NYISO
Capital Budgeting Process

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1.0 INTRODUCTION

An effective, capital budgeting process is essential to ensure sound capital investment decisions. This report details a recommended approach to identify, rank, fund, and manage capital investments. The capital budgeting process described herein can be applied to the selection, control, and evaluation of capital projects.

The recommended approach has three phases, as described below.

1.1 Selection

The selection process identifies all new and recurring capital investment projects for inclusion into the capital budget portfolio based on an overall targeted budget cap.

Within the selection phase, capital investments are screened, ranked, and selected.

1.2 Control

An ongoing monitoring process that manages selected capital investment projects to ensure that each investment continues to be required and, as such, is delivered on schedule and within budget.

1.3 Evaluation

The review process used will determine if a capital investment has realized its expected mission and business performance goals. During the evaluation phase, the overall effectiveness of the capital planning process will be reviewed. Lessons learned during the evaluation phase should be geared towards modifying future project selection decisions.

2.0 INITIAL SCREENING OF PROJECT INVESTMENTS

All proposed capital projects must go through the screening stage, to determine whether an investment should be considered for additional review. If so, the ISO will determine the appropriate level of investment analysis (as suggested by the type, size, and risk associated with the proposed project), review, and decision-making.

Specific roles and responsibilities of the key participants in the screening stage of the Capital Planning and Investment process are described in Table 1.

Table 1. Screen Stage Roles and Responsibilities

Party	Roles & Responsibilities
ISO	Develop project proposal Provide additional screening information Review project proposal against screening criteria Determine project viability
BS&P	Review screening of projects and provide input Review preliminary results Approve or disapprove project funding

2.1 Develop Project Proposal

The first stage of the capital budgeting process centers on developing and screening a preliminary project proposal, which is prepared by the ISO. At this stage the proposal should include the minimum set of information.

The following information should be included in the preliminary project proposal.

- Project Name
- Project Description
- Project Category (economics, replacement, regulatory, etc.)
- Alternatives
- Expected Benefits
- Expected Returns
- Expected Costs
- Expected Schedule
- Expected Risks
- Definition of Performance Measures

2.2 Review Project Proposal Against Screening Criteria

The principal objectives during the screening stage are to determine whether the project is viable and decide if it should be analyzed through the evaluation process.

Apply Screening Criteria

The ISO will use the following criteria to screen the preliminary initiative proposal.

- Does the project support core business functions? Is it critical to the performance of these functions?
- 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 benefits of the proposed initiative?
- Is the project required by regulation?
- Are there major risks involved that will reduce the likelihood of the project performing as expected?
- Do the project's performance measures adequately reflect the benefits to the appropriate business objectives?
- What are the alternatives? How do the alternatives compare with the recommended proposal?

2.3 Determine Project Viability

BS&P will use information from the preliminary project proposals and associated reviews to provide feedback to the ISO regarding further consideration of the proposed project

2.4 Recommend Evaluation Process

If a project is considered viable, BS&P recommends to the ISO that the project proposal be supplemented with additional detail to continue through the evaluation process.

3.0 SCORE PROJECT PROPOSAL

The ISO will employ a uniform methodology to assign a set of numeric values to a proposed project on the basis of expected returns, costs, and risks. The methodology should rely on the application of explicitly defined and weighted selection criteria in accordance with well-defined scoring rules. Scores assigned to proposed projects would be used in the ranking process.

3.1 Apply the Evaluation Process to Assign a Project Score

Score Project

To score a proposed project the ISO will provide results of the initial screening evaluation to BS&P for review. Applying uniform and consistent decision criteria will provide BS&P with the necessary input to rank the various capital investments.

The Scoring stage is not intended to be the sole basis for decision-making. Rather, it will serve as one factor in the overall selection process. The weighting of multiple decision criteria will allow decision-makers to determine the relative importance of selection factors.

The ability to develop and refine specific rules is crucial to the success of this approach. The weighting and scoring rules can be adjusted, as experience with the model and process is gained. Although the scoring approach accommodates the creation of a rank-ordered list of projects, final investment decisions should be influenced by additional information, including input derived from collaborative forums, as appropriate.

Present Project Scores

Scoring results can be presented in a variety of ways to provide a visual means to compare the strengths and the weaknesses of alternative projects.

3.2 Analyze Evaluation and Scoring Results

For each proposed project, the ISO will review results and findings of the evaluation process and decide whether to recommend and refer the project to BS&P for further consideration. The numeric value is used in ranking and prioritization of proposals with respect to selection for funding and approval for implementation.

3.3 Recommend Project for Selection

After completing the review, the ISO will submit those proposed projects to BS&P for consideration. The recommendation should highlight significant issues that are likely to

affect the success of the project, such as cost, technical complexity, and dependence on other capital projects.

