Part 6 – RIP Deficiency
Demand Response Information System (DRIS) Training for September 2011 Deployment

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Tuesday, August 30, 2011 10:00 am – 2:00 pm

Wednesday, September 7, 2011 10:00 am – 2:00 pm

Rensselaer, NY

Training Topics

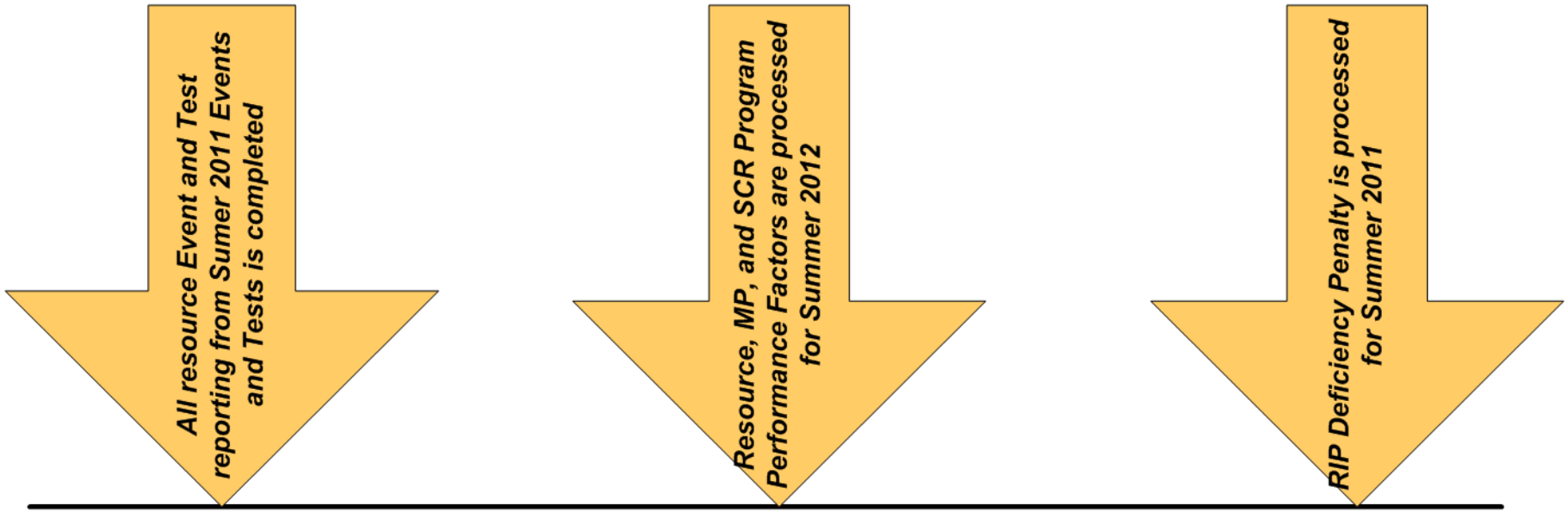
- Part 1: Introduction to DRIS
  - *DRIS User Requirements*
  - *User Privileges*
  - *Access to DRIS*
  - *Additional Tools*
- Part 2: Updates to Existing DRIS Functionality
- Part 3: Background of SCR Baseline Implementation
- Part 4: Resource ACL
  - *SCR Load Zone Peak Hours*
  - *TO Add-back Hours*
  - *Enrollment with ACL*
  - *Summer 2011 ACL Verification*
- Part 5: Provisional ACL
  - *Enrollment with Provisional ACL*
  - *Provisional ACL Verification*
  - *Provisional ACL Deficiency*
- Part 6: RIP Deficiency
  - *Timeline*
  - *Calculation*
- Part 7: Aggregation PF
  - *Timeline*
  - *MP PF and SCR Program PF*
- Part 8: Deployment
  - *Additional Training Sessions*
  - *Deployment Activities*

RIP Deficiency Calculation

- Timeline
- RIP Deficiency Calculation
- View RIP Deficiency

Timeline of RIP Deficiency Calculation

- Deadline to submit all resource Event and Test performance for the Capability Period selected
- Resource, MP, and SCR Program Performance Factors are calculated for the next Equivalent Capability Period
- RIP Deficiency Penalty is calculated for the selected Capability Period



RIP Deficiency Calculation

- The RIP Deficiency is determined for RIPs which had SCR resources enrolled in the selected Capability Period and compares the total resource performance in a zone to total UCAP MW sales in the zone

