

NYISO Decision Support System Business Objects Universe Design Proposal

Power Suppliers

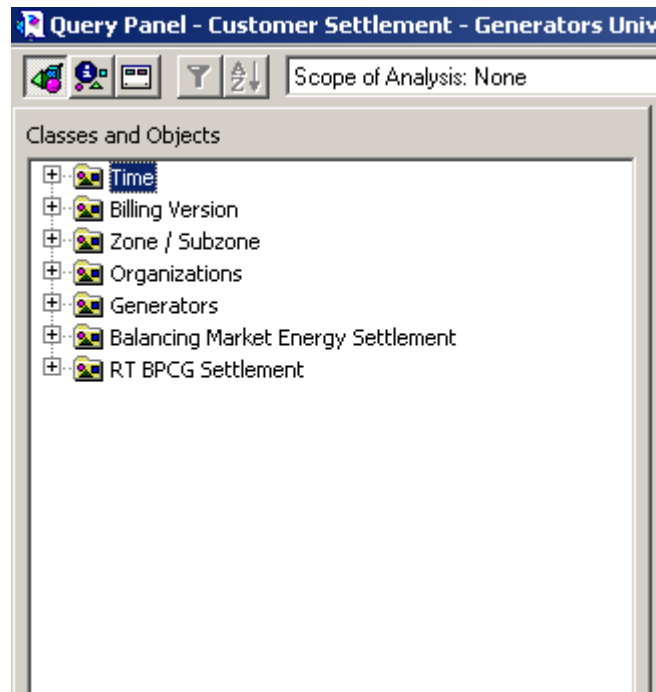
This document contains snapshots/pictures of the proposed Business Objects universe design for the Power Suppliers Universe. The DSS Team is requesting input on the following from Market Participants:

- Are the classes and sub-classes organized clearly?
- Can you quickly and easily find the data elements you need?
- Could you build your most common queries / reports?
- Are there any general comments regarding the proposed design?

The Power Suppliers Universe presented here is the same universe presented on previous Task Force conference calls and at both DSS Pilots. The proposed design is a draft proposal, and the final design is still in-progress.

When analyzing the universe designs, keep in mind the custom reports/queries that you would build the most. The classes should make query/report building quicker and easier.