4.0 SELECT INITIATIVES FOR CAPITAL INVESTMENT PORTFOLIO

The selection of projects by the ISO will be based on information gathered and analyzed during the screening and scoring stages of the capital budgeting process.

4.1 Analyze and Compare Projects

The ISO analyzes and compares projects.

4.2 Recommend Project Selection

The ISO, upon analysis of proposed capital projects, provides recommended projects to BS&P for funding. The recommendations also inform BS&P of the relative operational, technical, financial, and institutional strengths and weaknesses of each project.

4.3 Rank Projects

Using the fundamental concepts of portfolio management, such as return, cost, and risk, as well as other decision factors, the ISO ranks projects still under consideration. The ranking decision will also be influenced by the results and findings of on-going and completed evaluation activities and project scoring and re-scoring efforts.

4.4 Recommend an Overall Capital Investment Portfolio

The factors that the ISO considers when creating a Capital Investment Portfolio (CIP) are discussed below.

Overall Risk

Capital projects are likely to possess some level of technical, operational, financial, or organizational risk.

4.5 Approve or Disapprove Corporate Investment Portfolio

After the ISO ranks the different capital projects, BS&P will review and, as appropriate, approves the capital project. Following the approval by BS&P, the ISO will prepare the final funding proposal for the Capital Budget.

5.0 CONTROL PROJECTS

The control phase of the capital budgeting process requires continuous monitoring of on-going projects through development or acquisition life cycle and deployment, up to point of operation. At that point, the evaluation phase of the process begins. The objective of the control phase is to ensure timely oversight, quality control, and executive in a disciplined, well-managed, and consistent manner. This will promote delivery of quality projects and results in projects that are completed within scope, on time, and within budget.

The ability to monitor capital projects adequately relies on effective project management activities. Automated project cost and schedule control systems should be utilized to manage, maintain, and provide shared access to project baselines, monitor changing requirements, and track resource allocations.

The frequency of the control review should be established in the selection phase based on factors including strategic alignment, criticality, scope, cost, and risk associated with the project.

5.1 Establish and Maintain Initiative Cost, Schedule, and Technical Baselines

The ISO is responsible for establishing project management and execution plans, procedures, and practices to support project-monitoring activities. The ISO should provide periodic updates to BS&P on the status of the 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.

5.2 Maintain Current Project Cost, Schedule, Technical, and General Status Information

The ISO collects information on resources allocated and expended throughout the pre-operational stage of the project. The ISO also maintains a record of changes to the technical components of on-going project. Changes may later be reviewed for continued funding.

5.3 Assess Project Progress Against Performance Measures

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

5.4 Prepare Project Control Status Reports

With a project's control review schedule established during the selection phase, the ISO should prepare a Control Status report for review by BS&P**.** The status report will be used to determine whether to continue, modify, or cancel the project.

6.0 EVALUATE INITIATIVES

The evaluation phase of the capital budgeting process begins after an investment becomes operational, suggested within six months of deployment. The Evaluation Phase "closes the loop" of the capital budgeting process by comparing actual cost and performance criteria against estimates. 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.

1. Determining if the specific capital investment met performance, cost, and schedule objectives.
2. Determining the extent to which the capital budgeting process improved the outcome of the capital 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 BS&P to offer a better understanding of project performance and assist the ISO in directing any adjustments to the project. The committee will also work internally to revise the process as necessary.

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 capital investment decisions and activities.

6.1 Conduct Post-Implementation Reviews

The central objective of the PIR is the capital investment evaluation, in which the ISO assesses the impact the capital program has had on reliability, customer satisfaction and system capability.

The capital investment evaluation focuses on three primary areas described below.

1. Impact to Stakeholders
   The impact a project has on stakeholders is typically measured by the ISO with surveys (formal or informal), interviews, and feedback studies.

2. Ability to Deliver Capital 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:
   - Risk Analysis:

A management report should also be submitted to the BS&P for all projects to document lessons learned, including 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 capital projects. To capture management lessons learned the project manager should develop a summary report after completion of the PIR.

7.0 APPLY LESSONS LEARNED

7.1 Evaluate Capital Planning and Investment Process

Through regular use and practical experience, the ISO and BS&P should expect the capital budgeting process to mature and evolve.

7.2 Identify Lessons Learned and Recommend Process Improvements

Having identified the strengths and the weaknesses of the current process, the ISO and BS&P will work together to develop, recommend, and modify the budget process as appropriate.

7.3 Endorse Process Improvements

The BS&P and ISO will implement modifications to improve the capital budgeting process.