

NYISO

Project Budgeting and Financing Process

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Executive Summary

An effective project budgeting and financing process is essential to ensure sound investment decisions that result in reliable, efficient and cost effective operations over the long term. Such a process also aids in assuring that the NYISO remains competitive with neighboring ISOs. This paper sets forth a proposed process, or framework, which would be used to establish the NYISO Operating and Capital Budgets. Among other things, the proposed process would be used to: identify, screen, evaluate, select, fund, and monitor operating and capital project investments within the pre-established long-term budget targets of the NYISO. By design, this proposal will allow Market Participants to provide input through the existing committee structure to the NYISO Staff and the Board to allow them to effectively manage the budgeting process. This process is not intended nor designed to either manage staffing or the ongoing operations of the NYISO.

It is envisioned that all newly proposed projects and initiatives in excess of \$500,000¹ (“Major Projects”)² would be subject to this process.

The process proposed herein is comprised of the five elements as described below.

¹ Based upon Total Costs including both external and internal costs for hardware, software, labor, consultants, etc.

² Major Projects are intended to encompass both projects and initiatives the total costs of which exceed \$500,000. For purposes of this document, initiatives are intended to include potential undertakings such as building or leasing new facilities to house NYISO Staff or equipment, etc. While initiatives may or may not go through the same formal project management process as projects, initiatives would be treated in a similar manner.

1.0 Budgeting

An initial step in the process is the establishment of a multi-year (5 year) budget target (“Budget Target”) that is reflective of the NYISO long-term strategic plan. Market Participants and the NYISO Board would be responsible for establishing the Budget Target. Among other things, the Budget Target would clearly identify those funds that would be treated as an expense and those funds that would be available from longer term financing. It is recognized that the budgeting process needs to be flexible with respect to the out years to accommodate new and changing missions in those future year budgets.

2.0 Identification

Project requests will likely originate from a number of different sources for a variety of reasons including: NYISO identified enhancements or corrections of market flaws; FERC orders; Committee, Subcommittee and Working Group actions; PSC initiatives; resolution of Seams Issues; and, Market Participant requests. All requests, including Major Projects, will be documented and included in a single list. Among other things, this list will identify the proposed project’s proponent/s along with the current status of the project in the process.

All newly proposed projects having an estimated cost in excess of \$500,000 i.e.: Major Projects and which would be funded from the Project Expense Budget and/or the Project Financing Budget will be subject to the Project Budgeting and Financing Process. Existing projects and/or initiatives would be subject to the monitoring provisions proposed herein.

3.0 Selection

Under the proposed budget process, the proponent/s of any project generally must first present their request to either the Business Issues Committee (BIC) or the Operating Committee (OC) for consideration and approval. At the time of BIC or OC action, the NYISO Staff would provide an estimate of the date by which the Concept of Operations³ (Con Op) would be available. In certain cases, project requests may be directly presented to the Management Committee (MC).

For those Major Project requests receiving approval (“Qualified Projects”), the NYISO Staff will develop a Con Op and analyses in conformance with the Management Committee’s Cost and Justification Guidelines (“Guidelines”)⁴. These Guidelines will be developed by the NYISO Staff with input from the Budget, Standards & Performance Subcommittee (BS&P) and approved by the MC. The NYISO Staff will provide the potential budget impacts associated with these project requests.

Upon completion of the Qualified Project’s Con Op and Cost and Justification Report, this information will be submitted to the MC. If deemed necessary, the MC may refer the project to the BS&P for further study and consideration.

Projects approved by the MC will be forwarded to the Project Priority Team (PPT) for prioritization and scheduling. The PPT shall take into account, inter alia, the budget impacts when determining prioritization and scheduling. Although MC action on a

³ Throughout this document references are made to Concept of Operations (Con Op), Functional Requirements Specification (FRS) and System Design Specification (SDS). As the NYISO refines its business practices, these project management steps may be replaced with updated processes with similar functions. This Project Budgeting and Financing Process would incorporate these new processes in a similar manner.

⁴ The Budget, Standards and Performance Subcommittee would have the responsibility for providing input into the NYISO Staff’s development of proposed Cost and Justification Guidelines for MC consideration and adoption, if deemed appropriate. These Guidelines would be based upon the items contained in Sections 3.1 and 3.2 and be uniformly applied to all Qualified Projects.

