

MEETING MATERIALS

April 27, 2021

Board Meeting – Meeting Matrix

Each meeting:

- Review and approve the Periodic Contracts Reports
- Receive a Report on NY Green Bank Status
- Receive a Report from an Authority Program or Initiative

January Meeting

- Review and approve the next fiscal year budget: from Program Planning Committee and Waste and Facilities Management Committee
- Review and approve RGGI Operating Plan/Amendments
- Review and approve the Strategic Outlook: from Program Planning

April Meeting

- Review and approve the Conflict of Interest Policy: from Governance Committee
- Review the schedule for the Independent Audit of the NYSERDA and NY Green Bank financial statements: from Audit and Finance Committee
- Review and approve
 - Board Member Evaluation Report: from Governance Committee
 - Committee Charter Amendment recommendations: from Committees
- Reappoint Members to Committees – as terms expire

June Meeting

- Review and approve:
 - Annual Financial Reports: from Audit and Finance Committee
 - Annual Investment Report and Guidelines
 - Annual OPEB Trust Investment Report and Policy Statement
 - Annual Independent Audit of NYSERDA and NY Green Bank financial statements
 - Annual Bond Sales Report
 - Appointment of Independent Auditors for next fiscal year: from Audit and Finance Committee
 - Annual Procurement Report and Guidelines
 - Annual Report on Disposition of Real and Personal Property and Review of the Guidelines
 - Real Property Acquisition Guidelines
 - Prompt Pay Annual Report
 - Operations and Accomplishments and Mission Statement and Measurements Annual Report
 - Compensation Schedule: from Governance Committee
 - Code of Conduct

October Meeting

Review as needed:

- Items presented by committees or management for review and approval

Audit and Finance Committee – Meeting Matrix

Review at each meeting:

- Recent Internal Audit Activity, subject to the issuance of audit reports by Internal Audit*

April Meeting

- Review and recommend for approval the Schedule for the Independent Audit of the NYSERDA and Green Bank financial statements
- Review and approve the Annual Internal Audit Report*
- Review and approve the Annual Internal Audit Plan*
- Review and recommend for approval the Committee Charter

June Meeting:

- Review and recommend for approval the Annual Investment Report and Guidelines
- Review and recommend for approval the Annual OPEB Trust Investment Report and Policy Statement
- Review and recommend for approval the Annual Independent Audit of NYSERDA and NY Green Bank financial statements
- Review and recommend for approval the Appointment of Independent Auditors for next fiscal year
- Review and recommend for approval the Annual Bond Sales Report

Review and recommend for approval, as needed:

- Audits by external reviewers including the New York State Comptroller*
- Review and recommend for approval any proposed bond or other debt issuances
- Review and recommend for approval the amendments to the Internal Control Manual

*These items are reviewed and approved solely by the Audit and Finance Committee and are not presented to the full Board

Governance Committee – Meeting Matrix

January Meeting

- Cancelled if no specific agenda items

April Meeting:

- Review results and make recommendations to modifications to the Self-assessment form
- Review and recommend for approval the Authority's Conflict of Interest Policy
- Review and recommend for approval the Committee Charter

June Meeting:

- Review and recommend for approval the Compensation Schedule Review and recommend for approval the Board Member Evaluation Report
- Review and recommend for approval the mission statement
- Review and recommend for approval the code of conduct/ethics

September Meeting:

- Cancelled if no specific agenda items

Review and recommend for approval, as needed:

- Guidance from Authorities Budget Office
- Member Qualifications
- Review and recommend for approval compensation / salary increases for officers
- Review and recommend for approval the NYSERDA Employee Code of Conduct
- Review and recommend for approval any specific language for Compensation, Ethics, and Whistleblower policies as needed

Program Planning Committee – Meeting Matrix

January Meeting:

- Review and recommend for approval the next fiscal year budget
- Review and recommend for approval the Strategic Outlook

April Meeting:

- Review and recommend for approval the Committee Charter

June Meeting:

- Discretionary program review

September Meeting

Review and recommend for approval, as needed:

- Cross State Air Pollution Rule (“CSAPR”, formerly CAIR) Program Plan/Amendments
- Authority programs’ performance metrics – periodic reporting
- New or ongoing program initiatives – periodic presentations

Waste and Facilities Management Committee – Meeting Matrix

Review at each meeting:

- Status of West Valley Nuclear Service Center activities

January Meeting

- Review and recommend for approval the next fiscal year budget

April Meeting:

- Review and recommend for approval the Committee Charter

September Meeting:

Review and recommend for approval, as needed:

- Status of nuclear coordination activities
- STEP-related items



NOTICE OF MEETING AND AGENDA

April 16, 2021

TO THE MEMBERS OF THE GOVERNANCE COMMITTEE:

PLEASE TAKE NOTICE that the thirty-first (31st) meeting of the GOVERNANCE COMMITTEE of the New York State Energy Research and Development Authority (“Authority”) will be held by videoconference, on Tuesday, April 27, 2021, commencing at 10:00 a.m., for the following purposes:

1. To consider the Minutes of the 30th meeting held on June 22, 2020.
2. To consider and act upon a resolution approving amendments to the Authority’s Conflict of Interest Policy.
3. To consider and act upon a resolution approving general salary increases for the Officers consistent with New York State Budget approvals for Management Confidential employees.
4. To consider and act upon a motion to enter into private session for the purpose of reviewing the results of the Annual Confidential Board Member Performance Evaluation.
5. To consider and act upon a resolution recommending approval of the Annual Confidential Board Member Performance Evaluation Report.
6. To transact such other business as may properly come before the meeting.

Members of the public may attend the meeting via the video conference which can be accessed at <https://www.nyserdera.ny.gov/About/Board-Governance/Board-and-Committee-Meetings>.

The Authority will be posting a video and a transcript of the meeting to the web as soon as practicable after the meeting. The video and transcript will be posted at <http://www.nyserdera.ny.gov/About/Board-Governance/Board-and-Committee-Meetings>.

Sara L. LeCain
Secretary to the Committee

New York State Energy Research and Development Authority

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NEW YORK STATE ENERGY RESEARCH AND DEVELOPMENT AUTHORITY

CONFLICT OF INTEREST POLICY FOR BOARD MEMBERS

(~~January 2020~~ April 2021)

All ~~Board~~ ~~board~~ ~~Members~~ ~~members~~ shall be provided with this Conflict of Interest Policy upon their appointment to the NYSERDA Board and are required to acknowledge that they have read, understand, and are in compliance with the terms of the Policy. Board ~~Members~~ ~~members~~ should review, on an ongoing basis, circumstances that constitute a conflict of interest or the appearance of a conflict of interest and should abide by this policy and seek guidance when necessary and appropriate.

This policy is intended to supplement, but not replace, any applicable state and federal laws and regulations governing conflicts of interest applicable to unpaid ~~Board~~ ~~board~~ ~~Members~~ ~~members~~ of public authorities.

Conflicts of Interest: A conflict of interest is a situation in which the financial, familial, or personal interests of a board member come into actual or perceived conflict with their duties and responsibilities as a board member of the Authority. Perceived conflicts of interest are situations where there is the appearance that a board member can personally benefit from actions or decisions made in their official capacity, or where a board member may be influenced to act in a manner that does not represent the best interests of the Authority. The perception of a conflict of interest may occur if circumstances would suggest to a reasonable person that a board member may have a conflict. The appearance of a conflict and an actual conflict should be treated in the same manner for the purposes of this Policy.

Board members must conduct themselves at all times in a manner that avoids any appearance that they can be improperly or unduly influenced, that they could be affected by the position of or relationship with any other party, or that they are acting in violation of the public trust. While it is not possible to describe or anticipate ~~all of all~~ the circumstances that might involve a conflict of interest, a conflict of interest typically arises whenever a board member has or will have:

- A financial or personal interest in any person, firm, corporation or association which has or will have a transaction, agreement or any other arrangement in which the Authority participates;
- The ability to use his or her position, confidential information or the assets of the Authority, to his or her personal advantage;
- Any other circumstance that may or appear to make it difficult for the board member to exercise independent judgment and properly exercise his or her official duties.

PROCEDURES

Duty to Disclose: All material facts related to the conflict of interest (including the nature of the interest and information about the conflicting transaction) shall be disclosed in good faith to the General Counsel and/or Ethics Officer. Such disclosure shall be made part of the official record of the proceedings of the Authority.

Determining Whether a Conflict of Interest Exists: The General Counsel and/or Ethics Officer shall advise the individual who appears to have a conflict of interest how to proceed. The General Counsel and/or

Ethics Officer should seek guidance from the Joint Commission on Public Ethics (JCOPE) when dealing with cases where they are unsure of what to do.

Recusal and Abstention: No board member may participate in any decision or take any official action with respect to any matter requiring the exercise of discretion, including discussing the matter and voting, when he or she knows or has reason to know that the action could confer a direct or indirect financial or material benefit on himself or herself, a relative, or any organization in which he or she is deemed to have an interest. Board members must recuse themselves from deliberations, votes, or internal discussion on matters relating to any organization, entity or individual where their impartiality in the deliberation or vote might be reasonably questioned, and are prohibited from attempting to influence other board members in the deliberation and voting on the matter.

Records of Conflict of Interest: The minutes of the Authority's meetings during which a perceived or actual conflict of interest is disclosed or discussed shall reflect the name of the interested person, the nature of the conflict, and a description of how the conflict was resolved.

Confidential Information: Information obtained as a result of board membership, and not otherwise public, must not be disclosed, and may not be used to further your interests or the interests of a relative.

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Unwarranted Privileges: Do not use or attempt to use your position on the board to obtain preferential treatment for yourself or others.

Nepotism: Do not participate in any way in a decision to hire, promote or discipline a family member paid by ~~your Agency~~ the Authority.

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Gifts: Do not accept anything of value where (a) it could reasonably be inferred that it is a gift intended to influence you, in the performance of your board duties; or (b) was given to you as a sign of appreciation for board member action. Ask the General Counsel and/or Ethics Officer to determine the appropriate course of action in a particular circumstance.

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Political Activity: Certain board members cannot do the following – please ~~talk~~ discuss with the General Counsel and/or Ethics Officer ~~about~~ whether these prohibitions apply to you:

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- a. Serve as an officer of any political party or political organization;
- b. Serve as a member of any political party committee, including serving as a political party district leader or member of the national committee of a political party; or
- c. Give or raise monetary contributions for the State of New York Governor's political campaign.

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Outside Activities: You may not engage in outside activities that would impair your judgment or compromise or interfere with your ability to properly perform your duties. You may not engage in outside activities that create an actual conflict of interest or the appearance of a conflict of interest. You should consult with the General Counsel and/or Ethics Officer if you have any questions concerning your potential conflicts of interest arising from outside activities you are engaged in. You may not use NYSERDA time, materials, equipment or other assets in connection with outside activities.

Reverse Two Year Bar: For the first two years you serve on the ~~Board of~~ NYSERDA Board, you should not participate or be involved in the decision-making process for NYSERDA in relation to any matter involving a person or business in the private sector by whom you are currently employed or by whom you were employed during the two years preceding NYSERDA service or employment.

Reporting of Violations: Board members should promptly report any violations of this Policy to Authority's General Counsel, Ethics Officer or Director of Human Resources in accordance with the Authority's Whistleblower Policy and Procedures.

Penalties: Any board member that fails to comply with this policy may be penalized in the manner provided for in law, rules or regulations.

Resolution No. _____

RESOLVED, that the Conflict of Interest Policy for Board Members as presented at this April 27th, 2021 meeting, is hereby recommended for approval by the Board.

Resolution No. ____

RESOLVED, that the proposed 2% salary increase retroactive to April 7, 2021 payable to the President and CEO consistent with terms and conditions as may be authorized for State Management/Confidential employees by the New York State Division of the Budget, are hereby recommended for approval by the Board; and

BE IT FURTHER RESOLVED, it is hereby recommended for approval by the Board that any Authority Officer shall be entitled to receive periodic future salary increases consistent with terms and conditions as may be authorized from time to time for State Management/Confidential employees by the New York State Division of the Budget.

Resolution No. _____

RESOLVED, that pursuant to Section 108 of the Public Officers Law and Section 2800 of the Public Authorities Law, the Members of the Governance Committee shall convene in private session on April 27, 2021 for the purpose of reviewing the Annual Confidential Board Member Performance Evaluation of the Authority.

**Annual Board Member
CONFIDENTIAL
Evaluation
(To Be Provided
Seperately)**

Resolution No. ____

RESOLVED, that the Authority's Annual Confidential Board Member Performance Evaluation Report as presented at this April 27, 2021 meeting is hereby recommended for approval by the Board to be submitted pursuant to Section 2800 of the Public Authorities Law.



ANDREW M. CUOMO
Governor

NYSERDA

RICHARD L. KAUFFMAN
Chair

DOREEN M. HARRIS
President and CEO

NOTICE OF MEETING AND AGENDA

April 18, 2021

TO THE MEMBERS OF THE AUDIT AND FINANCE COMMITTEE:

PLEASE TAKE NOTICE that the one hundred forty-fifth (145th) meeting of the AUDIT AND FINANCE COMMITTEE of the New York State Energy Research and Development Authority (the “Authority”) will be held via video conference, on Tuesday, April 27, 2021, commencing at 11:00 a.m., for the following purposes:

1. To consider the Minutes of the 144th meeting held on June 23, 2020.
2. To discuss the independent audit of the Authority’s and NY Green Bank’s financial statements and the Authority’s OPEB Trust for fiscal year 2020-2021.
3. To receive the Annual Internal Audit Report and to consider and act upon a resolution approving an Internal Audit Plan for fiscal year 2021-2022.
4. To consider and act upon a resolution approving amendments to the Authority’s Internal Control Manual.
5. To consider and act upon a resolution approving the financing of the Green Jobs – Green New York Program.
6. To consider and act upon a resolution approving the issuance of a debt facility on behalf of NY Green Bank.
7. To transact such other business as may properly come before the meeting.