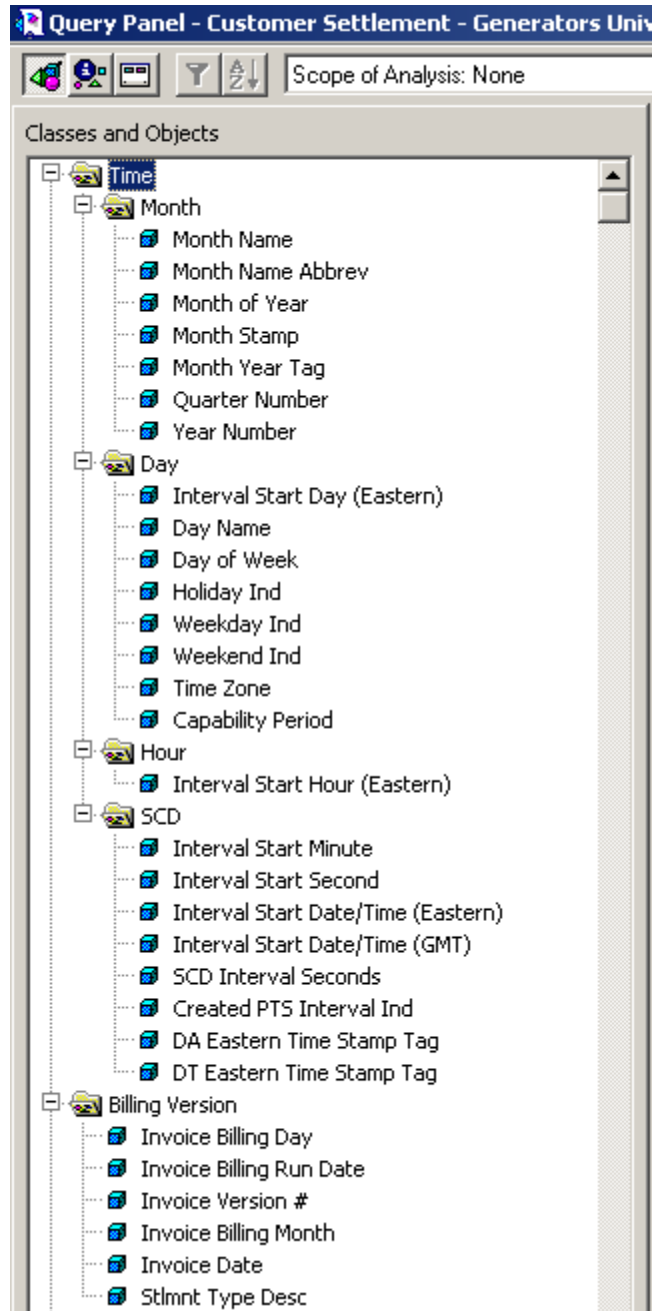
Top Level Classes



- Each top level class can be opened (similar to MS Windows folders) showing sub-classes and data elements
- See following slides for sub-classes and contained data elements.