Major Project, as a general proposition, would occur subsequent to development of the Con Op and the Cost and Justification Report, the MC is not precluded from acting on a proposal prior to receipt of this information.

4.0 Monitoring

A procedure for monitoring all ongoing and approved Major Projects needs to be in place to ensure that each investment continues to be required and, as such, meets scope, is on schedule and within budget. The NYISO staff will have the responsibility for preparing periodic status reports and advising the PPT and BS&P Subcommittee. In the event of potential significant budget impacts, the MC will also be notified.

Schedules will be developed for each Major Project along with the identification of major milestones, cash flow tracking and critical path analysis. Status reports will be prepared monthly and forwarded to the PPT for review. Additionally, the status of key and strategic projects will also be reported to the Committees on a periodic basis.

If the MC approves a project or initiative prior to the development of the Con Op, the MC will be notified if it is determined that the project or initiative meets the cost thresholds of a Major Project. The MC, by a 58% vote, may recommend to the NYISO Board that it cancel, defer or modify the project or initiative. Any incurred costs or contract cancellation fees associated with projects/initiatives that have been cancelled, deferred or modified would be recovered from Market Participants through Rate Schedule 1.

Upon the NYISO Staff's completion of a Functional Requirements Specification (FRS) or a System Design Specification (SDS), the MC will be notified of any Major Project that is projected to exceed its initial cost estimate by 50% or \$500,000, whichever

is less. The MC will also be notified of any project whose initial cost estimate was less than \$500,000 but is now expected to exceed that threshold. If the foregoing cost thresholds are exceeded, the MC, by a 58% vote, may recommend to the NYISO Board that it cancel, defer or modify the project. Any incurred costs or contract cancellation fees associated with projects that have been cancelled, deferred or modified would be recovered from Market Participants through Rate Schedule 1.

In addition to the major Con Op, FRS and SRS milestones mentioned above, the NYISO Staff will monitor each Major Project's progress. Significant changes in a Major Project's scope, schedule or cost may require re-evaluation and reprioritization. The NYISO Staff will report to the MC any project whose cost is expected to exceed its estimated cost or subsequently reviewed Con Op, FRS or SDS cost estimate by the lesser of \$500,000 or 50%. The MC, by a 58% vote, may recommend to the NYISO Board to cancel, defer or modify a project whose cost exceeds the foregoing thresholds. Any incurred costs or contract cancellation fees associated with projects that have been cancelled, deferred or modified would be recovered from Market Participants through Rate Schedule 1. The MC will also be notified of any project whose initial cost was less than \$500,000 but is now expected to exceed that threshold.

It will take an action of the NYISO Board to reschedule and reprioritize projects in a manner that will exceed the future year project budgets.

5.0 Evaluation

The review process will be tied into the project closeout process. It will be used to determine whether a project has realized its expected mission and business performance goals. the effectiveness of the budgeting process will be reviewed by the

NYISO Staff and the BS&P. Lessons learned will be used to modify the budgeting process and selection decisions for future projects considered by the MC and NYISO Board.

6.0 Transition

All Major Projects that have been adopted will be considered approved and will be subject to the monitoring and evaluation processes. This proposed Budgeting Process outlines a preliminary end state document. By necessity, the implementation of this business process will take time. It is expected that different aspects of this process will be implemented over a course of twelve months. Toward the end of the twelve-month period, the NYISO Staff and BS&P will evaluate how this process is working and, if warranted, make recommendations for refinements to this process.

7.0 Exceptions

In the event of an emergency where it is determined that the reliability of the system may be in jeopardy, or other exigent circumstances e.g., the existing market design does not result in a competitive and efficient outcome, this process may be bypassed.

Section 1.0 Budgeting

Commencing with the establishment of the 2004 Budget, the annual budgeting process will include the development of a Budget Target by the NYISO Staff, review and issuance of a recommendation for approval⁵ by the MC, and, upon consultation with its Staff, approval by the NYISO Board of the Budget Target. The Budget Target will be, by year, for the immediately succeeding five years. The Budget Target will include NYISO operations and capital projects and/or initiatives. The initial Budget Target (2004-2008) will be developed using the 2003 original approved budget as a base point. The first year of the Budget Target will be quite detailed and provide, as a minimum, the same level of information as is currently the case. The values for the remaining four years of the Budget Target, by its nature, will be less precise and detailed. At a minimum, the values for those four years will provide an estimate of expenditures for ongoing operations as well as approved and anticipated projects, both expensed and capitalized.

