



***Initial Manual
Congestion Assessment
And Resource Integration Study***

***Updated
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NYISO Initial Congestion Assessment and Resource Integration Study Manual

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1. Congestion Assessment and Resource Integration Study (CARIS) Procedures

This Initial CARIS Manual contains procedures for implementing the CARIS pursuant to Attachment Y of the NYISO's Open Access Transmission Tariff . The procedures were developed and reviewed by the Electric System Planning Working Group and were approved by the Business Issues Committee.

1.1 Phase 1

1.1.1 *Criteria for Selection of CARIS Studies*

PROCEDURE FOR ATTACHMENT Y: SECTION 11.2.b

Tariff Requirement:

The NYISO, in conjunction with ESPWG, will develop criteria for the selection and grouping of the three congestion and resource integration studies that comprise each CARIS, as a well as for setting the associated timelines for completion of the selected studies. Study selection criteria may include congestion estimates, and shall include a process to prioritize the three studies that comprise each CARIS. Criteria shall also include a process to set the cut off date for inputs into and completion of each CARIS study cycle.

Proposed Criteria/Metrics:

- Utilize an unweighted present value cost of congestion for the most congested elements considering both historic and projected data.
- The congestion metric to be used will be the change in total bid/forecasted production costs in accordance with Appendix A to Attachment Y of the NYISO OATT.
- The same metric will be used for both historic and projected congestion.

Historic Congestion Considerations

- Use historic positive unhedged congestion data for the most recent 60 months.
- Utilize the data from the NYISO's quarterly historic congestion reports.

Projected Congestion Considerations

- Use 10-years of forecast data.
- Projection will utilize the base case assumptions from the most recent CRP.
- Projection will utilize the additional agreed-upon future inputs (e.g. – fuel costs, unit parameters) for the base case CARIS analysis.

Prioritization Methodology

- Congestion will be identified from the list of most congested monitored element/contingency pairs.
- Based upon the combination of historic and projected congestion metrics noted above, the ranking for each congested element shall be determined by formula:

Present Value in Year 1 = [(Sum of the Future Value of Congestion from the Prior 5 Historic 12-Month Periods) + (Sum of the Present Value of Congestion from the Future 10 years)]

- The discount rate to be used for the present value analysis shall be the current weighted average cost of capital for the NY Transmission Owners
- The three congested elements with the highest present value ranking shall be utilized for further assessment under the CARIS process for that cycle. This assessment will be accomplished in multiple iterations to include additional elements that appear as limiting when each of the top three constrained elements are unconstrained. The assessed element groupings will then be ranked based upon change in production cost. The three ranked groupings with the largest change in production cost will then be selected as the three CARIS studies.
- *Exception:* If future system changes (e.g. – generation, transmission or demand side additions) produce a significant declining trend in congestion over an identified congested element in later years of the study period, such element shall be excluded from the rankings.
- The NYISO shall perform these computations for each CARIS cycle, and review them with ESPWG.

Other Issues

- Provide the flexibility for grouping elements:
 - NYISO to assess and recommend groupings to ESPWG based on the individual rankings and proximity of congested elements.
- This process shall be incorporated in the CSPP timeline—at the beginning of the CARIS part of each cycle:
 - The analysis of historic congestion data can be done prior to the start of the CARIS process.
- The list of the three (3) studies selected under this process and, when completed, the studies themselves, will be posted on the NYISO web-site.

1.1.2 Process for Additional Studies

PROCEDURE FOR ATTACHMENT Y: SECTION 11.2.c

Tariff Requirement

The NYISO, in conjunction with ESPWG, will develop a process by which interested parties can request and fund other congestion and resource integration studies, in addition to those included in each CARIS. These individual congestion and resource integration studies are in addition to those studies that a customer can request related to firm point-to-point transmission service pursuant to Section 19 of the NYISO OATT, or studies that a customer can request related to Network Integration Transmission Service pursuant to Section 32 of the NYISO OATT, or studies related to interconnection requests under Attachment X or Attachment Z.

PROCESS

Applicability

- To requests for additional congestion and resource integration studies (“Additional Studies”) pursuant to Attachment Y of the NYISO OATT
- Not Applicable to:
 - Requests for firm point-to-point transmission service under Section 19 of the NYISO OATT.
 - Requests for firm Network Integration Transmission Service pursuant to Section 32 of the NYISO OATT.
 - Interconnection requests under Attachment X, Z or S of the NYISO OATT.
 - Requests for evaluation of projects as potential reliability solutions under the CRPP.

Eligibility

- Any NYISO Market Participant or other interested party (“Requestor”) is eligible to request such Additional Studies.
- Requestor is responsible for all reasonable actual costs incurred by the NYISO for the Additional Study(-ies). Such costs may include the use of contractors/consultants assistance at the NYISO’s discretion, and costs that TOs may incur to supply study-related data when requested to do so by the NYISO.

Posting of Requests for Additional Studies

- NYISO will post the requests for Additional Studies on its Website
- Postings shall include a general description of the study requests, the date of receipt, and the identity of the Requestor.

- Provision shall be made to allow combination/cost sharing of identical/similar or overlapping study requests from different parties if the parties agree.
- Results of these Additional Studies will be treated as Confidential Information under Attachment F to the OATT.
 - However, if a Requestor should seek regulated cost recovery under the NYISO Tariff based upon the results of such studies, the studies would be posted on the NYISO website at that time.

Timing of Requests for Additional Studies

- The NYISO shall, upon request, subject to resource limits, conduct an Additional Study at any time during the year.
 - The NYISO will accommodate all study requests to the extent reasonable and practicable, subject to resource limitations.
- The Additional Study shall use the most recently approved CARIS database and base case assumptions.

Request for Additional Studies

- Requestor shall submit a “Request for Additional Study” using a form (to be developed by the NYISO) which requires specific information needed to conduct the study.
- Each study request must be accompanied by a refundable deposit of \$25 K, which deposit shall be applied toward the reasonable actual costs incurred by the NYISO, and its contractors, in the performance of the study.
- Multiple study requests involving diverse locations system shall each be required to submit a separate request and a separate deposit.

Scoping Meeting

- NYISO shall acknowledge receipt of the Request for Additional Study within ten (10) business days of receipt and shall inform Requestor whether its request is complete in the judgment of the NYISO. If not complete, the NYISO will request additional information.
- Following the receipt of a complete Request for Additional Study, the NYISO shall establish with Requestor a mutually agreeable time for a Scoping Meeting.
- The Scoping Meeting shall be used to determine the nature of the study to be conducted, including any customization that the Requestor may desire for its study, such as:
 - Additional metrics for measuring congestion and the benefits of relieving that congestion.
 - Additional scenarios and the assumptions to be used for each.
 - Whether the Requestor wants the NYISO to analyze potential transmission, generation and/or demand response solutions, and the characteristics of those solutions.
 - Degree of certainty requested for the solution cost estimates.

