

**Demand Response Information
System (DRIS) Training
New Functionality for Summer 2012**

**Stacia Wilcox
New York Independent System Operator**

Tuesday, March 20, 2012 1:30 pm – 3:00 pm

Wednesday, March 21, 2012 10:00 am – 11:30 am

Rensselaer, NY

Training Topics

- ◆ Basis of Aggregation Performance
- ◆ Performance of an Aggregation
- ◆ UCAP of an Aggregation
- ◆ DRIS Functionality
 - *Timing of Aggregation Performance Factor and Aggregation UCAP Calculations*
 - *Aggregation Assignment Screen*
 - Aggregation PF
 - Aggregation UCAP
 - *Aggregation Performance Factor Export*
 - *Aggregation UCAP Summary Export*

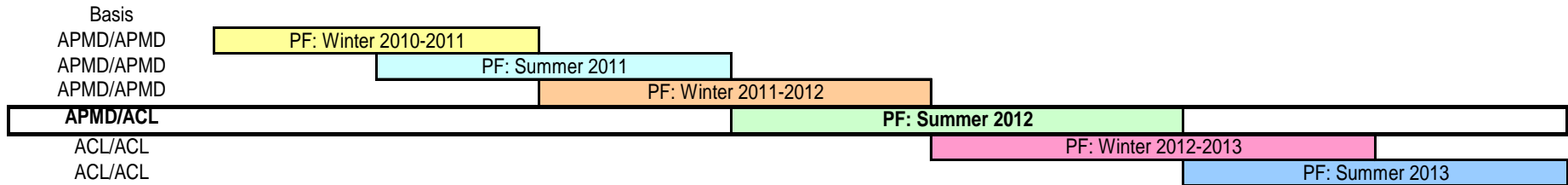
Basis of Aggregation Performance

Performance Factor Basis

			Release of Winter 2010-2011 PFs			Release of Summer 2011 PFs	Anticipated FERC Order	Effective date of FERC Order		Release of Winter 2011-2012 PFs	DRIS deployment of changes		Release of Summer 2012 PFs			Release of Winter 2012-2013 PFs																		
M	J	J	A	S	O	N	D	J	F	M	A	M	J	J	A	S	O	N	D	J	F	M	A	M	J	J	A	S	O					
Summer 2009					Winter 2009-2010					Summer 2010					Winter 2010-2011					Summer 2011					Winter 2011-2012					Summer 2012				
APMD					APMD					APMD					APMD					ACL					ACL					ACL				

Baseline with April 2011 Order

Performance Factor Basis



- ◆ Performance factors are calculated using performance from the Prior Equivalent Capability Period and the Capability Period before the Prior Equivalent Capability Period.
- ◆ For Summer 2012, performance factors will be based on performance during:
 - ◆ Summer 2011 Capability Period (using ACL)
 - ◆ Winter 2010-2011 Capability Period (using APMD)

Performance Factor Basis

- ◆ For the Summer 2012 Capability Period, performance of Aggregations in events or tests that occurred during the Summer 2011 and Winter 2010 – 2011 Capability Periods will be measured using the Aggregation performance factor calculation that allows over-performance of one resource in an Aggregation to compensate for under-performance of another resource in the same Aggregation for the same hour.

Performance of an Aggregation

Performance Based on Declared Value

- ◆ Resource performance factor calculations will continue to be based on the declared value of the resource.
- ◆ Aggregation performance factors will also be based on the declared value of the Aggregation, as later defined.

UCAP calculation

Generator	SCR Resource or SCR Aggregation
DMNC	ICAP Value (declared value adjusted for transmission losses)
Derating Factor	Performance Factor

Performance of Aggregations

- ◆ Performance of Aggregations in events or tests will be measured using an Aggregation performance factor.
 - *Performance factor of an aggregation is separate from the performance factors of the individual resources in the aggregation.*

- ◆ Aggregation Performance
 - *Performance will be based on the aggregate hourly response of the Aggregation as compared to its Declared Value.*
 - *Over performance of one resource in an Aggregation will compensate for under performance by another resource in the same Aggregation for the same hour.*
 - *Hourly performance of the aggregation will be capped at 100%.*

Performance of Aggregations - continued

- ◆ To allow for tracking of movement of resources between aggregations:
 - *Each resource in an Aggregation will continue to have its own performance factor and continue to be required to perform tests even after they are no longer enrolled by the MP in the Capability Period.*
 - *The performance factor and UCAP of an aggregation will be recomputed each month.*

Comparison of Individual Resource and Aggregation Performance Calculations

Component	Resource	SCR Aggregation
Average Coincident Load (ACL)	Average of Top 20 resource loads from Top 40 NYCA peak load hours	Sum of Average Coincident Loads of resources in the aggregation
Committed Maximum Demand (CMD)	As specified for the Resource	Sum of the Committed Maximum Demands of resources in the aggregation
Declared Value (DV)	Average Coincident Load – Committed Maximum Demand	Average Coincident Load of the aggregation – Committed Maximum Demand of the aggregation
Actual Metered Demand (AMD)	Meter read level during an event or test	Sum of the meter read levels of resources in the aggregation during an event or test
Hourly Capacity Reduction Value	ACL – Metered Load	Sum of the ACL of the resources in the aggregation – Sum of Metered Load of resources in the aggregation
Hourly Performance~	$\min \left(\frac{\max (ACL_{gh}^* - AMD_{gh}, 0)}{ACL_{gh}^* - CMD_{gh}}, 1 \right)$	$\min \left(\sum_{ah} \left(\frac{\max (ACL_{gh}^* - AMD_{gh}, 0)}{ACL_{gh}^* - CMD_{gh}} \right), 1 \right)$

Where: * = any form of ACL (including Provisional or Net), g = Resource, m = Month, a = Aggregation, h = hour,

~ These equations do not show the adjustment to ACL when a Change of Status is in effect for a resource

Aggregation Performance Factor Export for Evaluation of Aggregation Performance Factor Calculation

- ◆ Displays each Event and Test hour being evaluated for use in the Aggregation Performance Factor.
 - *From the Prior Equivalent Capability Period and the Capability Period prior to that.*
 - *Displays Date and Hour.*

