***Query Response (Team Aricent)***

The query request should be formatted as outlined below and the request should be submitted to the MISO MOS System for processing:

<env:Envelope xmlns:env="http://schemas.xmlsoap.org/soap/envelope/" xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance">

<env:Header/>

<env:Body>

<QueryResponse xmlns="http://markets.midwestiso.org/dart/xml">

<DayAheadZonalPrices type = “ExPost” day="YYYY-MM-dd">

<DayAheadZonalPricesHourly hour="xx">

<ReserveZonePrices zone="xx">

<GenRegMCP>xx</GenRegMCP>

<GenSpinMCP>xx</GenSpinMCP>

<GenSuppMCP>xx</GenSuppMCP>

<DemandRegMCP>xx</DemandRegMCP>

<DemandSpinMCP>xx</DemandSpinMCP>

<DemandSuppMCP>xx</DemandSuppMCP>

</ReserveZonePrices>

</RealTimeZonalPricesHourly>

</DayAheadZonalPrices>

</QueryResponse>

</env:Body>

</env:Envelope>

<env:Envelope xmlns:env="http://schemas.xmlsoap.org/soap/envelope/" xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance">

<env:Header/>

<env:Body>

<QueryResponse xmlns="http://markets.midwestiso.org/dart/xml">

<DayAheadZonalPrices type = “ExAnte” day="YYYY-MM-dd">

<DayAheadZonalPricesHourly hour="xx">

<ReserveZonePrices zone="xx">

<GenRegMCP>xx</GenRegMCP>

<GenSpinMCP>xx</GenSpinMCP>

<GenSuppMCP>xx</GenSuppMCP>

<DemandRegMCP>xx</DemandRegMCP>

<DemandSpinMCP>xx</DemandSpinMCP>

<DemandSuppMCP>xx</DemandSuppMCP>

</ReserveZonePrices>

</RealTimeZonalPricesHourly>

</DayAheadZonalPrices>

</QueryResponse>

</env:Body>

</env:Envelope>

***Description***

|  |  |  |  |
| --- | --- | --- | --- |
| **Field**  **MC\_PRICE\_DA** | Description | Source | Lookup/Notes |
| XP\_ID | Specifies the pricing node location name. | zone= “xxxx” | X\_XP |
| START\_DT\_GMT | Specifies the market operating day date | Day= “yyyy-mm-dd”  hour= “hh” - 1 hour | Stored as the start of the hour ending "hh" |
| DT\_INTRVL\_VAL |  | +00 01:00:00.000000 |  |
| SOURCE\_CD | Type specifies the ExPost or ExAnte prices being queried for depending on selection in IM | Load from Market screen dropdown | Type = “ExAnte” then 'ISOEXA'  Or  Type = “ExPost” then 'ISOEXP' | MC\_PRICE\_SOURCE\_CODE\_TYPE |
| PRICE\_TYPE\_CD | An identifier that uniquely identifies the type of price.    Unique price types are driven by the tags in the file. If all tags exist and are populated then 5 physical records will be created in the table each with a different price type. | <GenRegMCP> = DAGENREGMCP  <GenSpinMCP> = DAGENSPINMCP  <GenSuppMCP> = DAGENSUPPMCP  <DemandRegMCP> = DADEMREGMCP  <DemandSpinMCP> = DADEMSPINMCP  <DemandSuppMCP> = DADEMSUPPMCP | MC\_PRICE\_DA\_TYPE |
| PRICE\_AMT | price in $ per MW  One physical record for each populated tag. | <GenRegMCP>  <GenSpinMCP>  <GenSuppMCP>  <DemandRegMCP>  <DemandSpinMCP>  <DemandSuppMCP> |  |
| USER\_ID | User id who loaded/updated/created the record | The user id who loaded the file. |  |
| REVISED\_DT | Date and time that the record was loaded/updated/created | The system date when the file was loaded. |  |

Processing

If price for a given start datetime/location/price type/source DOES NOT exist, INSERT the new record.

If price for a given start datetime/location/price type/source ALREADY exists, UPDATE the existing record.