- **Following the Scoping Meeting, the NYISO will memorialize the results in writing as part of a Study Agreement for an Additional Study (to be developed by the NYISO) to be provided to the Requestor along with a non-binding estimate of the total study costs.**
 - **The Study Agreement will include the scope of work and will define the deliverables to be provided by the NYISO at the completion of the studies.**
 - **The Study Agreement will also contain payment terms and conditions.**
 - **Additional deposits shall be required to cover the NYISO's estimate of the total study costs (after credit for the initial deposit).**
 - **The Study Agreement must be executed by the Requestor before the NYISO conducts any study work.**
 - **If Requestor modifies the scope of the Additional Study as initially specified, and does so in such a way as to increase the estimated total cost of the Additional Study, the NYISO may request, and the Requestor shall pay, an additional deposit to reflect that cost increase, which the NYISO shall also apply to the actual cost of the Additional Study.**

Completion and Delivery of Study Results

- **The NYISO will process the Additional Studies in the order in which they are received. A study will be deemed received by the NYISO on the date the NYISO receives the completed study request form and acceptable deposit.**
- **The NYISO will use reasonable efforts to complete each Additional Study by a date mutually agreed to with the Requestor. If the NYISO determines this target date will not be met, the NYISO will promptly inform the Requestor and provide the Requestor with an updated estimate of the new date by which the Additional Study will be completed.**
- **Upon completion of the study, the NYISO will provide a final invoice to the Requestor to cover all reasonable costs it has incurred in the performance of the study.**
- **Within 30 days of receipt of the final invoice, there shall be a final payment (refund) to true up any study deposits to the final study cost.**
- **Following final payment (refund), the NYISO will provide the study results to the Requestor.**
- **Upon request, the NYISO will schedule a meeting to review the study results with the Requestor.**

Withdrawal of Request

- **Requestor may withdraw its study request at any time by written notice to the NYISO.**
- **Upon receipt of such request, the NYISO will immediately terminate any further study work.**

- Requestor shall reimburse the NYISO for all reasonable expenses incurred prior to the receipt of the withdrawal notice. NYISO will refund any unpaid deposit funds to the Requestor, if applicable.
- Following reimbursement (refund), the NYISO will forward the results of any study work completed prior to the withdrawal date to the Requestor.

1.1.3 Inclusion of Market-Based Solutions (MBS) and Reliability Backstop Solutions (RBS) in CARIS Base Case; Scaling Back MBS

PROCEDURE FOR ATTACHMENT Y: SECTION 11.3.b

Tariff Requirement:

The CARIS will assume a reliable system throughout the Study Period, based upon the solutions identified in the most recently completed and approved CRP. The baseline system for the CARIS shall first incorporate sufficient viable market-based solutions to meet the identified Reliability Needs as well as any regulated backstop solutions triggered in prior or current CRPs. The NYISO, in conjunction with the ESPWG, will develop methodologies to scale back market-based solutions to the minimum needed to meet the identified Reliability Needs, if more have been proposed than are necessary to meet the identified Reliability Needs. Regulated backstop solutions that have been proposed but not triggered in the most recent CRP shall also be used if there are insufficient market-based solutions for the ten-year study period.

Possible Scenarios

There are four possible scenarios that may result from the CRPP process:

- More than sufficient Market Based Solutions (MBS) to meet the reliability needs
- Sufficient MBS Solutions to meet the needs
- Insufficient MBS Solutions to meet the needs
- RNA/CRP finds no reliability needs through the 10-year study period

Since it is possible for any of these four outcomes to occur, there must be procedures in place to address each outcome in order to develop the base case assumptions for the CARIS studies

METHODOLOGY

The intent of this procedure is to produce a CARIS base case that is unbiased by resource type or in the selection or location of particular resources. The NYISO will implement this procedure for each CARIS cycle, in collaboration with stakeholders through the ESPWG.

BASE ASSUMPTIONS:

- In all cases, the base case resource additions (including updated TO Plans, if any) included in the current CRP shall be included in the CARIS base case—unless NYISO determines, based upon updated information, that such resource is no longer viable.
- All new projects that meet the criteria for inclusion in a RNA base case at the time of finalizing the CARIS base case, shall be so included.
- Any Regulated Backstop Solutions (RBS) that have been triggered and not subsequently halted shall be included in the CARIS base case—unless NYISO determines, based upon updated information, that such resource is no longer viable.
- If a TO, or an other developer, is proceeding with an alternative regulated solution that has been approved by the PSC and not subsequently halted, then such project shall be included in the CARIS base case.
- A gap solution that has previously been triggered shall be considered for inclusion in the CARIS base case consistent with the type and duration of that solution.
- If any such resource that was previously included in the CRP is determined by the NYISO to be no longer viable, the NYISO shall re-analyze the viable MBS solutions to determine whether they remain sufficient to meet the statewide LOLE of 0.1 throughout the study period
- The Statewide and LCR requirements shall be held constant over the ten-year Study Period
- Resources modeled in the CARIS base case are not evaluated as potential economic solutions
- Resources selected for inclusion in the CARIS base case under these assumptions shall not change during subsequent scaling of resources
 - Scenarios may be developed to include a resource mix that differs from the base case, but still meets applicable reliability criteria

More Than Sufficient MBS (This section to be finalized for the next CARIS cycle)

- All viable MBS resources from the current CRP shall be considered for inclusion in the CARIS base case—unless the NYISO determines, based upon updated information, that such resource is no longer viable
- MBS resources shall be “scaled back” to a level which is the minimum to meet the Reliability Need (i.e. – to achieve a statewide LOLE of 0.1) by the following methodology:

- Sort all MBS by size—from largest to smallest—regardless of resource type
- Sequentially test each MBS , one at a time for potential removal, starting from the largest and ending with the smallest. Remove from the base case if:
 - There is a surplus in the actual locational reserve and removal would not result in the locational reserve falling below the LCR
 - If the starting point is below a LCR, resources will not be added to meet that LCR. However, resources will not be removed that cause the locational reserve to fall to even lower levels.
 - Statewide LOLE requirement is still met
 - Any minimum requirements for a specific interconnection point for resources identified in the CRP to maintain transmission security requirements is met
- If either the Statewide LOLE or the LCR requirement is not met with the removal of a specific unit, then that unit is retained in the base case and the removal of the next unit is tested
- If both the Statewide LOLE and the LCR requirements are met with the removal of a unit, that unit is removed from the base case and subsequent units will be tested sequentially in the same manner
- The initial determination will be made for the horizon year (e.g. – year 10) of the analysis
- Considering each project’s in-service date, verify each year of the study period to assure that both the Statewide LOLE and the LCR reliability criteria will be met (subject to the caveat that resources will not be added to achieve an LCR that is not met at the starting point).
 - If more resources are needed, add back starting with the smallest resource removed and increment to the next largest until the above requirements are met
- Determine the minimum amount of MBS capacity needed to meet both the LCR and the statewide LOLE requirements

Sufficient MBS

- In the case that there are sufficient MBS to just meet the statewide LOLE of 0.1, all of the MBS contained in the current CRP will be included in the CARIS base case
- This situation will be determined if the removal of any single MBS will cause the statewide LOLE to exceed 0.1

MBS & Regulated Solutions Required

- In this situation, the combination of MBS and regulated solutions (whether or not yet triggered) designated in the current CRP as necessary for a reliable system over the 10-year planning horizon shall be included in the CARIS base case.

No Reliability Needs

- If the current RNA finds no reliability needs throughout the ten year study period, the CARIS base case shall include all resources included in the current RNA base case—unless the NYISO determines, based upon updated information that such resource is no longer viable
- In the event that a RNA base case resource is no longer viable and this causes a violation of the statewide LOLE during the study period, generic resource amounts shall be added, in a manner similar to that used by the NYISO in the determination compensatory MW, until the statewide LOLE meets or exceeds 0.1

1.1.4 *Additional Benefit Metrics for CARIS Studies; Methodology and Models to Develop and Implement Additional Metrics*

PROCEDURE FOR ATTACHMENT Y: SECTION 11.3.d

Tariff Requirement:

In conducting the CARIS, the NYISO shall conduct benefit/cost analysis of each potential solution to the congestion identified, applying benefit/cost metrics that the NYISO will develop in conjunction with ESPWG. The principal benefit metric for the CARIS analysis will be expressed as the present value of the NYCA-wide production cost reduction that would result from each potential solution. Additional benefit metrics shall include estimates of reduction in losses, LBMP load costs, generator payments, ICAP costs, Ancillary Services costs, emission costs, and TCC payments. The NYISO will work with the ESPWG to determine the methodology and models needed to develop and implement those additional metrics, and also to determine the most useful metrics for each CARIS, given overall NYISO resource requirements.