	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R
1	Summer 2012																	
2	May																	
3	Aggregation 1234																	
4																		
5	Event Type	Event Date/HB	Resource 1	Resource 2	Resource 3	Resource 4	Resource 5	Resource 6	Resource 7	Resource 8	Agg DV MW	Agg Net ACL MW	Agg AMD MW	Agg Capacity Reduction MW	Agg Raw PF	Agg Adjusted PF	Hour	Agg PF
6	Test	02/15/2011 15:00	11111111	22222222	33333333	44444444	55555555	66666666	77777777	88888888	0.8	2.5	0	0	0	0	1	
7		Resource ID																
8		Resource DV	*	264	113	59			80	45								
9		Resource Net ACL	*	290	226	119			936	324								
10		Resource AMD	*															
11		Resource Capacity Reduction	*	0	0	0			0	0								
12																		
13	Test	03/31/2011 11:00	11111111	22222222	33333333	44444444	55555555	66666666	77777777	88888888								
14		Resource ID																
15		Resource DV					*	100										
16		Resource Net ACL					*	106										
17		Resource AMD					*											
18		Resource Capacity Reduction					*	0										
19																		
20	Test	07/19/2011 16:00	11111111	22222222	33333333	44444444	55555555	66666666	77777777	88888888	2.1	3.6	4.5	0.9	0.4366	0.4366	1	
21		Resource ID																
22		Resource DV	13	650	115	60	*	831	415	2								
23		Resource Net ACL	653	0	155	70	*	2206	0	451								
24		Resource AMD	664			64.4	*	1380	1776	577.4								
25		Resource Capacity Reduction	0	0	0	64.4	*	826	0	0								
26																		

Aggregation Performance Factor Calculation continued

- ◆ Displays each resource in the Aggregation, for the Capability Period and auction month selected, and the resource hourly Event/Test response data.
 - *Resource ID*
 - *Resource Declared Value*
 - Test = Max DV of the resource in the Capability Period
 - Event = DV of the resource enrollment for the month in which the Event occurred
 - *Resource Net ACL: ACL for the Capability Period less any Shutdown for the auction month.*
 - *Resource AMD: metered kW of the resource for the Event/Test hour.*
 - *Resource Capacity Reduction:*
 - Response Type C or B = Net ACL – AMD
 - When negative, set to zero
 - Response Type G = AMD
- ◆ An asterisk is displayed in place of the resource enrollment and response values during periods when the resource was enrolled with another MP.

Aggregation Performance Factor Calculation continued

- ◆ Aggregation values are equal to the sum of the resource values for the Event hour or the sum of the 2 Test hours for each Capability Period.
 - *Agg DV MW*
 - *Agg Net ACL MW*
 - *Agg AMD MW*
 - *Agg Capacity Reduction MW*

	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R
1	Summer 2012																	
2	May																	
3	Aggregation 1234																	
4																		
5	Event Type	Event Date/HB	Resource 1	Resource 2	Resource 3	Resource 4	Resource 5	Resource 6	Resource 7	Resource 8	Agg DV MW	Agg Net ACL MW	Agg AMD MW	Agg Capacity Reduction MW	Agg Raw PF	Agg Adjusted PF	Hour	Agg PF
6	Test	02/15/2011 15:00																
7		Resource ID	11111111	22222222	33333333	44444444	55555555	66666666	77777777	88888888	0.8	2.5	0	0	0	0	1	
8		Resource DV	*	264	113	59			80	45								
9		Resource Net ACL	*	290	226	119			936	324								
10		Resource AMD	*															
11		Resource Capacity Reduction	*	0	0	0			0	0								
12																		
13	Test	03/31/2011 11:00																
14		Resource ID	11111111	22222222	33333333	44444444	55555555	66666666	77777777	88888888								
15		Resource DV	*				*	100										
16		Resource Net ACL	*				*	106										
17		Resource AMD	*				*											
18		Resource Capacity Reduction	*				*	0										
19																		
20	Test	07/19/2011 16:00																
21		Resource ID	11111111	22222222	33333333	44444444	55555555	66666666	77777777	88888888	2.1	3.6	4.5	0.9	0.4366	0.4366	1	
22		Resource DV	13	650	115	60	*	831	415	2								
23		Resource Net ACL	653	0	155	70	*	2206	0	451								
24		Resource AMD	664			64.4	*	1380	1776	577.4								
25		Resource Capacity Reduction	0	0	0	64.4	*	826	0	0								
26																		

Aggregation Performance Factor Calculation continued

- ◆ Aggregation Raw PF =
 - Capacity Reduction MW of the Aggregation for the Event/Test hour divided by the Declared Value MW of the Aggregation for the Event/Test hour .
- ◆ Aggregation Adjusted PF =
 - Aggregation Raw PF for the Event/Test hour when the Aggregation Raw PF is less than or equal to 1
 - When the Aggregation Raw PF for the Event/Test hour is greater than 1, set to 1

	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R
5	Event Type	Event Date/HB	Resource 1	Resource 2	Resource 3	Resource 4	Resource 5	Resource 6	Resource 7	Resource 8	Agg DV MW	Agg Net ACL MW	Agg AMD MW	Agg Capacity Reduction MW	Agg Raw PF	Agg Adjusted PF	Hour	Agg PF
1	Summer 2012																	
2	May																	
3	Aggregation 1234																	
4																		
6	Test	02/15/2011 15:00																
7		Resource ID	11111111	22222222	33333333	44444444	55555555	66666666	77777777	88888888	0.8	2.5	0	0	0	0	1	
8		Resource DV	*	264	113	59			80	45								
9		Resource Net ACL	*	290	226	119			936	324								
10		Resource AMD	*															
11		Resource Capacity Reduction	*	0	0	0			0	0								
12																		
13	Test	03/31/2011 11:00																
14		Resource ID	11111111	22222222	33333333	44444444	55555555	66666666	77777777	88888888								
15		Resource DV					*	100										
16		Resource Net ACL					*	106										
17		Resource AMD					*											
18		Resource Capacity Reduction					*	0										
19																		
20	Test	07/19/2011 16:00																
21		Resource ID	11111111	22222222	33333333	44444444	55555555	66666666	77777777	88888888	2.1	3.6	4.5	0.9	0.4366	0.4366	1	
22		Resource DV	13	650	115	60	*	831	415	2								
23		Resource Net ACL	653	0	155	70	*	2206	0	451								
24		Resource AMD	664			64.4	*	1380	1776	577.4								
25		Resource Capacity Reduction	0	0	0	64.4	*	826	0	0								
26																		

Aggregation Performance Factor Calculation continued

- Hour = 1 indicates that the Capacity Reduction for the Event/Test hour is being used in the Agg PF calculation.
 - Event: When the Capacity Reduction MW of the Event hour is part of the block of the highest 4 contiguous Capacity Reduction MWs.
 - Test: the 2 Capability Tests are treated as one hour.