Members of the public may attend the meeting via the video conference which can be accessed at <https://www.nyserdera.ny.gov/About/Board-Governance/Board-and-Committee-Meetings>.

The Authority will be posting a video and a transcript of the meeting to the web as soon as practicable after the meeting. The video and transcript will be posted at <http://www.nyserdera.ny.gov/About/Board-Governance/Board-and-Committee-Meetings>.

Sara L. LeCain
Secretary to the Committee

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Resolution No. _____

RESOLVED, that the Audit and Finance Committee approves the Internal Audit Plan for Fiscal Year 2021-2022, as presented at this April 27, 2021 meeting, in the form submitted to the Committee.

NEW YORK STATE
ENERGY RESEARCH AND DEVELOPMENT AUTHORITY

INTERNAL CONTROL MANUAL:
Ensuring Efficiency, Accountability, and Transparency

Revised ~~January 2018~~ April 2021

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SECTION 1: PURPOSE; BOARD MEMBER RESPONSIBILITIES

The purpose of this manual is to set forth NYSERDA's policies and procedures for ensuring an effective system of internal controls that also promotes accountability and transparency.

Public Authorities Law, Article 9, Title 8, §2931, known as the New York State Governmental Accountability Audit and Internal Control Act ("Internal Control Act") requires NYSERDA to establish and maintain a system of internal controls. The Internal Control Act defines internal controls as a "process that integrates the activities, plans, attitudes, policies, systems, resources and efforts of the people of an organization working together, and that is designed to provide reasonable assurance that the organization will achieve its objectives and mission" (Article 9, §2930).

The Internal Control Act lists specific objectives of an internal control system including, but not limited to:

- the safeguarding of assets;
- checking the accuracy and reliability of accounting data and financial reporting;
- promoting the effectiveness and efficiency of operations;
- ensuring compliance with applicable laws and regulations; and
- encouraging adherence to prescribed managerial policies.

The Public Authorities Accountability Act of 2005, which amends various sections of the Public Authorities Law, seeks to ensure greater efficiency, openness and accountability for the State's public authorities by codifying model governance principles, removing legal impediments that prevent full implementation of model governance principles, establish a new public authorities office within the Executive Department to provide additional oversight and ensure full compliance with the principles, and allow for the creation of an independent inspector general to ensure greater accountability for public authority activities and operations.

As explained below and through their review and approval of various guidelines, reports, planning documents, and other activities of NYSERDA staff, NYSERDA's Board Members are actively engaged in overseeing NYSERDA use of processes, policies, and procedures that accomplish NYSERDA's mission through an effective system of internal controls that incorporates accountability and transparency.

Board Member Internal Control Responsibilities. The Internal Control Act requires that the governing board of NYSERDA:

- establish and maintain for NYSERDA guidelines for a system of internal control that are in accordance with this article and internal control standards;
- establish and maintain for NYSERDA a system of internal control and a program of internal control review. The program of internal control review shall be designed to identify internal control weaknesses, identify actions that are needed to correct actions and periodically assess the adequacy of NYSERDA's ongoing internal controls;
- make available to each Board Member, officer and employee a clear and concise statement of the generally applicable managerial policies and standards with which he or she is expected to comply. Such statement shall emphasize the importance of effective internal control to NYSERDA and the responsibility of each Board Members, officer and employee for effective internal control;
- designate an internal control officer, who shall report to the head of NYSERDA, to implement

- and review the internal control responsibilities established pursuant to this section;
- implement education and training efforts to ensure that Board Members, officers and employees have achieved adequate awareness and understanding of internal control standards and, as appropriate, evaluation techniques; and
- periodically evaluate the need for an internal audit function.

Board Member Accountability Responsibilities, The Public Authority Accountability Act of 2005 requires the Board Members to:

- execute direct oversight of NYSERDA's President and CEO and other senior management in the effective and ethical management of NYSERDA;
- understand, review and monitor the implementation of fundamental financial and management controls and operational decisions of NYSERDA;
- establish policies regarding the payment of salary, compensation and reimbursements to, and establish rules for the time and attendance of the President and CEO and senior management;
- adopt a code of ethics applicable to each officer, director and employee that, at a minimum, includes the standards established in section seventy-four of the public officers law;
- establish written policies and procedures on personnel including acts of wrongdoing, misconduct, malfeasance, or other inappropriate behavior by an employee or Board Member of NYSERDA, investments, travel, the acquisition of real property and the disposition of real and personal property and the procurement of goods and services;
- adopt a defense and indemnification policy and disclose such plan to any and all prospective Board Members; and
- attend State approved training, including such continuing training as may be required to remain informed of best practices, regulatory and statutory changes relating to the effective oversight of the management and financial activities of public authorities and to adhere to the highest standards of responsible government.

Through all of the processes, policies, and procedures set forth in this manual, the three underlying manuals (the Personnel Handbook, Information Security Policies Manual, Accounting Policies and Procedures Manual, and Operations and Procedures Manual), and through its review and approval of a diverse set of guidelines, reports, planning documents and more detailed Committee review of staff activities, NYSERDA's Board Members comply with these statutory requirements.

NYSERDA's Board has established the following standing committees:

Audit and Finance Committee. The Audit and Finance Committee is a standing advisory committee of the Authority. The Committee has not fewer than three or more than six Board Members. The Committee shall consist of not less than three independent Board Members who shall constitute a majority on the Committee and who shall possess the necessary skills to understand the duties and function of the Committee, provided, however, that in the event that there are less than three independent Members, the Members may appoint non-independent Members, provided that the independent Members constitute a majority of the Members of the Committee. In addition, the membership of the Committee includes the Chair of the Authority who serves ex-officio and who enjoys all the rights and privileges of membership, including the right to vote. A majority of the members of the Committee then in office, not including the Chair of the Authority, gathered together in the presence of each other or through the use of videoconferencing, constitutes a quorum, and the Chair of the Authority if present counts toward a quorum. Members of the Committee shall

be familiar with corporate financial and accounting practices.

The Audit and Finance Committee recommends the hiring of a certified independent accounting firm, establishes the compensation to be paid, and provides direct oversight of the performance of the independent audit performed, reviews the annual financial statements of the Authority prior to submission for approval to the Board Members of the Authority, reviews proposals for the issuance of debt by the Authority and makes recommendations, and may examine and consider such other matters in relation to the internal and external audit of the Authority's accounts, the Authority's financings, and in relation to the financial affairs of the Authority and its accounts as the Audit and Finance Committee may determine to be desirable.

Program Planning Committee. The Program Planning Committee is a standing advisory committee of the Authority. The Committee has not fewer than three or more than six Board Members, who are elected from among the Board Members of the Authority other than the Chair. A majority of these committee members are other than Board Members of the Authority who serve ex-officio. In addition, the membership of the Committee includes the Chair of the Authority, who serves ex-officio and who enjoys all the rights and privileges of membership, including the right to vote. A majority of the members of the Committee then in office, not including the Chair, gathered together in the presence of each other or through the use of videoconferencing, constitutes a quorum, and the Chair of the Authority if present counts toward a quorum.

The Program Planning Committee reviews the annual updating of the Authority's Strategic Program Plan; and preparation of the portions of the Authority's annual budget related to the energy research and innovation, market development, clean energy financing, and other related programs and initiatives; and provides guidance to the Authority's officers and employees in the preparation of those plans and those portions of the budget; and considers such other matters related to the Authority's energy research and development programs, energy services programs, energy analysis program, and economic development program as the officers of the Authority may refer to the Committee.

Waste and Facilities Management Committee. The Waste and Facilities Management Committee is a standing advisory committee of the Authority. The Committee has not fewer than three or more than six members, who are elected from among the Board Members of the Authority other than the Chair. A majority of these committee members are other than Board Members of the Authority who serve ex-officio. In addition, the membership of the Committee includes the Chair of the Authority, who serves ex-officio and who enjoys all the rights and privileges of membership, including the right to vote. A majority of the members of the Committee then in office, not including the Chair of the Authority, gathered together in the presence of each other or through the use of videoconferencing, constitutes a quorum, and the Chair of the Authority if present counts toward a quorum.

The Waste and Facilities Management Committee reviews the Authority's program and plans for management of the Western New York Nuclear Service Center, including the West Valley Demonstration Project, and for radioactive waste policy and nuclear coordination; reviews the preparation of the Authority's annual West Valley site management program and radioactive waste policy and nuclear coordination budgets; reviews the Authority's plans and provides guidance for the facilities owned by or under the control of the Authority; provides guidance to the Authority's officers and employees in the preparation of the plans and in preparation of such

annual program budgets; and considers such other matters related to West Valley site management and radioactive waste policy and nuclear coordination programs as the Officers of the Authority may refer to such Committee.

Governance Committee. The Governance Committee is a standing advisory committee of the Authority. The Committee shall consist of not less than three independent Members who shall constitute a majority on the Committee and who shall possess the necessary skills to understand the duties and function of the Committee, provided, however, that in the event that there are less than three independent Members, the Members may appoint non-independent Members, provided that the independent Members constitute a majority of the Members of the Committee. The Committee has not fewer than three or more than six members. In addition, the membership of the Committee includes the Chair of the Authority who shall serve ex-officio and who enjoys all the rights and privileges of membership, including the right to vote. A majority of the members of the Committee then in office, not including the Chair of the Authority, gathered together in the presence of each other or through the use of videoconferencing, constitutes a quorum, and the Chair of the Authority if present counts toward a quorum.

The Governance Committee keeps the Board Members informed of current best practices, reviews corporate governance trends, updates the Authority's corporate governance principles, as necessary, recommend updates to the corporate governance principles, advises appointing authorities on the skills and experience required of Board Members, examine ethical and conflict of interest issues, perform Board self-evaluation, and recommend By-laws which include rules and procedures for conduct of Board business.

All meetings of the Authority subject to the Open Meetings Law will be broadcast on the Internet.

Board Member Compliance with Lobbying Laws

Procurement Lobbying: State Finance Law Sections 139-j and 139-k applies to all solicitations issued and procurements under active consideration that may result in a procurement contract in an amount in excess of \$15,000. Such solicitations and procurements under consideration must: (1) designate individuals at NYSERDA who may be contacted about the procurement by persons attempting to influence the procurement process (*i.e.*, offerers and persons hired by the offerer who attempt to influence the procurement), and (2) outline NYSERDA's procedures relating to contacts that are not permitted under the State Finance Law. All solicitations and procurements will identify NYSERDA employees, and not Board Members, as the individuals that may be contacted under such circumstances.

The responsibility to record information about contacts that reasonably appear to be attempts to influence the procurement process applies during the "restricted period." The restricted period begins once NYSERDA has made a decision to initiate procurement and extends until execution of the contract. It begins again at any time a modification to the contract is proposed and extends until the modification is executed.

The decision to initiate procurement occurs at the earliest of: (1) the Greenlight Committee's approval of the proposed issuance of a solicitation, (2) an employee's receipt of a proposal for a program project that does not meet the definition of Competitive Procurement Method under the Contracting Guidelines, or (3) at such other time when a determination is made to proceed with an

administrative procurement. At this time and until the time a contract is executed, Board Members must: (1) record information regarding contacts that reasonably appear to be attempts to influence the procurement process within the restricted period, and (2) submit the record to

NYSERDA's Director of Contract Management who will maintain such records in the appropriate file. The record is to include the contact including the name, the organization, the address, the telephone number, the place of principal employment, and the occupation of the contact and whether the person or organization making the contact is a "potential contractor" or is retained, employed, or designated by the potential contractor to appear before or to contact the agency regarding the procurement.

Failure to comply with the requirements may result in a contractor being barred from governmental procurements. Board Members should contact the General Counsel if they have any questions concerning these requirements.

Project Sunlight: Project Sunlight, a component of the Public Integrity Reform Act of 2011, is intended to provide the public with an opportunity to see when outside individuals and entities are interacting with—and attempting to influence—state government decision-makers in particular ways. Project Sunlight requires the reporting in an online database of all interactions that constitute "appearances" between "covered individuals" inside NYSERDA and "covered individuals" outside NYSERDA concerning one of five designated Project Sunlight subject areas.

An "appearance" is an in-person meeting, telephonic conversation, or video conference that is a substantive interaction meant to influence state government decision-making. The location, formality, and initiator of the interaction are irrelevant. Excluded from "appearance" are all written communications; administrative or ministerial interactions; purely informational exchanges; interactions regarding legislation or the budget; and meetings that are open to the public. NYSERDA "covered individuals" are those individuals designated as "policy-makers," which includes Board Members. "Covered individuals" outside NYSERDA include internal and external representatives of outside entities, individuals representing themselves, and representatives of advocacy groups. Not included are employees of other state agencies and of other governments; state elected officials, executive and legislative employees, judges, and employees of the judiciary; representatives of the media; and persons under the age of 18. An "appearance" between "covered individuals" must be reported if it concerns one of five designated subject areas: procurement (outside of the restricted period defined by the Procurement Lobbying Law), regulatory matters, rulemaking, judicial or quasi-judicial proceedings, and rate making.