  - *Calculated on a monthly basis by Load Zone*

  - *Calculation allows over-performance in a zone to compensate for under-performance*

  - *Shortfalls are calculated in increments of 0.1 MW*

RIP Deficiency Calculation

- Calculated by taking the zonal greatest quantity MW reduction achieved in a single event or test hour within the Capability Period and subtracting it from the total zonal UCAP MW sold for the month

- Determining the total zonal UCAP MW sold
  - *Total Zonal UCAP MW sold is equal to the sum of the UCAP MW sold for all resources in the MP portfolio by zone*

- Determining the zonal greatest quantity MW reduction
  - *Zonal greatest quantity MW reduction is equal to the sum of the MW reduction of all resources in the zone for each event and test hour and taking the greatest summed hour*

RIP Deficiency Calculation

- Determining the zonal greatest quantity MW reduction (continued)
  - *When the zonal greatest quantity MW reduction is an event hour, in instances when resources were not enrolled in the month of the event and were required to perform in the second test*
    - The calculation sums the Capacity Reduction of those resources which performed in the second test and adds the sum to the MW event hour selected for the zonal greatest quantity MW reduction.
    - DRIS then uses this summed value as the zonal greatest quantity MW reduction for the first month of enrollment for the resource(s) that were required to perform in the second test and any remaining months in the Capability Period.

RIP Deficiency Calculation

- Determining the zonal greatest quantity MW reduction (continued)
  - *When the zonal greatest quantity MW reduction is a test hour, in instances when resources were not eligible to perform in the test*
    - The calculation sums the Capacity Reduction of those resources which performed in the other test in the Capability Period and adds the sum to the MW test hour selected for the zonal greatest quantity MW reduction.
    - DRIS then uses this summed value as the zonal greatest quantity MW reduction for the first month of enrollment for the resource(s) that were required to perform in the second test and any remaining months in the Capability Period.

RIP Deficiency Calculation

- Determining the zonal greatest quantity MW reduction (continued)

  Example:

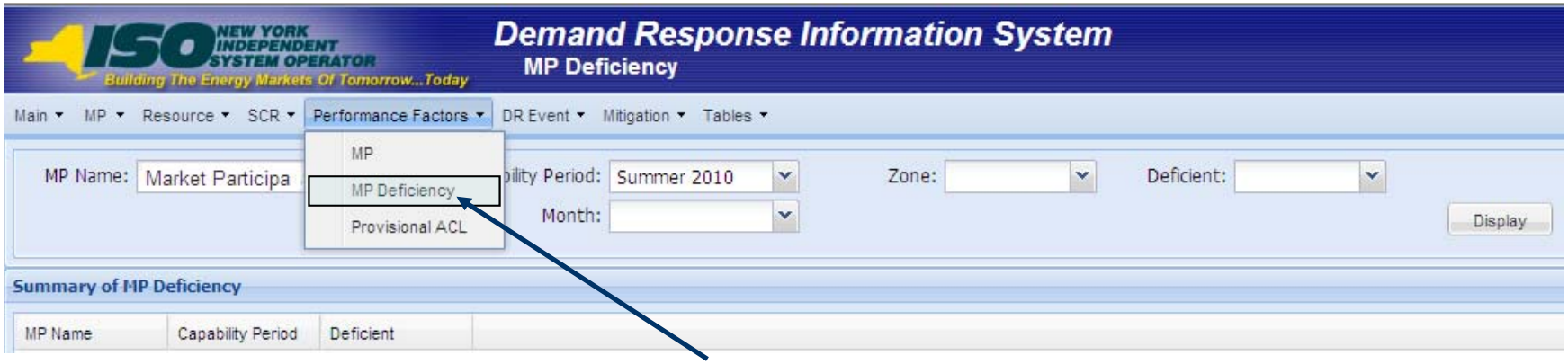
  - *The greatest MW reduction occurs during an event (July 8th HB 13). The first test of the season is on July 31st HB 14. The second test of the season is October 1st HB 14.*
    - Resource A enrolls on August 6th and its first month of enrollment is September. Resource A is required to test in the October 1 test. The MW reduction from the October 1 test for Resource A should be added to the greatest MW reduction for the months of September and October.
    - Resource B enrolls September 1 and its first month of enrollment is October. Resource B is required to test in the October 1 test. The MW reduction from the October 1 test for Resource B should be added to the greatest MW reduction for the month of October.

RIP Deficiency Calculation

- The zonal greatest quantity MW reduction is then applied to the RIP Deficiency Calculation for each month in the Capability Period.