	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R
1	Summer 2012																	
2	May																	
3	Aggregation 1234																	
4																		
5	Event Type	Event Date/HB	Resource 1	Resource 2	Resource 3	Resource 4	Resource 5	Resource 6	Resource 7	Resource 8	Agg DV MW	Agg Net ACL MW	Agg AMD MW	Agg Capacity Reduction MW	Agg Raw PF	Agg Adjusted PF	Hour	Agg PF
6	Test	02/15/2011 15:00																
7		Resource ID	11111111	22222222	33333333	44444444	55555555	66666666	77777777	88888888	0.8	2.5	0	0	0	0	1	
8		Resource DV	*	264	113	59			80	45								
9		Resource Net ACL	*	290	226	119			936	324								
10		Resource AMD	*															
11		Resource Capacity Reduction	*	0	0	0			0	0								
12																		
13	Test	03/31/2011 11:00																
14		Resource ID	11111111	22222222	33333333	44444444	55555555	66666666	77777777	88888888								
15		Resource DV					*	100										
16		Resource Net ACL					*	106										
17		Resource AMD					*											
18		Resource Capacity Reduction					*	0										
19																		
20	Test	07/19/2011 16:00																
21		Resource ID	11111111	22222222	33333333	44444444	55555555	66666666	77777777	88888888	2.1	3.6	4.5	0.9	0.4366	0.4366	1	
22		Resource DV	13	650	115	60	*	831	415	2								
23		Resource Net ACL	653	0	155	70	*	2206	0	451								
24		Resource AMD	664			64.4	*	1380	1776	577.4								
25		Resource Capacity Reduction	0	0	0	64.4	*	826	0	0								
26																		

Aggregation Performance Factor Calculation continued

- ◆ Aggregation Performance Factor =
 - Sum of the hourly Agg Adjusted PFs which are being included (as indicated by a "1" in the "Hour" column) divided by the Sum of "Hours".
 - Located at the bottom of the export following the last Event/Test hour.

	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R
1	Summer 2012																	
2	May																	
3	Aggregation 1234																	
4																		
5	Event Type	Event Date/HB	Resource 1	Resource 2	Resource 3	Resource 4	Resource 5	Resource 6	Resource 7	Resource 8	Agg DV MW	Agg Net ACL MW	Agg AMD MW	Agg Capacity Reduction MW	Agg Raw PF	Agg Adjusted PF	Hour	Agg PF
90	NYISO Event	07/22/2011 16:00																
91		Resource ID	11111111	22222222	33333333	44444444	55555555	66666666	77777777	88888888	1.7	3.6	4.3	0.9	0.5367	0.5367	1	
92		Resource DV	13	650	115	60	*	640	215	2								
93		Resource Net ACL	653	0	155	70	*	2206	0	451								
94		Resource AMD	725			0	*	1320	1692	568.3								
95		Resource Capacity Reduction	0	0	0	0	*	886	0	0								
96																		
97	NYISO Event	07/22/2011 17:00																
98		Resource ID	11111111	22222222	33333333	44444444	55555555	66666666	77777777	88888888	1.7	3.6	4.1	0.9	0.517	0.517	1	
99		Resource DV	13	650	115	60	*	640	215	2								
100		Resource Net ACL	653	0	155	70	*	2206	0	451								
101		Resource AMD	732			0	*	1356	1464	540								
102		Resource Capacity Reduction	0	0	0	0	*	850	0	0								
103																		
104	Test	10/06/2011 13:00																
105		Resource ID	11111111	22222222	33333333	44444444	55555555	66666666	77777777	88888888								
106		Resource DV																
107		Resource Net ACL																
108		Resource AMD																
109		Resource Capacity Reduction																
110																		
111																		
112																		0.4624

UCAP of an Aggregation

UCAP for Aggregations

- ◆ UCAP for an Aggregation is calculated as:
 1. *The sum of the ICAP value (declared value * (1 + transmission losses)) of existing resources in the Aggregation for the month multiplied by the Aggregation's performance factor.*
 2. **Plus** *the sum of the ICAP value (declared value * (1 + transmission losses)) of resources new to the SCR program in the Aggregation multiplied by the MP's performance factor.*
 - Because new resources do not have any performance history, they cannot be included in the monthly recalculation of the Aggregation performance factor; their ICAP value will be derated based on the MP's performance factor before their UCAP is added to an Aggregation UCAP.

Example of UCAP for an Aggregation

Aggregation with Existing SCR Resources

Units in kW

ACL 3046 CMD 1500 DV 1546

	Resource 1	Resource 2	Resource 3	Resource 4	Resource 5	Resource 6	Aggregation
ACL	154	382	1220	368	811	111	3046
CMD	80	200	700	150	300	70	1500
Declared Value	74	182	520	218	511	41	1546

Aggregation Performance Factor = .9940

UCAP
1537

A resource new to the SCR program has been added to the Aggregation

ACL 4128 CMD 1900 DV 2228 RIP PF: 0.9319

	Resource 1	Resource 2	Resource 3	Resource 4	Resource 5	Resource 6	Resource 7	Aggregation
ACL	154	382	1220	368	811	111	1082	4128
CMD	80	200	700	150	300	70	400	1900
Declared Value	74	182	520	218	511	41	682	2228

Aggregation Performance Factor = .9940

UCAP: Existing Resources	UCAP: New Resources	Total Aggregation UCAP
1537	636	2173