Reportable appearances must be timely recorded in the database, within five business days after they occur. NYSERDA covered individuals complete the Project Sunlight reporting form available on NYSERDA's intranet and emails it to the dedicated email inbox: projectsunlight@nyserda.ny.gov. NYSERDA's Project Sunlight Liaison, designated by the General Counsel, coordinates and oversees NYSERDA's reporting efforts. Board Members should contact the Project Sunlight Liaison or General Counsel if they have any questions concerning these requirements.

Regulatory Lobbying: Public Authorities Law §2987 requires every Member, Officer, or employee to record all contacts, whether oral or written, that are an attempt to influence the adoption or rejection of any rule or regulation having the force and effect of law that is issued by NYSERDA. The record must include the day and time of the contact, the identity of the lobbyist, and a general summary of the substance of the contact. NYSERDA shall maintain these records for not less than seven years.

INTERNAL CONTROL POLICY

It is the responsibility of every employee to abide by the requirements of the internal controls system. All employees are expected to be aware of NYSERDA's internal controls system and regularly consider the system in performing their tasks. NYSERDA has prepared a Code of Conduct, attached hereto as Appendix B, summarizing a number of basic standards and State and Federal laws which NYSERDA employees are required to follow. The Code of Conduct sets forth NYSERDA's expectations that its employees conduct themselves in an honest and ethical manner and is provided to all employees.

If an employee identifies a potential weakness in, or deviation from, NYSERDA's internal control systems or generally accepted systems of internal controls, he or she shall report such potential weakness or deviation immediately in accordance with NYSERDA's Whistleblower Policy, attached hereto as Appendix C.

INTERNAL CONTROL SYSTEM

The procedures herein establish checks and balances over NYSERDA's administration and operations practices, financial and accounting practices and personnel practices, regularly reviewing the adequacy of the controls, especially in areas of highest vulnerability, revising those controls as necessary to reflect organizational changes, new program mandates or staffing adjustments, and taking corrective action when internal control weaknesses are identified. NYSERDA stresses to its Directors and they to their staffs the importance of communicating and adhering to the policies and procedures in the Internal Control System.

The Internal Control Officer is responsible for assisting with the implementation and review of the internal control system and for implementing education and training of staff.

All employees and officers have access to all the manuals that comprise the internal control system which are:

- Internal Control Manual – the compilation of the accounting, operating and administrative controls of NYSERDA as described more fully in the following manuals:
- Operations and Procedures Manual – details the policies and procedures followed in planning and implementing NYSERDA's programs and administration, including its contracting process to ensure compliance with State statutes, regulatory requirements and Executive Orders;
- Accounting Policies and Procedures Manual – details the financing and accounting practices; and
- Personnel Handbook – details NYSERDA's personnel practices and policies which apply to all employees.

This manual also summarizes the primary functions and control objectives of each of NYSERDA's assessable units. Assessable units are defined in the Comptroller's Internal Control Standards, as units which perform a distinct function or service and/or that fulfill a law, regulation or mandate. NYSERDA's assessable units include:

- Energy Programs (Market Development, Innovation and Research, and other energy program activities)

- NY Green Bank
- Policy & Regulatory Affairs
- Radioactive Waste Management
- Bond Financing
- Contracts Management
- Accounting
- Human Resources
- Computer Systems
- Counsel's Office
- Governmental Affairs
- Communications
- Corporate Marketing
- Consumer Services and Events Management
- Internal Audit

All staff shall maintain NYSERDA records in accordance with the General Retention and Disposition Schedule for New York State Government Records.

INTERNAL CONTROL TRAINING AND AWARENESS

The Internal Control Officer shall coordinate training and awareness activities to ensure that all NYSERDA employees have an understanding of internal control principles and how they relate to the performance of their work assignments.

In addition, the Internal Control Officer and executive management shall periodically communicate to NYSERDA staff regarding internal control principles and responsibilities, not less frequently than once each year.

INTERNAL CONTROL REVIEW PROCESS

The Internal Control Officer shall coordinate a process of organization-wide risk assessment not less frequently than once every three years. The risk assessment shall identify significant risks which threaten the achievement of unit/organizational objectives, the controls in place to eliminate or mitigate these risks, and an assessment of the relative likelihood of occurrence and the impact of such risks (using a rating system to be established by executive management). Each risk assessment shall be reviewed and approved by the manager's supervisory personnel through executive management, and shall also be provided to the Director of Internal Audit for review and comment. The results of the organization wide risk assessment shall be communicated to the Audit and Finance Committee for review and comment.

In addition, the Internal Control Officer shall convene a multi-disciplinary internal control working group not less frequently than once a year to review NYSERDA's internal control policies and procedures, organizational structure and inventory of functions, and to consider and recommend changes to improve internal controls.

The Internal Control Officer shall be responsible for monitoring the implementation of corrective actions which result from internal control reviews, internal control testing, internal audit reports, or reports issued by external auditors related to internal control matters. The Internal Control Officer shall provide a report to the President and CEO not less frequently than annually summarizing the status of all such corrective actions.

INTERNAL CONTROL TESTING

To supplement the ongoing evaluation of the adequacy of NYSERDA's internal controls, NYSERDA shall conduct periodic compliance testing, at least annually, to determine the extent to which staff follow prescribed policies and procedures.

ANNUAL REPORTING

NYSERDA prepares the annual report required by Section 2800 of the Public Authorities Law and submits it to the Board Members for review and approval. The report is certified in writing by the President and CEO and the Treasurer that based on his or her knowledge the information provided therein is accurate, correct and does not contain any untrue statement of material fact, does not omit any material fact which, if omitted, would cause the financial statements to be misleading in light of the circumstances under which such statement are made and fairly presents in all material respects the financial condition and results of operations of NYSERDA as of and for the periods presented in the report.

Attached as part of the annual report is a copy of the annual independent audit report, performed by a certified public accounting firm in accordance with generally accepted government auditing standards, and management letter with any other external examination of the books and accounts (other than reports of any examinations made by the State Comptroller).

This annual report is submitted to the persons designated by Sections 2800 and 2802 of the Public Authorities Law.

NYSERDA also submits the annual internal control certification and report in accordance with requirements established by the Authorities Budget Office.

SECTION 2: ENERGY PROGRAMS

(MARKET DEVELOPMENT, INNOVATION AND RESEARCH, AND OTHER ENERGY PROGRAM ACTIVITIES)

Primary Functions

- Program Planning Program Development
- Project Development
- Project Management Metrics Reporting

Controls

Program Planning

NYSERDA's multi-year strategic plan (Plan) includes goals, objectives, and funding for each program. Staff presents the Plan to NYSERDA's Program Planning Committee annually for review and approval. The Program Planning Committee is composed of NYSERDA Board members and is charged with reviewing, amending, and recommending approval of the Plan to the members of the Board. NYSERDA's Board must approve the Plan before it can be implemented by NYSERDA.

Program Development

Programs must operate in manner that is consistent with the Plan as approved by NYSERDA's Board. Programs must operate in a manner that is also consistent with any approved operating plan, funding agreement, Public Service Commission Order, law or regulation related to the program funding source. The Team Lead of each program is primarily responsible for development and implementation of their program area, for consistency with the Board-approved Plan, and for ensuring the collection and tracking of all required information and metrics needed for compliance filings according to the Public Authorities Law and other statutory and administrative requirements, in consultation with oversight provided by the Officer or Business Unit Lead (an employee that reports to the President with oversight of a Program or administrative area that has one or more Team Leads reporting to them) responsible for such Team.

Project Development

NYSERDA uses its best efforts to use competitive methods for selecting contractors, pursuant to Article III: Requirements regarding selection of contractors of NYSERDA's Contracting Guidelines, as adopted by the Board. In addition, projects selected for funding must be consistent with the goals and objectives of the Plan. Solicitations are developed by a Project Manager working in conjunction with a multi-disciplinary team (Team) comprised of: the Team Lead, an assigned attorney from Counsel's Office, and an assigned contract administrator from the Contracts Management department. Once approved by the Team, the request is approved by the Business Unit Lead¹. Solicitation results are reviewed by a Scoring Committee based upon the evaluation criteria set forth in the Solicitation document. The results of the Scoring

¹ Business Unit Leads are defined as any employee that reports to the President with oversight of a Program or administrative area that has one or more Team Leads reporting to them. In cases where Team Leads report to the President, the President may serve as Business Unit Lead or designate the authority to another Business Unit Lead.

Committee are summarized by the Project Manager, reviewed by the Team and approved by the Business Unit Lead.

Project Management

The Project Manager is responsible for developing, in conjunction with the contractor, a clear and defined project statement of work (SOW), budget, and implementation schedule. The Project Manager is responsible for monitoring and oversight of the contractor's performance to ensure that it adheres to the work required under the contract while anticipating and resolving technical and administrative problems arising during the project. Project Managers communicate with contractors, review progress reports, conduct site visits, review and approve contractor invoices, review and approve technical reports, and approve final project reports.

Metrics reporting

Programs shall be responsible for collecting all relevant data to measure program progress according to predetermined metrics, such as data that can be used to address the anticipated energy, environmental and economic benefits that are realized by projects, and as required by each operating plan or reporting requirement. All estimates shall reference credible sources and estimating procedures, and all assumptions shall be documented. This data will also be used to evaluate program impacts and progress towards goals.

SECTION 3: NY GREEN BANK

Primary Functions

- Business Planning
- Business Operation
- Procurement Activities
- Financial Investments
- Portfolio Management
- Metrics Reporting

Controls

Business Planning

In addition to participating in NYSERDA's Multi-Year Strategic Program Plan, as described in Section 2, Program Planning, above, NY Green Bank develops an annual ~~Strategic Review~~ and Business Plan (Business Plan). NY Green Bank staff presents the Business Plan to NY Green Bank's Investment and Risk Committee (IRC) annually for review and approval. The IRC is composed of the President and Chief Executive Officer of NYSERDA, Treasurer of NYSERDA, President of NY Green Bank, and one or more NY Green Bank Managing Directors. The IRC is charged with reviewing and approving the Business Plan. The IRC must approve the Business Plan before it can be implemented by NY Green Bank.

Business Operation

NY Green Bank must operate in a manner that is consistent with the Business Plan, as approved by the IRC. In addition, NY Green Bank must operate in a manner that is consistent with any approved operating plan, funding agreement, Public Service Commission Order, law or regulation related to its funding source(s).

NY Green Bank's President reports to the President and Chief Executive Officer of NYSERDA, and Managing Directors report to the President of NY Green Bank. In its operations, NY Green Bank follows the NY Green Bank Operations and Procedures Manual, which is incorporated by reference into NYSERDA's Operations and Procedures Manual, forms part of NYSERDA's system of internal controls, and is designed to supplement existing NYSERDA controls.

The President of NY Green Bank is primarily responsible for oversight of the operations of NY Green Bank in a manner that is consistent with the Business Plan and the NY Green Bank Operations and Procedures Manual, and for ensuring the collection and tracking of all required information and metrics needed for compliance filings according to the Public Authorities Law and other statutory and administrative requirements.

Procurement Activities

When NY Green Bank procures goods and services, it does so subject to NYSERDA's Contracting Guidelines, as adopted by the Board, and the procedures summarized in Section 2, Project Management, above.

Financial Investments

Potential financial investments that are considered for funding by NY Green Bank must meet the requirements of its investment process, including minimum investment criteria prescribed by the Public Service Commission (the “PSC”) and specific evaluation criteria. All such criteria, along with NY Green Bank’s investment process, are consistent with NY Green Bank’s goals and objectives, and are set out in various PSC Order and public filing made by NY Green Bank. NY Green Bank’s origination of clients, counterparties, collaborators, and potential transactions results from interactions with market participants who submit proposals that either: (i) respond to a NY Green Bank- specific solicitation and/or other publication of NY Green Bank’s investment criteria (a Competitive Opportunity) or (ii) identify a NY Green Bank role consistent with its mandate, but which does not strictly fall within the definition of “Competitive Opportunity” (Strategic Opportunity).

While open and public competitive processes are favored in the origination of NY Green Bank, clients, counterparties, collaborators and transactions, it is nevertheless recognized that there may be circumstances in which the strategic mission of NY Green Bank is best served by undertaking one or more Strategic Opportunities. Strategic selection methods may be utilized if it is determined by NY Green Bank management, with approval from the IRC, that the opportunity: (i) is presented by a private sector party with exceptional, relevant experience and expertise; (ii) is one-of-a-kind by virtue of location, high visibility, probability of a successful closing or leverage with other already committed private or public funding or possesses other unique attributes; (iii) has exceptionally strong compatibility with the strategic objectives and mandate of NY Green Bank; (iv) represents an urgent need as a result of public exigency or emergency, or would become unavailable as a result of delay, or would take an unacceptable length of time for a similar opportunity to reach the same level of readiness; and/or (v) relates to the next phase of a multiphase proposal or the expenditure is necessary to support or protect an existing NY Green Bank investment or initiative.

Competitive Opportunities are designed to comply with the definition of a “competitive procurement” set forth in the Office of the State Comptroller Rules, Part 206 to NYCRR Title 2 (Comptroller’s Regulations). For any proposed Strategic Opportunity involving NY Green Bank funding that will exceed \$1 million, NY Green Bank staff consults with NY Green Bank’s internal counsel regarding the application of the Comptroller’s Regulations.

