Draft Proposed Cost Allocation Methodology for Regulated Reliability Solutions

1.0 Tariff Guidance for Cost Allocation

The tariff states that cost allocation for regulated solutions to reliability problems will be based on the principle that "beneficiaries should bear the cost responsibility." The task then becomes developing the criteria for determining who these beneficiaries are and the methodology for assigning appropriate costs to them. The tariff provides guidance with respect to "who beneficiaries are" stating that primary beneficiaries are those Transmission Districts (TD) contributing to the reliability violation.

The tariff provides further guidance with respect to cost allocation, stating that costs should be allocated among the primary beneficiaries based on their "relative contribution to the need for the regulated solution." As described below in the examples, adjustments to recognize the terms of prior agreements, the location of loads or for other factors may be appropriate in certain circumstances.

In the event that any of the costs of a regulated solution will be allocated to a transmission district other than the transmission district in which the NYISO identifies the reliability need, the Transmission Owner in whose district the need is identified and the Transmission Owner to whose district costs will be allocated shall engage in good faith negotiations in an effort to achieve an agreement on a proposed regulated back-stop solution and on the implementation of the regulated solution.

2.0 General Applications of Cost Allocation Principles

2.1 Sizing a Reliability Solution

In each case, for a regulated reliability solution, the full cost of the smallest feasible solution - taking into account all resource needs as identified over the planning horizon - that can eliminate the deficiency or criteria violation will be allocated and recovered (*e.g.*, if a 63 MW solution would exactly correct the deficiency, but the minimum practical solution is 100 MW, the full 100 MW solution would be cost allocated and cost recovered).

2.2 Cost Allocation Finality

Each year an advisory cost allocation will be issued by the NYISO relative to the reliability backstop solution identified in the CRP. That cost allocation will continue to be advisory until such time that the reliability solution is triggered by the NYISO. The final cost allocation will be the allocation in the effective CRP at the time the solution is triggered. The final cost allocation computation for a reliability solution will be performed using the same data base assumptions over the same planning horizon as those utilized in preparing the most recently approved CRP that ultimately triggers the need to proceed with the regulated solution. In other words, once the cost allocation computation is completed based upon the same information used to approve the regulated solution for proceeding and to be cost recovered; it would not be subsequently revisited (subject, however, to re-computations due to computational errors that are later discovered within a specified time period).

2.3 Time Horizon

The cost allocation computation should be performed for the needs identified in the first five year planning horizon of the most recently approved CRP only. If a solution causes a separate reliability violation to be reduced or postponed so that the associated year of the identified need is postponed, or the identified need is reduced, then those loads benefiting from the postponed or reduced need will be included in the cost allocation methodology.

2.4 Allocation within Sub-Zones Will Be to Total Load

Cost allocation to each load within the sub-zone will be on a load-ratio share of peak coincidence load for total loads and not incremental loads.

3.0 Cost Allocation Process Overview

3.1 Cost responsibility for reliability backstop projects that are triggered to meet the reliability needs identified under the NYISO Comprehensive Reliability Planning Process ("CRPP") will be determined separately for voltage, thermal, resource adequacy, stability, and fault duty violations. The cost responsibility for a particular load sub zone that is associated with multiple types of violations will use a reiterative approach that combines the individual cost responsibilities on a proportional basis to achieve a single cost allocation percentage for that load sub zone.

3.2 **<u>Primary Cost Allocation Scenarios</u>**

There are three primary cost allocation scenarios envisioned that are expected to arise more frequently and that must be explicitly addressed are:

> **3.2.1 Capacity Deficiency Only:** If transfer limits have not been reduced due to voltage, thermal, or stability violations, and the NYCA LOLE is greater than 0.10 (*e.g.*, a pure capacity deficiency) then the allocation of costs to resolve the capacity deficiency will be calculated according to the forecast NYCA and LICAP deficiency process described in Section 4.1.

3.2.2 Voltage and Thermal Violations: If thermal or voltage violations exist and the NYCA LOLE is less than 0.10, then the allocation of costs associated with eliminating the relative violation will be determined according to the MVA impact method described under Section 4.2.

