MEMORANDUM

TO: **Kate Hockford, Dave Lawrence**
NYISO Installed Capacity Working Group

FROM: **Michael Stevens, Integrys Energy**

SUBJECT: **Integrys Energy – Response to Redline ICAP Manual 7-30-2009 in regards to SCR**

DATE: **August 11, 2009**

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Introduction:

NYISO has issued Tech Bulletin 186 (TB 186) to address concerns regarding the reliability and reasonableness of Special Case Resources (SCRs) offering market capacity while experiencing long-term shutdowns. NYISO would like to propose newly created ICAP Manual language to support the intent behind TB 186. Integrys fully supports NYISO's operational desire to monitor any such Resources of "material importance" whereby a materially important load should be one of greater than or equal to 3.0 MW. NYISO should have the ability to remove such Resources from the SCR program; as their presence both jeopardizes the reliability of the NYISO Bulk Electric System and sends improper price signals to the market. However, Integrys has serious concerns with NYISO's proposed language as outlined by the redlined ICAP manual titled "ICAP_manual_7-30-09_SCR__section_4.3.3_section_4.12.4_redline" and in this memo proposes workable alternative language and solutions as described below:

1. **Reasonable Anticipation:** NYISO's proposed language at Section 4.3.3.1attempts to quantify the threshold at which RIPs must report change in load status. However, this section is complicated by the definition (or lack there of) of "reasonably anticipates."

   The term "reasonably anticipates" as used by the NYISO in the draft language is too subjective and exposes RIPs and Resources to penalties based on after –the –fact NYISO opinions and not a universally objective standard. For example, a car manufacturer of critical parts may have not been impacted by the economy. However, it may subsequently experience a long-term shutdown if one of their customers files for bankruptcy and cancels orders. Although this manufacturer operates in the currently risky automotive industry but has strong output, is it "reasonable" to anticipate future shutdowns based on the health of the surrounding industry? What triggers a reasonably anticipated event?

In addition, how can NYISO distinguish between an unforced-outage and a planned shutdown? Economic conditions can exist for either designation. In another example let's assume this same manufacturer is in the middle of negotiations on a new labor agreement with the local UAW, set to replace an existing agreement which will expire in 2 days. If the manufacturer has a 60% confidence level that it can renegotiate a new labor agreement prior to the deadline and avoid a labor strike, should it report a change to NYISO knowing there's still a 40% chance of an impending long-term shut-down?

The critical point remains that it is unworkable to saddle the RIP with the obligation to determine what can be reasonably anticipated.

2. Administration of Small Customer Reporting: NYISO's concerns are more relevant to large customers engaged in a long-term shut-down, and not smaller loads. In NYISO's proposed example RIPs would have to notify and adjust baselines for 100 kW loads that fall below a 70 kW threshold but not 40 MW loads that reduce load to 32 MW (in ROS). In this example it can be seen that a greater importance should be placed on the magnitude of the MW reduction and not the percentage of load.

Instead Integrys proposes a minimum customer size threshold of 3-5 MW for any such additional reporting. This would yield reporting available capacity changes of at least 1.0 MW; which is more of a substantial size load for NYISO operators to plan around. Administering additional reporting and tracking requirements should not create a distraction from the current reliability responsibilities of both NYISO and RIPs. NYISO should not have concerns about improperly discriminating against certain sized loads. NYISO currently has special language for the inclusion of "small customer aggregation" in the ICAP Manual. The mere presence of that term and associated requirements provides proof that NYISO acknowledges loads may be addressed differently based on size. As such, NYISO should feel confident in their ability to introduce language that exempts customers of a small size from reporting changes in operations under the same guidelines as larger loads.

Integrys recognizes, however, that preclusion of such reporting requirements for smaller customers may allow certain Market Participants to sell capacity that may no longer exist and receive full credit for doing so. To this point, Integrys recommends that for small resources (under 5 MW) RIPs provide end-of-period monthly peak demands for their loads, and that NYISO may adjust previously sold MW for Portfolios that have a 30% or more reduction in their APMD. This would require RIPs to proactively remove such resources from their portfolios and/or resubmit committed amounts of curtailable load.