Prior to issuing a solicitation for a Competitive Opportunity, or to undertake a Strategic Opportunity, NY Green Bank staff develops a summary thereof (Opportunity Summary) for review and approval by the IRC. Once an Opportunity Summary for a Competitive Opportunity is approved by the IRC, NY Green Bank personnel prepares that solicitation in collaboration with NYSERDA’s Contract Administrator and Counsel’s Office. The solicitation takes into account any comments or qualifications made by the IRC in conjunction with its approval. In the case of an Opportunity Summary for a Strategic Opportunity, once approved by the IRC, NY Green Bank initiates due diligence.

For Competitive Opportunities, a proposal evaluation and scoring committee, consisting of at least three (3) internal members who are designated by the President of NY Green Bank, evaluates proposals for transactions arising from NY Green Bank solicitations and recommends those opportunities that best meet NY Green Bank’s published investment criteria. Opportunities recommended by the committee will be subject to more detailed exploration and analysis.

For proposals selected for further exploration, whether as the result of a Competitive or Strategic Opportunity, NY Green Bank staff further evaluates and negotiates the proposed transaction and will prepare a Greenlight Memorandum (except in extraordinary circumstances that may permit a proposal to be immediately submitted to the IRC), which provides an analysis of the transaction. A Greenlight Committee, composed of at least three members of the IRC, reviews those transactions selected by staff for advancement, and may make general recommendations, or recommend required contingencies or conditions with regard to a proposed transaction, may recommend additional due diligence, or may recommend rejection of a proposed transaction. If the Greenlight Committee recommends rejection of a transaction, the recommendation shall be brought to the President and Chief Executive Officer of NYSERDA, who shall decide whether to accept the recommendation, or who may decide to require conditions or contingencies that have to be met in order for the transaction to proceed. When transactions are being considered, members of the Greenlight Committee and IRC will recuse themselves where there are any conflicts of interest.

For transactions receiving a recommendation to proceed in accordance with the above, NY Green Bank staff continues to evaluate and negotiate the proposed transaction. A Transaction Approval Memorandum, which provides a comprehensive analysis of a transaction, is then presented to the IRC for review and approval. Each IRC member is given the opportunity to submit comments, make recommendations, or suggest contingencies with regard to a proposed transaction, or may recommend additional due diligence. Once each IRC member is given the opportunity to comment and provide recommendations, the President and Chief Executive Officer of NYSERDA may approve or reject the transaction, either of which may require conditions and contingencies.

For approved transactions, assigned staff, along with any retained consultants, will then proceed to finalize any remaining diligence and all transaction documentation, taking in to account any recommendations and contingencies expressed by the IRC. Only after transaction approval and only if the agreements are according to all material aspects of the transaction approval may a binding commitment or documentation be executed.

Any proposed post-closing modification to the terms and conditions of a transaction that may cause a material change in the investment outcome will be reviewed by the IRC, in accordance with the procedures set forth above for an original approval.

Portfolio Management

NY Green Bank monitors all of its investments (irrespective of whether funded or unfunded commitments are involved) pursuant to monthly, quarterly and annual transaction reviews to assess performance; quarterly reviews that compare operating and financial results and investment value with expectations; and quarterly portfolio and pipeline reviews with the IRC. NY Green Bank assesses and rates the risk associated with each transaction individually and monitors these risks on an individual and portfolio basis, maintaining overall risk of loss within defined limits.

NY Green Bank also regularly reviews information received in connection with metrics on its investments (both internal and those for disclosure through required periodic public reporting).

The IRC reviews portfolio reports, and will make portfolio-related recommendations, as well as recommendations on the disposition of transaction waivers, amendments, and restructurings as may be required or presented for approval.

For each NY Green Bank transaction disbursement, a checklist is completed to evidence that each condition precedent set forth in the transaction documents has been satisfied or waived (after appropriate discussion), together with any internal processes or checks devised to monitor and protect NY Green Bank's investment. For each transaction disbursement, this checklist is executed by members of both the Investment & Portfolio Management team (including the sponsoring Managing Director) and Investment Administration and Portfolio Support team. Following checklist execution and using role-based security that properly segregates user access, NY Green Bank initiates and approves funding disbursements, which are released by the Department of Taxation and Finance.

Appropriate financial management and planning processes and procedures for the operation and oversight of capital deployed by NY Green Bank have been developed to support management of NY Green Bank and reporting requirements to the PSC. Accordingly, transactions are monitored using funds disbursed, principal payments, interest payments, relevant fees and any losses and recoveries for all existing assets of NY Green Bank. NY Green Bank utilizes a third-party administrator to assist in the processing and monitoring of all NY Green Bank transactions.

Metrics Reporting

NY Green Bank shall be responsible for collecting certain data to support the calculation and reporting of agreed operational, risk management and financial metrics. In addition, NY Green Bank, in collaboration with other Authority staff, shall collect and process certain data required to assess the anticipated energy, environmental and economic benefits, as well as financial market impacts, that are realized by NY Green Bank's investments in clean energy projects, and as required by any applicable PSC Order or reporting requirement. All estimates shall reference credible sources and estimating procedures, and all key assumptions shall be documented. This data will be used to evaluate impacts and progress towards goals.

SECTION 4: ENERGY AND ENVIRONMENTAL ANALYSIS AND PROGRAM EVALUATION

Primary Functions

- Modeling and Analytics
- Data and Markets
- Policy Development
- Environmental Research
- Program Evaluation

Control Objectives

Modeling and Analytics

Statewide Energy Planning

Energy and Environmental Analysis provides a coordinating and leadership role on behalf of NYSERDA in the development and preparation of the statutorily mandated State Energy Plan. Energy and Environmental Analysis oversees the overall State Energy Plan process, including scope development, coordination of participating agencies and authorities, stakeholder outreach, scheduling, deliverables from other agencies, writing, editing, and document and website management.

The President and CEO of NYSERDA serves as the Chair of the Energy Planning Board, which consists of the chief executives from the 15 designated agencies and authorities who have responsibilities that affect or are affected by energy policy. The Director of Energy and Environmental Analysis serves as the Director of the Energy Coordinating Working Group, which functions as the staff arm of the Energy Planning Board. Analyses, documents and all costs associated with the coordination, development and production by Energy Analysis staff to support the State Energy Plan process are reviewed by the Energy Analysis Director and ultimately by the Chair of the Energy Planning Board.

Modeling and Forecasting

Energy and Environmental Analysis performs quantitative analyses using a wide range of analytical tools to provide the underpinnings for State policy and program development, regulatory initiatives, and energy decision-making. Responsibility for review, accuracy, and relevance of the various analyses and discussion papers developed is generally held by the Team Lead depending on the nature and sensitivity of the assignment.

Data and Markets

Energy Data Clearinghouse

Energy and Environmental Analysis serves as a source for NY State energy-related data and information. This program collects, compiles, maintains, and publishes a wide range of energy data, making extensive use of NYSERDA's web site to reach stakeholders. Information is reviewed by the responsible Team Lead prior to release.

Energy Markets Monitoring & Intelligence

Energy and Environmental Analysis monitors New York's major energy supply industries, including petroleum (liquid fuels), natural gas, coal, and electricity. Responsibility for review, accuracy, and relevance of the various analyses and discussion papers developed is generally held by the Team Lead depending on the nature and sensitivity of the assignment.

State Energy Emergency Planning and Response

Under Section 5-117 of the Energy Law, NYSERDA is responsible for developing and maintaining the New York State Energy Emergency Plan. Energy and Environmental Analysis maintains a process for annual review and update of the Energy Emergency Plan to assure the Plan is accurate, timely, and can be readily implemented as needed. In addition to Energy and Environmental Analysis, numerous State agencies including the Department of Public Service, Office of Emergency Management, and Office of Homeland Security contribute to the annual review.

Radioactive Waste Policy and Nuclear Coordination.

As required by Section 1854-d(1) of Public Authorities Law and Part 502 of Chapter XI of Title 21 NYCRR, Energy and Environmental Analysis collects and maintains data on the generation of low-level radioactive waste by facilities in the State and the subsequent storage, treatment, and disposal of that waste. After review by NYSERDA executive management, an annual final report is provided to the Governor and Legislature. NYSERDA is the State's lead agency for addressing radioactive waste policy issues. NYSERDA is the State's lead agency for addressing radioactive waste policy issues. Pursuant to NYSERDA's mandate under Section 7-101 of the Energy Law, Energy and Environmental Analysis coordinates the State's radioactive materials regulatory programs, and the State's oversight of nuclear power plant activities. Staff also provides technical nuclear engineering support to the New York State Department of Health as part of the State's nuclear power plant emergency preparedness and response program. Significant issues, communications and reports are reviewed and approved by senior management as appropriate.

Policy Development

State Energy Policy Development

Energy and Environmental Analysis supports, coordinates or leads in the development of specific energy policies, and provides both quantitative and qualitative analysis of policy development and program implementation support. Areas of policy development support work include environmental, fuel and electricity financial and trading markets. Energy and Environmental Analysis provides draft policy initiative documents to Senior Management for approval prior to being distributed outside of NYSERDA.

NYSERDA Program Development

Program offerings within NYSERDA are planned and designed in a cooperative manner. Energy and Environmental Analysis participates in this process to help ensure that the programs as designed and delivered are likely to achieve or exceed their stated goals and can be properly evaluated. In addition, as evaluation findings and conclusions are completed on specific programs, Energy and Environmental Analysis provides a formal feedback loop to the program implementation teams for improved program design and delivery, as warranted.

NYSERDA Strategic Planning

Annually, the Authority develops a Strategic Plan, which describes how the Authority will pursue its mission, goals, and objectives over the ensuing three years. Energy and Environmental Analysis meets with senior management and program staff to discuss and evaluate goals and strategy options, and reviews and researches program planning documents. Energy and Environmental Analysis prepares a draft and a final version of the Plan, which is reviewed by senior management before sending to the Program Planning Committee and the Board for approval.

Regulatory Affairs and Administrative Proceedings

Energy and Environmental Analysis actively monitors NYSERDA's interests in regulatory and administrative proceedings related to the State's energy and environmental policy goals, including those of the New York State Public Service Commission and Department of Environmental Conservation rulemakings. Energy and Environmental Analysis staff participates on internal teams with Counsel and other program staff to address particular issues or proceedings, helping to compile and analyze data, and prepare formal submissions, which are approved by senior management prior to submission.

Federal Energy Policy and Planning

Energy and Environmental Analysis maintains relationships with national organizations and stakeholders in the energy arena in order to influence policy and program agendas, to track emerging policy trends and to coordinate NYSERDA responses based on the possible impact on existing or future programs, with senior management approval. In addition, Energy and Environmental Analysis identifies and works with other staff to pursue high value opportunities for collaboration with other state agencies, regional organizations, and neighboring states, with the goal of leveraging our resources and creating a larger impact. Energy and Environmental Analysis in cooperation with other staff also tracks federal solicitations to develop partnerships and high quality responses in areas consistent with NYSERDA's program and policy objectives.

Environmental Research

Energy and Environmental Analysis supports environmental monitoring and associated research and analysis that are critical for assessing and quantifying the environmental soundness and effectiveness of energy programs, and for providing the foundation for researchers and policymakers to design and implement the most effective policies and programs. Energy and Environmental Analysis relies upon a network of professional contacts and working groups of science and policy experts to identify critical gaps and research needs in New York State. Multiple groups, including both the established Program Advisory Group and Science Advisory Committee, provide guidance on the areas representing the major issues and cutting-edge scientific understanding related to energy-related environmental impacts. The results of this input are compiled into a comprehensive Research Plan designed to guide energy-related environmental research in New York State. The network of professional contacts also assists in measuring progress of environmental research activities.

Program Evaluation

Performance and Market Standards is responsible for evaluating NYSERDA's market development, innovation and research, and other energy program activities. Performance and Market Standards is structured to assess the effectiveness of programs toward achieving the State's public policy goals. Performance and Market Standards conducts evaluation using competitively selected, expert evaluation contractors who measure and verify impacts attributable to NYSERDA's program activities and examine program efficiency and effectiveness.

NYSERDA reports monthly, quarterly, and annually on the performance of various programs to the Governor, the New York State Legislature, the Public Service Commission, other program sponsors, advisory groups and stakeholders based upon reporting requirements established by the program sponsor. NYSERDA program staff and management are integral to the evaluation process, providing both data inputs and acting on recommendations. Evaluation and status reports are reviewed by NYSERDA's Senior Management prior to being finalized.

SECTION 5: RADIOACTIVE WASTE MANAGEMENT

Primary Functions

- Management of NYSERDA's activities in the West Valley Demonstration Project (WVDP)
- Management of the State Licensed Disposal Area and Retained Premises of the Western New York Nuclear Service Center (WNYNSC)

Controls

The West Valley Demonstration Project Act - The WVDP Act directs the U.S. Department of Energy (DOE) to carry out a demonstration project on high-level radioactive waste solidification and decommissioning at the WNYNSC. The WVDP Act directs DOE and NYSERDA to enter into a Cooperative Agreement to carry out the WVDP. The WVDP Act also stipulates that the federal government will pay 90 percent of the WVDP costs and New York State will pay 10 percent.

Cooperative Agreement Between United States Department of Energy and New York State Energy Research and Development Authority on the Western New York Nuclear Service Center at West Valley, New York - The Cooperative Agreement lays out a framework between DOE and NYSERDA on the implementation of the WVDP. The Agreement stipulates that DOE has the sole responsibility for carrying out the Project, but also provides for continued consultation and coordination between DOE and NYSERDA during the conduct of the WVDP. The Cooperative Agreement also provides for NYSERDA's participation in DOE's procurement process for selecting the management and operations contractor for the WVDP. NYSERDA provides DOE with input on WVDP activities, progress, plans, funding, issues and concerns, and participates in WVDP meetings with the public, regulators, technical consultants and experts and other stakeholders.