3.2.3 Simultaneous Transfer Limit Reduction and Capacity Deficiency: If transfer limits are reduced due to voltage or thermal violations and the NYCA LOLE is greater than 0.10 (*e.g.*, a simultaneous transfer limit reduction and capacity deficiency) then the allocation of costs will be determined pursuant to section 4.3, summarized herein:

(a) First cost responsibility associated with eliminating the voltage and thermal violations to restore system transfer limits to their accepted pre- RNA levels will be allocated using an MVA impact method.

(b) Next, using the restored system transfer limits at pre-RNA levels, cost responsibility associated with the remaining capacity deficiency will be allocated according to the forecast NYCA and LICAP deficiency process.

(c) The total cost responsibility allocated to a sub zone will be a combination of the above-calculated cost responsibilities associated with that sub zone. Additionally, the percentages of cost responsibility allocated to a sub zone under the restoration of transfer limits defined in (a) above, and for the remaining capacity deficiency defined in (b) above will be scaled proportionally relative to how much (a) and (b) contribute to the total capacity violation.

3.3 Secondary Cost Allocation Scenarios

Other cost allocation scenarios may arise that are unlikely to be associated with NYCA LOLE violations but are more likely associated with a change to the system configuration and could be dealt with on a case-by-case basis.

3.3.1 Fault Duty or Stability: Fault duty and stability costs are allocated to the generation or transmission project itself as an integral requirement of that addition or reconfiguration and according to that projects respective cost allocation. The process is described under Sections 4.4 and 4.5.

4.0 Cost Allocation Calculations

4.1 Cost Allocation for a NYCA LOLE Reliability Violation without Reduced Transfer Limits

4.1.1 If a NYCA LOLE reliability violation results from a resource deficiency, that is not partially or fully the result of a reduced voltage or thermal transfer limit, the cost allocation would be determined as follows:

(a) the NYCA Installed Reserve Margin (IRM) requirement and associated Locational ICAP (LICAP) requirements (using prevailing rules[1]) would be forecast in terms of MW for the updated assumptions utilized in preparing the most recently approved CRP;
(b) Load Sub-Zones with LICAP requirements would be allocated costs based upon those MW deficiencies; a locality will be allocated the total cost responsibility associated with eliminating its respective LICAP deficiency.
(c) LSEs within LICAP deficient Sub-Zones would be allocated costs based upon their forecast load ratio share of coincident peak loads;
(d) if a NYCA IRM deficiency remains after LICAP deficiencies are eliminated, all NYCA Sub-Zones would be allocated the remaining cost responsibility based upon their forecast load ratio share of coincident peak loads. The load ratio share calculation associated with the NYCA deficiency will exclude that portion of the locality's capacity requirement that can only be served by locational capacity.

4.1.2 - Apportioning Costs for Multiple Violation Categories – The calculation to determine the relative portion allocated to each violation category (locational deficiency and NYCA-wide capacity deficiency) is determined by calculating that category's effect on restoring the NYCA LOLE to criteria. A new LOLE is calculated after each violation category is resolved. Once the NYCA LOLE has been restored to criteria the cost allocation process stops. The resulting reduction in LOLE for each violation category is compared to the overall amount that the LOLE must be reduced to bring the NYCA LOLE into criteria. This percentage is then multiplied by the individual cost allocation determined within each violation category to yield an overall percent allocation to the Localities and ROS for that category of violation. The apportioned contribution within any particular violation category can vary from 0% to 100%. The overall allocation is the sum of contributions from each violation category.

4.1.3 EXAMPLE of Cost Allocation for a NYCA LOLE Reliability Violation Without Reduced Transfer Limits:

The example provided below portrays the cost allocation for a single solution (*e.g.*, a transmission line connecting the localities and ROS to an additional capacity source outside NYCA) that solves both locational and NYCA wide capacity deficiencies. Assume the forecast required Installed Reserve Margin (IRM) is 118% and the forecast LCRs are 83% for Zone J and 106% for Zone K. Further assume that initially both localities (areas J and K) fail to meet their forecast LCR and after the locational requirements are met there still exists a NYCA wide capacity deficiency.

[1] If rules and procedures used to determine IRM and/or LICAP requirements change, affected cost allocation rules would need to change accordingly.