Integrys strongly encourages NYISO to consider a customer size threshold to limit inefficiencies associated with administering the capacity markets and refer to the proposals made above.

3. Fair Treatment of Loads: Plant Load-Shifting, Increase in Demand, and Portfolio Performance: The reality of NYISO operational concerns center on aggregate loads at the sub-zone level. In conjunction with local T.O.s, NYISO operators seek to ensure there is sufficient power/voltage available in load pockets throughout the state. That being said, NYISO should not have to be notified of when a single, individual resource, is experiencing a long-term shut-down

if another resource experiences an equivalent off-setting increase in load. This is a common phenomenon as NYISO identifies Resources at the meter level. For example, Integrys Resources 1511059 and 1511027 represent two paper-processing facilities that are: (1) owned by the same company, (2) are in the same zone, (3) are behind the same T.O., and (4) take power at the same voltage level. For all practical purposes NYISO Operations view these two resources as a single load. However, under the current Manual and further exacerbated by the proposed language, NYISO would penalize the customer if they shifted machinery and associated load from one plant to another. The plant reducing its load would be forced to notify NYISO of a long-term shut-down and re-submit a lower APMD (and subsequently claim less capacity or face damages). The facility increasing their load by receiving the additional machinery would have a much tougher time meeting their CMD target. Current NYISO rules don't allow for this customer to resubmit the increase in the APMD at the facility gaining load but is forced to resubmit its status at the facility that is reducing load. This represents an unequal and unfair treatment of resources.

Just as NYISO should not be concerned if a customer shifts loads from one facility to another (within the same load pocket), so too should NYISO not be concerned if a RIP experiences such load shifts at the zonal level. NYISO operators dispatch SCR based on load zones. Thus if one of a RIP's Resources enters into a long-term shutdown due to the economy, etc. but another Resource experiences an off-setting increase in load than either (1) neither Resource should have to notify NYISO and re-submit a new APMD or (2) both Resources should notify NYISO and have the opportunity to re-submit a new APMD based on current Capability Period peak monthly demands. NYISO needs to acknowledge that there are several limiting factors as to how much capacity a Resource can provide and unfairly prohibits Resources that use more load to re-certify updated capabilities with NYISO. Generators on the other hand can re-submit DMNC data at any time (perform an out of period test as per section 4.2) in an effort to show increased output. To acknowledge that Generators can receive additional capacity credit within a given Capability Period but to limit an SCR's claim to re-submit a higher APMD treats both sources of capacity unequally. This has been an acceptable rule for RIPs and Resources given the affects of such ruling works two ways (recognized for capacity during decreases in load, not recognized for capacity during increases in load). **However, to force RIPs to re-submit APMDs for Resources that experience long-term shutdowns without allowing RIPs to re-submit APMDs for Resources that increase load creates an unequal treatment of capacity providers.**

Thus, Integrys recommends that NYISO:

(1) Evaluate Changes in Load at the zonal level, and
(2) Allow Resources to re-submit a higher within capability period APMD if monthly peak demand increases