- RIP Deficiency =
  - *UCAP MW sales of the zone for the month – zonal greatest quantity MW reduction for the Capability Period*

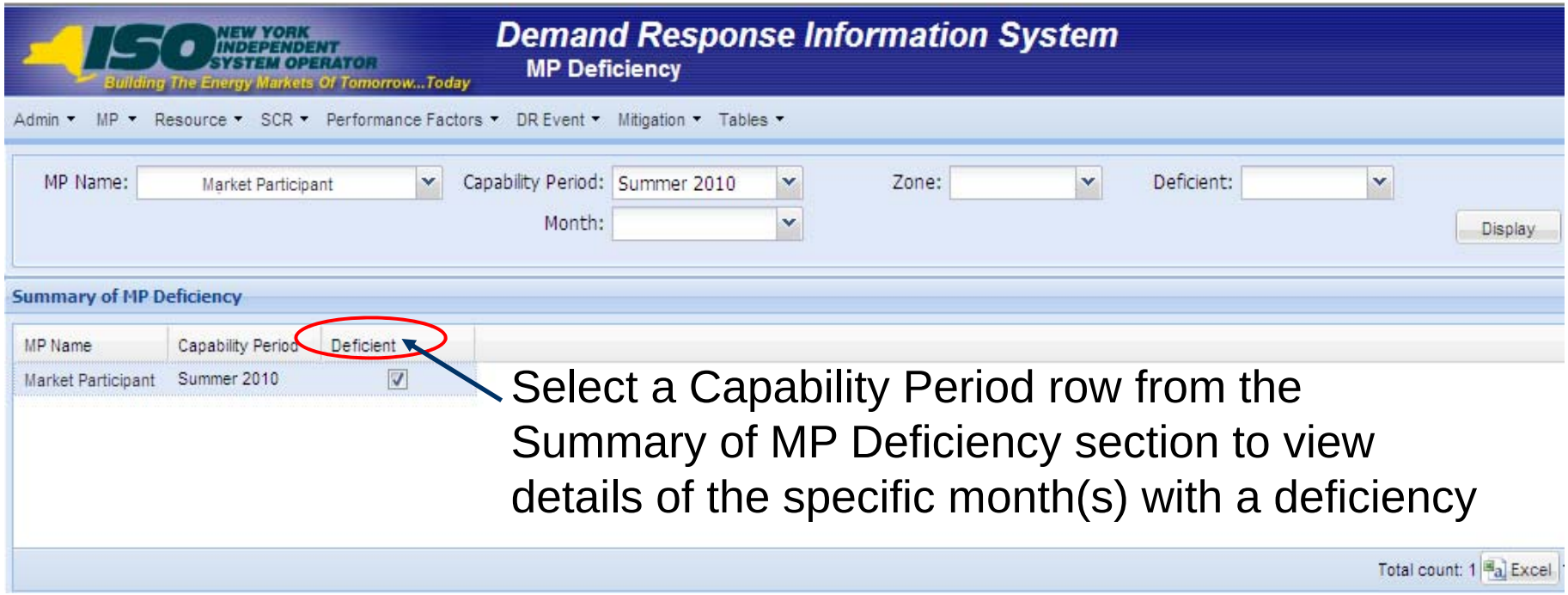
View RIP Deficiency Details in DRIS



- Select MP Deficiency from Performance Factor menu
- Optionally, select a Capability Period, Month, Zone, or the Deficient filter
- Click “Display” to view Summary of MP Deficiency