1.1 Project Budget Summary Report

Depending upon the nature, scope and resources required, the costs of some projects may be borne as an operating expense in the year incurred whereas, the cost of other projects or initiatives may be funded through external capital financing with the related debt service obligations (principal and interest) being recovered over a period of years. The Budget Target will include supporting documentation that separately identifies that portion of the projects' and initiatives' costs which will be expensed and recovered through the Operating

⁵ Approval as used herein means approval of the 1st year of the Budget Target and acceptance of the 4 succeeding years.

Budget and that portion which is to be capitalized. Note, the information contained in the Summary Report and Project Budget Report will address all projects and initiatives, including Major Projects. Under the Project Budget Report, individual information will be provided for each Major Project along with a composite value for all other projects and initiatives.

For those projects and initiatives, the costs of which are to be expensed, the report documentation will provide the following information, by year, for the five-year period of the Budget Target:

- The total amount of money estimated to be available for project expense funding.
- Estimated expenditures (costs) for those MC approved projects/initiatives that are already underway.
- Estimated expenditures (costs) for those MC approved projects/initiatives that have been prioritized and scheduled by the PPT but are not yet underway.
- Funding available for project expenses that have not yet been prioritized and scheduled.

For those project and initiatives the costs of which are to be funded through external capital financing, the report documentation will provide the following information by year, for the five-year period of the Budget Target:

- The estimated capital budget (financing requirements).
- The total amount of money estimated to be available for the debt service payments of financed projects/initiatives.
- The debt service payments for completed projects/initiatives.
- The debt service payments for MC approved projects/initiatives already underway.
- The estimated debt service payments associated with MC approved projects/initiatives that have been prioritized and scheduled by the PPT but are not yet underway.
- The estimated funds (revenue) available for the payment of debt service for projects/initiatives that have not yet been prioritized and scheduled.

For those projects and initiatives where certain costs may be expensed and the remaining portion of the costs capitalized, the same information as described above shall be reported.

1.2 Project Budget Report

The Project Budget Report will be prepared and updated by the NYISO Staff as new projects are prioritized and scheduled by the PPT. The report would contain the following:

- Project Budget Summary Report described above.
- A listing of completed financed Major Projects grouped by year with the past and remaining future recovery.
- A listing of active Major Projects showing the budgeted amounts, historic expenditures and projected expenditures along with a breakdown by expensed and financed portions of the Major Project. For financed Major Projects, the expected debt service obligation cost recovery by year.
- A listing of scheduled Major Projects showing the budgeted amounts with a breakdown of expensed and financed portions. For financed Major Projects, the expected cost recovery by year.
- A listing of approved but unscheduled Major Projects with budgeted costs by quarter.

Section 2.0 Identification

The first phase of the budgeting process centers on the proponent/s developing a preliminary proposal and the subsequent screening of that proposal by BIC or OC. Proponents of the project may be the NYISO Staff or Market participants. The projects may be in response to a variety of circumstances including: system enhancements; correction of market flaws; FERC Orders; Committee, Subcommittee and Working Group actions; PSC initiatives; and, resolution of Seams Issues. Generally, projects will involve the analysis, development and/or implementation of market enhancements and will often involve the use of significant internal manpower, external consultants or development of software enhancements. Projects may also require the development of revised Tariff language. The preliminary project proposal should include, as a minimum, the following information:

- Project Name
- Project Description, including perceived need
- Initial description of expected benefits
- Desired/required completion/on-line date

In addition to projects, initiatives such as new buildings, back-up control centers, hardware upgrades, etc. may involve significant expenditures. These initiatives may also be monitored under the Project Budgeting and Financing Process. The process is not intended to cover ongoing operational expenses. Major Projects are defined to encompass both projects and initiatives the total costs of which exceed \$500,000. While initiatives may not go through the same formal project management process as projects, initiatives would be treated in a similar manner.

During the project development phase, the NYISO Staff will be responsible for developing an initial cost estimate to determine whether the project or initiative will exceed the \$500,000 threshold and thus be classified as a Major Project. Depending upon the circumstances, the Staff may begin or even complete work on the Con Op and the FRS required in the next step. In other cases, work on the Con Op and FRS will only commence subsequent to action being taken by the BIC, OC or MC. Determination of when to begin these steps will depend upon the expected financial significance, urgency, complexity and likelihood of final adoption of the project.