		ROS	Zone J	Zone K	Totals
(a)	NYCA LOLE Before Reliability Additions				0.15
Step 1: Calculation of LICAP Contribution to NYCA LOLE Violation					
(b)	Peak Load (2006 from RNA)	15,600	11,500	5,300	32,400
(c)	Forecast ICAP Requirement *(b x 118%)*	18,408	13,570	6,254	(c') 38,232
(d)	Forecast LCR Percentage	**None**	83%	106%	
(e)	Forecast Locational Capacity Requirement *(b x d)*	**None**	9,545	5,618	(e') 15,163
(f)	Assumed LICAP Deficiencies		750	250	(f') 1,000
(g)[n1]	Cost allocation for LICAP Deficiency *(f/f')*	**None**	**100%** * (750/1000) = 75%	**100%** * (250/1000) = 25%	
(h)	NYCA LOLE after LICAP Corrections				0.11
(i)[n2]	Percent that Locational Requirements solve NYCA LOLE *(a – h)/a – 0.1)*				(0.15-0.11)/(0.15-0.1) = **80%**
Step 2: Calculation of NYCA Contribution to NYCA LOLE Violation					
(j)	Percent remaining NYCA Requirements to solve NYCA LOLE *(100% - i)*				100%-80% = **20%**
(k)[n3]	Cost allocation for remaining NYCA deficiency after LICAP met. *(c – e)/(c' – e')*	(18,408 – 0)/(38,232 – 15,163) = 80%	(13,570 – 9,545)/23,069 = 17%	(6,254 – 5,618)/23,069 = 3%	
Step 3: Composition of Cost Allocation for a Single Solution					
(l)	Cost Allocation to Resolve Locational Deficiency *(g * i)*	**None**	(75% * 80%) = 60%	(25% * 80%) = 20%	
(m)	Cost Allocation to Resolve NYCA Deficiency *(k * j)*	80% * 20% = 16% [n4]	(17% * 20%) = 3.4%	(3% * 20%) = 0.6%	
(n)	Blended Cost Allocation for Locational and NYCA capacity deficiency *(l) + (m)*	16% + 0% = **16%**	60% + 3.4% = **63.4%**	20% + 0.6% = **20.6 %**	**100%**

Notes:

n1 -If the locational requirements were sufficient to restore the NYCA LOLE to below 0.1; the cost allocation process would stop at row "g" and it would be unnecessary to continue to steps 2 and 3. A total 100% of the costs would be allocated to the localities with none to ROS (row "m", NYCA allocation, would equal 0%). The relative percentages allocated to zones J and K is applicable only where a single solution would solve both locational deficiencies, otherwise each locality is 100% responsible for solutions meeting its individual LCR.

n2 -The calculations in I and J apportion the costs to the two capacity deficiencies categories (locational and NYCA wide) according to their relative affect on bringing the NYCA LOLE into criteria. For example, if there are both locational and NYCA wide deficiencies, the amount due to the locational deficiencies is calculated by determining the portion that eliminating those deficiencies have on restoring the NYCA LOLE to below 0.1, the remainder is that portion due to eliminating the NYCA deficiency. Rows "l" through "n" show how the two costs are combined for a single solution.

n3 -If there were no locational capacity deficiencies but there was still a NYCA deficiency, cost allocation would begin with step 2 proceed to step 3 (row "m", locational allocation, would equal 0).

n4 – Costs for the allocated portion under "m" to ROS would be spread across the ROS zones according to their load ration share.

4.2 Cost Allocation for an Inter or Intra-Zonal Transmission Voltage or Thermal Criteria Violation Only

4.2.1 For Voltage or Thermal limit reductions or problems that contribute to NYCA LOLE violations, the costs of regulated reliability solutions would be allocated as already discussed. for NYCA LOLE violations.

4.2.2 For Voltage or Thermal criteria violations that do not cause NYCA LOLE violations, and that can not be eliminated by re-dispatch, cost responsibility for a regulated solution would be allocated on an impact basis. This will account for both load share and the location of the load (similar to using a Generator Shift Factor). It will apply to all Load Sub-Zones[2] containing load that, if reduced, would contribute to a reduction of the reliability criteria violation that caused the need for the regulated solution (as determined using the same software/ procedures that initially identified the violation).