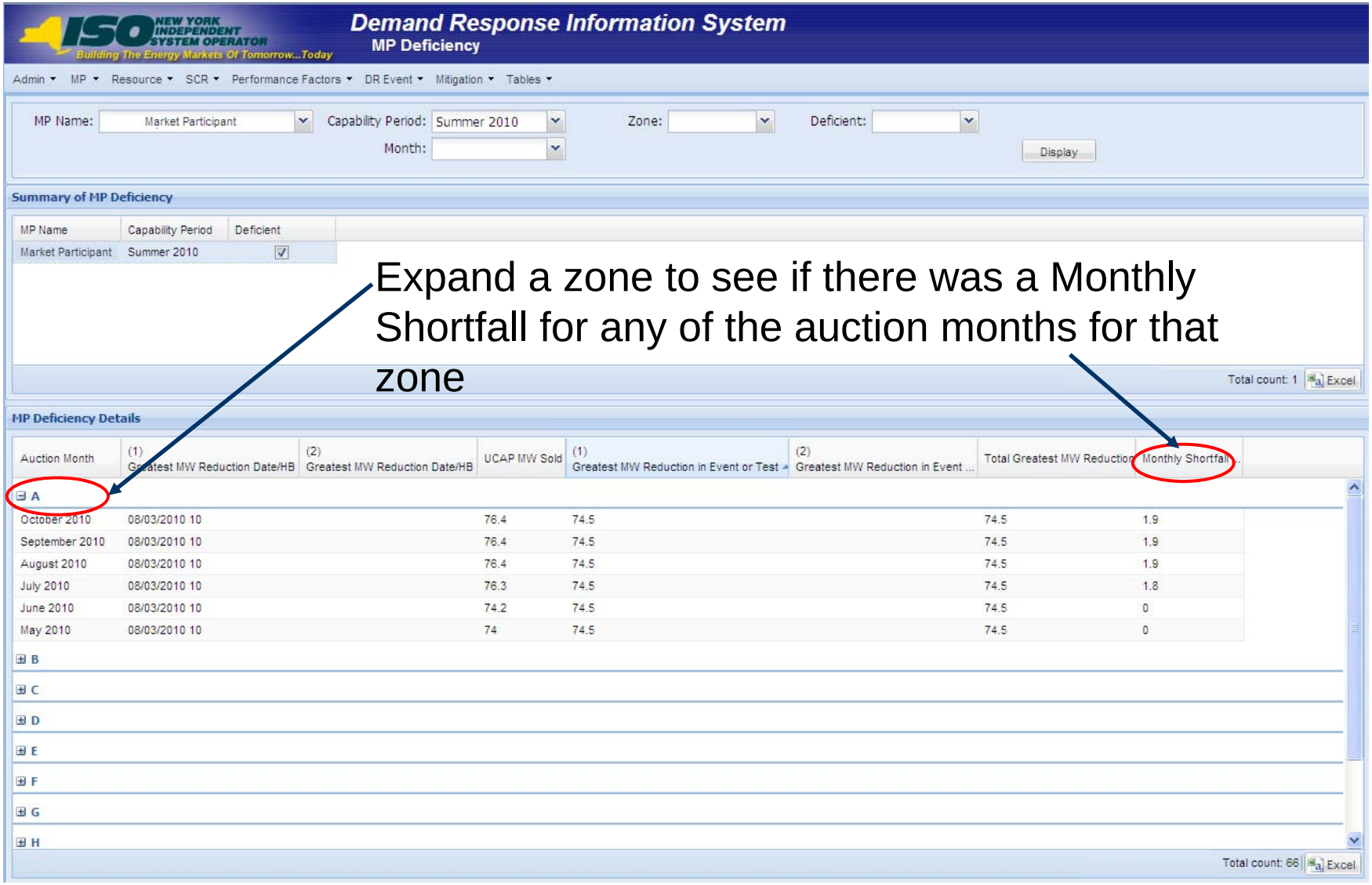
Summary of RIP Deficiency in DRIS

- Displays the Capability Periods in which the MP was found to be deficient
  - *MP Name*
  - *Capability Period*
  - *Deficient: a "check mark" indicates that the MP is deficient for one or more months in the highlighted Capability Period*



Select a Capability Period row from the Summary of MP Deficiency section to view details of the specific month(s) with a deficiency