Examples

<?xml version="1.0" encoding="UTF-8"?>

<Envelope xmlns="http://schemas.xmlsoap.org/soap/envelope/">

<Body>

<QueryResponse xmlns="http://markets.midwestiso.org/dart/xml">

<DayAheadZonalPrices type = “ExPost” day="2008-08-14">

<DayAheadZonalPricesHourly hour="1">

<ReserveZonePrices zone="1">

<GenRegMCP>16.48</GenRegMCP>

<GenSpinMCP>1</GenSpinMCP>

<GenSuppMCP>0.01</GenSuppMCP>

<DemandRegMCP>16.47</DemandRegMCP>

<DemandSpinMCP>0.99</DemandSpinMCP>

<DemandSuppMCP>0</DemandSuppMCP>

</ReserveZonePrices>

<ReserveZonePrices zone="2">

<GenRegMCP>16.48</GenRegMCP>

<GenSpinMCP>1</GenSpinMCP>

<GenSuppMCP>0.01</GenSuppMCP>

<DemandRegMCP>16.47</DemandRegMCP>

<DemandSpinMCP>0.99</DemandSpinMCP>

<DemandSuppMCP>0</DemandSuppMCP>

</ReserveZonePrices>

<ReserveZonePrices zone="3">

<GenRegMCP>16.48</GenRegMCP>

<GenSpinMCP>1</GenSpinMCP>

<GenSuppMCP>0.01</GenSuppMCP>

<DemandRegMCP>16.47</DemandRegMCP>

<DemandSpinMCP>0.99</DemandSpinMCP>

<DemandSuppMCP>0</DemandSuppMCP>

</ReserveZonePrices>

<ReserveZonePrices zone="4">

<GenRegMCP>16.48</GenRegMCP>

<GenSpinMCP>1</GenSpinMCP>

<GenSuppMCP>0.01</GenSuppMCP>

<DemandRegMCP>16.47</DemandRegMCP>

<DemandSpinMCP>0.99</DemandSpinMCP>

<DemandSuppMCP>0</DemandSuppMCP>

</ReserveZonePrices>

</DayAheadZonalPricesHourly>

</DayAheadZonalPrices>

<DayAheadZonalPrices day="2008-08-14">

<DayAheadZonalPricesHourly hour="2">

<ReserveZonePrices zone="1">

<GenRegMCP>8.83</GenRegMCP>

<GenSpinMCP>0.01</GenSpinMCP>

<GenSuppMCP>0.01</GenSuppMCP>

<DemandRegMCP>8.82</DemandRegMCP>

<DemandSpinMCP>0</DemandSpinMCP>

<DemandSuppMCP>0</DemandSuppMCP>

</ReserveZonePrices>

<ReserveZonePrices zone="2">

<GenRegMCP>10.11</GenRegMCP>

<GenSpinMCP>0.01</GenSpinMCP>

<GenSuppMCP>0.01</GenSuppMCP>

<DemandRegMCP>10.1</DemandRegMCP>

<DemandSpinMCP>0</DemandSpinMCP>

<DemandSuppMCP>0</DemandSuppMCP>

</ReserveZonePrices>

<ReserveZonePrices zone="3">

<GenRegMCP>8.83</GenRegMCP>

<GenSpinMCP>0.01</GenSpinMCP>

<GenSuppMCP>0.01</GenSuppMCP>

<DemandRegMCP>8.82</DemandRegMCP>

<DemandSpinMCP>0</DemandSpinMCP>

<DemandSuppMCP>0</DemandSuppMCP>

</ReserveZonePrices>

<ReserveZonePrices zone="4">

<GenRegMCP>8.83</GenRegMCP>

<GenSpinMCP>0.01</GenSpinMCP>

<GenSuppMCP>0.01</GenSuppMCP>

<DemandRegMCP>8.82</DemandRegMCP>

<DemandSpinMCP>0</DemandSpinMCP>

<DemandSuppMCP>0</DemandSuppMCP>

</ReserveZonePrices>

</DayAheadZonalPricesHourly>

</DayAheadZonalPrices>

</QueryResponse>

</Body>

</Envelope>

***Testing Approach***

|  |  |
| --- | --- |
| * + - **ISO LOADS** | **(A)utomated / (M)anual** |
| Connectivity - Download From Market | **On hold** |
| FileListener | **M** |
| Job Scheduler | **On hold** |
| Load From File | **M** |
| Verify price data appears correctly on View Prices screen. | **On hold** |
| Load from File: Verify the correct Load from File process is recognized. | **On hold** |
| Verify data is stored in the tables correctly. | **M** |
| Verify that the energy component calculation is correct (Energy = LMP – Congestion – Loss). | **M** |
| 3 consecutive days' worth of data (Validate all 24 hours remain for all 3 days) validate 1st and the last hrs. are intact | **A** |
| Unique key validations for data integrity | **A** |
| Date- one day, multi day range | **A** |
| File with All the Valid Types that are supported (price types, Source, Com\_CD etc) | **A** |
| XP\_Validate end-dated XP validation | **A** |
| Validate user is able to Delete ISO records on the UI - on hold | **On hold** |
| Validate the ~~Auditpath~~ and Load Summary window has correct information | **M** |
| Error handling- Duplicate data validation for data integrity | **A** |
| Error handling- Business Keys (required fields and unique keys) | **A** |
| Error handling - Formatting - look below | **A** |

***Error Handling***

* + Standard nMarket Error handling
  + DST is not observed in Midwest.
  + Node does not exist in nMarket database - T*ransaction point does not exists in the nMarket Database. hour=<hour>, name = <PricingNode name>.*
  + Invalid Date - *Invalid data from file for day. day=<day>*
  + Invalid Hour - *Invalid data from file for hour. hour=<hour>, name = <PricingNode name>*
  + Invalid Format for RegMCP – *Missing or* *Invalid data format from file for RegMCP. hour=<hour>,name = <PricingNode name>, RegMCP=<RegMCP>*
  + Invalid Format for SpinMCP – *Missing or* *Invalid data format from file for SpinMCP. hour=<hour>,name = <PricingNode name>, SpinMCP=<SpinMCP>*
  + Invalid Format for SuppMCP – *Missing or* *Invalid data format from file for SuppMCP. hour=<hour>,name = <PricingNode name>, SuppMCP=<SuppMCP>*