

# DSS Task Force

March 11, 2003

*For Discussion of:*

**NYISO Decision Support System  
Customer Settlements Data Mart**

# Today's Agenda

- DSS Project Update
- DSS Availability Requirements
- MP Feedback on Reporting Requirements
- MP Feedback on DSS Training Plan
- MP Feedback on DSS User Acceptance Plan (UAT)

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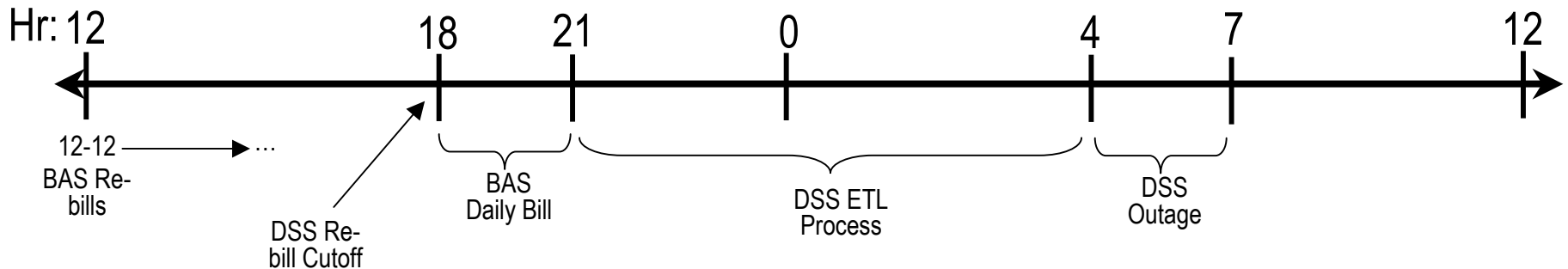
# Project Update / Status

- Finalizing Functional & Technical Requirements
  - *Reports*
  - *ETL Process*
- Team Reports
  - *Architecture Team configuring final production environment*
  - *Application Team finalizing universe design & creating reports*
  - *ETL Team tuning transformations & designing production workflow*
  - *QA Team testing transformations & preparing for full suite of application & data validation testing*
- Targeting Production Release (R1) End of Q2 2003

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# Proposed DSS Availability Timeline



- The timeline is a daily re-occurring process
  - **Continuously - BAS calculates settlement data for prior periods (re-bills)**
  - **6:00-~9:00pm – BAS calculates daily bill settlements**
  - **6:00pm – Cut-off for capture of new settlement data for prior periods (re-bills)**
  - **~9:00-10:00pm – Initiation of ETL process upon completion of daily bill (event driven)**
  - **4:00-~7:00am – DSS outage window; DSS will become available once process has ended**
- Key Points:
  - **The process is designed to capture the daily bill every day.**
  - **Settlement data calculated for prior periods (re-bills) will also be captured, but only if it is completed prior to 6:00pm (periods completed after this cutoff will be loaded the following day).**
  - **Outage window is fixed, but DSS will become available immediately once the process completes.**

# Proposed Exception Handling

## ➤ So, what happens when...

- *A re-bill doesn't complete prior to the 6pm cutoff window?*
  - ▶ The process will be executed as planned, and the settlement data associated with the re-bill will not be captured today (but will be captured in tomorrow's process).
- *The daily bill doesn't complete on-time?*
  - ▶ The process will still initiate (10:30pm), and the settlement data associated with the daily bill will not be captured today (but will be captured in tomorrow's process).
  - ▶ Analysis shows that this should not happen very frequently given the 10:30pm cutoff.
- *Problems prevent the ETL process from completing on-time?*
  - ▶ The process will continue as long as it is feasible to complete in time to bring the DSS back online by 7am.
  - ▶ If it is not possible, the ETL process will continue "behind the scenes", but the DSS outage will be cancelled and no data will be loaded that day.
- *The process during the outage completes successfully prior to the end of the outage window (7am)?*
  - ▶ The DSS Outage window will end early, and the DSS will be available to all users as usual.

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# Reporting Requirements

- **The DSS Team has developed a proposed list of DSS Reports for Release 1 (11 in total)**
  - *Primary context is on settlement data*
- **The list of reports includes some example reports demonstrating Business Objects functionality, and may not be supported as NYISO Corporate Reports**
- **Detailed specifications are in progress...**
- **MPs - Thank you for providing example reports!**

# Release 1 DSS Reports

- **Settlement Results**
- **Invoice Version Control Log**
- **Settlement Details**
  - *Power Supplier Balancing Market Energy*
  - *Power Supplier Real-Time BPCG*
  - *Load Serving Entity Balancing Market Energy*
  - *Transaction Customer Balancing Market LBMP Energy*
  - *Transaction Customer Balancing Market Replacement Energy*
  - *Transaction Customer Balancing Market TUCs*
  - *Transaction Customer Real-Time BPCG (ext. generators)*
- **Settlement Version Comparison Report**
- **Generator Output Charts**

# Release 1 DSS Reports

## ➤ Settlement Results

- *A summary of all settlement results (\$ only) for an organization*
- *Would support drill-down/up functionality across time*
  - ▶ From a monthly summary by organization type
  - ▶ Down to SCD-level detail by generator / load bus / transaction by billing code
- *Does not show billing determinants, only settlement results*