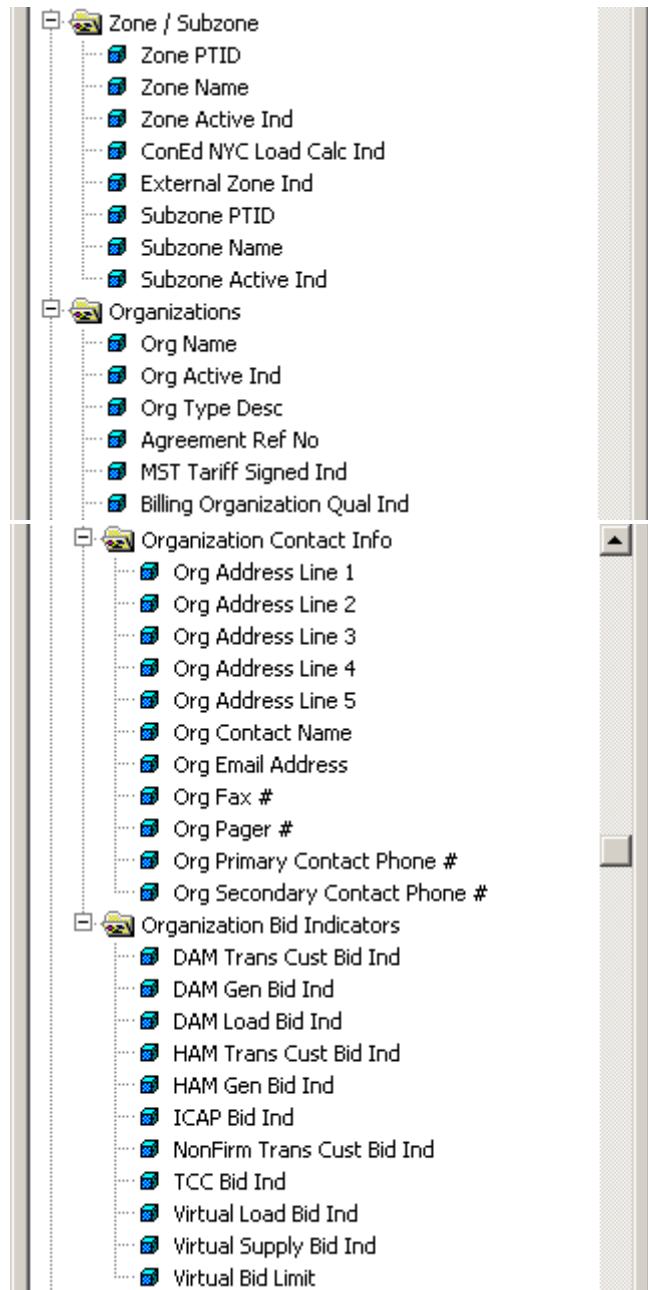
Breakdown of Top Level Classes

- Time
- Billing Version



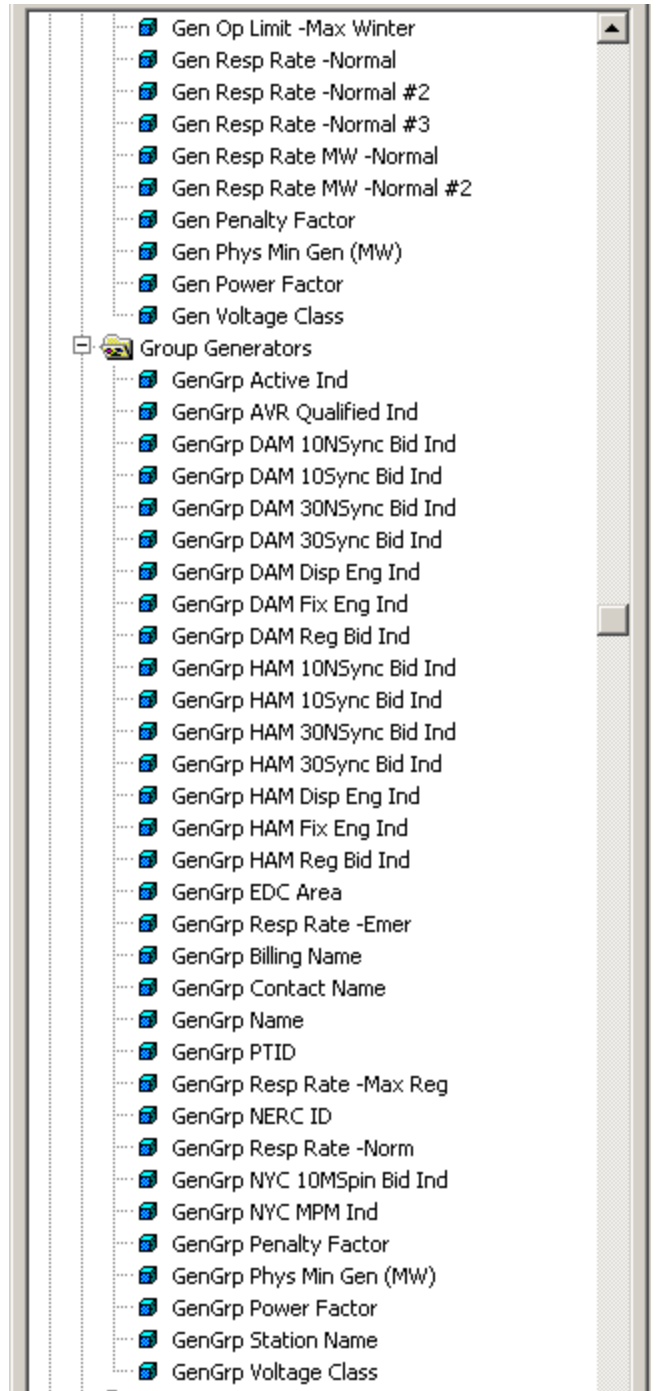
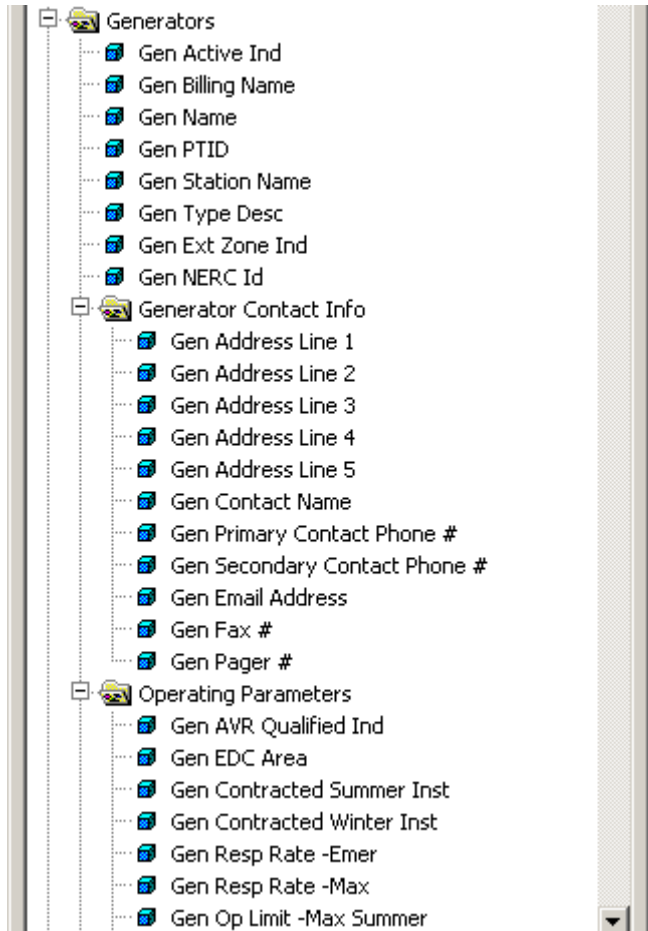
Breakdown of Top Level Classes