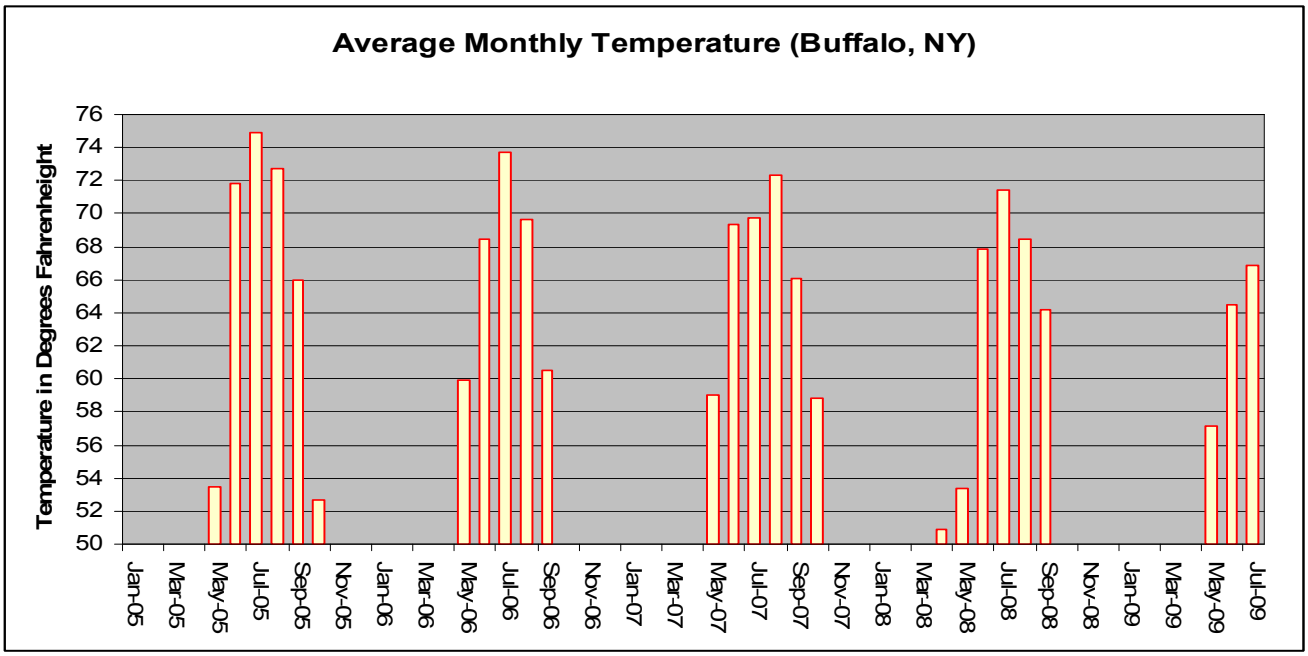
4. Clarification of Change of Load and Change of Status: NYISO states in the proposed ICAP Manual Section 4.3.3.2 that a Change of Status is equal to a Change of Load for a period that is reasonably anticipated to be greater than 60 continues days. However, NYISO subsequently states in the proposed section 4.3.3.3 that RIPs need to report a Change of Load for a period greater than 14 continuous days. So which is it; 14 days or 60 days? NYISO is not sending a consistent message to the market as to what kind of shutdown is important to monitor.