Methodology:

The additional metrics will estimate the benefits of the potential solutions to the congestion identified for information purposes only. All the quantities, except ICAP, will be the result of the forward looking production cost simulation. The additional benefit metrics will be determined by measuring the difference between the CARIS base case system value and a system value when the potential generic solution is added. All three resource types will be considered as potential generic solutions to the congestion identified, such as generation, transmission, and/or demand response. The additional metrics will be expressed as the Present Value by using the following formula: *Present*

Value in year 1 = Sum of the Present Value from each of the 10 years of the Study Period. The discount rate to be used for the present value analysis shall be the current weighted average cost of capital for the NY Transmission owners.

The definitions of the LBMP load cost metric, generator payments metric, reduction in losses metric, ancillary services costs metric, and TCC payments metric are set forth below.

LBMP load costs:

This metric measures the change in total load payments and unhedged load payments. Total load payments will include the LBMP payments (energy, congestion and losses) paid by electricity demand (forecasted load, exports, and wheeling). Exports will be consistent with the input assumptions for each neighboring control area. Unhedged load payments will represent total load payments minus the TCC payments.

Reduction in losses:

This metric will measure the change in marginal losses payments. Losses payments will be based upon the loss component of the zonal LBMP load payments.

Generator payments:

This metric measures the change in generation payments. Generation payments will include the LBMP payments (energy, congestion, losses), and ancillary services payments made to electricity suppliers. Ancillary Services costs will include payments for Regulation Services and Operating Reserves, including 10 Minute Synchronous, 10 Minute Non-synchronous and 30 Minute Non-synchronous. Thus, generator payments will be the sum of the LBMP payments and ancillary services payments to generators and imports. Imports will be consistent with the input assumptions for each neighboring control area.

TCC (Transmission Congestion Contracts) payments:

Section 11.3.e. (iv) - Pending FERC Approval from May 19, 2009 FERC filing

The TCC payment metric set forth below will be used for purposes of the study phase of the CARIS process and will not be used in the Projects Phase for regulated economic transmission project cost allocation under Section 15.4. The TCC payment metric will measure the change in total congestion rents collected in the day-ahead market.

Congestion rents shall be calculated as the product of the Congestion Component of the Day-Ahead LBMP in each Load Zone or Proxy Generator Bus and the withdrawals scheduled in each hour at that Load Zone or Proxy Generator Bus, minus the product of the Congestion Component of the Day-Ahead LBMP at each Generator Bus or Proxy Generator Bus and the injections scheduled in each hour at that Generator bus or Proxy Generator Bus, summed over all locations and hours.

Emission metric:

This metric will measure the change in CO₂, NO_x, and SO₂ emissions in tons on a zonal basis. Emission costs will be reflected in the development of the production cost curve.

ICAP costs:

The measurement of this metric is highly dependent on the rules and procedures guiding the calculation of the IRM and LCR, both for the next capability period and future capability periods. Therefore, only for the first CARIS cycle, the NYISO will use the MW impact methodology described below. For the future CARIS cycles, the NYISO will develop a methodology to reflect potential changes in ICAP costs separate from this temporary approach set forth below. The temporary approach is not meant to set precedence for the more fully developed ICAP cost methodology applicable to future CARIS cycles.

The MW impact methodology:

1. Determine the base system LOLE for the horizon year (e.g. 2018 LOLE 0.02).
2. Add a potential generic solution to congestion identified.
3. Calculate the LOLE for the system with the potential generic solution added.
4. If the LOLE is lower than the base system, reduce generation in all NYCA zones proportionally regardless of type of generic solution until the base system LOLE is reached. The amount of reduced generation is reported as the NYCA MW impact.

1.1.5 Potential Generic Solutions

PROCEDURE FOR ATTACHMENT Y: SECTION 11.3.c and 11.4

Tariff Requirement 11.3.c:

In conducting the CARIS, the NYISO shall combine the component studies selected and assess system congestion and resource integration over the study period, measuring congestion by the metrics discussed in Appendix A to this Attachment Y. The NYISO, in conjunction with the ESPWG, will develop the specific production costing model to be used in the CARIS. ***All resource types shall be considered on a comparable basis as potential solutions to the congestion identified: generation, transmission and demand response.*** The CARIS may include consideration of the economic impacts of advancing a regulated back stop solution contained in the CRP.

Tariff Requirement 11.4

At the NYISO's request, Market Participants shall provide, in accordance with the schedule set forth in the NYISO Comprehensive Reliability Planning Process Manual, the data necessary for the development of the CARIS. This input will include but not be limited to existing and planned additions to the New York State Transmission System (to be provided by the Transmission Owners and municipal electric utilities); proposals for merchant transmission facilities (to be provided by merchant developers); generation additions and retirements (to be provided by generator owners

and developers); demand response programs (to be developed by demand response providers); and any long-term firm transmission requests made to the NYISO. **The relevant Transmission Owners will assist the NYISO in developing the potential solution cost estimates to be used by the NYISO to conduct benefit/cost analysis of each of the potential solutions.**

Determining Potential Solutions

One potential generic solution will be determined by NYISO for each resource type (generation, transmission, and demand response) for each of the three congestion studies. This will be accomplished using a cost matrix methodology. This methodology will be based on utilizing typical MW block size generic solutions, a standard set of assumptions and an order of magnitude costs for each resource type. The cost matrix will be developed during each CARIS cycle as part of the Assumptions Matrix. The NYISO will then recommend to the ESPWG the MW block size of generation, transmission and demand response capacity needed for each of the three congestion studies.

Potential Solutions Assumptions

The assumptions used to determine the order of magnitude costs included in the cost matrix will be stated as part of the Assumptions Matrix. These assumptions will address the following items:

Generation Resource

1. type of plant
2. length, type, voltage and ampacity of generator lead
3. substation interconnection
4. length of gas line
5. rights of way
6. permitting
7. system upgrade facilities
8. order of magnitude cost estimate

Transmission Resource

1. type of construction (i.e. overhead or underground)
2. voltage and ampacity capability
3. substation interconnection
4. rights of way
5. permitting
6. system upgrade facilities
7. order of magnitude cost estimate

Demand Response

1. order of magnitude cost estimate
2. zonal locations

Potential Solutions Costs

The NYSIO will provide recommended order of magnitude costs for each resource type. The costs will be developed for relevant geographic locations during each CARIS cycle. The order of magnitude costs will be provided to the ESPWG for their review and acceptance during each CARIS cycle as part of the Assumption Matrix approval process.

Application of Potential Solutions

During each cycle, NYISO will develop with ESPWG specific project criteria for each resource type (generation, transmission, and demand) including block size and construction assumptions. Following the identification of the three studies, each resource type shall be applied in year one of the planning horizon, in sufficient quantities of generic block sizes associated with each resource type and specific locations to alleviate a substantial and comparable portion of the identified congestion over the planning horizon.

If upon a cursory review of the location for the potential solution identifies unusual complexities, a contingency factor will be applied to the costs included in the matrix. These complexities may include but are not limited to right of way restrictions, terrain and/or permitting difficulties, etc. Field inspections will not be completed as part of the cursory review.

1.2 Phase 2

1.2.1 *Cost Allocation for Regulated Economic Transmission Projects*

PROCEDURE FOR ATTACHMENT Y, SECTIONS 15.3 & 15.4

Tariff Requirement: Section 15.3: Project Eligibility for Cost Allocation

Section 15.3.a

The NYISO will evaluate the benefits and costs of each regulated economic transmission project over a ten-year period commencing with the proposed commercial operation date for the project.

Timeframe for Evaluation:

- 10 year period
- Beginning with proposed Commercial Operation (CO) date for project

Section 15.3.b

The benefit metric for eligibility under the NYISO's cost/benefit analysis will be expressed as the present value of the annual NYCA-wide production cost savings that would result from the implementation of the proposed project, measured for the first ten years from the proposed commercial operation date for the project.

Benefit Metric:

- 10-year PV of NYCA-wide production cost savings
- Benefit = 10-year PV (NYCA production cost w/o project – NYCA production cost w/project)

Section 15.3.c

The cost for the NYISO's benefit/cost analysis will be supplied by the developer of the project, and the cost metric for eligibility will be expressed as the present value of the annual total revenue requirement for the project, reasonably allocated over the first ten years from the proposed commercial operation date for the project.