Section 3.0 Selection

As a general practice, most proposed projects will pass the initial screening phase conducted by BIC, or the OC, before entering the Selection Phase of the process. The Selection Phase of the process will involve more detailed analysis of the Major Project including the preparation of a Con Op. Staff’s analyses will be presented to the MC for its consideration. In certain cases there may be exceptions to this process. Examples of exceptions include: those proposed projects submitted directly to the MC for consideration and instances where the NYISO Staff has already commenced its detailed analysis.

Table 1 sets forth the specific roles and responsibilities of the key participants in the initial Selection phase of the project budgeting process.

Table 1. Selection Phase

Party	Roles & Responsibilities
Project Proponent/s and/or Working Group/Task Force	<ul style="list-style-type: none"> • Develop project proposal. • Submit proposal to BIC or OC. • Provide additional screening information if requested.
BIC or OC	<ul style="list-style-type: none"> • Review proposal. • Accept, modify or reject. • If adopted, forward project proposal to NYISO Staff for preparation of a Con Op and detailed analysis to be conducted in accordance with the MC Cost and Justification Guidelines.
NYISO Staff	<ul style="list-style-type: none"> • Develop, in consultation with BS&P, the Cost and Justification Guidelines. • Where appropriate, commence preparation of the Con Op and detailed analysis using Cost and Justification Guidelines. • Present results of analysis to MC

Management Committee	<ul style="list-style-type: none"> • Adopt, modify or reject a Major Project based upon lower committee action (if applicable) and the Con Op and Cost and Justification Guidelines report. • Adopt Cost and Justification Guidelines prepared by the BS&P Review Committee. • Assign, when warranted, projects requiring further budget analysis to the BS&P Review Committee. • Receive BS&P and PPT reports.
Project Priority Team	<ul style="list-style-type: none"> • Prioritize the projects adopted by the MC.
BS&P Review Committee	<ul style="list-style-type: none"> • Evaluate projects assigned for further analysis by the MC. • Prepare overall budget reports for MC review.

3.1 BIC or OC Action

The project/initiative's proponent/s will submit its proposal to either BIC or the OC. The Committee conducting the review may use the following as screening criteria to assist in its determination of whether the proposal qualifies for detailed analysis to be conducted by the NYISO Staff.

- Does the project support core business functions?
- Is it needed for the performance of these functions?
- Does the project provide economic benefits?
- Does the project support operational, or work, processes that have been simplified or otherwise redesigned?
- Does the project improve service reliability?
- What are the expected total direct costs associated with the design and implementation of the proposal?
- What are the expected benefits of the proposal.
- Is the project required by regulation?
- Are there major risks involved that will reduce the likelihood of the project performing as expected?
- How do the alternatives compare with the proposal?

Projects deemed qualified by either BIC or the OC will be submitted to the NYISO Staff for the preparation of a Con Op and detailed analysis under the MC Cost Analyses and Justification Guidelines.

3.2 NYISO Staff Detailed Analysis

If a proposed project/initiative is deemed qualified, the NYISO Staff, in conjunction with the proponent/s, will perform a Con Op and a detailed analysis of the proposal. The NYISO Staff's analysis will include:

- Project Name
- Project Description, including need.
- Alternatives, including potential direct costs and a description of benefits.
- Preliminary estimated stream of the Major project's expected benefits (both quantitative and qualitative).
- Preliminary estimated stream of the Major Project's costs (identify components separately – labor, hardware, software, consultants, etc.).
- Estimated timeline for completion.
- Whether the Major Project can be accommodated within the Budget Target without impacting other already scheduled projects.
- Whether the Major Project qualifies for long term financing.
- Whether the Major Project would require deferral of other already scheduled projects.
- Whether the Major Project would require funding beyond that which is contained in the budget target.
- Associated risks of not implementing the proposal.
- A recommendation as to whether the proposal should be approved by the MC.

The NYISO Staff will forward the results of its analysis to the MC for its consideration.

The MC will be responsible for determining whether to proceed with the proposed Major Project. Proposals that are approved by the MC will be forwarded to the PPT for scheduling and prioritization. BS&P will roll approved

and scheduled Major Projects into the ongoing monitoring of the Current Year Budget and the Budget Target.

Section 4.0 Monitoring

The NYISO staff will have the responsibility for monitoring the status of all approved projects/initiatives and preparing periodic reports. Among other things, these periodic reports will identify each Major Project's progress relative to: actual costs incurred versus approved budget, whether the project can be completed within scope, budgeted cost and schedule.

