SD_REGDTL5MINSUB - Regulation Five Minute Unit Detail Subaccount Report - Rev 0

 $SD_REGDTL5MINSUB_<customer\ id>_<settlement\ date>_<version>_<subaccount_id>.CSV$

<Customer Name>

Date: mm/dd/yyyy and Version: mm/dd/yyyy hh:mm:ss GMT

| Availability: Daily | | | | |
|--|---|--|--|--|
| REPORT COLUMN | DESCRIPTION | | | |
| Opportunity Cost Section | | | | |
| Subaccount ID | The alpha numeric identifier for the subaccount. | | | |
| Subaccount Name | The name of the subaccount. | | | |
| Trading Interval | Specific five-minute interval for which the information is reported. (For daylight-saving crossover days: the long day extra hour = hh:mmX, the short day removes intervals from 01:00 to 01:55.) | | | |
| Hour End | Specific hour for which the information is reported. Numeric from 1 – 24. (For daylight-saving crossover days: the long day extra hour = 02X, the short day removes hour 02.) | | | |
| Asset ID | Numerical identifier for the asset associated with the subaccount. | | | |
| Asset Name | Name of the asset. | | | |
| Opportunity Price | The MW weighted average Supply Offer price for the energy associated with the MW's between the Economic Level and Perfect AGC Output While Regulating. | | | |
| Economic Level | The Resource's expected dispatch level if it had been dispatched in economic merit order. | | | |
| Perfect AGC Output While Regulating | Output level at which the resource should be operating while regulating if following its AGC Setpoint value at its claimed Automatic Response Rate without delay. | | | |
| Minutes on Regulation | The number of minutes the resource was on regulation during the Trading Interval. | | | |
| Regulation Opportunity Cost | Regulation Opportunity Cost is the product of Minutes on Regulation divided by five, absolute difference between LMP and Opportunity Price and absolute difference between Economic Level and Perfect AGC Output While Regulating, divided by 12. This value will be zero for non-generating resources. | | | |
| Regulation Opportunity Cost Type | Specifies ROC types, as follows: OOM UPLIFT = Out Of Merit Uplift LOC = Lost Opportunity Cost N/A = Type Not Applicable (ROC = 0) | | | |
| Ownership Share | A right or obligation, for purposes of settlement, to a percentage share of all credits or charges associated with a resource. | | | |
| Subaccount Share of Regulation Opportunity Cost | Subaccount's share of the Regulation Opportunity Cost based on the Ownership Share of the resource. | | | |
| Reg | gulation Up Reserve Charge Section | | | |
| Subaccount ID | The alpha numeric identifier for the subaccount. | | | |
| Subaccount Name | The name of the subaccount. | | | |
| Trading Interval | Specific five-minute interval for which the information is reported. (For daylight-saving crossover days: the long day extra hour = hh:mmX, the short day removes intervals from 01:00 to 01:55.) | | | |
| Hour End | Specific hour for which the information is reported. Numeric from 1 – 24. (For daylight-saving crossover days: the long day extra hour = 02X, the short day removes hour 02.) | | | |

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| Availability: Daily | | | |
|---|---|--|--|
| REPORT COLUMN | DESCRIPTION | | |
| Asset ID | Numerical identifier for the asset associated with the subaccount. | | |
| Asset Name | Name of the asset. | | |
| Regulation High Limit | The highest level of energy of the resource while it is providing regulation, in MW, submitted by the Subaccount. | | |
| Telemetered MW | Telemetry value for the five-minute Trading Interval. | | |
| Energy Quantity | The Metered Quantity for Settlement for the five-minute Trading Interval. | | |
| Regulation Capacity | The lesser of five times the Automatic Response Rate, and one-half of the difference between the Regulation High Limit and the Regulation Low Limit of a Resource capable of providing Regulation. | | |
| Regulation Up MW | The lesser of: the difference between Regulation High Limit and Telemetered MW, the difference between Regulation High Limit and Energy Quantity, and Regulation Capacity. If this value is negative, it will be set to zero. | | |
| Real-Time Reserve Market TMSR Clearing Price | The Real-Time Reserve Market TMSR Clearing Price for the reserve zone the asset is located in. | | |
| Real-Time Reserve Market TMNSR Clearing Price | The Real-Time Reserve Market TMNSR Clearing Price for the reserve zone the asset is located in. | | |
| Regulation Selector Price | The Locational Marginal Price used during the Regulation selection process. | | |
| Regulation Up Reserve Charge | Regulation Up Reserve Charge is the Regulation Up MW multiplied by the Minutes on Regulation divided by five, and the minimum of the applicable Real-Time Reserve Price and Regulation Selector Price, divided by 12. | | |
| Ownership Share | A right or obligation, for purposes of settlement, to a percentage share of all credits or charges associated with a resource. | | |
| Subaccount Share of Regulation Up Reserve Charge | Subaccount's share of the Regulation Up Reserve Charge based on the Ownership Share of the resource. | | |
| | Regulation Unit Detail Section | | |
| Subaccount ID | The alpha numeric identifier for the subaccount. | | |
| Subaccount Name | The name of the subaccount. | | |
| Trading Interval | Specific five-minute interval for which the information is reported. (For daylight-saving crossover days: the long day extra hour = hh:mmX, the short day removes intervals from 01:00 to 01:55.) | | |
| Hour End | Specific hour for which the information is reported. Numeric from 1 – 24. (For daylight-saving crossover days: the long day extra hour = 02X, the short day removes hour 02.) | | |
| Asset ID | Numerical identifier for the asset associated with the subaccount. | | |
| Asset Name | Name of the asset. | | |
| Regulation Interval Performance Score | Score ranging from 0 to 1 that evaluates how well a regulation resource followed its Automatic Generation Control (AGC) Setpoint within an interval. | | |
| Evaluation Flag | Indicates that a resource is currently in test environment. | | |

