30, 2018.

Mar 2018: Platts completed an annual update to the North American Electricity Methodology Guide in March 2018. In this update, Platts reviewed all content and made minor edits throughout.

June 2017: Platts updated gas and power pairing used to calculate marginal heat rates and spark spread data.

March 2017: Platts completed an annual update to the North American Electricity Methodology Guide in March 2017. In this update, Platts reviewed all content.

March 2016: Platts completed an annual update to the North American Electricity Methodology Guide in February 2016. In this update, Platts reviewed all content. Platts updated guidance around how to report information.

December 2014: Deleted on-peak and off-peak bilateral daily assessments for markets served by independent system operators. Also, added on-peak and off-peak bilateral daily assessments for Into GTC, John Day, NOB, Pinnacle Peak and Westwing.

January 2014: Deleted references to daily forward assessments to reflect that daily market-on-close assessments of North American forward power markets, known as the Platts-ICE Forward Curve –Electricity (PFC Electricity), are no longer produced by Platts editorial. Under the new methodology, PFC Electricity is derived by the Platts quantitative team. See separate methodology and specifications guides for Platts-ICE Forward Curve – Electricity (North American) and M2MS Power.

September 2013: Added non-firm daily assessments at all Western locations; added Sunday peak and off-peak for all Western locations.

January 2012: Replacement of the Cinergy Hub with the Indiana Hub, effective January 1, 2012.