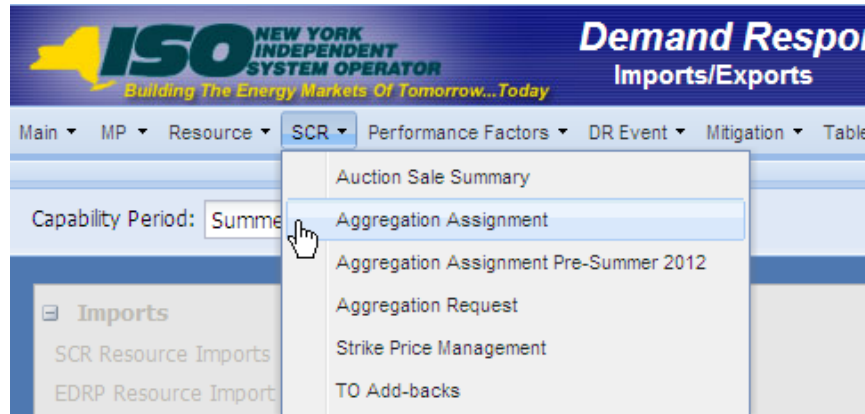
- Prior to adjustment by the RIP's performance factor (.9319), new Resource 7 would have a Declared Value of 682 (1082 – 400 = 682).
- The derated Declared Value of 636 (DV of 682 multiplied by MP PF of .9319) for new Resource 7 is added to the UCAP value of the existing resources in the aggregation to arrive at the total aggregation UCAP (1537 + 636 = 2173)
- Note: For simplicity, transmission losses were not shown in the calculations

DRIS Functionality to Support Aggregation Performance Factors

Timing of Calculation of Aggregation Performance and UCAP MW

- ◆ DRIS will calculate the Aggregation Performance Factor and UCAP MW:
 - *On a monthly basis, after the close of the DRIS SCR Enrollment calendar event.*
 - *At any time during the DRIS Aggregation Management calendar event when resources are moved between Aggregations.*
 - *At any time **after** the close of SCR Enrollment, up to the close of Certification for the auction month, when a resource's enrollment status has changed.*
 - *At any time **after** the close of SCR Enrollment, up to the close of Certification for the auction month, when a resource's Pending request has been Approved.*


View Aggregation Performance Factor and UCAP MW



- ◆ From the DRIS Main menu select **SCR** and then **Aggregation Assignment**.
- ◆ This is the **Aggregation Assignment** screen to use beginning with Summer 2012 for
 - *Assigning resources to Aggregations.*
 - *Viewing Aggregation PF and UCAP MW.*
- ◆ The **Aggregation Assignment Pre-Summer 2012** screen should be used to view all resource Aggregations assignments and Aggregation UCAP values prior to the Summer 2012 Capability Period.

DRIS Aggregation Assignment Screen

- ◆ Select a **Capability Period** and **Auction Month** from the **Search Criteria**.
- ◆ Optionally, select a specific **Zone** and/or **Aggregation**.


Demand Response Information System
Aggregation Assignment

Main ▾ MP ▾ Resource ▾ SCR ▾ Performance Factors ▾ DR Event ▾ Mitigation ▾ Tables ▾ Notification ▾

Capability Period: MP Name: Aggregation: DRIS-ICAP AMS Difference: Last Published From:

Auction Month: Zone: Last Published To: Display

Aggregations

MP	Aggregation ID	Zone	Resource Count	ICAP MW of Resources Using Aggregation PF	Aggregation PF	ICAP MW of Resources Using MP PF	MP PF	Aggregation UCAP MW in DRIS
Market Participant	1234	J	7	1.5	.9940	.6	.9319	2.1

Total count: 18

Resources

Resource ID ▾	Resource Name	ICAP kW	Using MP PF
Drag and Drop an Aggregation row from top grid.			

Total count: 0

Resources

Resource ID ▾	Resource Name	ICAP kW	Using MP PF
Drag and Drop an Aggregation row from top grid.			

Total count: 0


DRIS Aggregation Assignment Screen

- ◆ **Aggregation ID:** PTID of the Aggregation
- ◆ **Zone:** Zone of the Aggregation
- ◆ **Resource Count:** Number of Enrolled resources in the Aggregation for the Capability Period and auction month selected
- ◆ **ICAP MW of Resources Using Aggregation PF:** Sum of the ICAP of the Enrolled resources in the Aggregation for the Capability Period and auction month selected which are using the Aggregation PF in the Aggregation UCAP calculation
- ◆ **Aggregation PF:** Performance Factor of the Aggregation for the Capability Period and auction month selected

DRIS Aggregation Assignment Screen - continued

- ◆ **ICAP MW of Resources Using MP PF:** Sum of the ICAP of the Enrolled resources in the Aggregation for the Capability Period and auction month selected which are using the Market Participant PF in the Aggregation UCAP calculation
- ◆ **MP PF:** Performance Factor of the Market Participant for the Capability Period selected
- ◆ **Aggregation UCAP MW in DRIS:** UCAP MW of the Aggregation for the Capability Period and auction month selected

View Aggregation UCAP MW


Demand Response Information System
Aggregation Assignment

Main ▾ MP ▾ Resource ▾ SCR ▾ Performance Factors ▾ DR Event ▾ Mitigation ▾ Tables ▾ Notification ▾

Capability Period: MP Name: Aggregation: DRIS-ICAP AMS Difference: Last

Auction Month: Zone: L:


Aggregations

MP	Aggregation ID	Zone	Resource Count	ICAP MW of Resources Using Aggregation PF	Aggregation PF	ICAP MW of Resources Using MP PF	MP PF	Aggregation UCAP MW in DRIS
Market Participant	1234	J	7	1.5	.9940	.6	.9319	2.1

- ◆ Aggregation UCAP =
*(ICAP kW of Resources Using Aggregation PF * Aggregation PF) + (ICAP kW of Resources Using MP PF * MP PF)*
- ◆ $(1546 \text{ kW} * .9940) + (682 \text{ kW} *.9319) = 1537 \text{ kW} + 636 \text{ kW} = \mathbf{2173 \text{ kW}}$

View Aggregation Resource Details

- Select an Aggregation from the *Aggregations* grid and drag and drop the record into the lower left *Resources* panel.