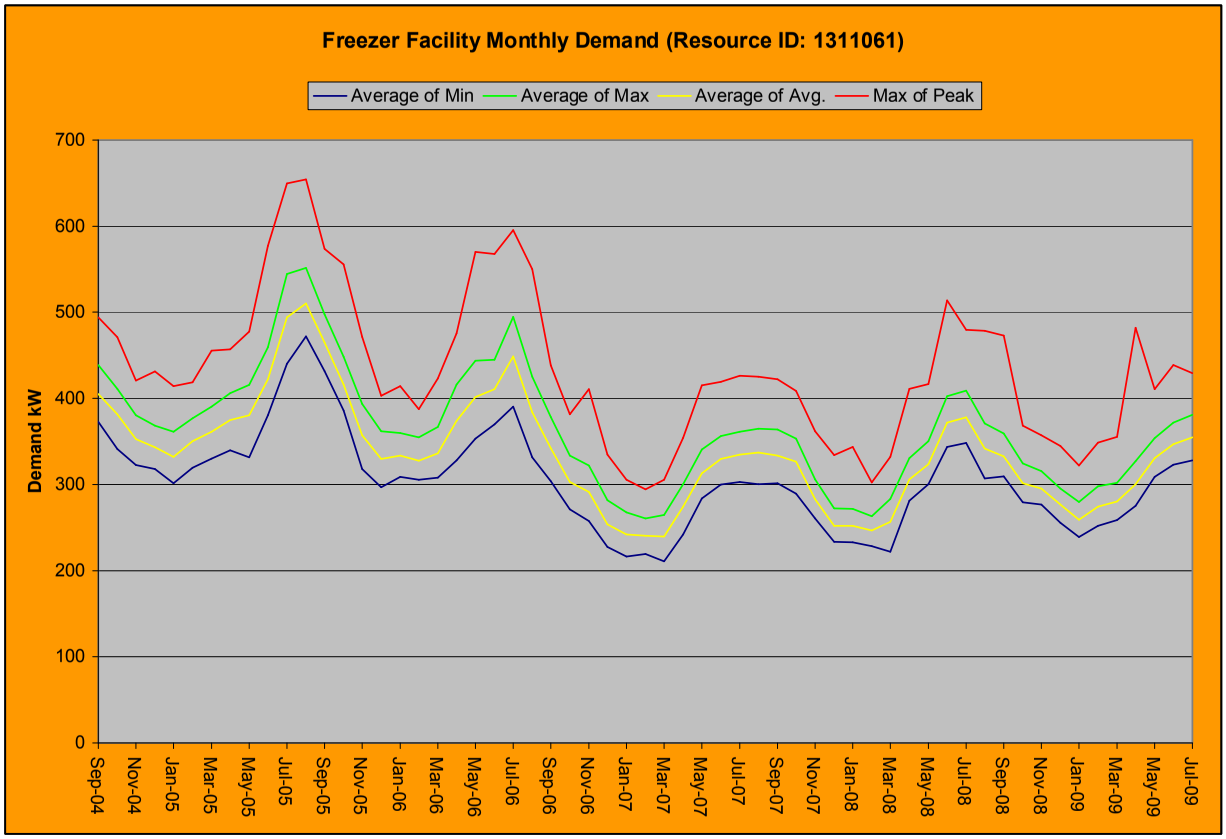
5. Weather Affects on APMD: NYISO's recent concerns regarding long-term shutdowns are heavily influenced by the recent downturn of the economy. However, it must be noted that comparing recent demand data to an APMD established a year prior fails to account for the impact of localized climate trends. Peak loads for buildings with large building envelopes are heavily biased by the use of air conditioners to cool workspace, etc. Economies aside, NYISO would have observed an overall reduction in demand this summer (2009) from previous years solely based on a decrease in temperatures. To help illustrate this example, it can be seen from the below change of average temperature (source of data from Energycast PowerTrader) that average temperatures for July were down 4.5 degrees (71.4 – 66.89) or 6.3% from the previous year. Further, average temperatures for July are down 8 degrees (74.94 – 66.89) or 9% from 2005. As such, NYISO should account for the affects of weather and temperature on loads when determining how much (as a %) a Resource's demand has change from one year to the next. To understand the impact temperature has on a Resource's APMD NYISO can refer to the following 3 examples that include:

(1) A freezer facility's monthly peak demand (Resource ID: 1311061)
(2) A State facility's monthly peak demand (Resource ID: 1511059)
(3) A stone quarry's monthly peak demand (Resource ID: 1611154)

In these 3 examples it can be clearly seen that temperature is directly correlated with the peak demands of Resources that have large HVAC (State Facility) loads and large chiller (freezer facility) loads. These loads are heavily influenced by ambient temperatures. On the other hand stone quarries are not heavily influenced by temperature at all and therefore maintain consistent demand regardless of weather.