Project Cost:

- Supplied by developer
- Project Cost = PV of total annual revenue requirement for first 10-years from CO date

Section,15.3.e

To be eligible for cost allocation and recovery under this Attachment Y, the benefit of the proposed project must exceed its cost measured over the first ten years from the proposed commercial operation date for the project.

Eligibility Criteria:

- Benefit > Project Cost
- Both expressed in PV terms over the first 10-years from CO date

Tariff Requirement: Section 15.4: Cost Allocation for Eligible Projects

Section 15.4.a

The NYISO will identify the beneficiaries of the proposed project over a ten-year time period commencing with the proposed commercial operation date for the project.

Timeframe for Evaluation:

- 10 year period
- Beginning with proposed Commercial Operation date for project

Section 15.4.b

The NYISO will measure the present value of the annual zonal LBMP load savings for all load zones which would have a load savings, net of reductions in TCC payments, and bilateral contracts (based on available information) as a result of the implementation of the proposed project. The beneficiaries will be those load zones who experience net benefits measured over the first ten years from the proposed commercial operation date for the project.

Zonal Benefit Metric:

- Zonal Benefit = 10-year PV * (net zonal LBMP load cost w/o project – net zonal LBMP load cost w/project)
- Net of reductions in TCC payments (further clarifying detail required)
- Net of bilateral contracts (further clarifying detail required)

B/C Test for Beneficiary Determination:

- Sum of Zonal Benefits for zones with load savings > Project Cost
- Expressed in PV terms over the first 10-years from CO date

- If this B/C test is met, then develop the zonal cost allocation information to inform the beneficiary voting.

Section 15.4.c

Load zones not benefiting from a proposed project will not be allocated any of the costs of the project under this Attachment Y. There will be no “make whole” payments to non-beneficiaries.

Non-beneficiary Zone:

- Zonal Benefit < 0
- Expressed in PV terms over the first 10-years from CO date

Section 15.4.d

For each load zone that would benefit from a proposed project, the NYISO will allocate the cost of the project to load based on share of total savings. Within zones, costs will be allocated to Load Serving Entities based on MWhs.

Zonal Cost Allocation:

- Zonal Cost Allocation = Project Cost * (zonal benefit/sum of positive zonal benefits)
- Expressed in PV terms over the first 10-years from CO date

Intra-Zonal Cost Allocation:

- LSE Intra-zonal Cost Allocation = Zonal Cost Allocation * (LSE zonal MWh/total zonal MWh)

Section 15.4.e

The project cost allocated under this Section 15.4 will be based on the total project revenue requirement, as supplied by the developer of the project, for the first ten years of project operation.

Project Cost:

- Supplied by developer
- Parameters used in cost allocation will follow the parameters applicable to cost recovery of a project pursuant to a regulated rate.
 - If an applicable formula rate has been filed with FERC the parameters utilized in the formula rate such as the amortization period should be utilized in the NYISO’s cost benefit calculation).
 - If there is no formula rate on file with FERC, the developer will provide the project-specific parameters to be used for the cost allocation analysis.

- Once the cost benefit analysis is completed the amortization period, and other parameters used for cost allocation for the project, should not be changed for cost recovery purposes to ensure the continued validity of the cost benefit analysis.

1.2.2 *Methodology to Estimate the TCC Revenue Changes That Would Result From a Proposed Project*

PROCEDURE FOR ATTACHMENT Y, SECTION 15.4. b (iii) Pending FERC Approval from May 19, 2009

(iii) Net reductions in TCC revenues will reflect the forecasted impact of the project on TCC auction revenues and day-ahead residual congestion rents allocated to load in each zone, excluding the congestion rents that accrue to any Incremental TCCs that may be made feasible as a result of this project. This impact will include forecasts of: (1) the total impact of that project on the Transmission Service Charge offset applicable to loads in each zone (which may vary for loads in a given zone that are in different Transmission Districts); (2) the total impact of that project on the NYPA Transmission Adjustment Charge offset applicable to loads in that zone; and (3) the total impact of that project on payments made to LSEs serving load in that zone that hold Grandfathered Rights or Grandfathered TCCs, to the extent that these have not been taken into account in the calculation of item (1) above. Calculations of net reductions in TCC revenues will be detailed in a NYISO manual.

Methodology

The net reductions in TCC revenues that would result from a proposed project are calculated as follows:

1. Determine congestion rents collected on the system over each of the 10 years following the proposed commercial operation date of the project, under the assumption that the project is in place. Congestion rents collected on the system are equal to the (a) product of the Congestion Component of the Day-Ahead LBMP in each Load Zone or Proxy Generator Bus and the withdrawals scheduled in each hour in that Load Zone or Proxy Generator bus, minus (b) the product of the Congestion Component of the Day-Ahead LBMP at each Generator bus or Proxy Generator Bus and the injections scheduled in each hour at that Generator bus or Proxy Generator Bus, summed over all locations and over all hours in each of those years.
2. Under the assumption that the project is in place, calculate (a) payments that would be made over each of the 10 years following the proposed commercial operation date of the

project to holders of grandfathered rights/TCCs¹ that would be in effect in that year, under the following assumptions: (i) all grandfathered rights/TCCs expire at their stated expiration dates, and (ii) in cases where a grandfathered TCC is listed in Table 1 of Attachment M of the OATT, the number of those TCCs held by their holders will be equal to the number of such TCCs remaining at the conclusion of the ETCNL reduction procedure conducted before the most recently completed biannual TCC auction;^{2,3} and (b) payments associated with any Incremental TCCs that would be awarded in conjunction with that project; and subtract the payments calculated in items (a) and (b) from the congestion rents calculated in step 1.

3. For each of the 10 years following the proposed commercial operation date of the project, multiply the congestion rents remaining at the end of step 2 by 90 percent to calculate estimated TCC auction revenues, reflecting the expectation that revenue realized in the TCC auction from the sale of a TCC will, more often than not, be slightly less, in terms of absolute value, than the congestion rents that the holder of that TCC realizes.⁴

4. Under the assumption that the project is in place, calculate the payments that would be made over each of the 10 years following the proposed commercial operation date of the project to (a) holders of Original Residual TCCs and (b) holders of TCCs that correspond to the amount of ETCNL at the conclusion of the ETCNL reduction procedure conducted before the most recently completed biannual TCC auction, and multiply them by 90 percent (for the reasons given in step 3). Subtract these payments from the TCC auction revenues calculated in step 3.

¹ For the purpose of this calculation, payments to holders of grandfathered rights will assume full utilization of those rights.

² For the purposes of steps 2 and 4 of this procedure, the NYISO will utilize the currently effective version of Attachment L of the OATT to identify the Existing Transmission Agreements and Existing Transmission Capacity for Native Load.

³ For the purposes of Steps 2, 3, and 4 of his procedure, the “most recently completed biannual TCC auction” refers to the last biannual TCC auction that was completed as of the date the CARIS’s input assumptions have been determined in conjunction with the ESPWG.

⁴ This reflects the fact that the buyer of a TCC must meet collateral requirements in order to bid on and hold TCCs, which will decrease the amount it is willing to pay for that TCC. We will investigate whether there is evidence that the difference between TCC prices and ex ante expectations of the congestion rents paid to holders of TCCs can reasonably be expected to exceed this 10 percent difference. In the event that there is evidence that there has been such a difference and that difference is expected to persist, we will consider using another figure that would more accurately reflect the ratio of the price for which a TCC sells in the auction to the congestion rents payable to the holder of that TCC.

5. The revenues remaining at the end of step 4 for each of the 10 years following the proposed commercial operation date of the project will represent an estimate of residual auction revenues in each of those years. Allocate those revenues to the TOs in proportion to the ratio of (1) the amount of residual auction revenue allocated to each TO in the most recently completed biannual TCC auction to (2) the total amount of residual auction revenue allocated in the most recently completed biannual TCC auction.

