

**SD\_REGDTL5MIN – Regulation Five Minute Unit Detail Report – Rev 3**

SD\_REGDTL5MIN\_&lt;customer id&gt;\_&lt;settlement date&gt;\_&lt;version&gt;.CSV

&lt;Customer Name&gt;

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

Availability: Daily

REPORT COLUMN	DESCRIPTION
<b>Opportunity Cost Section</b>	
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.
Asset Name	Name of the asset.
Subaccount ID	The alpha numeric identifier for the subaccount associated with the asset. This field shall contain a NULL value when subaccount reporting is not enabled.
Subaccount Name	The name of the subaccount. This field shall contain a NULL value when subaccount reporting is not enabled.
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.
Customer Share of Regulation Opportunity Cost	Customer's share of the Regulation Opportunity Cost based on the Ownership Share of the resource.
<b>Regulation Up Reserve Charge Section</b>	
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.

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REPORT COLUMN	DESCRIPTION
Asset Name	Name of the asset.
Subaccount ID	The alpha numeric identifier for the subaccount associated with the asset. This field shall contain a NULL value when subaccount reporting is not enabled.
Subaccount Name	The name of the subaccount. This field shall contain a NULL value when subaccount reporting is not enabled.
Regulation High Limit	The highest level of energy of the resource while it is providing regulation, in MW, submitted by the Customer.
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.
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.
Customer Share of Regulation Up Reserve Charge	Customer's share of the Regulation Up Reserve Charge based on the Ownership Share of the resource.
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 Unit Detail Section	
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.
Asset Name	Name of the asset.
Subaccount ID	The alpha numeric identifier for the subaccount associated with the asset. This field shall contain a NULL value when subaccount reporting is not enabled.
Subaccount Name	The name of the subaccount. This field shall contain a NULL value when subaccount reporting is not enabled.

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REPORT COLUMN	DESCRIPTION
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.
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.

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REPORT COLUMN	DESCRIPTION
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.
Customer Share of Regulation Service Credit	Customer's share of the Regulation Service Credit based on the Ownership Share of the resource.
Customer Share of Regulation Capacity Credit	Customer's share of the Regulation Capacity Credit based on the Ownership Share of the resource.
Customer Share of Regulation Make Whole Cost Payment	Customer's share of the Regulation Make Whole Cost Payment based on the Ownership Share of the resource.
Customer Share of Regulation Up Reserve Charge	Customer's share of the Regulation Up Reserve Charge based on the Ownership Share of the resource.

SD_REGDTL5MIN Change Summary	Effective Date
<b>Modified.</b> In "Regulation Up Reserve Charge Section": added new column for Real-Time Reserve Market TMNSR Clearing Price.	04.01.2020
<b>Modified.</b> In "Regulation Up Reserve Charge Section": modified description of "Regulation Up Reserve Charge". In "Regulation Unit Detail Section": modified description of "Regulation Up Reserve Charge".	04.01.2019
<b>Modified.</b> Added Regulation Unit Detail section.	12.01.2017
<b>New.</b> Update to previously posted Draft report description document: in the "Opportunity Cost Section", modified description of "Regulation Opportunity Cost"; in the "Regulation Up Reserve Charge Section", modified description of "Regulation Up MW".	03.01.2017