More specifically, loads will be decremented on an MVA basis[3] individually in each Sub-Zone uniformly across that Sub-Zone to determine which Sub-Zones alleviate the voltage (or thermal) limit. Load decrements will be a percentage of a *Sub-Zone's Net Own Load Local Real and Reactive Power Needs* defined as the Sub-Zone's Summer Peak Coincident: (a) gross real and reactive load (including distribution losses and rate based reactive resources co-mingled with load), *plus* (b) transmission real and reactive losses to serve local load in the same Sub-Zone, but excluding GSU (Generator Step-Up Transformer) losses; *less* (c) Transmission Owner rate based reactive power resources including: (i) Sub-Zonal line charging on both local lines and bulk transfer lines; and (ii) Sub-Zonal reactive resources such as capacitor banks, SVCs, etc.

Subsequently, for all Sub-Zone's whose load decrements alleviate the voltage or thermal criteria violation, loads would be simultaneously decremented (in the same manner as for one Sub-Zone) using on the same percentage load decrement for all of those Sub-Zones. From this evaluation, the proportional impact that each Sub-Zone has on alleviating the voltage or

[2] Costs associated with regulated solutions for Voltage or Thermal criteria violations will not be allocated to an area smaller than one entire Load Sub-Zone. Alternatively, these costs will be allocated to an entire TD only if all of the Load Sub-Zones within that TD are identified as contributing to the need for the reliability upgrade.

[3] Total Power in MVA is the composite of both real (MW) and reactive (MVAr) power.

thermal criteria violation will be used to determine the cost allocation associated with this reliability violation.

4.2.3 As required (by Section 10(2)(f) of Attachment Y to the NYISO OATT), contractual obligations relating to appropriate interface limitations (i.e., minimum transfers and phase-shifter settings) will be respected. Studies conducted will accurately reflect these interface limitations.

4.2.4 Voltage Violation Example

A voltage criteria violation at a specific location (5 kV below acceptable levels on a 345 kV bus) is identified in which load reductions in three load sub-zones (A, B and C) would each reduce the reliability violation. Studies indicate that a 5% load decrease in each of sub-zones A, B and C (on an MVA basis) would produce increases in the voltage level of 1 kV, 1.5 kV and 2.5 kV respectively for a total increase of 5 kV. In other words, load decreases in sub-zones A, B and C reduce the violation by 20%, 30% and 50%, respectively. Consequently, costs for the regulated solution needed to eliminate the violation would be allocated to sub-zones A, B and C on the basis of 20%, 30% and 50%, respectively to account for differential impacts of load reductions.

4.2.5 Thermal Violation Example

A thermal criteria violation (a 100 MVA overload) is identified in which load reductions in three load sub-zones (A, B and C) would each reduce the reliability violation. Studies indicate that a 5% load decrease in each of sub-zones A, B and C (on an MVA basis) would produce decreases in the thermal overload violation of 10 MVA, 30 MVA, and 60 MVA respectively for a total decrease of 100 MVA. In other words, load decreases in sub-zones A, B and C reduce the violation by 10%, 30% and 60%, respectively. Consequently, costs for the regulated solution needed to eliminate the violation would be allocated to sub-zones A, B and C on the basis of 10%, 30% and 60%, respectively to account for differential impacts of load reductions.

4.3 Cost Allocation for a Simultaneous NYCA LOLE Reliability Violation with Reduced Transfer Limits

4.3.1 If a NYCA LOLE reliability violation is partially or fully contributed to by a voltage or thermal transmission transfer limit decrease (compared to transfer limits that existed prior to the RNA study), first the amount allocated to each Sub-Zone to return to pre-RNA transfer limits would be determined as follows:

4.3.1.1 Sub-Zonal Loads will be decremented in the same manner as previously described in section 4.2 for voltage or thermal criteria violations. From this evaluation, the proportional impact that each Sub-Zone has on returning the voltage (or thermal) limit to pre-RNA levels will be used to determine the cost allocation associated with this reliability violation.

4.3.2 If returning voltage (or thermal) transfer limits to pre-RNA levels fully alleviates the NYCA LOLE violation, no additional cost allocation computations will be needed.