- Zone / Subzone
- Organization



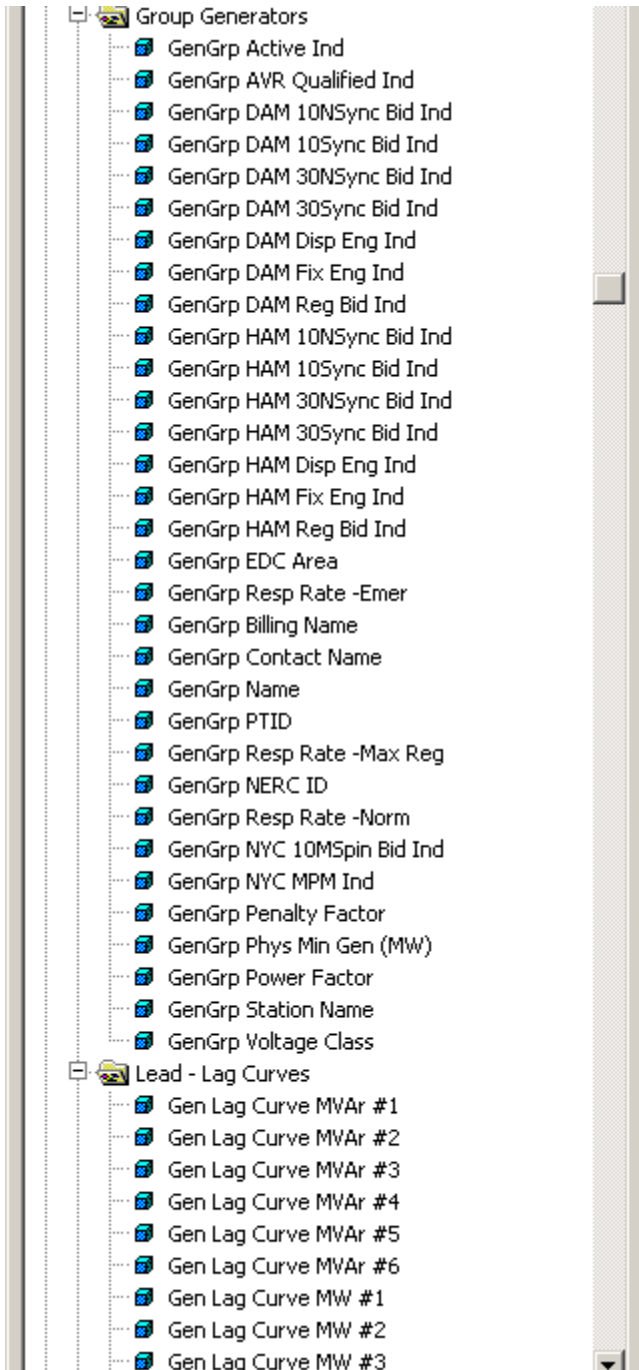
Breakdown of Top Level Classes

- Generators (1 of 2)