4.1 FRS, Con Op and SDS

The NYISO Staff shall be responsible for conducting the FRS, and SDS for MC approved Major Projects. The NYISO Staff will provide a report to the MC on any Major Project's cost that exceeds its initial estimate by the lesser of 50% or \$500,000. In the event the cost threshold is exceeded, the MC may recommend to the NYISO Board that it cancel, defer or modify the Major Project.

Any incurred associated with a project/initiative that has been cancelled, deferred or modified will be recovered from Market participants through Rate Schedule 1.

4.2 Establish and Maintain Project Cost, Schedule, and Technical Baselines

The NYISO Staff will be responsible for establishing project management and execution plans, procedures, and practices to support project-monitoring activities. The NYISO Staff should provide periodic updates to PPT and BS&P on the status of the Major Project's cost, schedule, and technical baselines.

Baselines provide both the framework and sufficient detail to assess the status of the project's major milestones, decisions, activities, and work products and deliverables.

Additionally, the NYISO Staff will collect information on resources allocated and expended throughout the pre-operational stage of the Major Project. The NYISO staff also will maintain a record of changes to the technical components of on-going projects. Changes may later be reviewed for continued funding.

The NYISO Staff will advise the MC of any Major Project whose cost is expected to exceed its approved budgeted cost by 50% or \$500,000, whichever is less. The MC, by a 58% vote, may recommend to the NYISO Board that the project be cancelled, deferred or modified. Any incurred costs will be recovered from Market Participants through Rate Schedule 1.

4.3 Assess Project Progress

During the pre-operational stage of a Major Project, the NYISO staff will determine whether additional evaluation is warranted. If so, the NYISO staff will perform a more detailed review to assess progress against its budgeted cost, schedule, and technical baselines. The primary purpose of assessments is to ensure that the Major Projects remain on schedule and budget by identifying issues or deficiencies that require corrective action.

4.4 Project Monitoring Status Reports

With a project's monitoring review schedule established during the Selection phase, the NYISO Staff should prepare a Monitoring Status report for

review by PPT and BS&P. The status report will, among other things, be used to determine whether to recommend to the Management Committee that the project continue, be modified, deferred, or canceled.

Section 5.0 Evaluation

The evaluation phase of the process begins after a Major Project becomes operational, suggested within six months of deployment. The Evaluation Phase “closes the loop” of the budgeting process by comparing actual cost and benefits against budget and expectations. This will not only allow performance to be assessed, but also helps identify areas where decision-making can be improved. The evaluation phase focuses on two primary steps.

- Determining if the specific investment met performance, cost, and schedule objectives.
- Determining the extent to which the budgeting process improved the outcome of the investment.

The two steps of the evaluation phase include conducting a Post Implementation Review (PIR) and applying lessons learned, both at project and process levels. Results of the PIR are reported to the PPT and BS&P to offer a better understanding of project performance and to assist the NYISO Staff in directing any adjustments to the project or to the budgeting process.

The timing of the PIR would be initially determined during the selection phase. The PIR for a new project generally should take place about six months after the project is in service. If a project is cancelled, the PIR should take place immediately. Review of a cancelled project defines lessons learned for future investment decisions and activities.

The central objective of the PIR is the investment evaluation, in which the NYISO Staff assesses the impact the project has had on reliability, economics, customer satisfaction and system capability.

The evaluation focuses on three primary areas described below.

1. Impact on Stakeholders

The project's impact on stakeholders would be measured by the NYISO Staff through use of surveys (formal or informal), interviews, and feedback studies.

2. Ability to deliver performance measures (Quantitative and Qualitative)

The project's impact should be carefully evaluated to determine whether it met its original and possible modified performance goals.

3. Ability to Meet Performance Goals

- Cost
- Return
- Schedule

A report should also be submitted to the PPT and BS&P for all projects/initiatives to document lessons learned, including costs, project management and technical insights. A high-level assessment of management techniques, including organizational approaches, budgeting, acquisition and contracting strategies, tools and techniques, and testing methodologies is essential to establish realistic baselines and ensure the future success of other projects. To capture lessons learned the project manager should develop a summary report after completion of the PIR.

Having identified the strengths and the weaknesses of the current process, the NYISO Staff, PPT and BS&P will work together to develop, recommend, and modify the budgeting process as appropriate.