4.3.3 If a NYCA LOLE violation persists, the portion of the total NYCA LOLE violation attributable to the voltage (or thermal) transfer limit reduction would be determined as follows:

(a) the NYCA Installed Reserve Margin (IRM) requirement and associated Locational ICAP (LICAP) requirements would be forecast for the updated assumptions utilized in the most recently approved CRP (i.e., with the lower anticipated voltage (or Thermal transfer limits) and a NYCA LOLE associated with these assumptions would be calculated;
(b) the NYCA IRM and LICAP requirements would be forecast for the updated assumptions utilized in the most recently approved CRP with the voltage (or thermal) limits returned to pre-RNA levels and a NYCA LOLE associated with these assumptions would be calculated;
(c) the portion of the total NYCA LOLE deficiency attributable to the reduction in voltage (or thermal) transfer limits would be the difference between (i) the NYCA LOLE associated with reduced transfer limits as calculated in section (a) and (ii) the NYCA LOLE associated with restored transfer limits as calculated in section (b), divided by the difference between (i) the NYCA LOLE associated with reduced transfer limits as calculated in section (a) and (ii) the NYCA LOLE reliability criteria objective of 0.10.
(d) the cost responsibility of that portion of the NYCA LOLE attributable to the transfer limit reduction will be allocated according to the MVA impact approach described in section 4.2.1;
(e) the remaining cost responsibility of the NYCA LOLE deficiency not attributable to the reduction in transfer limits would be allocated as per Section 4.1.1 above;
(f) and finally, the two separate cost responsibilities computed in section (d) and section (e) would be combined into one cost allocation percentage.

4.3.4 - Apportioning Costs for Multiple Violation Categories – The calculation to determine the relative portion allocated to each violation category (transfer limit reduction, locational deficiency and NYCA-wide capacity deficiency) is determined by calculating that category's effect on restoring the NYCA LOLE to criteria. A new LOLE is calculated after each violation category is resolved. Once the NYCA LOLE has been restored to criteria the cost allocation process stops. The resulting reduction in LOLE for each violation category is compared to the overall amount that the LOLE must be reduced to bring the NYCA LOLE into criteria. This percentage is then multiplied by the individual cost allocation determined within each violation category to yield an overall percent allocation to the Localities and ROS for that category of violation. The apportioned contribution within any particular violation category can vary from 0% to 100%. The overall allocation is the sum of contributions from each violation category.

4.3.5 Example of Cost Allocation for an NYCA LOLE Reliability Violation With Reduced Transfer Limits:

The example provided below portrays the cost allocation for a single solution (*e.g.*, a transmission line connecting the localities and ROS to an additional capacity source outside NYCA) that solves a transfer limit reduction, locational deficiencies, and NYCA wide capacity deficiency. In this example there is a reduction in transfer limit due either to a voltage or thermal constraint that has the effect of increasing the NYCA LOLE above 0.1. Assume the forecast required Installed Reserve Margin (IRM) is 118% and the forecast LCRs are 83% for Zone J and 106% for Zone K. Further assume that both localities (areas J and K) fail to meet their forecast LCR and after the locational requirements are met there still exists a NYCA wide capacity deficiency.

		ROS	Zone J	Zone K	Totals
Step 1: MVA Impact Analysis					
(a)	Resulting Impact of load (MVA) decrease on the violation per method stated in Section 2.1.1.1	35%	35%	30%	100%
(b)[n1]	Cost allocated to eliminate transfer constraint	35%	35%	30%	100%
Step 2: Calculate Percent Transfer Limit Contributes to NYCA LOLE Violation					
(c)	Peak Load (2006 from RNA)	15,600	11,500	5,300	32,400
(d)	Forecast ICAP Requirement *(c * 118%).*	18,408	13,570	6,254	(d') 38,232
LICAP With Transfer Reduction					
(e)	Forecast LCR Percentage	**None**	90%	110%	
(f)	Forecast Locational Capacity Requirement	**None**	10,350	5,830	16,180
LICAP Without Transfer Reduction					
(g)	Forecast LCR Percentage	**None**	83%	106%	
(h)	Forecast Locational Capacity Requirement	**None**	9,545	5,618	(h') 15,163
(i)	Increased locational requirements attributable to transfer limit reduction *(f – h)*		805	212	1,017 MW
(j)	NYCA LOLE with reduced transfer limits				0.15
(k)	NYCA LOLE with transfer limits restored to pre-RNA levels				0.14
(l)[n2]	Percent that the Voltage	(0.15 - 0.14)/(0.15 – 0.1) = **20%**			