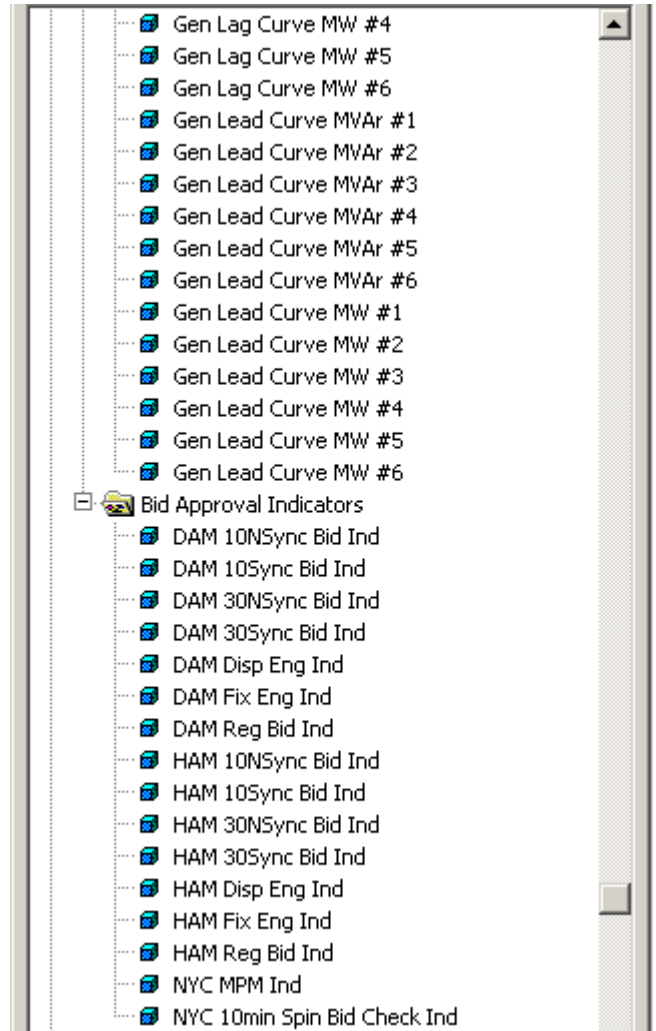


Breakdown of Top Level Classes

- Generators (2 of 2)



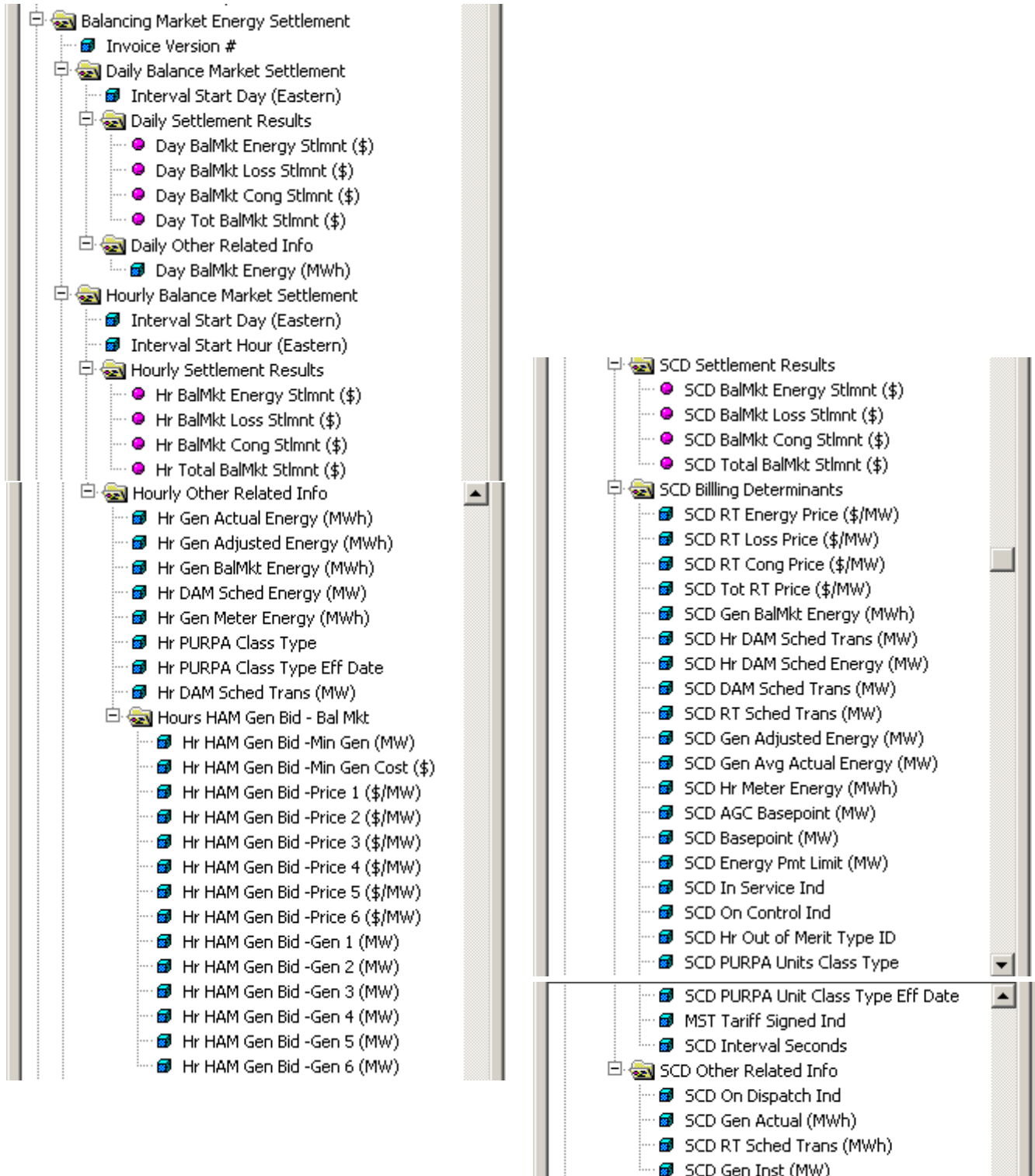
- Group Generators
 - GenGrp Active Ind
 - GenGrp AVR Qualified Ind
 - GenGrp DAM 10NSync Bid Ind
 - GenGrp DAM 10Sync Bid Ind
 - GenGrp DAM 30NSync Bid Ind
 - GenGrp DAM 30Sync Bid Ind
 - GenGrp DAM Disp Eng Ind
 - GenGrp DAM Fix Eng Ind
 - GenGrp DAM Reg Bid Ind
 - GenGrp HAM 10NSync Bid Ind
 - GenGrp HAM 10Sync Bid Ind
 - GenGrp HAM 30NSync Bid Ind
 - GenGrp HAM 30Sync Bid Ind
 - GenGrp HAM Disp Eng Ind
 - GenGrp HAM Fix Eng Ind
 - GenGrp HAM Reg Bid Ind
 - GenGrp EDC Area
 - GenGrp Resp Rate -Emer
 - GenGrp Billing Name
 - GenGrp Contact Name
 - GenGrp Name
 - GenGrp PTID
 - GenGrp Resp Rate -Max Reg
 - GenGrp NERC ID
 - GenGrp Resp Rate -Norm
 - GenGrp NYC 10MSpin Bid Ind
 - GenGrp NYC MPM Ind
 - GenGrp Penalty Factor
 - GenGrp Phys Min Gen (MW)
 - GenGrp Power Factor
 - GenGrp Station Name
 - GenGrp Voltage Class
- Lead - Lag Curves
 - Gen Lag Curve MVar #1
 - Gen Lag Curve MVar #2
 - Gen Lag Curve MVar #3
 - Gen Lag Curve MVar #4
 - Gen Lag Curve MVar #5
 - Gen Lag Curve MVar #6
 - Gen Lag Curve MW #1
 - Gen Lag Curve MW #2
 - Gen Lag Curve MW #3