## ➤ Invoice Version Control Log

- *Shows for each invoice what months are being invoiced (and their invoice version number)*
- *Does not link back to settlement CSV versions, just to the invoiced versions (DSS versioning scheme)*

# Release 1 DSS Reports

## ➤ Settlement Detail Reports

- *Power Supplier Balancing Market Energy*
  - ▶ Detailed report at the SCD-level by generator showing the settlement results and all required billing determinants for the power supplier balancing market energy settlement
- *Power Supplier Real-Time BPCG*
  - ▶ Detailed report by generator showing the settlement results, key intermediate calculations, and all required billing determinants for the RT BPCG settlement
  - ▶ Provides drill-down/up and drill-across functionality to support analysis from daily-level to SCD-level
- *Load Serving Entity Balancing Market Energy*
  - ▶ Detailed report at the SCD-level by load bus showing the settlement results and all required billing determinants for the LSE balancing market energy settlement

# Release 1 DSS Reports

## ➤ Settlement Detail Reports (continued)

- *Transaction Customer Balancing Market LBMP Energy*
  - ▶ Detailed report at the SCD-level by transaction showing the settlement results and all required billing determinants for the balancing market LBMP energy settlement
- *Transaction Customer Balancing Market Replacement Energy*
  - ▶ Detailed report at the SCD-level by transaction showing the settlement results and all required billing determinants for the balancing market replacement energy settlement
- *Transaction Customer Balancing Market Transmission Usage Charges (TUC)*
  - ▶ Detailed report at the SCD-level by transaction showing the settlement results and all required billing determinants for the balancing market TUC settlement
- *Transaction Customer RT BPCG (external generators)*
  - ▶ Detailed report by transaction showing the settlement results, key intermediate calculations, and all required billing determinants for the RT BPCG settlement (for external generators)
  - ▶ Provides drill-down/up and drill-across functionality to support analysis from daily-level to SCD-level

# Release 1 DSS Reports

## ➤ **Settlement Version Comparison Report**

- *Allows users to select and view two different invoice versions for the given time period*
- *Includes settlement results and key billing determinants*
- *Also determines and displays net difference and % difference values*

## ➤ **Generator Output Chart**

- *Two charts displaying a generator's output data*
  - ▶ Generator Performance
    - Shows actual output vs. basepoints (various data elements)
  - ▶ Generator Unit Commitment / Scheduling
    - Shows DAM, HAM, and RT schedules, as well as transaction schedules

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# DSS Release 1 Training Plan

- **The DSS Team has been working with NYISO Training to determine DSS training requirements**
- **There are 3 proposed training offerings:**
  - *DSS Introduction Course*
  - *DSS Advanced Course*
  - *DSS On-Demand Introduction Course*
- **All courses will be delivered around the Release 1 Implementation Date**
- **Not designed to replace Business Objects tool training**
  - *Outside training available (recommended for “power users”)*



# DSS Introduction Course

## ➤ **On-line Format (WebEx)**

- *Similar to other NYISO WebEx training courses*
- *Examples will be demonstrated using the DSS (by instructor, with masked data)*
- *Pre-deployment and post-deployment deliveries*

## ➤ **Content**

- *DSS Project Background*
- *Data Warehousing Overview*
- *User Administration / Registration*
- *Business Objects Overview*
- *Corporate Reports Summary*

## ➤ **Audience**

- *Broad group of NYISO staff and Market Participants requiring access to the DSS*

## ➤ **Prerequisites**

- *None*

# DSS Advanced Course

- *On-site Classroom Instructor-Led Format*
  - ▶ Classroom setting at NYISO offices to support a hands-on training experience (with masked data)
  - ▶ Similar to the DSS Pilot sessions
  - ▶ Post-deployment delivery
- *Content*
  - ▶ Recap of Introduction Course
  - ▶ Introduction to Custom Reporting and Querying
- *Audience*
  - ▶ Focused group of NYISO staff and Market Participants requiring access to the DSS for complex settlements data analysis
  - ▶ User with detailed knowledge of NYISO business and settlement rules
- *Prerequisites*
  - ▶ DSS Introduction Course

# DSS On-Demand Introduction Course

- *On-line Self-Directed Format*
  - ▶ Course materials will be developed and posted with other NYISO training materials, to allow users to train “when they want, and at their own pace”
  - ▶ Attendees will be directed to the DSS for examples and exercises (just like normal MP DSS usage, not the training environment)
  - ▶ Post-deployment delivery
- *Content*
  - ▶ DSS Project Background
  - ▶ Data Warehousing Overview
  - ▶ User Administration / Registration
  - ▶ Business Objects Overview
  - ▶ Corporate Reports Summary
- *Audience*
  - ▶ Broad group of NYISO staff and Market Participants requiring access to the DSS
- *Prerequisites*
  - ▶ None

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- **MP Feedback on DSS User Acceptance Plan (UAT)**

# DSS User Acceptance Testing

- **User Acceptance Testing (UAT) is designed as a final step in verifying the quality of the system**
  - *Primarily data quality in this case*
  - *Executed following NYISO Quality Assurance Testing*
- **There are two planned phases to the DSS UAT**
  - *NYISO Internal UAT*
    - ▶ Scripted business scenarios to verify system functions and data
  - *Market Participant UAT*
    - ▶ Verification of market participant specific data via NYISO extracted data queries / reports (for comparison to existing NYISO reports)