The following graphs illustrate these examples:




Freezer Facility Monthly Demand (Resource ID: 1311061)
Average of Min
Average of Max
Average of Avg.
Max of Peak
Demand kW
700
600
500
400
300
200
100
0
Sep-04
Nov-04
Jan-05
Mar-05
May-05
Jul-05
Sep-05
Nov-05
Jan-06
Mar-06
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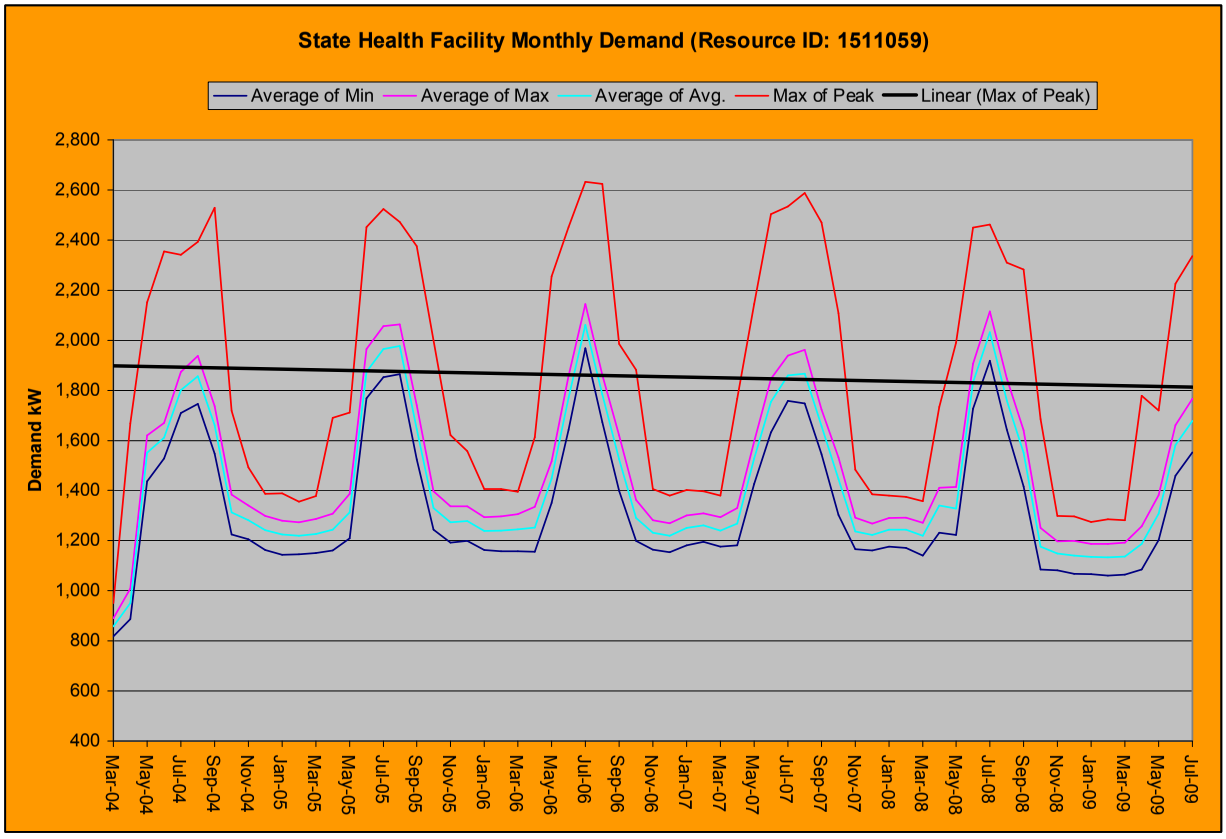