- Gen Lag Curve MW #4
- Gen Lag Curve MW #5
- Gen Lag Curve MW #6
- Gen Lead Curve MVar #1
- Gen Lead Curve MVar #2
- Gen Lead Curve MVar #3
- Gen Lead Curve MVar #4
- Gen Lead Curve MVar #5
- Gen Lead Curve MVar #6
- Gen Lead Curve MW #1
- Gen Lead Curve MW #2
- Gen Lead Curve MW #3
- Gen Lead Curve MW #4
- Gen Lead Curve MW #5
- Gen Lead Curve MW #6
- Bid Approval Indicators
 - DAM 10NSync Bid Ind
 - DAM 10Sync Bid Ind
 - DAM 30NSync Bid Ind
 - DAM 30Sync Bid Ind
 - DAM Disp Eng Ind
 - DAM Fix Eng Ind
 - DAM Reg Bid Ind
 - HAM 10NSync Bid Ind
 - HAM 10Sync Bid Ind
 - HAM 30NSync Bid Ind
 - HAM 30Sync Bid Ind
 - HAM Disp Eng Ind
 - HAM Fix Eng Ind
 - HAM Reg Bid Ind
 - NYC MPM Ind
 - NYC 10min Spin Bid Check Ind

Breakdown of Top Level Classes

- Balancing Market Energy Settlement



The image displays two side-by-side screenshots of a hierarchical tree view, likely from a software application. The left screenshot shows the 'Balancing Market Energy Settlement' class, which is expanded to show its sub-classes. The right screenshot shows the 'SCD Settlement Results' class, also expanded to show its sub-classes.