Consent Decree - The Consent Decree, filed with and approved by the U.S. District Court, resolves the majority of claims brought in a lawsuit filed by NYSERDA and New York State against DOE and the federal government regarding cost allocation for cleanup at the WNYNSC. In addition to the 90/10 cost split identified in the WVDP Act and the Cooperative Agreement for WVDP facilities, the Consent Decree identifies a specific cost split between NYSERDA and DOE for all remaining facilities and contamination at the WNYNSC. The Consent Decree is implemented in accordance with a Consultation Agreement prepared by DOE and NYSERDA.

Waste and Facilities Management Committee - The West Valley Site Management Program reports to NYSERDA's Board through its Waste and Facilities Management Committee. The Waste and Facilities Management Committee is provided with routine updates on WVSMP activities, accomplishments, issues, and other noteworthy items. The Committee provides guidance to the West Valley Site Management Program in regard to West Valley activities for the WVDP and the State License Disposal Area (SDA). The Chair of the Committee reports on the West Valley program to the full Board.

Regulatory Requirements – Work performed at the SDA is subject to numerous regulatory requirements and mechanisms, including a Radioactive Materials License issued by the NYS Department of Health, a Radiation Control Permit and a State Pollutant Discharge Elimination System permit issued by the New York State Department of Environmental Conservation, and a Consent Order issued by the NYS Department of Environmental Conservation and the U.S. Environmental Protection Agency. NYSERDA must also comply with all other applicable State and federal regulations, including regulations for

hazardous waste generation, management, and disposal; worker industrial safety; wetland protection; and environmental review.

Written Plans and Procedures – Written plans and procedures provide the mechanism for implementing the regulatory requirements identified above and for implementing additional best management practices. Plans and procedures are prepared by technical staff or contractors, and are reviewed and approved by the SDA Program Manager before they are incorporated into the program for implementation. Radiation Safety and Health and Safety plans and procedures are also reviewed and approved by the Team Lead and Radiation Safety Committee or Safety Committee before they are incorporated into the program for implementation.

Radiation Safety Committee – The WVSMP Radiation Safety Committee oversees the WVSMP’s Radiation Protection Program, ensuring that all individuals who work with, or in the vicinity of radioactive materials at the SDA have sufficient training and experience to perform their duties safely and in accordance with applicable NYS Department of Health regulations and the Radioactive Materials License. The Radiation Safety Committee also ensures that all uses of radioactive materials at the SDA is conducted in a safe manner and in accordance with applicable regulations.

Safety Committee – The West Valley Site Management Program Safety Committee oversees the WVSMP Health and Safety Program to establish policies, administrative controls and procedures to protect workers at the SDA and other NYSEERDA-controlled areas of the WNYNSC in accordance with applicable Occupational Safety and Health Administration and NYS Department of Labor regulations. The Safety Committee also provides guidance to the Safety and Health Supervisor on the implementation of the Safety and Health Program.

Project Initiation Request Committee – The Project Initiation Request Committee reviews all potential contract actions at an early stage to provide initial WVSMP management review and input on all activities requiring NYSEERDA contract actions, in accordance with NYSEERDA Contracting Guidelines requirements. The Committee evaluates and provides input on the purpose and need for the activity, the contracting approach, funding considerations, resource needs and availability, and staff involvement.

SECTION 6: BOND FINANCING

Primary Functions

- Issue tax-exempt bonds for utilities and other qualifying entities to finance eligible facilities
- Administer utility bonds previously issued

Controls

Issue tax-exempt bonds for qualified entities to finance eligible facilities

Proposed financings are reviewed for eligibility by both NYSERDA staff and independent bond counsel.

An intent to issue new tax-exempt bonds may initially be evidenced by the approval of an inducement resolution or declaration of intent by the Audit and Finance Committee of NYSERDA's Board. The purpose of the inducement resolution or declaration of intent is to preserve, under the Federal Internal Revenue Code, the eligibility of the costs incurred from the date the action is taken to the date of the future financing for tax-exempt status.

New financings and refunding's also require the approval of an implementing resolution adopted by NYSERDA's Board.

In addition to NYSERDA Approval:

- The State Comptroller must approve bonds issued through a private negotiation sale, instead of public bid. As Chair of the State Securities Coordinating Committee, the Comptroller also oversees scheduling of major State and public authority financings.
- The Commissioner of the Department of Taxation and Finance approves certain arrangements of a bond sale, such as procedures for the security, collection, and investment of bond proceeds.
- The Public Authorities Control Board (PACB) reviews and approves the adequacy of the financial security of the bond issue.
- The Governor approves the minutes of NYSERDA's Board meetings. The Internal Revenue Code also requires the Governor's approval for new bond financings that qualify as private activity bonds.

Administer bonds previously issued

The Finance Department prepares billings for annual administrative fees as summarized in the bond documents.

SECTION 7: CONTRACTS MANAGEMENT

Primary Functions

- Manage procurement and contracting process
- Contract management and administration

Controls

Manage procurement and contracting process

The Director of Contract Management approves all procurements and contracts and ensures that they are consistent with NYSERDA's Contracting Guidelines and applicable Executive Orders and other requirements.

The Director of Contract Management reports to the Board on NYSERDA's compliance with the Contracting Guidelines as specified in those guidelines.

Duties are segregated between procurement, contract negotiation, and contract execution.

NYSERDA maintains standard contract terms and conditions. Significant exceptions to terms and conditions are identified for contract execution.

Contract Management staff provide training to staff on procurement and contracting policies and procedures to ensure compliance.

Each solicitation issued by the Authority shall designate the person(s) who may be contacted by offerers related to procurement pursuant to Section 139-j of the State Finance Law. Generally, any communication from an outside party which could reasonably be considered an attempt to influence the procurement may only be made to the designated person(s) in the solicitation.

Contract management and administration

The Contracts Management unit maintains central files including solicitations and contractual agreements.

The Contract Management unit is responsible for verifying compliance with contractual obligations, particularly provision for insurance and recoupment.

SECTION 8: ACCOUNTING

Primary Functions

- Preparation and approval of annual Budget and Financial Plan
- Maintenance of accounting records and systems and preparation of financial statements
- Cash and investments management
- Revenue processing
- Payment processing
- Payroll Processing
- Fixed assets

Controls

Preparation and approval of annual Budget and Financial Plan

A proposed Budget and Financial Plan are initially prepared by Authority staff in accordance with generally accepted accounting principles on a modified accrual basis. Included are a corresponding proposed Budget and Financial Plan prepared on a cash basis, based on reasonable assumptions and methods of estimation. They are presented in a manner consistent with the Authority's programs and functions and include detailed estimates of revenues and expenditures for each program or function.

The proposed Budget and proposed Financial Plan are made available for public inspection, through posting on NYSERDA's website, no less than 60 days before the start of the fiscal year and at least 30 days before approval by the Board Members.

NYSERDA's proposed Budget and proposed Financial Plan are accompanied by:

- a description of the budget process, including the dates of key Budget decisions;
- a description of the principal Budget assumptions, including sources of revenues, staffing and future collective bargaining costs, and programmatic goals;
- a self-assessment of budgetary risks;
- a revised forecast of the current year's budget;
- a reconciliation that identifies changes in estimates from the projections in the previously approved budget and financial plan;
- a statement of the last completed fiscal year's actual financial performance in categories consistent with the proposed budget or financial plan
- a projection of the number of full-time and full-time equivalents employees, including sources of funding, and functional classifications;
- a statement of each revenue-enhancement and cost-reduction initiative that represents a component of any gap-closing program and the annual impact on revenues, expenses and staffing;
- a statement of the source and amount of any material non-recurring resource that is planned for use in any given fiscal year;
- a statement of any transactions that shift material resources from one year to another and the amount of any reserves;
- a statement of borrowed debt projected to be outstanding at the end of the fiscal year covered by the proposed Budget or proposed Financial Plan, the planned use or purpose of debt issuances,

scheduled debt service payments for both issued and proposed debt, the principal amount of proposed debt and assumed interest rate(s), debt service for each issuance as a percentage of total pledged revenues listed by type or category of pledge revenues, cumulative debt service as a percentage of available revenues, and the amount of debt that can be issued until legal limits are met;

- a statement of the annual projected capital cost broken down by category and sources of funding, and for each capital project, estimates of the annual commitment, total project cost, expected date of completion and the annual cost for operating and maintaining those capital projects or capital categories that, when placed into service, are expected to have a material impact on the operating budget; and
- a certification by the President and CEO that, to the best of his or her knowledge and belief after reasonable inquiry, the proposed Budget and proposed Financial Plan are based on reasonable assumptions and methods of estimation.

As part of the annual budget process, NYSERDA staff prepare working papers that detail the assumptions and methods of estimation used in preparing the proposed Budget and proposed Financial Plan.

The proposed Budget and Financial Plan are then submitted to NYSERDA's Board Members for approval in accordance with Section 2801 of the Public Authorities Law. After approval, the approved Budget and Financial Plan are submitted to the persons designated in such Section 2801 to receive such Budget and Financial Plan. This includes submitting copies of the approved Budget and Financial Plan to the State Comptroller within 7 days of approval by the Board Members, subject to approval by the Governor pursuant to Section 1854 of the Public Authorities Law. The approved Budget and Financial Plan are also made available for public inspection, through posting on NYSERDA's website, not less than 7 days before the start of the fiscal year.

Thereafter, the Treasurer provides quarterly updates to the Board Members on the status of actual revenues and expenses compared to the Budget targets. The Treasurer also provides the Board Members with a written mid-year report to explain and quantify material variances that are due to timing or have a budgetary impact, and provide an assessment of the impact. The report includes the status of capital projects, including but not limited to commitments, expenditures and completions, and an explanation of material cost overruns and delays. Subsequent changes to the Budget and the Financial Plan are made, as required, subject to approval by the Board Members.

Through posting on NYSERDA's website, not less than 90 days after the close of each fiscal year, the Treasurer publicly posts actual versus estimated Budget results as reported in NYSERDA's audited financial statements. The Treasurer also notifies the Board Members and the State Comptroller, in writing, at any point during the fiscal year when he or she learns of any adverse development that would materially affect the Budget or Financial Plan.

Maintenance of accounting records and systems and preparation of financial statements

As required by statute, NYSERDA's annual financial statements, which are prepared in accordance with generally accepted accounting principles and accounting standards promulgated by the Governmental Accounting Standards Board, are audited by independent auditors selected by the Audit and Finance Committee and the Board. In addition, the Treasurer provides quarterly financial statements to the Board, including a comparison of actual results against budgeted amounts. Expenditure statements are also provided quarterly to Program Directors, Program Managers and department heads.

Accounting, through a third-party service provider, prepares, reviews and/or signs tax reporting forms (eg., payroll/employment taxes, informational reporting of exemptions, taxable fringe benefits and other payments) required by Federal, State and local regulations.

NYSERDA ensures compliance with Federal, State, and Local tax reporting obligations of NYSERDA. In addition, NYSERDA solicits a tax compliance review from an independent accounting firm as deemed necessary, but not less than once every three years, to review NYSERDA's compliance with applicable tax regulations.

Cash and investments management

The Commissioner of Taxation and Finance serves as fiscal agent to NYSERDA pursuant to statute. There are no funds under NYSERDA's direct control. The fiscal agent, at the direction of NYSERDA, actually purchases, sells, and retains custody, where appropriate, of NYSERDA investments.

NYSERDA is subject to the provisions of Public Authorities Law Section 2925, the Office of the State Comptroller's "Investment Guidelines for Public Authorities," the provisions of NYSERDA's enabling legislation concerning NYSERDA investments, and NYSERDA's own "Investment Guidelines, Operative Policy and Instructions." At least annually, the Audit and Finance Committee of NYSERDA's Board reviews and evaluates NYSERDA's investment program results and approves any revisions to the Guidelines.

Duties are segregated between receipt and custody, depositing, recording, and reconciling cash and checks received.

The purchase and sale of investments is authorized by the Treasurer (or in his/her absence, the Controller and Assistant Treasurer, or any NYSERDA Officer), according to policy guidelines. Duties are segregated between authorization and recording of investments.

Receipts are deposited promptly, generally weekly.

The fiscal agent reconciles cash and investment accounts monthly. NYSERDA staff independently reconcile this data with the accounting records.

Revenue processing

Proper segregation of duties exists in the initiation, recording, and reconciliation of revenues. Only Accounting staff not responsible for cash reconciliations or deposits are authorized to prepare invoices.

A list of outstanding invoices is produced monthly and reconciled with the general ledger. Notices are sent for any outstanding invoices more than 30 days past due. The Controller and Assistant Treasurer, with the assistance of the Senior Energy Accountant, is responsible for following up on delinquent accounts.

An account receivable may only be written-off after all reasonable collection efforts have been exhausted and requires the approval of the Controller and Assistant Treasurer or any other NYSERDA Officer. The Controller and Assistant Treasurer or any other NYSERDA Officer must also approve any deferred

payment arrangements.

Accounts receivable more than 120 days past-due may be submitted to a private collection agency or the Attorney General's Office for collection.