Demand Response Information System
Aggregation Assignment

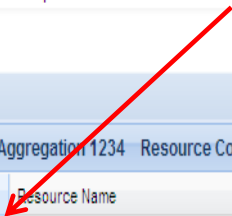
Main ▾ MP ▾ Resource ▾ SCR ▾ Performance Factors ▾ DR Event ▾ Mitigation ▾ Tables ▾ Notification ▾

Capability Period: Summer 2012 ▾ MP Name: Market Participant ▾ Aggregation: 1234 ▾ DRIS-ICAP AMS Difference: ▾ Last Published From: X
 Auction Month: May 2012 ▾ Zone: All ▾ Last Published To: X Display

Aggregations

MP	Aggregation ID	Zone	Resource Count	ICAP MW of Resources Using Aggregation PF	Aggregation PF	ICAP MW of Resources Using MP PF	MP PF	Aggregation UCAP MW in DRIS
Market Participant	1234	J	7	1.5	.9940	.6	.9319	2.1

Click on the Aggregation row and drag the record to the left Resource panel



Resources for Aggregation 1234 Resource Count: 7 ICAP kW: 2228

Resource ID ▾	Resource Name	ICAP kW	Using MP PF
12345678	Resource One	74	<input type="checkbox"/>
23456789	Resource Two	182	<input type="checkbox"/>
34567891	Resource Three	520	<input type="checkbox"/>
45678912	Resource Four	218	<input type="checkbox"/>
56789123	Resource Five	511	<input type="checkbox"/>
67891234	Resource Six	41	<input type="checkbox"/>
78912345	Resource Seven	682	<input checked="" type="checkbox"/>

Resources

Resource ID ▾	Resource Name	ICAP kW	Using MP PF

Total count: 0
Total count: 0

Aggregation Resource Details

ISO NEW YORK INDEPENDENT SYSTEM OPERATOR
Demand Response Information System
Aggregation Assignment

Main ▾ MP ▾ Resource ▾ SCR ▾ Performance Factors ▾ DR Event ▾ Mitigation ▾ Tables ▾ Notification ▾

Capability Period: Summer 2012 MP Name: Market Participant Aggregation: 1234 DRIS-ICAP AMS Difference: Last Published From: X
 Auction Month: May 2012 Zone: All Last Published To: X

Aggregations

MP	Aggregation ID	Zone	Resource Count	ICAP MW of Resources Using Aggregation PF	Aggregation PF	ICAP MW of Resources Using MP PF	MP PF	Aggregation ICAP MW in DRIS
Market Participant	1234	J	7	1.5	.9940	.6	.9319	2.1

Resources for Aggregation 1234 - Resource Count: 7 ICAP kW: 2228

Resource ID	Resource Name	ICAP kW	Using MP PF
12345678	Resource One	74	<input type="checkbox"/>
23456789	Resource Two	182	<input type="checkbox"/>
34567891	Resource Three	520	<input type="checkbox"/>
45678912	Resource Four	218	<input type="checkbox"/>
56789123	Resource Five	511	<input type="checkbox"/>
67891234	Resource Six	41	<input type="checkbox"/>
78912345	Resource Seven	682	<input checked="" type="checkbox"/>

Resources for Aggregation 1234 - Resource Count: 7 ICAP kW: 2228

Resource ID	Resource Name	ICAP kW	Using MP PF
12345678	Resource One	74	<input type="checkbox"/>
23456789	Resource Two	182	<input type="checkbox"/>
34567891	Resource Three	520	<input type="checkbox"/>
45678912	Resource Four	218	<input type="checkbox"/>
56789123	Resource Five	511	<input type="checkbox"/>
67891234	Resource Six	41	<input type="checkbox"/>
78912345	Resource Seven	682	<input checked="" type="checkbox"/>

Total count: 0

Aggregation Resource Details

- ◆ **Aggregation ICAP kW:** Sum of the ICAP of the resources for the Capability Period and auction month in the Aggregation
- ◆ **Resource ICAP kW:** ICAP kW of the resource for the Capability Period and auction month selected
- ◆ **Using MP PF:** Checked when the resource was assigned the MP Performance Factor upon enrollment and the resource ICAP kW is multiplied by the MP PF in the Aggregation PF calculation

Moving Resources Between Aggregations

- ◆ When resources are moved between Aggregations during the Aggregation Management calendar event, DRIS will automatically update the following values:
 - *On the **Aggregations** grid:*
 - Resource Count
 - ICAP MW of Resources Using the Aggregation PF
 - ICAP MW of Resources Using the MP PF
 - Aggregation PF
 - Aggregation UCAP MW
 - *On the **Resources** panel:*
 - Resource Count
 - Aggregation ICAP kW
 - Resource ICAP kW

Aggregation Performance Factor Export

- Resource enrollment and response data used in the calculation of the Aggregation Performance Factor for the Capability Period and auction month selected.