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| REPORT COLUMN | DESCRIPTION | | |
|---|---|--|--|
| Regulation Service Offer Price | Customer offer price (\$/MWh) to provide Regulation Service. | | |
| Regulation Service Clearing Price | Regulation Service Clearing Price for the interval, as defined in Market Rule 1. | | |
| Regulation Service | Regulation Service is the change in output or consumption made in response to changing AGC Setpoints. | | |
| Regulation Service Cost | Resource specific cost of providing Regulation Service. It is the product of Regulation Service, Regulation Service Offer Price, and Regulation Interval Performance Score. | | |
| Regulation Service Credit | Regulation Service Credit is the product of Regulation Service, Regulation Service Clearing Price, and Regulation Interval Performance Score. | | |
| Minutes on Regulation | Portion of the trading interval that a resource is providing Regulation. | | |
| Regulation Capacity | The lesser of five times the Automatic Response Rate, and one-half of the difference between the Regulation High Limit and the Regulation Low Limit of a Resource capable of providing Regulation. | | |
| Regulation Capacity Offer Price | Customer offer price (\$/MWh) to provide Regulation Capacity. | | |
| Regulation Inter-temporal Opportunity Costs | Customer offer price (\$/MWh) of Regulation Inter-temporal Opportunity Costs. | | |
| Regulation Capacity Clearing Price | Regulation Capacity Clearing Price for the interval, as defined in Market Rule 1. | | |
| Regulation Capacity Cost | Resource specific cost of providing Regulation Capacity. Regulation Capacity Cost is the product of Minutes on Regulation/5, Regulation Capacity, the sum of Regulation Capacity Offer Price and Regulation Inter-temporal Opportunity Costs, and Regulation Interval Performance Score, divided by 12. | | |
| Regulation Capacity Credit | Regulation Capacity Credit is the product of Minutes on Regulation/5, Regulation Capacity, Regulation Capacity Clearing Price, and Regulation Interval Performance Score, divided by 12. | | |
| Regulation Opportunity Cost | Regulation Opportunity Cost is the product of Minutes on Regulation divided by five, absolute difference between LMP and Opportunity Price and absolute difference between Economic Level and Perfect AGC Output While Regulating, divided by 12. This value will be zero for non-generating resources. | | |
| Regulation Payment | Resource specific sum of Regulation Service Credit and Regulation Capacity Credit. This payment will be used to determine if the resource will be paid a Regulation Make Whole Cost Payment. | | |
| Total Regulation Cost | Resource specific sum of Regulation Service Cost, Regulation Cost and Regulation Opportunity Cost. This cost will be used to determine if the Resource will be paid a Regulation Make Whole Cost Payment. | | |
| Regulation Make Whole Cost Payment | Total Regulation Cost minus the Regulation Payment. If the Total Regulation Cost is less than the Regulation Payment, then the Regulation Make Whole Cost Payment is zero. | | |
| Regulation Up Reserve Charge | Regulation Up Reserve Charge is the Regulation Up MW multiplied by the Minutes on Regulation divided by five, and the minimum of the applicable Real-Time Reserve Price and Regulation Selector Price, divided by 12. | | |

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| REPORT COLUMN | DESCRIPTION | |
|-------------------------------------|--|--|
| Ownership Share | A right or obligation, for purposes of settlement, to a percentage share | |
| | of all credits or charges associated with a resource. | |
| Subaccount Share of Regulation | Subaccount's share of the Regulation Service Credit based on the | |
| Service Credit | Ownership Share of the resource. | |
| Subaccount Share of Regulation | Subaccount's share of the Regulation Capacity Credit based on the | |
| Capacity Credit | Ownership Share of the resource. | |
| Subaccount Share of Regulation Make | Subaccount's share of the Regulation Make Whole Cost Payment | |
| Whole Cost Payment | based on the Ownership Share of the resource. | |
| Subaccount Share of Regulation Up | Subaccount's share of the Regulation Up Reserve Charge based on the | |
| Reserve Charge | Ownership Share of the resource. | |

| SD_REGDTL5 MINS UB | Change Summary | Effective Date |
|--------------------|----------------|----------------|
| New. | | 01.01.2021 |