6. Repeat steps 1 through 5 for each of the 10 years following the proposed commercial operation date of the project, but under the assumption that the project is not in place. Payments calculated for each year in Step 2 would only include item (a) in that step.

7. Calculate the \$/MWh net impact of the project on the TSC offset for each TD for each of the 10 years following the proposed commercial operation date of the project. This impact is the sum of: (1) the congestion rents associated with any grandfathered rights/TCCs held by the TO serving that TD that the TO would have received that year if those congestion rents affect that TD's TSC,⁵ calculated under the assumption that the project is in place (calculated in step 2); (2) 90 percent of the payments for that year that would be made to the holders of Original Residual TCCs and TCCs corresponding to ETCNL held by the TO serving that TD, calculated under the assumption that the project is in place (calculated in step 4); and (3) residual auction revenues for that year that would have been allocated to that TO calculated under the assumption that the project is in place (calculated in step 5); minus the sum of these three items calculated for each TO under the assumption that the project is not in place. Divide this difference by the amount of load expected to be served in that TD in that year, net of any load served by munis that is not subject to the TSC,⁶ to determine the \$/MWh net impact of the project on the TSC offset in each year for that TD.

8. Calculate the \$/MWh net impact of the project on the NTAC offset for each of the 10 years following the proposed commercial operation date of the project. This impact is the sum of: (1) the congestion rents associated with any grandfathered rights/TCCs held by NYPA that NYPA would have received that year if those congestion rents affect the NTAC,⁷ calculated under the assumption that the project is in place (calculated in step 2); (2) 90 percent of the payments for that year that would be made to the holders of Original Residual TCCs allocated to NYPA, calculated under the assumption that the project is in place (calculated in step 4); and (3) residual auction revenues for that year

⁵ Each TO, other than NYPA, will inform the NYISO of the grandfathered rights/TCCs it holds whose congestion rents are taken into account when calculating its TSC.

⁶ Any necessary forecasts of load served by munis would probably be performed outside of the model used to forecast the impact of the project on future LBMPs, but it should use load growth rates that are consistent with the assumptions that are used in those models for the zones in which those munis are located.

⁷ NYPA will inform the NYISO of the grandfathered rights/TCCs it holds whose congestion rents are taken into account when calculating the NTAC.

that would have been allocated to NYPA calculated under the assumption that the project is in place (calculated in step 5); minus the sum of these three items calculated under the assumption that the project is not in place. Divide this difference by the amount of load expected to be served in the NYCA in that year, net of any load served by munis that is not subject to the NTAC, to determine the \$/MWh net impact of the project on the NTAC in each year.

9. Calculate the net impact of the project on net congestion rents paid to LSEs serving load in each zone that own grandfathered rights/TCCs, to the extent that those grandfathered rights/TCCs were not included in the calculation of the TSC offset in step 7 or the NTAC offset in step 8, for each of the 10 years following the proposed commercial operation date of the project. This impact is equal to the congestion rents associated with any grandfathered rights/TCCs held by munis serving load in a zone that such a muni would have received that year with the project in place (calculated in step 2) minus the congestion rents such a muni would have received that year without the project in place.

10. Calculate the net impact of the project on load in each zone (excluding the congestion rents associated with any Incremental TCCs made feasible by the project) in each of the 10 years following the proposed commercial operation date of the project by summing the following:

- a. The product of the \$/MWh net impact of the project on the TSC offset, calculated for each TD in step 7, and the amount of load subject to the TSC in that zone and in that TD that is expected to be served that year; this product is then summed over all TDs.
- b. The product of the \$/MWh net impact of the project on the NTAC, calculated in step 8, and the amount of load subject to the NTAC in that zone that is expected to be served that year.
- c. The net impact of the project on net congestion rents paid to LSEs serving load in each zone that own grandfathered rights/TCCs, to the extent that those grandfathered rights/TCCs were not included in the calculation of the TSC offset or the NTAC offset, calculated in step 9.
- d. The net impact of the project on LBMP payments made by load in each zone.

11. Calculate the NPV of the impact of the project on load in each zone (excluding the congestion rents associated with any Incremental TCCs made feasible by the project) by dividing the annual net impact calculated in step 10 above by one plus the appropriate discount rate and summing over the 10 years following the proposed commercial operation date of the project.

1.2.3 Procedure for Project Cost Overruns

PROCEDURE FOR ATTACHMENT Y, SECTIONS 15.4.e

Tariff Requirement 15.4e:

The project cost allocated under this Section 15.4 will be based on the total project revenue requirement, as supplied by the developer of the project, for the first ten years of project operation. The NYISO, in conjunction with the ESPWG, will develop procedures to allocate the risk of project cost increases that occur after the NYISO completes its benefit/cost analysis under this Attachment Y. These procedures may include consideration of an additional review and vote prior to the start of construction and whether the developer should bear all or part of the cost of any over-runs.

Project Cost Overruns

The Developer is required to provide as part of the project proposal, a firm price as well as a risk profile to address project cost overruns. The risk profile will address at a minimum the following areas:

1. The stage of project development and the level of accuracy of the project cost estimate.
2. Required cost overruns sharing, if any, between the Developer and the LSEs benefiting from the project.
3. Required project cost increase sharing, if any, due to a force majeure between the Developer and the LSEs benefiting from the project.
4. Identification of conditions, if any, for canceling the project by the Developer including terms and conditions for allocating sunk costs and lost benefits.

The Developer may submit multiple risk profiles for the project. The project and each of its risk profiles will be voted on individually by the LSE's benefiting from the project as if it was a separate project.

Quarterly Reporting

Upon acceptance of the project by the LSEs benefiting from the project and the risk profile, including any cost overrun sharing between the Developer and the LSEs benefiting from the project, the Developer will provide to the LSEs benefiting from the project with quarterly project updates to include but not be limited to the following:

- project's current status
- updated milestone schedule
- updated cash flow
- a project cost analysis
- explanation for any schedule or cost changes

Simultaneously, the developer will provide a copy of the report to the NYISO which the NYISO will post on its website.

The project cost analysis will include the original estimated costs, the actual costs spent to date, the estimated cost to complete and the percent change. A change which results in an increase in the project cost will be provided by the Developer to the LSEs benefiting from the project with a copy to the NYISO as soon as the change is discovered (The Developer is not to wait until the next quarterly report to notify the LSEs benefiting from the project and the NYISO of the change).

1.2.4 Procedure for Regulated Economic Projects - Specific Projects Submittals

PROCEDURE FOR ATTACHMENT Y, SECTIONS 15.3a, b, c, d, e, f & g

Tariff Requirement 15.3: Project Eligibility for Cost Allocation

Section 15.3a:

The NYISO will evaluate the benefits and costs of each regulated economic transmission project over a ten-year period commencing with the proposed commercial operation date for the project. The developer of each project will pay the cost incurred by the NYISO to conduct the ten-year cost/benefit analysis of its project. The NYISO, in conjunction with the ESPWG, will develop methodologies for extending the CSPP study period database as necessary to evaluate the benefits and costs of each regulated economic transmission project.

Section 15.3b:

The benefit metric for eligibility under the NYISO's cost/benefit analysis will be expressed as the present value of the annual NYCA-wide production cost savings that would result from the implementation of the proposed project, measured for the first ten years from the proposed commercial operation date for the project.

Section 15.3c:

The cost for the NYISO's benefit/cost analysis will be supplied by developer of the project, and the cost metric for eligibility will be expressed as the present value of the annual total revenue requirement for the project, reasonably allocated over the first ten years from the proposed commercial operation date for the project.

Section 15.3d:

For informational purposes only, the NYISO will also calculate the present value of the annual total revenue requirement for the project over a 30 year period commencing with the proposed commercial operation date of the project.

Section 15.3.e:

To be eligible for cost allocation and recovery under this Attachment Y, the benefit of the proposed project must exceed its cost measured over the first ten years from the proposed commercial operation date for the project. The total capital cost of the project must exceed \$25 million. In addition, a super-majority of the beneficiaries must vote in favor of the project, as specified in Section 15.6 of this Attachment Y.