RIP Deficiency Details in DRIS



RIP Deficiency Details in DRIS

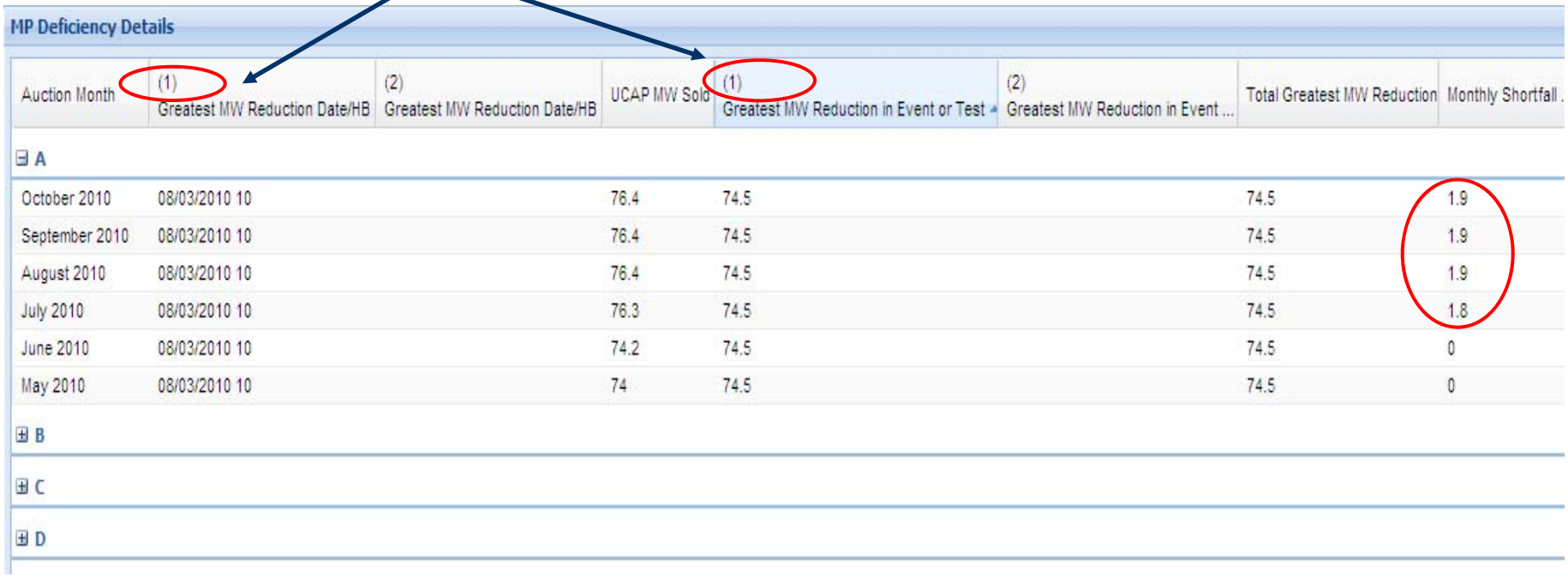
- Greatest MW Reduction Date/HB (1)
  - *Date and Hour Beginning in which the zonal greatest quantity MW reduction was achieved within the zone.*
- Greatest MW Reduction Date/HB (2)
  - *In instances when a second hour is necessary to determine the Total Greatest MW Reduction, Date and Hour Beginning of the second hour used for the zone*
- UCAP MW Sold
  - *The sum of the UCAP MW sold for all resources in the MP portfolio for the zone*

RIP Deficiency Details in DRIS

- Greatest MW Reduction in Event or Test (1)
  - *MW value of the zonal greatest quantity MW reduction achieved within the zone.*
- Greatest MW Reduction in Event or Test (2)
  - *In instances when a second hour is necessary to determine the Total Greatest MW Reduction, the MW value of the second zonal greatest quantity MW reduction achieved for the zone*
- Total Greatest MW Reduction
  - *Sum of Greatest MW Reduction in Event or Test (1) and (2)*
- Monthly Shortfall MW
  - *UCAP MW Sold - Total Greatest MW Reduction*

RIP Deficiency Details in DRIS

- Example One
  - *Zone A*
  - *MP Deficiency has been determined for the months of July through October*
  - *Only one date and MW value is used for the Greatest MW Reduction*