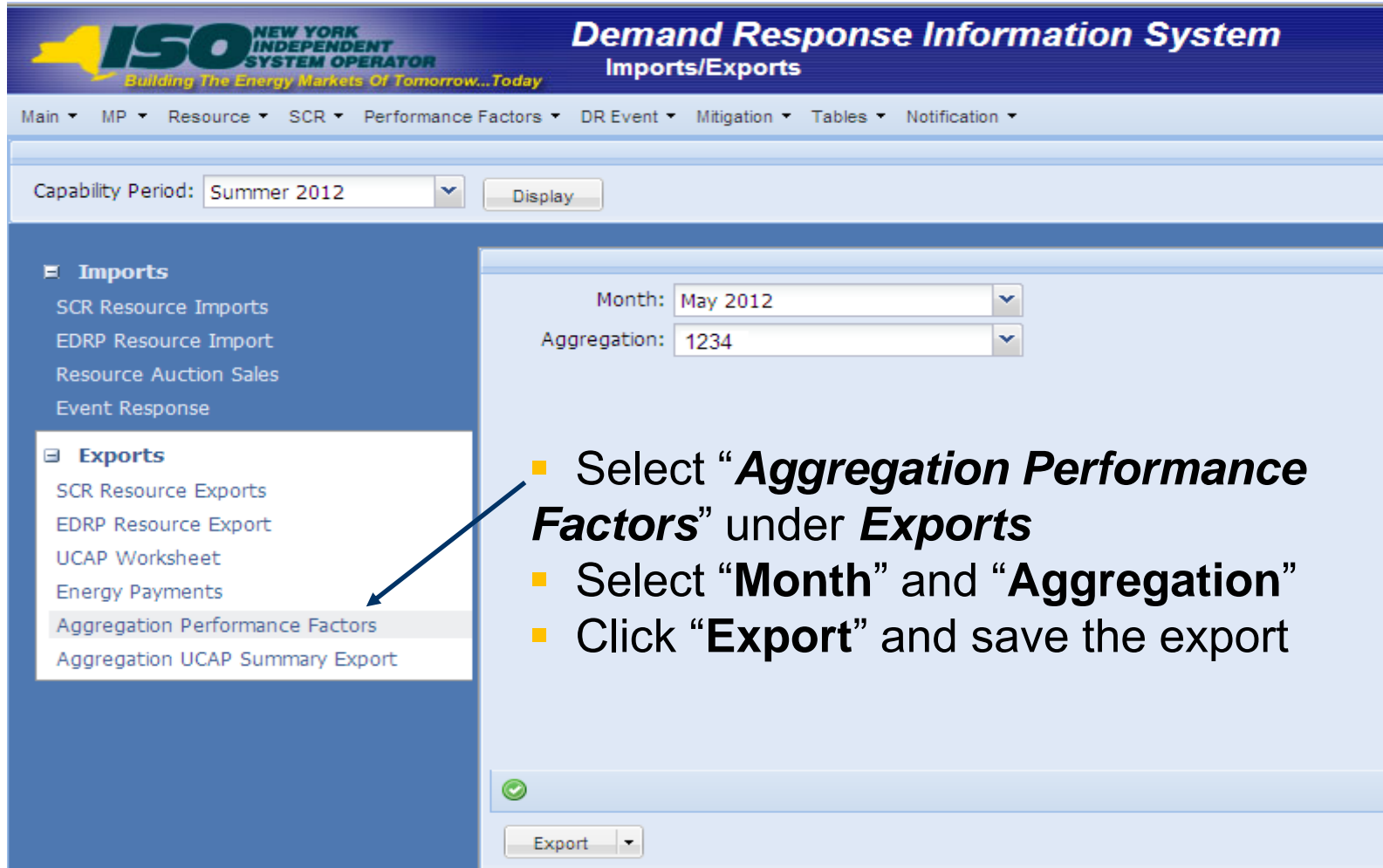
The screenshot shows the DRIS interface with the following elements:

- Top Navigation:** "Demand Response Information System" and "Imports/Exports" header.
- Left Menu:** A dropdown menu with "Imports/Exports" selected.
- Form Area:** "Capability Period: Summer 2012" with a "Display" button.
- Content Area:** A list of "Imports" and "Exports" options, including "Aggregation Performance Factors".

From the DRIS menu select **Imports/Exports**

Select a **Capability Period**, click "**Display**" and view the **Imports and Exports** along the left side

Aggregation Performance Factor Export



Capability Period:

Imports
 SCR Resource Imports
 EDRP Resource Import
 Resource Auction Sales
 Event Response

Exports
 SCR Resource Exports
 EDRP Resource Export
 UCAP Worksheet
 Energy Payments
Aggregation Performance Factors
 Aggregation UCAP Summary Export

Month:
 Aggregation:

- Select “**Aggregation Performance Factors**” under **Exports**
- Select “**Month**” and “**Aggregation**”
- Click “**Export**” and save the export

Summer 2012 Aggregation Performance

	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R
1	Summer 2012																	
2	May																	
3	Aggregation 1234																	
4																		
5	Event Type	Event Date/HB	Resource 1	Resource 2	Resource 3	Resource 4	Resource 5	Resource 6	Resource 7	Resource 8	Agg DV MW	Agg Net ACL MW	Agg AMD MW	Agg Capacity Reduction MW	Agg Raw PF	Agg Adjusted PF	Hour	Agg PF
6	Test	02/15/2011 15:00																
7		Resource ID	11111111	22222222	33333333	44444444	55555555	66666666	77777777	88888888	0.8	2.5	0	0	0	0	0	1
8		Resource DV	*	264	113	59			80	45								
9		Resource Net ACL	*	290	226	119			936	324								
10		Resource AMD	*															
11		Resource Capacity Reduction	*	0	0	0			0	0								
12																		
13	Test	03/31/2011 11:00																
14		Resource ID	11111111	22222222	33333333	44444444	55555555	66666666	77777777	88888888								
15		Resource DV					*	100										
16		Resource Net ACL					*	106										
17		Resource AMD					*											
18		Resource Capacity Reduction					*	0										
19																		
20	Test	07/19/2011 16:00																
21		Resource ID	11111111	22222222	33333333	44444444	55555555	66666666	77777777	88888888	2.1	3.6	4.5	0.9	0.4366	0.4366	1	
22		Resource DV	13	650	115	60	*	831	415	2								
23		Resource Net ACL	653	0	155	70	*	2206	0	451								
24		Resource AMD	664			64.4	*	1380	1776	577.4								
25		Resource Capacity Reduction	0	0	0	64.4	*	826	0	0								
26																		
27	NYISO Event	07/21/2011 13:00																
28		Resource ID	11111111	22222222	33333333	44444444	55555555	66666666	77777777	88888888	1.7	3.6	4.7	0.9	0.528	0.528		
29		Resource DV	13	650	115	60	*	640	215	2								
30		Resource Net ACL	653	0	155	70	*	2206	0	451								
31		Resource AMD	721			66.1	*	1392	1884	618.5								
32		Resource Capacity Reduction	0	0	0	66.1	*	814	0	0								
33																		
34	NYISO Event	07/21/2011 14:00																
35		Resource ID	11111111	22222222	33333333	44444444	55555555	66666666	77777777	88888888	1.7	3.6	4.8	0.9	0.5213	0.5213	1	
36		Resource DV	13	650	115	60	*	640	215	2								
37		Resource Net ACL	653	0	155	70	*	2206	0	451								
38		Resource AMD	729			66.2	*	1404	1912	622.3								
39		Resource Capacity Reduction	0	0	0	66.2	*	802	0	0								
40																		
41	NYISO Event	07/21/2011 15:00																
42		Resource ID	11111111	22222222	33333333	44444444	55555555	66666666	77777777	88888888	1.7	3.6	4.7	0.9	0.5284	0.5284	1	
43		Resource DV	13	650	115	60	*	640	215	2								
44		Resource Net ACL	653	0	155	70	*	2206	0	451								
45		Resource AMD	716			66	*	1392	1892	613								
46		Resource Capacity Reduction	0	0	0	66	*	814	0	0								
47																		