Section 15.3 f:

In addition to the eligibility benefit metrics used in its benefit/cost analysis, the NYISO will calculate the additional metrics to estimate the potential benefits of the proposed project, for information purposes only, in accordance with Section 11.3, for the applicable metric. These additional metrics shall include those that measure reductions in LBMP load costs, changes to generator payments, ICAP costs, Ancillary Service costs, emissions costs, and losses. TCC revenues will be determined in accordance with Section 15.4.b(iii). The NYISO will provide information on these additional metrics to the maximum extent practicable considering its overall resource commitments.

Section 15.3.g:

In addition to the benefit/cost analysis performed by the NYISO under this Section 15.3, the NYISO will work with the ESPWG to consider the development and implementation of scenario analyses, for information only, that shed additional light on the cost and benefit of a proposed project. These additional scenario analyses may cover fuel and load forecast uncertainty, emissions data and the cost of allowances, pending environmental or other regulations, and alternate resource and energy efficiency scenarios. Consideration of these additional scenarios will take into account the annual resource commitments of the NYISO.

PROCESS

Purpose

- This procedure describes the eligibility and informational requirements for submitting to the NYISO for evaluation a regulated economic transmission project that seeks cost recovery pursuant to Section 16 of Attachment Y.
- This procedure does not apply to developers or any other interested parties requesting and funding the NYISO to conduct additional congestion and resources integration studies pursuant to Section 11.2.c of Attachment Y. The requirements regarding requesting additional congestion and resource integration studies are provided in Section 1.1.2 of the Initial Congestion Assessment And Resource Integration Study Manual(CARIS).

Eligibility

- Any developer of a regulated economic transmission project that will interconnect with or be integrated into the existing New York State Bulk Power Transmission Facilities, who is seeking cost recovery pursuant to Section 16 of Attachment Y, may submit such proposed project for an evaluation pursuant to Section 15.3 of Attachment Y, of the project's benefits and costs over a ten-year period commencing

with the commercial operation date (“Benefit/Cost Analysis”). A regulated economic transmission project may include the construction of a new line, rebuild or re-conducting of an existing line and/or addition of transmission equipment (such as, but not limited to, static var compensators, phase angle regulators, capacitor banks, power transformers).

- The developer is responsible for all reasonable actual costs incurred by the NYISO for the Benefit/Cost Analysis. Such costs may include the use by NYISO, at its discretion, of contractors/consultants and costs that Transmission Owners may incur to supply project-related data when requested to do so by the NYISO.

Timing of Requests for Benefit/Cost Analysis

- The NYISO shall, upon request and subject to resource limits, conduct a Benefit/Cost Analysis at any time during the current CARIS cycle.
- The NYISO will accommodate all requests to the extent reasonable and practicable, subject to resource limitations.
- If the developer wishes to have its project voted on, pursuant to Section 15.6 of Attachment Y, during the current CARIS study cycle, then the developer must submit a complete “Benefit /Cost Analysis Request” and the required deposit to the NYISO.

Request for Benefit/Cost Analysis

- Each Benefit/Cost Analysis Request submitted to the NYISO (on a request form developed by the NYISO) shall be accompanied by a refundable deposit of \$25,000. Such deposit shall be applied toward the reasonable actual costs incurred by the NYISO and its contractors/consultants, and by Transmission Owners supplying project-related data, in the performance of the Benefit/Cost Analysis.
- The developer shall also submit to the NYISO a Project Conceptual Package (“PCP”) in its Benefit/Cost Analysis request.
- A developer submitting multiple Benefit/Cost Analysis requests, must submit a separate PCP and separate deposit for each project.
- The Benefit/Cost Analysis Request and the PCP should be submitted to the NYISO utilizing the e-mail address: <mailto:CARISSpecificProject@nyiso.com>
- The type of information required in the PCP and how that information will be used is included in Table 1. This information is required in order to serve the needs of the following three entities:
 1. NYISO: In order to perform the Benefit/Cost analysis
 2. ESPWG: In order to determine scenarios that should be analyzed as part of the Benefit/Cost analysis
 3. Benefiting LSE’s: In order to have sufficient information to make an informed vote

Table 1: PCP Information Matrix

Project Conceptual Package Information	Required for NYISO to Perform Analysis	Required for ESPWG to Identify Scenarios	Required for Benefiting LSEs to Vote
Developer's Contact Information	X		
Project Description	X	X	X
Project Drawings	X	X	X
Project Capital Costs	X		X
Risk Profile			X
Annual Revenue Requirements	X		X
Developer's Business Information			X

- The PCP shall include, but not be limited to, the following:
 1. Developer's Contact Information
 - Developer's Name and Title
 - Developer's Company Address
 - Developer's Telephone Number, Fax Number and E-mail
 - Address of the Developer's Contact Person
 2. Project Description

The developer will submit a written description of the regulated economic transmission project to NYISO, which will include, but not be limited to, the following:

 - A description of how the project will interconnect with or be integrated into the existing New York State Bulk Power Transmission Facilities
 - A description of the right of way to be used or acquired
 - A description of the property that would need to be acquired or condemned for the project
 - Transmission project construction type
 - The thermal capacity and impedance ratings of the line
 - The required substation and protection additions or modifications required including a list of major equipment and their ratings
 - Description of project assumptions used for the basis of the Project Capital Costs and Annual Revenue Requirements
 - A description of the project management team

- A project implementation plan
 - A list of anticipated System Upgrade Facilities
 - Status of the project in the NYISO's Interconnection Queue
 - A list of all regulatory approvals required from state, federal and local licensing and environmental regulatory agencies, and a schedule for applications and expected regulatory approvals
 - A major milestone schedule
3. Project Drawings
The developer will submit the following drawings to the NYISO:
- Site plan
 - System area one-line
 - Detailed substation one-lines
 - Substation plot plans
 - Transmission route plan
4. Project Capital Costs
The developer will submit detailed capital cost estimates for each segment of the project (*i.e.*, each substation, protection/communication systems, transmission line, system upgrades, etc.). The developer will also submit a quarterly cash flow from the start of the project until the Commercial Operation Date. A cost estimate breakdown will be provided that includes, at a minimum, the following items:
- Licensing/permitting
 - Engineering
 - Construction labor
 - Major equipment
 - Real estate acquisitions and rights of ways
 - Overheads
 - Contingencies
5. Risk Profile
As described in procedures on cost overruns, the developer will submit a risk profile. The risk profile will address, at a minimum, the following areas:
- The stage of project development and the level of accuracy of the project cost estimate.
 - Required cost overruns sharing, if any, between the Developer and the LSEs benefiting from the project.
 - Required project cost increase sharing, if any, due to a force majeure between the Developer and the LSEs benefiting from the project.
 - Identification of conditions, if any, for canceling the project by the Developer including terms and conditions for allocating sunk costs and lost benefits.

The Developer may submit multiple risk profiles for the project up to a maximum of three. The project and each of its risk profiles will be voted on

individually by the LSE's benefiting from the project as if it was a separate project.

6. Annual Revenue Requirements for Years 1-30

The developer will provide their Annual Revenue Requirements starting in the first year of the Commercial Operation Date and the subsequent 29 years. A list of assumptions used in calculating the Annual Revenue Requirements will be provided, which shall include but not be limited to:

- Cost of capital
- Annual operations and maintenance costs
- Property Taxes
- Escalation rate
- Revenue rate of return

7. Developer's Business Information

- Development Experience
 - Provide a list of all transmission projects that have been under development or brought into-service during the past 5 years, and provide a list of other relevant development projects that are located in New York.
- Pending Litigation
 - List all ongoing litigation and past lawsuits related to the developer's performance regarding the development projects listed above
- Credit Worthiness
 - List current rating from at least three rating agencies.
- Developer Size
 - List revenues for the last three years for the entity that is developing the project.
- Technical Expertise
 - Provide names and experience of the key technical personnel assigned to the project.