	Violation Comprises the total Need *(j – k) / (j – 0.1)*				
Step 3: Calculation of Locational Requirement Contribution to NYCA LOLE Violation					
(m)	Forecast LCR at restored limits	**None**	83%	106%	
(n)	Forecast Locational Capacity Requirement	**None**	9,545	5,618	(n') 15,163
(o)	Assumed LICAP Deficiencies based on forecast LCR		750	250	(o') 1,000
(p)[n3]	Cost allocation for LICAP Deficiency *(o/o')*	**None**	100% * (750/1000) = 75%	100% * (250/1000) = 25%	
(q)	NYCA LOLE after transfer limit and Locational Limit resolved				0.11
(r)	Percent that the LICAP Comprises the total Need *(k – q) / (j – 0.1)*	(0.14 - 0.11)/(0.15 – 0.1) = **60%**			
Step 4: Calculation of NYCA Requirement Contribution to NYCA LOLE Violation					
(s)	Percent remaining NYCA Need	100% - 20% - 60% = **20%**			
(t)[n4]	Cost allocation for remaining NYCA deficiency after LICAP met. *(d – n) / (d' – h')*	(18,408 – 0)/(38,232 – 15,163) = 80%	(13,570 – 9,545)/23,069 = 17%	(6,254 – 5,618)/23,069 = 3%	
Step 5: Composition of Cost Allocation for a Single Solution					
(u)	Cost Allocation to Resolve Transfer Need *(b*l)*	35% * 20% = 7% [n5]	35% * 20* = 7%	30% * 20% = 6%	
(v)	Cost Allocation to Resolve Locational Deficiency *(p * r)*	0% * 60% = 0% **None**	75% * 60% = 45%	25% * 60% = 15%	
(w)	Cost Allocation to resolve NYCA Deficiency *(t * s)*	80% * 20% = 16% [n6]	17% * 20% = 3.4%	3% * 20% = 0.6%	
(x)	Total Cost Allocation *(u + v + w)*	7% + 0% + 16% = **23%**	7% + 45% + 3.4% = **55.4%**	6% + 15% + 0.6% = **21.6%**	100%

Notes:

n1 - If elimination of the transfer limit restrictions were enough to bring the NYCA LOLE into criteria, it would be unnecessary to proceed to steps 2 through 5 (rows "v" and "w" would equal 0). Costs would be allocated solely based on the impact their MVA reduction had on restoring transfer limits. If the a NYCA LOLE violation persists, the process would proceed on to Step 2 to determine the portion that resolving transfer limits has on restoring the NYCA LOLE to criteria then to Step 3 and 4 to determine cost allocation for capacity deficiencies.

n2 - The calculations in rows "j" through "l" determine the relative portion that eliminating the transfer limit restrictions has on restoring the NYCA LOLE to criteria. This is performed through two subsequent calculations, first determining the NYCA LOLE with the reduced transfer limits, then with the limits restored. The improvement in NYCA LOLE is compared to the overall LOLE reduction needed to bring NYCA within criteria to determine the percentage that the elimination of transfer limits has on achieving this objective.

n3 -If restoration of the transfer limits and elimination of any locational requirement deficiencies were sufficient to restore the NYCA LOLE to below 0.1; the cost allocation process would stop at row "p" and Step 4 would be unnecessary. The allocated costs would be a combination of those to restore transfer limits and resolve locational deficiencies. The relative portion of these costs would be determined by the contribution each category had on restoring the NYCA LOLE to criteria. Costs to resolve the transfer limit violation would be apportioned to ROS, Area J and K based on their MVA impact. Additional costs would be imposed on the localities (Areas J and K) to resolve locational deficiencies (costs to the localities would be a combination of "u" and "v"); in no case would any costs to resolve locational deficiencies be imposed on other NYCA Areas (rows "v" and "w", NYCA allocation, would equal 0% for ROS). If the a NYCA LOLE violation persists, the process would proceed on to Step 4 to determine cost allocation for NYCA-wide capacity deficiencies.