Aggregation Performance Factor

Export: Aggregation 1234 continued

48	NYISO Event	07/21/2011 16:00															
49	Resource ID	11111111	22222222	33333333	44444444	55555555	66666666	77777777	88888888	1.7	3.6	4.6	0.9	0.5274	0.5274	1	
50	Resource DV	13	650	115	60	*	640	215	2								
51	Resource Net ACL	653	0	155	70	*	2206	0	451								
52	Resource AMD	717			63.8	*	1392	1824	607								
53	Resource Capacity Reduction	0	0	0	63.8	*	814	0	0								
54																	
55	NYISO Event	07/21/2011 17:00															
56	Resource ID	11111111	22222222	33333333	44444444	55555555	66666666	77777777	88888888	1.7	3.6	4.5	0.9	0.5492	0.5492	1	
57	Resource DV	13	650	115	60	*	640	215	2								
58	Resource Net ACL	653	0	155	70	*	2206	0	451								
59	Resource AMD	729			65.3	*	1356	1684	596.9								
60	Resource Capacity Reduction	0	0	0	65.3	*	850	0	0								
61																	
62	NYISO Event	07/22/2011 12:00															
63	Resource ID	11111111	22222222	33333333	44444444	55555555	66666666	77777777	88888888	1.7	3.6	4.7	0.8	0.4934	0.4934		
64	Resource DV	13	650	115	60	*	640	215	2								
65	Resource Net ACL	653	0	155	70	*	2206	0	451								
66	Resource AMD	738			0	*	1392	1884	629.8								
67	Resource Capacity Reduction	0	0	0	0	*	814	0	0								
68																	
69	NYISO Event	07/22/2011 13:00															
70	Resource ID	11111111	22222222	33333333	44444444	55555555	66666666	77777777	88888888	1.7	3.6	4.7	0.8	0.4943	0.4943		
71	Resource DV	13	650	115	60	*	640	215	2								
72	Resource Net ACL	653	0	155	70	*	2206	0	451								
73	Resource AMD	713			0	*	1392	1880	634.6								
74	Resource Capacity Reduction	0	0	0	0	*	814	0	0								
75																	
76	NYISO Event	07/22/2011 14:00															
77	Resource ID	11111111	22222222	33333333	44444444	55555555	66666666	77777777	88888888	1.7	3.6	4.6	0.9	0.5013	0.5013	1	
78	Resource DV	13	650	115	60	*	640	215	2								
79	Resource Net ACL	653	0	155	70	*	2206	0	451								
80	Resource AMD	720			0	*	1380	1876	613.7								
81	Resource Capacity Reduction	0	0	0	0	*	826	0	0								
82																	
83	NYISO Event	07/22/2011 15:00															
84	Resource ID	11111111	22222222	33333333	44444444	55555555	66666666	77777777	88888888	1.7	3.6	4.5	0.9	0.5056	0.5056	1	
85	Resource DV	13	650	115	60	*	640	215	2								
86	Resource Net ACL	653	0	155	70	*	2206	0	451								
87	Resource AMD	714			0	*	1380	1784	594.2								
88	Resource Capacity Reduction	0	0	0	0	*	826	0	0								
89																	

Aggregation Performance Factor

Export: Aggregation 1234 continued

90	NYISO Event	07/22/2011 16:00															
91	Resource ID	11111111	22222222	33333333	44444444	55555555	66666666	77777777	88888888	1.7	3.6	4.3	0.9	0.5367	0.5367	1	
92	Resource DV	13	650	115	60	*	640	215	2								
93	Resource Net ACL	653	0	155	70	*	2206	0	451								
94	Resource AMD	725			0	*	1320	1692	568.3								
95	Resource Capacity Reduction	0	0	0	0	*	886	0	0								
96																	
97	NYISO Event	07/22/2011 17:00															
98	Resource ID	11111111	22222222	33333333	44444444	55555555	66666666	77777777	88888888	1.7	3.6	4.1	0.9	0.517	0.517	1	
99	Resource DV	13	650	115	60	*	640	215	2								
100	Resource Net ACL	653	0	155	70	*	2206	0	451								
101	Resource AMD	732			0	*	1356	1464	540								
102	Resource Capacity Reduction	0	0	0	0	*	850	0	0								
103																	
104	Test	10/06/2011 13:00															
105	Resource ID	11111111	22222222	33333333	44444444	55555555	66666666	77777777	88888888								
106	Resource DV																
107	Resource Net ACL																
108	Resource AMD																
109	Resource Capacity Reduction																
110																	
111																	
112																	0.4624

Aggregation UCAP Summary Export

- ◆ Aggregation UCAP MW data for all months in the Capability Period selected up to and including the selected auction month.
- ◆ Aggregation Management must be closed for the selected auction month.