State Health Facility Monthly Demand (Resource ID: 1511059)
Average of Min
Average of Max
Average of Avg.
Max of Peak
Linear (Max of Peak)
Demand kW
2,800
2,600
2,400
2,200
2,000
1,800
1,600
1,400
1,200
1,000
800
600
400
Mar-04
May-04
Jul-04
Sep-04
Nov-04
Jan-05
Mar-05
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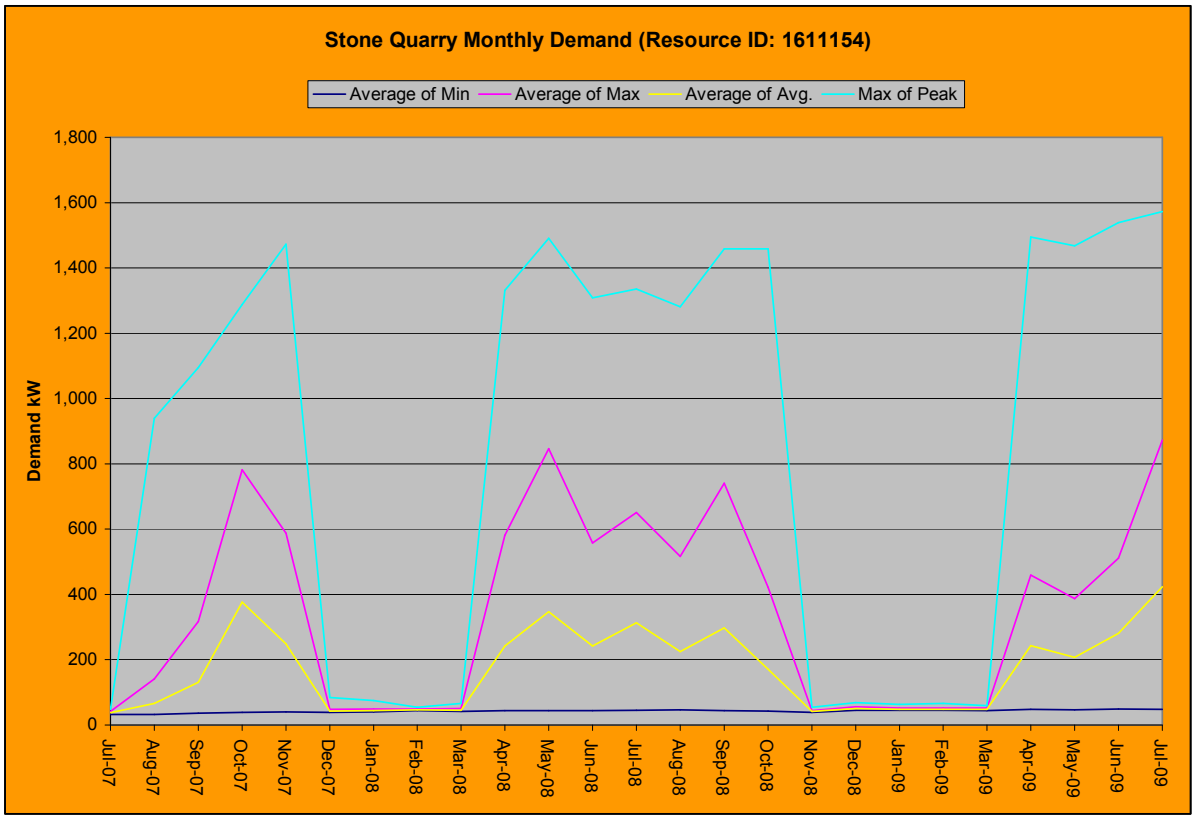