n4 - The calculation in row "t" determines the allocation for the portion that the NYCA-wide deficiency. Again, the relative portion of this cost allocation is determined by the relative impact elimination of this violation has on restoring the NYCA LOLE to criteria (rows "l", "r" and "s" show the respective effects of the three categories). If there were no locational capacity deficiencies but there was still a transfer limit and NYCA deficiency, cost allocation would exclude Step 3 (row "v", locational allocation, would equal 0). The cost allocation for ROS and the two localities would be the combination of their cost allocation to resolve the transfer limit reductions and the NYCA deficiency (the sum of rows "u" and w").

n5 – Costs for the allocated portion under "u" to ROS would be spread across the ROS zones according to their MVA impact.

n6 – Costs for the allocated portion under "w" to ROS would be spread across the ROS zones according to their load ratio share.

4.4 System Stability Criteria Violation

4.4.1 A new generating unit/plant not in compliance with generator stability requirements will be responsible for costs associated with bringing it into compliance under interconnection rules.

4.4.2 System stability criteria violations that result in reduced transfer limits that can be attributed to specific Sub-Zones through load decrement tests (as for voltage and thermal violations) would be cost allocated in the same way as Section 4.3 above.

4.4.3 Other system stability criteria violations that cannot be attributed to specific Sub-Zones through load decrement tests would be cost allocated to all NYCA Sub-Zones on a load ratio share and/or addressed on a case-by-case basis.

4.5 Short Circuit Duty Criteria Violations

4.5.1 Costs related to short circuit duty violations attributable to new generation will be allocated to that generation under interconnection cost allocation rules.

4.5.2 Costs related to short circuit duty violations attributable to transmission facility additions and/or reconfigurations will be allocated to the transmission project itself as an integral requirement of that addition or reconfiguration.

Appendix

Transmission Districts, LBMP Load Zones and Load Sub-Zones

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- **Transmission Districts** delineate TO service territories
- **LBMP Load Zones** delineate areas with generally similar energy prices that may be separated from other areas (other LBMP Load Zones) that have different energy prices due to congestion.
- **Load Sub-Zones** delineate portions of TO service territories for billing purposes.

A **Transmission District or "TD"** (as defined in the NYISO OATT) is the geographic area served by the Investor-Owned Transmission Owners and LIPA, as well as the customers directly interconnected with the transmission facilities of the Power Authority of the State of New York [a TD can be comprised of one or more LBMP Load Zones and one or more Load Sub-Zones].

An **LBMP Load Zone** – referred to simply as a **"Load Zone"** in the OATT - (as defined in the NYISO OATT) is one (1) of eleven (11) geographical areas located within the NYCA that is bounded by one (1) or more of the fourteen (14) New York State Interfaces [an LBMP Load Zone can lie within one Transmission District or can straddle several Transmission Districts.

A **Load Sub-Zone** is a whole or a portion of a TO's Transmission District that lies within one LBMP Load Zone, and which contains all of the load in that LBMP load zone served by that TO (a sub-zone must lie completely within one LBMP Load Zone and one Transmission District). Load Sub-Zones are separated from other Load Sub-Zones with sufficient metering to allow each Load Sub-Zone to be billed for energy withdrawals. Multiple LSEs may be located within each Load Sub-Zone. Currently, 22 Load Sub-Zones exist within the NYCA.

The current composition of each TO's Transmission District is as follows :

	TD Composition	
	No. of Load **Sub-Zones** that **Share Portions** of LBMP Load Zones	No. of Load **Sub-Zones** that **Constitute an Entire** LBMP Load Zones
Central Hudson	2	0
Con Ed	2	2

LIPA	0	1
NYPA	10*	0
NYSEG	7	0
NMPC/National Grid	7	0
O&R	1	0
RG&E	1	0
* NYPA Sub-Zones all lie within other TO Sub-Zones; so for the purposes of cost allocation, they will be treated as an integral part of the larger Sub-Zones		

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