Balancing Market Energy Settlement

- Invoice Version #
- Daily Balance Market Settlement
 - Interval Start Day (Eastern)
 - Daily Settlement Results
 - Day BalMkt Energy Stlmnt (\$)
 - Day BalMkt Loss Stlmnt (\$)
 - Day BalMkt Cong Stlmnt (\$)
 - Day Tot BalMkt Stlmnt (\$)
 - Daily Other Related Info
 - Day BalMkt Energy (MWh)
- Hourly Balance Market Settlement
 - Interval Start Day (Eastern)
 - Interval Start Hour (Eastern)
 - Hourly Settlement Results
 - Hr BalMkt Energy Stlmnt (\$)
 - Hr BalMkt Loss Stlmnt (\$)
 - Hr BalMkt Cong Stlmnt (\$)
 - Hr Total BalMkt Stlmnt (\$)
 - Hourly Other Related Info
 - Hr Gen Actual Energy (MWh)
 - Hr Gen Adjusted Energy (MWh)
 - Hr Gen BalMkt Energy (MWh)
 - Hr DAM Sched Energy (MW)
 - Hr Gen Meter Energy (MWh)
 - Hr PURPA Class Type
 - Hr PURPA Class Type Eff Date
 - Hr DAM Sched Trans (MW)
 - Hours HAM Gen Bid - Bal Mkt
 - Hr HAM Gen Bid -Min Gen (MW)
 - Hr HAM Gen Bid -Min Gen Cost (\$)
 - Hr HAM Gen Bid -Price 1 (\$/MW)
 - Hr HAM Gen Bid -Price 2 (\$/MW)
 - Hr HAM Gen Bid -Price 3 (\$/MW)
 - Hr HAM Gen Bid -Price 4 (\$/MW)
 - Hr HAM Gen Bid -Price 5 (\$/MW)
 - Hr HAM Gen Bid -Price 6 (\$/MW)
 - Hr HAM Gen Bid -Gen 1 (MW)
 - Hr HAM Gen Bid -Gen 2 (MW)
 - Hr HAM Gen Bid -Gen 3 (MW)
 - Hr HAM Gen Bid -Gen 4 (MW)
 - Hr HAM Gen Bid -Gen 5 (MW)
 - Hr HAM Gen Bid -Gen 6 (MW)

SCD Settlement Results

- SCD Settlement Results
 - SCD BalMkt Energy Stlmnt (\$)
 - SCD BalMkt Loss Stlmnt (\$)
 - SCD BalMkt Cong Stlmnt (\$)
 - SCD Total BalMkt Stlmnt (\$)
- SCD Billing Determinants
 - SCD RT Energy Price (\$/MW)
 - SCD RT Loss Price (\$/MW)
 - SCD RT Cong Price (\$/MW)
 - SCD Tot RT Price (\$/MW)
 - SCD Gen BalMkt Energy (MWh)
 - SCD Hr DAM Sched Trans (MW)
 - SCD Hr DAM Sched Energy (MW)
 - SCD DAM Sched Trans (MW)
 - SCD RT Sched Trans (MW)
 - SCD Gen Adjusted Energy (MW)
 - SCD Gen Avg Actual Energy (MW)
 - SCD Hr Meter Energy (MWh)
 - SCD AGC Basepoint (MW)
 - SCD Basepoint (MW)
 - SCD Energy Pmt Limit (MW)
 - SCD In Service Ind
 - SCD On Control Ind
 - SCD Hr Out of Merit Type ID
 - SCD PURPA Units Class Type
 - SCD PURPA Unit Class Type Eff Date
 - MST Tariff Signed Ind
 - SCD Interval Seconds
- SCD Other Related Info
 - SCD On Dispatch Ind
 - SCD Gen Actual (MWh)
 - SCD RT Sched Trans (MWh)
 - SCD Gen Inst (MW)