The screenshot shows the DRIS interface with the following elements:

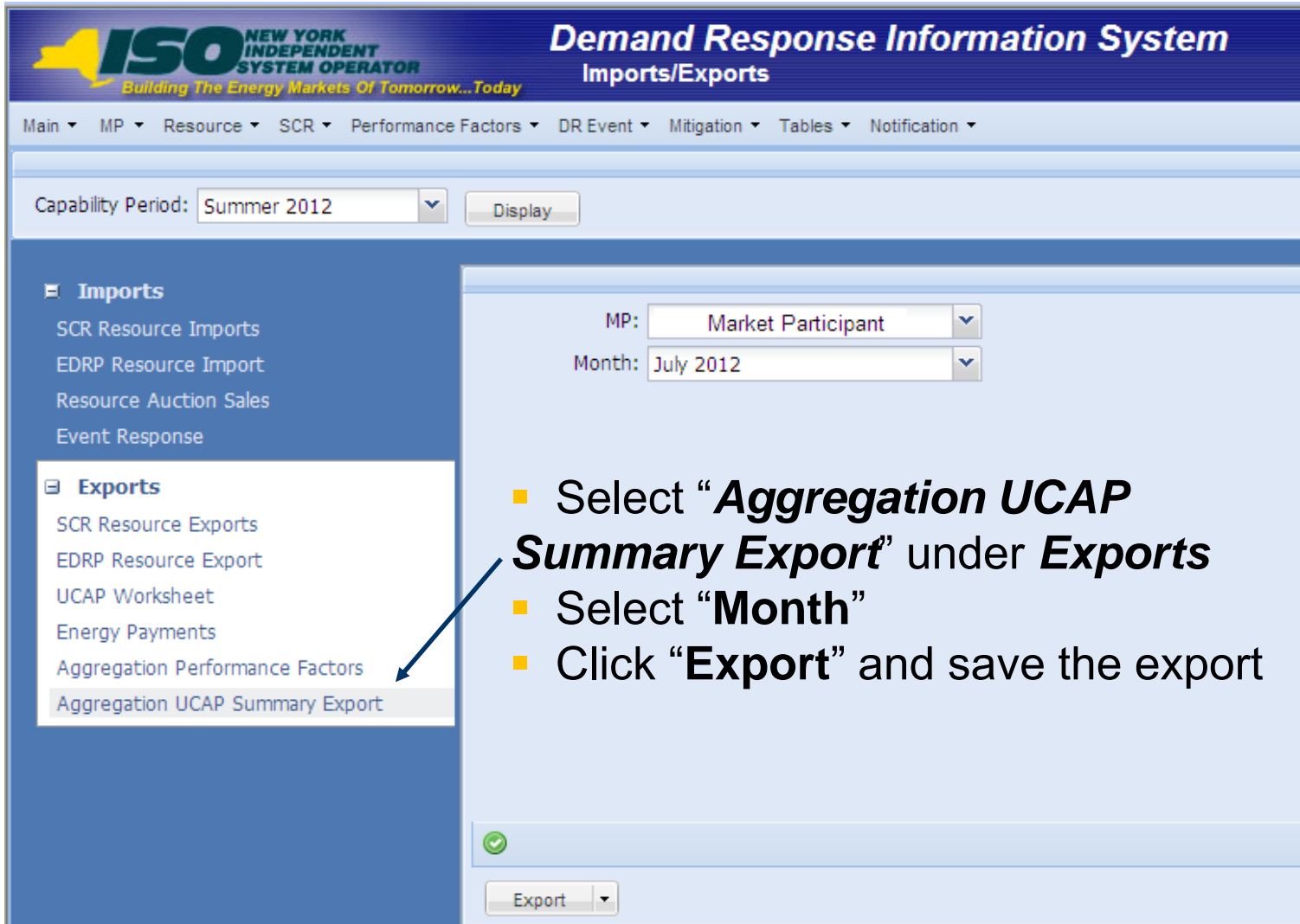
- Top Navigation:** "Demand Response Information System" and "Imports/Exports" tabs.
- Left Menu:** A dropdown menu with "Imports/Exports" selected.
- Form Area:** "Capability Period: Summer 2012" with a "Display" button.
- Content Area:** A list of "Imports" and "Exports" options, including "Aggregation UCAP Summary Export".

Annotations with arrows point to the "Imports/Exports" menu item and the "Display" button.

From the DRIS menu select **Imports/Exports**

Select a **Capability Period**, click "**Display**" and view the **Imports and Exports** along the left side

Aggregation UCAP Summary Export



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Demand Response Information System
Imports/Exports

Main ▾ MP ▾ Resource ▾ SCR ▾ Performance Factors ▾ DR Event ▾ Mitigation ▾ Tables ▾ Notification ▾

Capability Period: Summer 2012 ▾ Display

Imports

- SCR Resource Imports
- EDRP Resource Import
- Resource Auction Sales
- Event Response

Exports

- SCR Resource Exports
- EDRP Resource Export
- UCAP Worksheet
- Energy Payments
- Aggregation Performance Factors
- Aggregation UCAP Summary Export**

MP: Market Participant ▾

Month: July 2012 ▾

- Select “**Aggregation UCAP Summary Export**” under **Exports**
- Select “**Month**”
- Click “**Export**” and save the export

Export ▾

Aggregation UCAP Summary Export

	A	B	C	D	E	F	G	H	I	J
1	Capability Period=Summer 2012&									
2	Auction Month=July 2012&									
3										
4	MP Name	Aggregation ID	May	June	July	August	September	October	UCAP MW Difference	Under Review or Pending Resources
5	Market Participant	1234	7	7	8				1	
6	Market Participant	5678	10	9	12				3	
7	Market Participant	1111	320	320	320				0	
8	Market Participant	2222	45	46	45				-1	
9										
10										
11										
12										
13										

- ◆ Displays the UCAP MW of the Aggregation for each auction month in the Capability Period up to and including the auction month selected.
- ◆ **UCAP MW Difference:** the change in UCAP MW from the selected auction month and the auction month prior to the selected auction month.
- ◆ **Under Review or Pending Resources:** Displays as an “X” when the Aggregation includes any resources with a status of Under Review or Pending for the auction month selected.

Next Steps

- ◆ Enroll SCR resources for Summer 2012 during the SCR Enrollment Period for the May auction month.
 - *March 20, 2012 – April 6, 2012*

- ◆ Upon close of SCR Enrollment for the May auction month, DRIS will calculate the Aggregation PF and Aggregation UCAP MW values for the May auction month.
 - *Aggregation PF and UCAP MW are visible on the Aggregation Assignment screen in DRIS.*
 - *Aggregation Performance Factor Export may be exported from DRIS.*

- ◆ Upon the close of Aggregation Management for the May auction month (April 16, 2012) Aggregation UCAP Summary Export may be exported from DRIS.

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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