As an alternative to receiving payments from RD&D program contractors through recoupment, and in an effort to assist in growing small businesses, NYSERDA may instead elect to take an equity position in an RD&D contractor. When deemed appropriate, an equity investment is consummated through a negotiated Stock Purchase Agreement, which outlines the terms and conditions of NYSERDA's investment.

Payment processing

Section 2880 of the Public Authorities Law requires that payment be made to vendors within 30 days on all valid invoices. Failure to do so will result in the payment of interest.

Accounting staff prepares a weekly report of outstanding vouchers and their due dates which is reviewed by the Controller or Treasurer. NYSERDA reports annually to the Board at the June meeting on its compliance with the prompt payment policy.

Prior to payment, proper authorization must exist for payments to contractors.

All contracts or purchase orders must be signed by an Officer. Contracts or agreements in excess of \$1,000,000 must be signed by the President and CEO. Generally, goods and services in excess of \$5,000 require a written contract or purchase order.

Accounting staff monitor all payments, assuring that all invoices are mathematically correct, contain proper documentation, are within authorized funding limits, and are in accordance with the terms and conditions of the contract or purchase order.

Additional approval for payment is required from the Project Manager for payments under program contractual agreements, or from the Program Manager or department head, for administrative costs. Invoices equal to or greater than \$500,000 require secondary approval by the initial approvers' Supervisor.

NYSERDA checks require the signature of the Commissioner of Taxation and Finance, NYSERDA's fiscal agent. Payees electing to receive payment from NYSERDA by electronic transfer provide the necessary information and authorization in writing. Approval for disbursements is noted on a warrant request, which must be signed by an authorized signatory: the Controller and Assistant Treasurer or any NYSERDA Officer. For payees receiving payment by electronic transfer, the automated accounting system produces an electronic file containing necessary banking information for payees, which is transmitted to the bank by NYSERDA Finance staff and later released for processing to the bank by the Department of Taxation and Finance after all their reviews have been completed.

NYSERDA's integrated financial management system provides for automated, role-based security that properly segregates user access to functions for vendor accounting information addition and maintenance, invoice entry, invoice approval, and payment preparation. In addition, the system's budgetary management system prevents expenditure or encumbrance of funds in excess of authorized program funding.

Payroll Processing

NYSERDA's President and CEO, or designee authorizes in writing payroll additions or salary changes. The Director of Human Resources provides notice, in writing, of any salary deletions. Human Resources staff initiates all ministerial changes such as benefit changes in accordance with requests submitted by employees.

All employees are required to maintain daily time records on a bi-weekly basis, using the automated time and attendance system. Employee timesheets require approval by the individual's supervisor.

NYSERDA uses a computerized payroll system to calculate and process payroll and checks. Access to the system is password restricted to only those individuals in the Accounting unit with responsibility for processing payroll.

Fixed assets

Accounting staff maintain a computerized fixed asset system, ensuring that all fixed assets are identified by location, and that the fixed asset ledger is reconciled to the general ledger. Only assets with a dollar value in excess of \$2,500 and a useful life greater than two years are recorded.

The disposition of real property and personal property shall be in accordance with the Guidelines, Operative Policy, and Instructions for the Disposal of Real and Personal Property. The Treasurer is responsible for ensuring compliance with these guidelines, including the preparation of an annual report listing all real property of the Authority and a description of all real and personal property disposed of during such period. The Controller and Assistant Treasurer will be responsible for approving recommendations to dispose of surplus equipment.

Financial Statements

NYSERDA prepares annual financial statements in accordance with generally accepted accounting principles (GAAP) applicable to state and local government entities, which are approved by the Board at the June meeting. The annual financial statements include a comparison of actual results versus financial projections and a certification by the Officers and the Director of Internal Audit that the financial statements and disclosures fairly present, in all material respects, the operations and financial condition of NYSERDA. NYSERDA's most recent annual financial statements are made available on the NYSERDA web site. Interim quarterly financial statements are also provided to the Board.

Financial statements are audited by an outside independent accounting firm selected by the Audit and Finance Committee and Board. The independent auditors are selected in accordance with the requirements of Section 2802 of the Public Authorities Law and are prohibited from providing non-audit services to NYSERDA contemporaneously with the audit, except as provided in Section 2802 of the Public Authorities Law. Non-audit services include bookkeeping or other services related to the accounting records or financial statements of NYSERDA; financial information systems design and implementation; appraisal or valuation services, fairness opinions or contribution-in-kind reports; actuarial services; internal audit outsourcing services; management functions or human services; broker or dealer, investment advisor, or investment banking services; and legal services and expert services unrelated to the audit.

The independent auditors must timely report to the Audit and Finance Committee all critical accounting

policies and practices to be used, all alternative treatments of financial information within generally accepted accounting principles that have been discussed with Authority management officials, ramifications of the use of such alternative disclosures and treatments, and the treatment preferred by the certified independent public accounting firm; and other material written communications between the independent auditors and NYSERDA management, such as the management letter along with management's response or plan of corrective action, material corrections identified or schedule of unadjusted differences, where applicable.

The audit partner or lead audit partner responsible for reviewing the audit must not have performed audit services for the Authority in each of the five previous fiscal years.

SECTION 9: HUMAN RESOURCES

Primary Functions

- Recruit employees
- Manage compensation functions to appropriately reward employees
- Manage performance programs to reinforce and correct behaviors
- Manage employee benefits programs
- Facilitate employee training

Controls

Recruit employees: Prohibited Actions

All NYSERDA positions are filled based on merit. A position posting containing minimum education and skill levels are established for every position. Reference, employment, criminal background and education information is verified for all prospective employees. The President and CEO, Treasurer, or Director of Internal Audit cannot have been employed by the Authority's independent auditors during the two-year period preceding an audit.

NYSERDA employees and board members are prohibited from participating in any hiring or employment decision or any contracting decision relating to any relative, and no employee may be hired into a position that reports to a relative.

No employee involved in recruiting, interviewing, or hiring applicants for employment or making promotional, disciplinary, or other employment decisions may ask any such applicant or employee to reveal their party affiliation, whether he or she has made campaign contributions, or whether the candidate voted for any elected official or candidate for elective office.

Manage compensation functions to appropriately reward employees

Merit payment recommendations are reviewed and approved by the Director of Human Resources and the Officers for conformance with NYSERDA's policies.

Manage performance programs to reinforce and correct behaviors

An annual Performance Review is drawn up between each employee and employee's supervisor which summarizes the employee's job responsibilities and specific performance objectives which are used for the performance evaluation. The document also summarizes planned training and development activities.

Performance Improvement Plans are completed by supervisors and approved by Human Resources for employees whose performance warrants significant improvement.

Manage employee benefits programs

Human Resource staff provides assistance to employees with enrollment, changes, or answering questions for various NYSERDA-sponsored employee benefit programs. Special benefits, such as flexible work hours or part-time work are evaluated on a case-by-case basis with approval from the employee's supervisor and the Director of Human Resources to ensure consistent and equitable application.

Facilitate employee training

Human Resources facilitates various Statewide mandatory as well as other Authority-wide employee training programs using internal and external trainers. Individual employee training and professional development needs are generally identified as part of the evaluation process. Requests are approved by the direct supervisor, Team Lead, and Director of Human Resources.

SECTION 10: INFORMATION TECHNOLOGY

Primary Functions

- Provide best practices and technical solutions for systems and data
- Procure, operate and maintain computer hardware and software
- Review program solicitations that contain a software development component for compliance with NYS cybersecurity and ADA (Americans with Disabilities Act) requirements.
- Maintain security of computer hardware and software
- Provide training to staff on computer hardware and software usage
- Maintain Authority Web Site

Controls

Procure, operate and maintain computer hardware and software

Hardware and software requests must be submitted via the help desk system.

The Director of Information TechnologyAn Information Technology staff person, as assigned by the Chief Information Officer, must approve the purchase of computer hardware or software.

The IT unit maintains a service desk (help desk) during normal business hours to respond to staff questions and problems with NYSERDA hardware or software.

The IT group contains several governance committees created to review, approval, and prioritize information technology projects. These committees include the following:

1. PeopleSoft (NEIS) – For Financial/Contractual system governance
2. Web – For projects related to web site development either internally or externally
3. Development – For enhancements to existing systems
4. Salesforce – For enhancements and new build requests on the Salesforce platform
5. Data Warehouse – For enhancements, new build and data quality work associated with the data warehouse

Each of the above governance committees contains IT staff and business unit,~~Operational Transformation & Lean, Business unit, and Officer level~~ representation.

All information technology development projects shall conform with system development life cycle standards in accordance with New York State policy requirements (NYS-S13-001).

Maintain security of computer hardware and software

All electronic data stored on the network file server is automatically backed up on a nightly basis. Once daily a copy of the backup is transmitted to an off-site server where up to 30 days of backups are retained. On a quarterly basis, a long-term backup is migrated to offsite, cloud-based immutable storage, dropped to disk and stored off site in a fireproof safe.

Staff are encouraged to store any data considered critical to the operation of NYSERDA on the network

server, rather than on staff personal computers. This allows the data to become part of the automatic backup and disaster recovery procedures.

Electronic data stored on personal computers is backed up by the staff member to whom the computer is assigned. As an additional level of protection, non-sensitive personal computer backup media can be stored off-site, either at the staff member's home or at NYSERDA's off-site storage locations. This data must be encrypted prior to removal from the premises. The service desk can assist with the process.

Every reasonable effort is taken to ensure access to the network is restricted to valid users, and each user is given a password. The password can be changed by the user at any time or by the system administrator. System integrity is maintained by restricting network user privileges and by centralizing management duties to a password protected system administrator. Only the system administrators can alter network programs, security or operations. Physical access to the network computer systems equipment is limited to authorized staff.

All data stored on the network or personal computers is considered NYSERDA work product. NYSERDA computers and information systems (including email) must be used in accordance with New York State policy requirements (NYS-P14-001).

Recovery from the physical destruction of the network computer system is accomplished by using the most recent backup available and restoring data to another computer network system. At that time, single users can access critical computer-based information until NYSERDA operations can be reestablished at another location. Recovery from personal or network computer failure is accomplished by using spare computers or parts and restoring lost data from backup media. In some situations, accidentally deleted data can be recovered with the use of software utilities available to the system administrator.

Employees may borrow certain equipment for use outside NYSERDA for a finite length of time. The employee must sign the hardware out from the Service Desk Supervisor or his/her/their designee.

It is NYSERDA's policy to adhere to the stipulations of relevant end user license agreements and the copy protection laws which apply to a software package. Illegal copying of NYSERDA software, or use of illegal copies of software packages on any of NYSERDA's computers, is not permitted. In the event that an illegal copy of software is found on the premises, it will be destroyed immediately.

Non-NYSERDA software may not be copied or installed on NYSERDA computers without written authorization (generally in the form of an approved service desk ticket) from the Service Desk Supervisor.

Every staff member of NYSERDA is assigned a computer (or virtual machine) and is given access to the network. It is the responsibility of each staff member to protect NYSERDA's investment in computer technology. The computers and software provided by NYSERDA for staff use are to be used for NYSERDA business purposes only. While employed by NYSERDA, each staff member shall be responsible for all assigned computer items. Staff members shall report immediately any lost, damaged or missing items.

The Information Technology unit records the serial number of each piece of equipment provided to each staff member; maintains a record of manuals and software programs provided to staff members; and updates these records as equipment, manuals and software are added or removed.

As part of the employee exit interview process, ~~the~~ an IT Director or designee representative, signs the Exit Clearance Form, described in NYSERDA's Personnel Handbook, indicating that all assigned computer equipment, manuals and disks have been returned. All discrepancies must be cleared before the final paycheck can be released.

Review program solicitations that contain a software development component for compliance with NYS cybersecurity and ADA (Americans with Disabilities Act) requirements

The Chief Information Officer, or their designee, will review program solicitations or statements of work that contain a software development task. The review is done prior to the solicitation being made public with the goal of assuring that cybersecurity and ADA compliance are maintained.

Provide training to staff on computer hardware and software usage

Information Technology unit staff conduct one-on-one or group training on various software applications and computer technology or can research and recommend outside training when requested. The IT staff will work with the trainer in the Strategic Operations unit to provide consistent authority-wide technology training.

Maintain Authority Web Site

The Information Technology unit is responsible for maintaining the Authority's web site(s) based on requests approved by the Communication & Corporate Marketing department. At a minimum, the web site shall include a description of NYSERDA's mission, current activities, most recent financial reports, current year budget, its most recent independent audit report, and Guidelines, Operative Policy and Instructions for the Disposal of Real and Personal Property.

SECTION 11: INFORMATION SECURITY

Primary Functions

- Protect and maintain the confidentiality, integrity and availability of information and related infrastructure assets
- Manage the risk of security exposure or compromise
- Assure a secure and stable information technology (IT) environment
- Identify and respond to events involving information asset misuse, loss or unauthorized disclosure
- Monitor systems for anomalies that might indicate compromise
- Promote and increase the awareness of information security

Controls

The NYS Office of Information Technology Services (ITS) establishes and regularly updates policies, standards, and guidelines for information security (collectively referred to as “ITS Security Policies”) for State Entities, including NYSERDA. These policies apply to all NYSERDA information technology devices and data, regardless of their medium or form. All individuals, including but not limited to, NYSERDA employees, contractors, temporary employees, and interns, who handle NYSERDA information must adhere to the provisions of these policies.

The Information Security Officer is the central point of contact for all information security matters. He or she reports independently to the Treasurer. The duties of the Information Security Officer are segregated from the operation of the information technology systems.