Breakdown of Top Level Classes

- RT BPCG Settlement

- RT BPCG Settlement
 - Invoice Version #
 - Interval Start Day (Eastern)
 - Interval Start Hour (Eastern)
 - Interval Start Date/Time (Eastern)
 - Settlements Results - RT BPCG
 - Day RT BPCG Stlmnt (\$)
 - Intermediate Calculations - RT BPCG
 - Day Startup Cost (\$)
 - Hr RT Tot Net Rev (\$)
 - Hr RT Net Energy Rev (\$)
 - Hr Start Up Cost
 - Hr RT Net AS Rev
 - SCD RT Net Energy Cost (\$)
 - Billing Determinants - RT BPCG
 - SCD BalMkt Energy Stlmnt (\$)
 - SCD BalMkt Loss Stlmnt (\$)
 - SCD BalMkt Cong Stlmnt (\$)
 - SCD Total BalMkt Stlmnt (\$)
 - Hr DAM Sched Energy (MW)
 - Hr DAM Sched Trans (MW)
 - Hr HAM Sched Energy (MW)
 - SCD AGC Basepoint (MW)
 - SCD Basepoint (MW)
 - SCD Gen Adjusted Energy (MW)
 - SCD RT Sched Trans (MW)
 - SCD Energy Pmt Limit (MW)
 - SCD In Service Ind
 - SCD On Control Ind
 - SCD On Dispatch Ind
 - SCD RT Energy Price (\$/MW)
 - SCD RT Loss Price (\$/MW)
 - SCD RT Cong Price (\$/MW)
 - SCD Interval Seconds
 - SCD PURPA Units Class Type
 - SCD Hr Out of Merit Type ID
 - Hr Eligible For Mingen Ind
 - Dispatch Type Description
 - Hr DAM Startup Cost (\$)
 - Hr HAM Startup Cost (\$)

- Billing Deter - DAM Gen Bid Data
 - Hr DAM Gen Bid -Min Gen (MW)
 - Hr DAM Gen Bid -Min Gen Cost (\$)
 - Hr DAM Gen Bid -Gen 1 (MW)
 - Hr DAM Gen Bid -Gen 2 (MW)
 - Hr DAM Gen Bid -Gen 3 (MW)
 - Hr DAM Gen Bid -Gen 4 (MW)
 - Hr DAM Gen Bid -Gen 5 (MW)
 - Hr DAM Gen Bid -Gen 6 (MW)
 - Hr DAM Gen Bid -Price 1 (\$/MW)
 - Hr DAM Gen Bid -Price 2 (\$/MW)
 - Hr DAM Gen Bid -Price 3 (\$/MW)
 - Hr DAM Gen Bid -Price 4 (\$/MW)
 - Hr DAM Gen Bid -Price 5 (\$/MW)
 - Hr DAM Gen Bid -Price 6 (\$/MW)
- Billing Deter - HAM Gen Bid Data
 - Hr HAM Gen Bid -Min Gen (MW)
 - Hr HAM Gen Bid -Min Gen Cost (\$)
 - Hr HAM Gen Bid -Gen 1 (MW)
 - Hr HAM Gen Bid -Gen 2 (MW)
 - Hr HAM Gen Bid -Gen 3 (MW)
 - Hr HAM Gen Bid -Gen 4 (MW)
 - Hr HAM Gen Bid -Gen 5 (MW)
 - Hr HAM Gen Bid -Gen 6 (MW)
 - Hr HAM Gen Bid -Price 1 (\$/MW)
 - Hr HAM Gen Bid -Price 2 (\$/MW)
 - Hr HAM Gen Bid -Price 3 (\$/MW)
 - Hr HAM Gen Bid -Price 4 (\$/MW)
 - Hr HAM Gen Bid -Price 5 (\$/MW)
 - Hr HAM Gen Bid -Price 6 (\$/MW)
- Billing Deter - Net AS Revenue
 - Hr Reg Credit (\$)
 - Hr HAM Sched Reg Cap (MW)
 - Hr DAM Sched Reg Avail (MW)
 - Hr HAM AS Bid -Reg (\$/MW)
 - Hr HAM 10Sync Stlmnt (\$)
 - Hr 10Sync Credit (\$)
 - Hr HAM Sched 10Sync Cap (MW)
 - Hr DAM Sched 10Sync Cap (MW)
 - Hr HAM AS Bid -10Sync Price (\$/MW)
 - Hr Reg Energy Margin (\$)
 - Hr 10Sync LOC Stlmnt (\$)
 - Hr 10Nsync LOC Stlmnt (\$)
 - Hr VSS LOC Stlmnt (\$)