8. Any other reasonably required information to aid NYISO in understanding the scope of the project and the developer's capabilities.

PCP Review and Scoping Meeting

- The NYISO shall review the developer's PCP to ensure its completeness and clear description of the project scope and costs and acknowledge receipt of the Benefit/Cost Analysis Request within ten (10) business days of receipt.
- If, in its sole discretion, the NYISO finds the PCP to be deficient in content, the NYISO will request the developer to provide the missing data. No analysis will be performed by NYISO until an acceptable PCP is received.
- Following the receipt of a complete PCP and the required deposit, the NYISO will post the request on their website and establish with developer a mutually agreeable time for a scoping meeting ("Scoping Meeting") for the Benefit/Cost Analysis.
- The Scoping Meeting shall be used to address any questions regarding the project description to ensure that all the technical parameters needed by the NYISO to perform the Benefit/Cost Analysis are understood.
- The base case applicable to economic projects seeking tariff recovery will be established pursuant to the procedure to update and extend the database for specific project benefit cost analysis.
- Following the Scoping Meeting, the NYISO will forward the information identified in Table 1 to the ESPWG for review and determination of the scenarios to be analyzed for the proposed project.
- Following the ESPWG meeting, the NYISO will (i) memorialize the results in writing as part of an agreement for a Benefit/Cost Analysis ("Project Analysis Agreement" developed by the NYISO) and (ii) provide the developer with the Project Analysis Agreement and a non-binding estimate of the total costs.
- The Project Analysis Agreement will include the scope of work and will define the deliverables to be provided by the NYISO at the completion of the studies.
- The Project Analysis Agreement will also contain payment terms and conditions.
- The Project Analysis Agreement must be executed by the developer before the NYISO conducts any analysis.
- If the NYISO determines that a material change occurs in the project for any reason, the NYISO may require the developer to pay an additional deposit to reflect that cost increase, which the NYISO shall also apply to the actual cost of the Benefit/Cost Analysis. No analysis will be performed by the NYISO on the revised project until the additional deposit is received and an agreed to revised target completion date is determined.

Completion and Delivery of Results

- The NYISO will process the Benefit/Cost Analysis requests in the order in which they are received. A Benefit/Cost Analysis Request will be deemed received by the NYISO on the date the NYISO receives an acceptable PCP and the required deposit.
- The NYISO will use reasonable efforts to complete each Benefit/Cost Analysis by a date mutually agreed to with the developer. If the NYISO determines this target date will not be met, the NYISO will promptly inform the developer and provide the developer with an updated estimate of the new date by which the Benefit/Cost Analysis will be completed.
- Upon completion of the analysis, the NYISO will provide the Benefit/Cost Analysis results to the developer.

- Upon request, the NYISO will schedule a meeting to review the results with the developer.
- The developer shall be responsible for all reasonable and actual costs incurred by the NYISO that result from the meeting to review the Benefit/Cost Analysis and from any requested modifications to the Benefit/Cost Analysis.
- The NYISO will provide the “Final Invoice” to the developer to cover all reasonable costs the NYISO incurred in the performance of the Benefit/Cost Analysis that have not yet been paid by the developer.

Withdrawal of Request

- The developer may withdraw its Benefit/Cost Analysis Request at any time by written notice to the NYISO.
- Upon receipt of such request, the NYISO will immediately terminate any further work on the applicable Benefit/Cost Analysis.
- The developer shall reimburse the NYISO for all reasonable expenses incurred prior to the receipt of the withdrawal notice. NYISO will refund any portion of the deposit that has not been used for the Benefit/Cost Analysis prior to receipt of the withdrawal notice to the developer, if applicable.
- Following reimbursement (refund), the NYISO will forward the completed results, if any, of the Benefit/Cost Analysis work completed prior to the withdrawal date to the developer.

Disclosure of Benefit/Cost Results

- In the event that the developer decides to seek cost recovery pursuant to Section 16 of Attachment Y, then the results of the Benefit/Cost Analysis shall be posted on the NYISO website.
- In the event that the developer either (1) withdraws its Benefit/Cost Analysis Request in accordance with the foregoing section or (2) decides not to seek cost recovery for its regulated economic transmission project pursuant to Section 16 of Attachment Y, then the results of the Benefit/Cost Analysis shall not be disclosed or posted on the NYISO website.

1.2.5 Voting Procedure for Regulated Economic Transmission Projects

PROCEDURE FOR ATTACHMENT Y, SECTIONS 15.5 and 15.6

Tariff Requirement 15.5: Collaborative Governance Process and Board Action

Tariff Requirement 15.6: Voting by Project Beneficiaries

Section 15.6.a

Only Load Serving Entities defined as beneficiaries of a proposed project in accordance with the procedures in Section 15.4 of this Attachment Y shall be eligible to vote on a proposed project. The NYISO will, in conjunction with the ESPWG, develop procedures to determine the specific list of voting entities for each proposed project.

Section 15.5.a

The NYISO shall submit the results of its project cost/benefit analysis and beneficiary determination to the ESPWG for comment. The NYISO shall make available to any interested party sufficient information to replicate the results of the cost/benefit analysis and beneficiary determination. The information made available will be electronically masked and made available subject to such other terms and conditions that the NYISO may reasonably determine are necessary to prevent disclosure of any Confidential Information or Critical Energy Infrastructure Information contained in the information made available. Following completion of that review, the NYISO's analysis reflecting the revisions resulting from the TPAS and ESPWG review shall be forwarded to the Business Issues Committee and the Management Committee for discussion and action.

Section 15.5.b

Following the Management Committee vote, the NYISO's project cost/benefit analysis and beneficiary determination will be forwarded, with the input of the Business Issues Committee and Management Committee, to the NYISO Board for review and action. The Board may approve the analysis and beneficiary designations as submitted or propose modifications on its own motion. If any changes are proposed by the Board, the revised analysis and beneficiary designations shall be returned to the Management Committee for comment. The Board shall not make a final determination on the project cost/benefit analysis and beneficiary designation until it has reviewed the Management Committee comments. Upon final approval of the Board, project cost/benefit analysis and beneficiary designations shall be posted by the NYISO on its website and shall form the basis of the beneficiary voting described in Section 15.6 of this Attachment Y.

Procedure:

- **Specific List of Voting Beneficiaries:** The NYISO staff will develop the specific list of voting entities pursuant to Section 15.4 of Attachment Y and deliver them to the ESPWG for comment. Voting beneficiaries will be Load Serving Entities (LSEs) in those load zones which will experience net benefits measured over the first ten years from the project's proposed commercial operation date. The ESPWG will, at its first meeting following the receipt of the list, begin reviewing and commenting on the list as presented. Following review and comment by the ESPWG, the final beneficiary list shall be submitted to the BIC and subsequently to the MC for review and comment by market participants. Finally, the beneficiary list, the project benefit/cost analysis, and the comments made by market participants at the BIC and the MC shall be submitted to the NYISO Board when this matter is brought to the Board for its consideration and approval.

- Upon the ESPWG review of the beneficiary list and the benefit/cost analysis, the NYISO will provide each voting beneficiary with the information on its own voting shares, project benefit/cost analysis, and the Project Conceptual Package, as defined in Regulated Economic Projects Specific Project Submittals Procedure. The NYISO will not provide an LSE's voting share information to other voting beneficiaries and will treat that information as Confidential Information under the NYISO Code of Conduct (OATT Attachment F, Services Tariff Article 6).
- The NYISO will hold an informational session for voting beneficiaries soon after the results of the project benefit/cost analysis and beneficiary determination are reviewed by the ESPWG and delivered to voting beneficiaries, and prior to the BIC meeting.
- Following the review and comment on the beneficiary list by market participants at the BIC and MC meetings, the LSEs may submit comments on their respective voting shares directly to the NYISO Board of Directors. In addition, any market participant or interested party may submit comments on the final beneficiary list and the project benefit/cost analysis to the Board. The Board will review such comments, including requests for oral arguments, prior to Board approval of the voting shares which will take place prior to the beneficiary vote on the specific project.
- The Board may approve the benefit/cost analysis and beneficiary designations as submitted or propose modifications on its own motion. If any changes are proposed by the Board, the revised benefit/cost analysis and beneficiary designations shall be returned for comment by market participants at the Management Committee and by affected LSEs. The Board shall not make a final determination on the project benefit/cost analysis and beneficiary designation until it has reviewed the comments made by market participants at the Management Committee and by affected LSEs. Upon final approval of the Board, the project benefit/cost analysis and the beneficiary list shall be posted by the NYISO on its website and shall form the basis of the beneficiary voting described in Section 15.6 of Attachment Y.