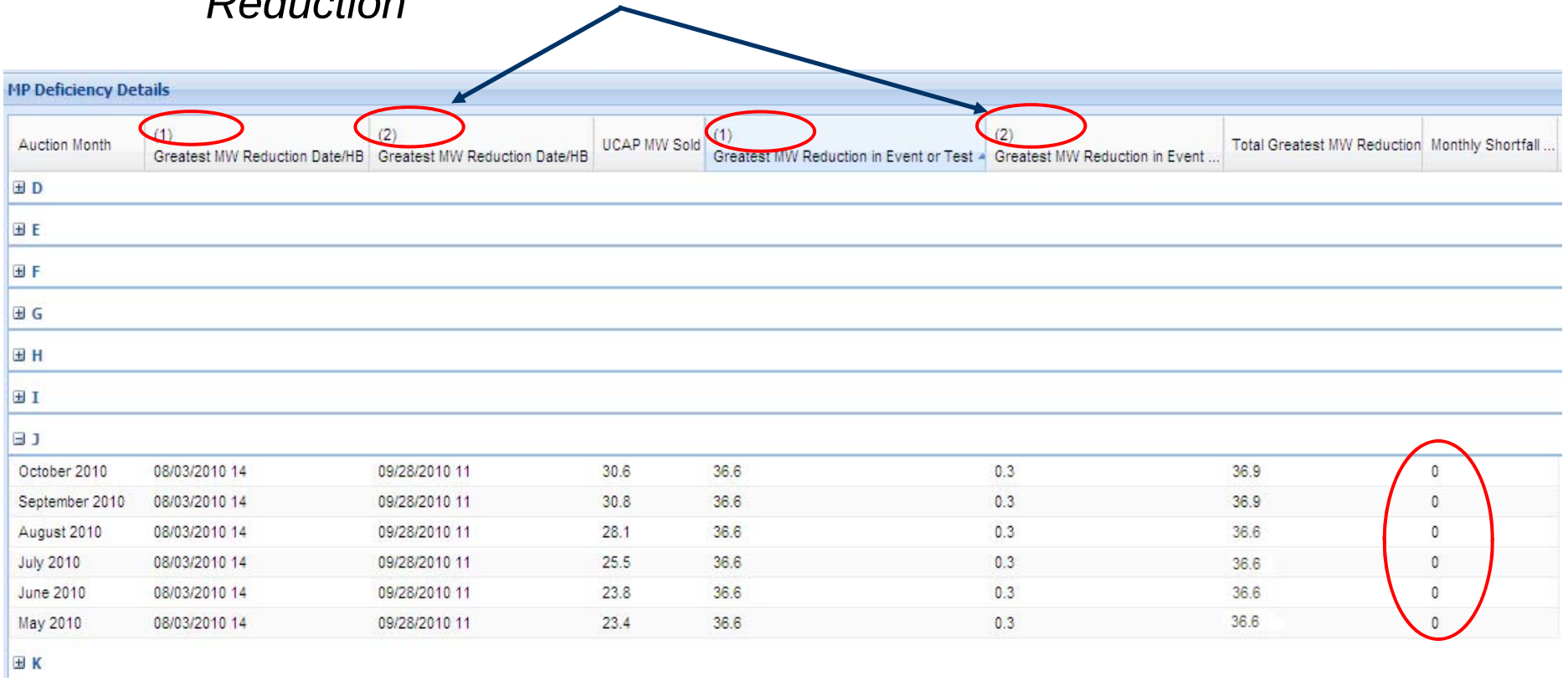


MP Deficiency Details

Auction Month	(1) Greatest MW Reduction Date/HB	(2) Greatest MW Reduction Date/HB	UCAP MW Sold	(1) Greatest MW Reduction in Event or Test	(2) Greatest MW Reduction in Event ...	Total Greatest MW Reduction	Monthly Shortfall
⊟ A							
October 2010	08/03/2010 10		76.4	74.5		74.5	1.9
September 2010	08/03/2010 10		76.4	74.5		74.5	1.9
August 2010	08/03/2010 10		76.4	74.5		74.5	1.9
July 2010	08/03/2010 10		76.3	74.5		74.5	1.8
June 2010	08/03/2010 10		74.2	74.5		74.5	0
May 2010	08/03/2010 10		74	74.5		74.5	0
⊞ B							
⊞ C							
⊞ D							

RIP Deficiency Details in DRIS

- Example Two
  - *Zone J*
  - *No MP Deficiency for any months*
  - *Two dates and MW values are used for the Greatest MW Reduction*



MP Deficiency Details

Auction Month	(1) Greatest MW Reduction Date/HB	(2) Greatest MW Reduction Date/HB	UCAP MW Sold	(1) Greatest MW Reduction in Event or Test	(2) Greatest MW Reduction in Event ...	Total Greatest MW Reduction	Monthly Shortfall ...
⊞ D							
⊞ E							
⊞ F							
⊞ G							
⊞ H							
⊞ I							
⊟ J							
October 2010	08/03/2010 14	09/28/2010 11	30.6	36.6	0.3	36.9	0
September 2010	08/03/2010 14	09/28/2010 11	30.8	36.6	0.3	36.9	0
August 2010	08/03/2010 14	09/28/2010 11	28.1	36.6	0.3	36.6	0
July 2010	08/03/2010 14	09/28/2010 11	25.5	36.6	0.3	36.6	0
June 2010	08/03/2010 14	09/28/2010 11	23.8	36.6	0.3	36.6	0
May 2010	08/03/2010 14	09/28/2010 11	23.4	36.6	0.3	36.6	0
⊞ K							

NEW YORK INDEPENDENT SYSTEM OPERATOR

The New York Independent System Operator (NYISO) is a not-for-profit corporation that began operations in 1999. The NYISO operates New York's bulk electricity grid, administers the state's wholesale electricity markets, and provides comprehensive reliability planning for the state's bulk electricity system.

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