The Information Security Officer is responsible for the design, implementation and monitor of systems and procedures to protect and assure the availability of NYSERDA’s information and related infrastructure assets and to monitor for, and respond to, events involving information misuse, loss or unauthorized disclosure.

All data collected and stored by, or on behalf of, NYSERDA are classified and managed per policies and procedures outlined in NYSERDA’s Data Classification and Security Controls Policy. NYSERDA’s Data Governance Office is responsible for classifying data and coordinating external sharing requests with the Office of the General Counsel and Information Technology. Also, the Data Governance Office ensures that user authorization and permissions are set to protect confidential data.

To protect NYSERDA's computer systems against the introduction or spread of a computer virus, the network server and staff personal computers have been equipped with virus protection software. The virus protection software is configured for automatic checking and system shielding to detect and contain viruses as soon as possible. Network server files are scanned for viruses each time they are used while personal computer files are scanned once per day when the user first logs onto the LAN. The virus protection software also enables staff to manually scan hard drives, USB Drives, and CD’s as needed. In addition, portable computers that are signed out are scanned upon being returned.

All NYSERDA employees are required to complete annual state cyber security training.

SECTION 12: COUNSEL'S OFFICE

Primary Functions

- Provides legal advice and drafts legal opinions and documents for NYSERDA.
- Provides legal advice and oversight of the contracting process.
- ~~The Office of the General Counsel provides guidance to the Communications department in responding to Freedom of Information Law (FOIL) requests.~~ Responsible for responding to Freedom of Information Law (FOIL) requests.
- Renders advice concerning all NYSERDA programs and policies
- As designated by the President and CEO, a Counsel's Office attorney serves as NYSERDA's ethics officer.
- Reviews NYSERDA related proposed legislation and regulations by providing assistance to the Governmental Affairs Director.
- Assists in the drafting of NYSERDA's rules and regulations and reviews NYSERDA's applications for permits and environmental assessments.
- Performs the secretarial function for the standing committees of the Board.
- Coordinates NYSERDA records management systems

Controls

Provides legal advice for all NYSERDA matters.

General Counsel represents NYSERDA's interests in legal actions or proceedings and consults with executive management as deemed necessary.

Upon receipt of notice that an offerer has made contact with someone other than the Designated contact with respect to a procurement for a reason inconsistent with subsection 3 of Section 139-j of the State Finance Law, the ethics officer will immediately investigate the allegation, in accordance with the procedures set forth in, and make a determination as required by, such Section 139-j. A finding that an offerer has knowingly and willfully violated subsection 3 of Section 139-j of the State Finance Law will result in a finding of non-responsibility for such offerer as required by such section.

The General Counsel assigns and oversees a Records Access Officer to respond to Freedom of Information Law FOIL requests.

NYSERDA's President and CEO designates a Records Management Officer and has currently designated a member of Counsel's Office to act in that capacity. In consultation with the New York State Archives, the Records Management Officer is tasked with implementing the records management system, and providing staff with guidelines for maintaining records.

As part of the records management system, NYSERDA has adopted the General Retention and Disposition Schedule for New York State Government Records as issued by the New York State Archives Government Records Services. No record may be destroyed without the express consent of the Records Management Officer in accordance with the General Retention and Disposition Schedule for New York State Government Records, which is located on NYSERDA's intranet.

SECTION 13: GOVERNMENTAL AFFAIRS

Primary Functions

- To serve as a liaison between NYSERDA and all elected officials
- To address inquiries from the Governor's office, members of the federal and State legislature, as well as local government officials

Controls

Records

The Office of Governmental Affairs tracks federal and State legislation that directly impacts energy-efficiency and environmental conservation policies, as well as legislation that may have other potential implications for NYSERDA and its stakeholders. Additionally, staff monitors legislative hearings, assists with the preparation of testimony for hearings, and coordinates the management of NYSERDA's legislative agenda.

The Director of External Affairs will maintain all records of contacts, whether oral or written, that are an attempt to influence the adoption or rejection of any rule or regulations having the force and effect of law that is issued by NYSERDA.

SECTION 14: COMMUNICATIONS

Primary Functions

- Responds to media and public inquiries on programs and acts as a liaison to the Governor's Press and Scheduling Offices
- Issues news releases, arranges media events, and oversees social media accounts
- ~~Responsible for responding to Freedom of Information Law (FOIL) requests with guidance from Counsel's Office~~

Controls

Responds to media and public inquiries on programs

Staff receiving phone calls, messages or other inquiries from the print or electronic media (including freelance journalists or reporters) are required to immediately forward such inquiries to Communications staff for response. As appropriate, Communications staff discusses responses with technical, legal, contracts, or administrative staff.

Issues news releases, arranges media events and oversees social media accounts

Communications staff are responsible for press releases regarding NYSERDA news, events, and programs. Communications works with the staff responsible for programs or events to draft a press release. Press releases are reviewed and approved by the Director of Communications (or designee), the President and CEO, and other parties involved.

Communications staff review NYSERDA-funded projects with special attention to the technology transfer components. Communications staff work with staff from other departments on technology transfer efforts that require communications expertise.

Communications staff are also responsible for targeting information to appropriate audiences-internal and external- to maximize the effectiveness of NYSERDA's outreach efforts.

All social media content distributed by NYSERDA across its various social media platforms is overseen by the Digital Content Editor and Social Media Manager who report into the Director of Communications.

~~Responding to Freedom of Information Requests~~

~~The Director of Communications assigns and oversees a Records Access Officer to respond to Freedom of Information Law (FOIL) requests with guidance from the Office of the General Counsel.~~

SECTION 15: CORPORATE MARKETING

Primary Functions

- Oversee execution of brand standards and visual guidelines across all NYSERDA communications
- Work with program staff, leading the development and execution of marketing plans
- Coordinate activities with assigned Communications, Social Media, and Web staff
- Develop messaging to ensure consistency in market
- Produce marketing materials and publications
- Oversee electronic communications sent via Salesforce CRM
- Produce and distribute general and technical reports about NYSERDA and its programs

Work follows one of two paths:

- Marketing works with competitively selected marketing firm to plan and implement a program to meet business objectives. This work is funded through program budgets.
- Marketing Services, an in-house marketing resource, creates materials, presentations, case studies, and other materials to support marketing of an identified initiative.

Controls

Marketing materials and publications

Marketing staff work with executive and program staff to produce effective marketing materials (reports, brochures, case studies and fact sheets, paid advertising, displays, direct mail, exhibits, videos, presentations, conference materials, website content, and marketing collateral). Materials are reviewed and approved by an identified list of approvers for each project. Staff coordinate and monitor external mailings, NYSERDA photography and content.

SECTION 16: CONSUMER SERVICES AND EVENTS MANAGEMENT

Primary Functions

- Provide consumer information
- Manage and coordinate NYSERDA marketing events

Controls

Consumer Services

The department manages the contract for NYSERDA's toll-free telephone inquiry line for consumer information operated by an outside contractor. Staff maintains up-to-date knowledge of NYSERDA's initiatives and eligibility criteria to train and support contract staff as well as respond directly to questions and inquires as necessary.

Events Management

Staff identify appropriate events, conferences, and exhibit opportunities for NYSERDA program marketing, outreach, and education, and provide conference and meeting support including venue selection and contracting, equipment and facility logistics. The department maintains a NYSERDA-wide events calendar to provide for coordination of activities.

SECTION 17: INTERNAL AUDIT CHARTER

The Authority shall maintain an internal audit function, consistent with Public Authorities Law Section 2932.

Purpose and Mission

The purpose of the Authority's internal audit function is to provide independent and objective assurance and consulting services designed to add value and improve the Authority's operations, and, consistent with Public Authorities Law Section 2932, evaluate the Authority's internal controls and operations, identify internal control weaknesses that have not been corrected and make recommendations to correct these weaknesses. The mission of internal audit is to enhance and protect organizational value by providing risk-based and objective assurance, advice, and insight. This is to be accomplished through a systematic, disciplined approach of evaluating and improving the effectiveness of, ~~and, when appropriate, recommending improvements to~~ risk management, control, and governance processes.

Standards for the Professional Practice of Internal Auditing

The internal audit function will govern itself by adherence to the mandatory elements of The Institute of Internal Auditors' International Professional Practices Framework, including the Core Principles for the Professional Practice of Internal Auditing, the Code of Ethics, the *International Standards for the Professional Practice of Internal Auditing* (the *Standards*), and the Definition of Internal Auditing. The Director of Internal Audit will report periodically to senior management and the Audit and Finance Committee regarding the internal audit function's conformance to the Code of Ethics and the *Standards*.

Organization, Reporting Structure and Authority

The internal audit function shall be directed by a chief audit executive ("Director of Internal Audit"), who shall be appointed by the Board Members, as determined by the Audit and Finance Committee. Selection of the Director of Internal Audit shall be based upon his or her internal auditing credentials, including knowledge, skills, experience, and professional certifications necessary to perform the responsibilities described in this section.

The Director of Internal Audit shall report functionally to the Authority's Audit and Finance Committee and administratively (i.e., day-to-day operations) to the President and CEO. To establish, maintain, and assure that the Authority's internal audit function has sufficient authority to fulfill its duties, the Audit and Finance Committee will:

- Approve the internal audit function's description in this Section.
- Approve the risk-based internal audit plan.
- Provide input to the Director of Internal Audit for the internal audit function's budget and resource plan.
- Receive communications from the Director of Internal Audit on the internal audit function's performance relative to its plan and other matters.
- Approve the appointment or dismissal of the Director of Internal Audit.
- Make appropriate inquiries of management and the Director of Internal Audit to determine whether there are inappropriate scope or resource limitations.

The Chair of the Audit and Finance Committee will consult with the President and CEO on the performance reviews and compensation of the Director of Internal Audit.

The Director of Internal Audit shall have unrestricted access to, and communicate and interact directly with the Audit and Finance Committee and the Board, including, if necessary, private meetings without management present.

The Audit and Finance Committee authorizes the internal audit function to:

- Have full, free, and unrestricted access to all functions, records, property, and personnel pertinent to carrying out any engagement, subject to accountability for confidentiality and safeguarding of records and information.
- Allocate resources within budgets approved by the board, set frequencies, select subjects, determine scopes of work, apply techniques required to accomplish audit objectives, and issue reports.
- Obtain assistance from the necessary personnel of the Authority, as well as other specialized services from within or outside the Authority, in order to complete the engagement.

Independence and Objectivity

The Director of Internal Audit will ensure that the internal audit function remains free from all conditions that threaten the ability of internal auditors to carry out their responsibilities in an unbiased manner, including matters of audit selection, scope, procedures, frequency, timing, and report content. If the Director of Internal Audit determines that independence or objectivity may be impaired in fact or appearance, the details of the impairment will be disclosed to appropriate parties.

Internal auditors will maintain an unbiased mental attitude that allows them to perform engagements objectively and in such a manner that they believe in their work product, that no quality compromises are made, and that they do not subordinate their judgment on audit matters to others.

Internal auditors will have no direct operational responsibility or authority over any of the activities audited. Accordingly, internal auditors will not implement internal controls, develop procedures, install systems, prepare records, or engage in any other activity that may impair their judgment, including:

- Assessing specific operations for which they had responsibility within the previous year.
- Performing any operational duties for the Authority or its affiliates.
- Initiating or approving transactions external to the internal audit function.
- Directing the activities of any Authority employee not employed by internal audit, except to the extent that such employees have been appropriately assigned to auditing teams or to otherwise assist internal auditors.

Where the Director of Internal Audit has or is expected to have roles and/or responsibilities that fall outside of internal auditing, safeguards will be established to limit impairments to independence or objectivity.

Internal auditors will:

- Disclose any impairment of independence or objectivity, in fact or appearance, to appropriate parties.
- Exhibit professional objectivity in gathering, evaluating, and communicating information about the activity or process being examined.

- Make balanced assessments of all available and relevant facts and circumstances.
- Take necessary precautions to avoid being unduly influenced by their own interests or by others in forming judgments.

The Director of Internal Audit will confirm to the Audit and Finance Committee, at least annually, the organizational independence of the internal audit function.

The Director of Internal Audit will disclose to the Audit and Finance Committee any interference and related implications in determining the scope of internal auditing, performing work, and/or communicating results.

Scope of Internal Audit Activities

The scope of internal audit activities encompasses, but is not limited to, objective examinations of evidence for the purpose of providing independent assessments to the Audit and Finance Committee, management, and outside parties on the adequacy and effectiveness of governance, risk management, and control processes for the Authority. Internal audit assessments include evaluating whether:

- Risks relating to the achievement of the Authority’s strategic objectives are appropriately identified and managed.
- The actions of the Authority’s officers, directors, employees, and contractors are in compliance with the Authority’s policies, procedures, and applicable laws, regulations, and governance standards.
- The results of operations or programs are consistent with established goals and objectives.
- Operations or programs are being carried out effectively and efficiently.
- Established processes and systems enable compliance with the policies, procedures, laws, and regulations that could significantly impact the Authority.
- Information and the means used to identify, measure, analyze, classify, and report such information are reliable and have integrity.
- Resources and assets are acquired economically, used efficiently, and protected adequately.

The Director of Internal Audit will report periodically to senior management and the Audit and Finance Committee regarding:

- The internal audit function’s purpose, authority, and responsibility.
- The internal audit function’s plan and performance relative to its plan.
- The internal audit function’s conformance with The Institute of Internal Auditor’s Code of Ethics and *Standards*, and action plans to address any significant conformance issues.
- Significant risk exposures and control issues, including fraud risks, governance issues, and other matters requiring the attention of, or requested by, the Audit and Finance Committee or the Board.
- Results of audit engagements or other activities.
- Resource requirements.
- Any response to risk by management that may be unacceptable to the Authority.