6. Seasonal Loads and Long-Term Shutdowns: There are present day scenarios that exist that make for reliable SCR resources that could trigger the 30%/60-day scenario. Seasonal loads that are highly weather sensitive may experience greater than 60-day 30% of historical peak swings in their peak demands. In the below example we illustrate a theme park that may have gotten off to a seasonally late start due to bad weather/heavy amounts of rain (a realistic scenario this year). However, operations resumed later in the summer once good weather arrived. The forecasted summer 2009 peak is still consistent with previous year's, but the period covering June through early August may have only achieved 68% of peak demand. Such an occurrence would not limit the resource from providing its full pledged load during an August test or event though. Furthermore, this resource could never reasonably predict their sustained shutdown as even the highest paid meteorologists fails to predict weather accurately beyond a few days.

Seasonal Load Example		
Month	Peak (MW)	
5/1/2008	0.40	
6/1/2008	**1.20**	
7/1/2008	**4.00**	
8/1/2008	**5.00**	
9/1/2008	**4.50**	3.68 MW = Summer 2009 APMD
10/1/2008	3.00	
11/1/2008	1.00	
12/1/2008	0.60	
1/1/2009	0.40	
2/1/2009	0.30	
3/1/2009	0.30	
4/1/2009	0.30	
5/1/2009	0.40	
6/1/2009	2.00	
7/1/2009	2.50	68% 60-day peak % of previous APMD
8/1/2009	5.00	
9/1/2009	5.00	3.63 MW APMD (98% of previous year)
10/1/2009	4.50	
11/1/2009	2.00	
12/1/2009	0.90	

Economic shutdowns (like those witnessed today) also have a timing component that must be considered. For example, a resource that is under normal operations during the time period in which the APMD was derived, and during a NYISO called event in August 2009 could actively perform admirably and meet NYISO operator needs. Subsequent economic circumstances could force the resource to reduce their operations to a point in excess of a 30% reduction for longer than 60 days, covering a time period outside of the APMD window.

In the additional example below, we show that a large industrial customer could realize the affects of a poor economy during the tail end of NYISO-identified critical time periods. This customer could have curtailed over 8.7 MW during an event in June-August, yet be forced to later reset their APMD to an amount of 8.0 MW as a result of a 55% reduction in plant demand late in the period. Under the current framework of TB 186 this customer would be penalized retroactively for an event they may not have had the ability to predict.

Economic Example		
Month	Peak (MW)	
5/1/2008	8.00	
6/1/2008	**8.70**	
7/1/2008	**9.00**	
8/1/2008	**9.80**	
9/1/2008	**8.00**	8.88 MW = Summer 2009 APMD
10/1/2008	7.00	
11/1/2008	6.00	
12/1/2008	5.00	
1/1/2009	6.00	
2/1/2009	6.00	
3/1/2009	5.00	
4/1/2009	7.00	
5/1/2009	8.00	
6/1/2009	8.70	
7/1/2009	9.00	
8/1/2009	9.80	
9/1/2009	4.50	8.00 MW APMD (94% of previous year)
10/1/2009	4.00	45% 60-day peak % of previous APMD
11/1/2009	3.50	
12/1/2009	2.80	

Integrys understands the merit behind NYISO's need to identify resources that cannot be called upon reliably going forward. However, resources should not be subject to any retroactive penalties due to a sudden change in operations. NYISO also needs to understand the complexity and reliability of seasonal resources that are fully capable of providing load relief to the grid immediately following 60+ day periods of reduced demand.

Integrys suggest NYISO considers incorporating the 30% reduction to the current capability period's newly obtained APMD instead of a 30, 60, or 90 day time period. Such data should be available by the time an event/test data is due to NYISO (90 days after event) and would not require any additional monitoring and reporting by RIPs or their MDSPs.
For example:
Current Capability Period = Summer 2009
APMD = 2,000 kW based on usage from 2008
In November 2009, RIP submits APMD data from June, July, August and September of 2009. If the within capability period APMD reflects a greater then 30% drop, then the within capability period APMD is used to quantify performance for Summer 2009.

7. Unplanned Forced-Outages: There are times when long-term shutdowns are out of a resource's control. A resource could lose a vital piece of process equipment that could take down an entire line for more than 60 days; with its reinstatement tied to other external forces such as parts availability, reconstruction/reengineering time, etc. However, such an unforeseen event could be rectified prior to any NYISO called events, in which case a resource is still able to meet its full obligation in both terms of energy and capacity. Sections 4.3.3.5 and 4.3.3.6 address this issue that was previously raised by Integrys and we commend NYISO for including such remedies.