Section 15.6.b

The voting share of each Load Serving Entity shall be weighted in accordance with its share of the total project benefits, as allocated by Section 15.4 of this Attachment Y.

Procedure:

- For purposes of this procedure, the Notice Date shall be defined as the date the required voting material is sent to the voting entities for the special voting meeting.
- For purposes of this procedure, LSEs shall be defined in accordance with the tariff and as those LSEs that benefit from a project pursuant to Section 15.4.b.

- Zonal benefit, zonal cost allocation, and other terms and formulas related to this procedure are discussed in the procedures for Sections 15.4.b (calculation of Zonal Benefit), 15.4.c (addressing load zones not benefiting from a proposed project) and 15.4.d (allocation of project costs to the load).
- Weighted zonal voting share of each LSE = $(\text{Zonal Benefits} / \text{Total Zonal Benefits for zones with positive net benefits}) * (\text{LSE Zonal MWh} / \text{Total Zonal MWh})$.
 - Both the LSE Zonal MWh and the Total Zonal MWh are the same as those used for the allocation of the project costs to the beneficiaries performed pursuant to Section 15.4.d. The project costs to benefiting LSEs within the beneficiary zones will be allocated in accordance with the prescribed rate schedule based on the then-current monthly load ratio shares for the billing months in which costs are being recovered.
- If a Load Serving Entity benefits in more than one zone, the formula will be calculated for each zone of benefit and the total voting share of the Load Serving Entity will be the sum of such calculations.
 - The total voting share of each LSE = sum of the weighted zonal voting shares for each LSE.
 - The total voting share of each LSE will be calculated to seven decimal places with rounding.
 - The sum of all total LSE voting shares must equal 1.

Methodology for calculation of LSE Zonal MWh load data:

- Data source - For purposes of this calculation, the NYISO will use the most recent rolling 12-month settlement data (Hourly Billing Metered Load MWh data) calculated using the most recent month for which actual metered load data is available pursuant to the metering timelines in Section 7.2.A.2.a of the OATT and Section 7.4.2.A. of the MST (90 day true-up). The LSEs' MWh data used for this calculation will be from the first available actual metered month at the time of the study and the prior 11 months.
- Each LSE's load share will be calculated as the ratio of that LSE's MWh to total load MWh (in zones that will benefit from the project), for the rolling 12-month period data being used.
- LSE load shifts that occur within the rolling 12-month period data being used shall be treated as follows;
 - If an LSE has no billing metered data in the last billing month of the rolling 12-month period data being used, that LSE's load and voting weight will be removed from the calculation.
 - If a new LSE joins a zone anytime during the rolling 12-month period data being used, that LSE's load share will be calculated as the ratio of that LSE's MWh to total 12-month zonal load MWh.
- Voting shares will be assigned to the LSEs. The billing organization may be a proxy for an LSE within that billing organization if that LSE decides to be

represented by its billing organization to cast the vote. As such, that billing organization will be responsible for collecting and forwarding to the NYISO proper authorization for that LSE's load.

- After the Board approval of the beneficiary determination, the NYISO will examine its billing data to determine if changes have occurred in LSE registrations and load served in the NYCA.
- At least thirty days before the vote, the NYISO will re-run the calculation to determine if any LSE load has been changed by 10% or more of their own load.
- If a change in any LSE load of 10% or more for an individual LSE occurs after the Board approval and before the Notice Date, the NYISO will update the calculation before the date of the actual vote and will notify each LSE in accordance with NYISO notification procedure provided herein of their updated voting shares at least five business days before the date of the vote.
- The NYISO will reach out to LSEs or, if they so designate, their designated proxy Billing Organizations, sufficiently in advance of the scheduled voting date in order to inform them and educate them about the CARIS voting process.

Section 15.6.c

For a regulated economic transmission project to have its cost allocated under this Attachment Y, eighty (80) percent or more of the actual votes cast on a weighted basis must be cast in favor of implementing the project.

Procedure:

- Voting Metrics: sum of total voting shares cast in favor/sum of all total voting shares cast (either in favor or against) greater than or equal to .80. If less than 80% of the LSE votes are cast in favor of implementing the project, the project will be deemed to be rejected.
 - Abstentions and absentees will not be counted as votes cast.
- If no LSE votes are cast on a proposed project, the project will be deemed to be rejected.

Section 15.6.d

If the project meets the required vote in favor of implementing the project, and the project is implemented, all beneficiaries, including those voting "no," will pay their proportional share of the cost of the project.

Section 15.6.e

The NYISO will tally the results of the vote in accordance with procedures set forth in the NYISO manuals, and report the results to stakeholders. Beneficiaries voting against

approval of a project must submit to the NYISO their rationale for their vote within 30 days of the date that the vote is taken. Beneficiaries must provide a detailed explanation of the substantive reasons underlying the decision, including, where appropriate: (1) which additional benefit metrics, either identified in the tariff or otherwise, were used; (2) the actual quantification of such benefit metrics or factors; (3) a quantification and explanation of the net benefit or net cost of the project to the beneficiary; and (4) data supporting the metrics and other factors used. Such explanation may also include uncertainties, and/or alternative scenarios and other qualitative factors considered, including state public policy goals. The NYISO will report this information to the Commission in an informational filing to be made within 60 days of the vote. The informational filing will include: (1) a list of the identified beneficiaries; (2) the results of the cost/benefit analysis; and (3) where a project is not approved, whether the developer has provided any formal indication to the NYISO as to the future development of the project.

Procedure:

- Voting will occur at a special voting meeting chaired by the BIC Chair. The BIC Chair will oversee the voting.
- Upon finalization of the specific list of voting beneficiaries, the BIC Chair, supported by NYISO staff, will send voting materials related to the particular project by electronic mail directed to the Customer Relations main contact, billing contact (as applicable) and the MC representative (as applicable) of each voting entity of the related specific list. Voting materials related to a particular project will include the time, date, location and telephone dial-in information of the voting session, as well as the Project Conceptual Package, as defined in Regulated Economic Projects Specific Project Submittals Procedure, to be voted on, the Board-approved project benefit/cost analysis and specific list of voting beneficiaries, and for that particular LSE, the calculations of the weighted voting share.
- No voting session shall take place earlier than five business days following the distribution by the BIC Chair, supported by NYISO staff, of voting materials related to the project to be voted on.
- If multiple projects are presented for voting at the same voting session, projects will be voted upon in descending order based on their benefit/cost ratio; the project with the largest benefit/cost ratio will be voted on first.
 - The LSEs voting on each project will vote beginning at that point in the alphabetical order determined by lottery conducted prior to each project vote.
 - The voting results of each project will be announced directly after the voting of each project.
- Prior to each vote, the NYISO staff will present the project and voting materials.
- Votes will be taken by roll call from the specific list of voting beneficiaries.
- Voice votes can be cast in person or by telephone during the voting session.
- LSEs voting against the project must submit in writing to the NYISO their rationale for their vote within 30 days of the date the vote is taken. LSEs must state the

specific reasons for a vote against a project, including the metrics used in making their decision to oppose a project and how those metrics were used.

- NYISO staff will record the vote, and will calculate and report the results of the vote. The Chair of the BIC will announce the results of the vote.
- The results of the vote shall be posted on the NYISO's website.