The Director of Internal Audit also coordinates activities, where possible, and considers relying upon the work of other internal and external assurance and consulting service providers as needed. The internal audit function may perform advisory and related client service activities, the nature and scope of which will be agreed with the client, provided the internal audit function does not assume management responsibility.

Opportunities for improving the efficiency of governance, risk management, and control processes may be identified during engagements. These opportunities will be communicated to the appropriate level of management.

Responsibility

The Director of Internal Audit has the responsibility to:

- Submit, at least annually, to senior management a risk-based internal audit plan.
- Submit, at least annually, to the Audit and Finance Committee a risk-based internal audit plan for review and approval.
- Communicate to senior management and the Audit and Finance Committee the impact of resource limitations on the internal audit plan.
- Review and adjust the internal audit plan, as necessary, in response to changes in the Authority's business, risks, operations, programs, systems, and controls.
- Communicate to senior management and the Audit and Finance Committee any significant interim changes to the internal audit plan.
- Ensure each engagement of the internal audit plan is executed, including the establishment of objectives and scope, the assignment of appropriate and adequately supervised resources, the documentation of work programs and testing results, and the communication of engagement results with applicable conclusions and recommendations to appropriate parties.
- Follow up on engagement findings and corrective actions, and report periodically to senior management and the Audit and Finance Committee any corrective actions not effectively implemented.
- Ensure the principles of integrity, objectivity, confidentiality, and competency are applied and upheld.
- Ensure the internal audit function collectively possesses or obtains the knowledge, skills, and other competencies needed to meet the requirements of this Section.
- Ensure trends and emerging issues that could impact the Authority are considered and communicated to senior management, and the Audit and Finance Committee as appropriate.
- Ensure emerging trends and successful practices in internal auditing are considered.
- Establish and ensure adherence to policies and procedures designed to guide the internal audit function.
- Ensure adherence to the Authority's relevant policies and procedures, unless such policies and procedures conflict with this Section. Any such conflicts will be resolved or otherwise communicated to senior management and the Audit and Finance Committee.

- Ensure conformance of the internal audit function with the *Standards*, with the following qualifications:
 - If the internal audit function is prohibited by law or regulation from conformance with certain parts of the *Standards*, the Director of Internal Audit will ensure appropriate disclosures and will ensure conformance with all other parts of the *Standards*.
 - If the *Standards* are used in conjunction with requirements issued by other authoritative bodies, the Director of Internal Audit will ensure that the internal audit function conforms with the *Standards*, even if the internal audit function also conforms with the more restrictive requirements of other authoritative bodies.

Quality Assurance and Improvement Program

The internal audit function will maintain a quality assurance and improvement program that covers all aspects of the internal audit function. The Quality Assurance and Improvement Program will include an evaluation of the internal audit function's conformance with the *Standards* and an evaluation of whether internal auditors apply The Institute of Internal Auditors' Code of Ethics. The Quality Assurance and Improvement Program will also assess the efficiency and effectiveness of the internal audit function and identify opportunities for improvement.

The Director of Internal Audit will communicate to senior management and the Audit and Finance Committee on the internal audit function's Quality Assurance and Improvement Program, including results of internal assessments (both ongoing and periodic) and external assessments conducted at least once every five years by a qualified, independent assessor or assessment team from outside the Authority.

SECTION 18: DISCRETIONARY FUNDS

The expenditure of the Authority's discretionary funds must relate directly to an enumerated power, duty, or purpose of the Authority. Public funds may not be used to purchase items that are considered personal expenses or that are intended to personally benefit a Member, Officer, or employee. The Authority may not use discretionary funds for purchases that are not necessary to advance the mission of the Authority, including supporting the private or personal interests of the Members, Officers, or employees of the Authority.

Examples of inappropriate use of discretionary funds may include, but are not limited to, the purchase of flowers and gifts for Members, Officers, employees, or family members; celebrations for special occasions; charitable contributions or sponsorships; renewal of professional licenses; personal use of Authority vehicles; and costs to purchase or mail holiday cards or expressions of sympathy.

The Authority's handbooks and manuals provide further guidance regarding appropriate uses of the Authority's discretionary funds for expenses directly related to an enumerated power, duty, or purpose of the Authority. The additional guidance sets forth a process for approving discretionary expenditures and indicates the individual authorized to approval such expenditures. The Personnel Handbook contains specific policies regarding reimbursement for food while traveling, professional memberships, use of Authority equipment and vehicles, and tuition reimbursement. The Operations and Procedures Manual details the Authority's policies regarding sponsorships and the purchase of food for meetings and conferences. The Code of Conduct details additional policies regarding use of Authority equipment and vehicles.

APPENDIX A

New York State Comptroller Standards for Internal Control in New York State Government (Revised March 2016)

INTRODUCTION

The New York State Governmental Accountability, Audit and Internal Control Act of 1987 (Internal Control Act) required State agencies and other organizations to promote and practice good internal control and to provide accountability for their activities. In 1999, this legislation was made permanent and the State Finance Law was amended to require the State Comptroller to issue internal control standards for State agencies, public authorities and other organizations.

To fulfill this requirement, the State Comptroller developed the internal control standards contained in this publication: Standards for Internal Control in New York State Government. These Standards are based in part on the work of those advocated by leading authorities in the field of internal control, such as the Committee of Sponsoring Organizations of the Treadway Commission (COSO), the U.S. Government Accountability Office (GAO) and other professional organizations. All organizations subject to audit by the Office of the State Comptroller, including State agencies and public authorities, are expected to adhere to these standards, and will be evaluated accordingly in any audits that are performed by that Office.

Internal control is defined as a process, effected by an entity's board of directors, management, and other personnel, designed to provide reasonable assurance regarding the achievement of objectives relating to operations, reporting, and compliance. It is the integration of the activities, plans, attitudes, policies, systems, resources and efforts of the people of an organization working together to achieve its mission. Thus, internal control is focused on the mission of the organization, and this mission must be kept in mind when evaluating the appropriateness of specific internal control practices.

The fundamental concepts of internal control are rooted in well-established organizational techniques and practices. The use of these techniques and practices to achieve a strong, effective system of internal control can best be understood within the following conceptual framework: the five basic components of internal control (control environment, information and communication, risk assessment, control activities, and monitoring) and the two supporting activities (strategic planning and internal audit). Each component is composed of key principles representing the fundamental concepts that are suitable for all organizations. A principle that is not present or functioning is deemed to be a "major deficiency" in internal controls. Accordingly, this publication is organized on the basis of this conceptual framework of five internal control components and seventeen related principles, together with two supporting activities.

The application of internal controls is dynamic, and practices that fit past circumstances may need to be adjusted as those circumstances change. To keep yourself informed about developments in the field of internal control and learn what other organizations are doing to meet their internal control needs, you can consult the professional literature, visit relevant websites, join professional accountability organizations, and attend training programs on the subject of internal control. Some of these potential sources of information are listed in the appendix to this publication.

Part I: New York State's Internal Control Framework

The State of New York is a very large enterprise, with an annual budget around \$150 billion and a quarter million employees, as well as over 100 public authorities. It is larger than most of the Fortune 500 companies. Although governments do not seek profits, the responsibility of government officials to protect the taxpayers' money and to use public resources efficiently to serve the people is similar to the responsibility corporate executives have to their shareholders. The similarities between New York State government and big business do not end with economic comparisons. Government and many private sector companies are large organizations with many employees, multiple processes, diverse products and services and numerous customers. In order to succeed, both government and business should manage their operations effectively. While there are many different styles of effective management, there is one common feature among them: attention to internal control and risk management.

Everyone experiences internal control in their daily business activities as well as in their personal lives. Yet it is a subject that is very often misunderstood, ignored or undervalued. Internal control helps bring order, direction and consistency in daily operations and in long-term strategic planning. So, how can a subject of such importance be so unappreciated? The question underscores the need to better define internal control and what it does. This publication is intended to explain to employees of New York State government organizations how internal control plays an important part in their daily work activities.

Most people think that internal controls are about accounting for funds. While that is true, it is a myth that internal controls are only about money. Internal controls are also about demonstrating the value of an entity's programs and reporting its accomplishments. Internal controls are about protecting assets, information, and employees, and enabling the organization to make the best decisions. Internal controls are ingrained in all business systems and functions. They are essential to ensuring that an organization is functioning effectively and efficiently.

Government managers should be able not only to account for funds spent on a program, but also to assess the value of the program and measure its accomplishments. An effective system of internal control can give managers the means to provide accountability for their programs, as well as the means to obtain reasonable assurance that the programs they direct meet established goals and objectives. While managers have a significant impact on an organization's system of internal control, every employee of the organization has a responsibility and a role in ensuring that the system is effective in achieving the organization's mission.

Although an internal control system can vary widely among organizations, the standards for a good system are generally the same. The standards presented in this publication are applicable to all State government organizations, including State agencies and public authorities. You should view them as the minimally acceptable standards for New York State government organizations.

Your existing operations likely already address, at least implicitly, many of the principles and practices that are formalized in these Standards. You should view this information as a guide for evaluating your organization's system of internal control. More information about internal control is available in libraries, from other professional organizations and from experts on the subject, including the Office of the State Comptroller.

Definition of Internal Control

Many groups and organizations have published standards and guidelines on internal control and defined it in various ways. Each of those definitions has captured the basic concept of internal control using different words. The definitions find common ground in recognizing internal control's extensive scope, its

relationship to an organization's mission, and its dependence on people in the organization.

Internal control is focused on the achievement of the organization's mission. Mission is the organization's reason for existing. It provides a sense of direction and purpose to all members of the organization, regardless of their position, and provides a guide when making critical decisions. Therefore, it is essential that an organization have a clearly stated mission that is known and understood by everyone in the organization. It is also important to understand that, while good internal control will provide "reasonable assurance" that goals and objectives are met, good internal control cannot guarantee organizational success. However, goals and objectives are much less likely to be achieved if internal control is poor.

Internal control is defined as follows:

Internal control is a process, effected by an entity's board of directors, management, and other personnel, designed to provide reasonable assurance regarding the achievement of objectives relating to operations, reporting, and compliance.

In essence, internal control ensures that the right people are using the right systems to accomplish the right thing in the right way.

This definition reflects certain fundamental concepts. Internal control is:

- Geared to achieving objectives in one or more of the following categories—operations, reporting, and compliance.
- A process consisting of ongoing tasks and activities.
- Effected by people—it involves management and staff and the actions they take at every level in an organization, it cannot be reduced simply to policies, procedure manuals, systems, and forms. Internal control will succeed or fail depending on the attention the organization's employees give to it.
- Able to provide reasonable—but not absolute—assurance to an entity's senior management and board of directors.
- Adaptable to the entity structure—flexible in application to the entire entity or to a particular subsidiary, division, operating unit, or business process.

Three Objectives of Internal Control

The overall purpose of internal control is to help an organization achieve its mission. There are three types of objectives which emphasize differing aspects of internal control:

- **Operations Objectives** - pertaining to effectiveness and efficiency of the entity's operations, including operational and financial performance goals. These objectives promote orderly, economical operations and help produce quality products and services consistent with the organization's mission. They also serve to safeguard resources against loss due to waste, abuse, mismanagement, errors and fraud.
- **Reporting Objectives** - relating to internal and external financial and nonfinancial reporting. These objectives may encompass reliability, timeliness, transparency, or other terms as set forth by regulators, recognized standard setters, or the organization's policies.
- **Compliance Objectives** - dealing with adherence to laws, regulations, contracts and management directives to which the entity is subject.

Why Internal Controls are Important

Internal controls help an organization to achieve its objectives. They are the checks and balances to support the mission while helping prevent fraud, waste, and abuse and ensuring the efficient use of resources. Internal controls are the first line of defense and the best mechanism an organization has to safeguard its assets and resources, even though they can provide only reasonable—not absolute— assurance. All organizations need internal controls to:

- Accomplish their missions;
- Reduce opportunities for fraud;
- Prevent loss of funds or other resources;
- Establish standards of performance;
- Ensure compliance with laws, regulations, policies, and procedures;
- Preserve integrity;
- Avoid bad publicity;
- Ensure public confidence; and
- Protect all employees.

Consequences of weak internal controls can range from inaccurate or incomplete information, to the waste or misuse of assets, and even to embezzlement or theft. One of the most dangerous things about a weak internal control system is that it engenders a lack of accountability. If adverse events occur, such as theft or a severe failure, it can be difficult to identify the specific cause of the problem and determine who may be responsible if accountability is not established. As a result, innocent staff can fall under suspicion. Strong controls can help to identify who or what went wrong, and what corrective actions are needed. On the broader level, a lack of accountability can result in the erosion of public confidence and support, and can also hamper an organization's ability to serve the public effectively.

Organizational Roles

Every member of an organization has a role in the system of internal control. The human factor is critical to the system's success. Internal controls are developed by people, guide people, and provide them with a means of accountability. People are responsible for implementing each element of the system properly. Individual roles in the system of internal control vary greatly throughout an organization. Very often, an individual's position in the organization determines the extent of that person's involvement in internal control.

The strength of the system of internal control is dependent on people's attitudes toward internal control and their attention to it. Executive management needs to set the organization's "tone" regarding internal control. If executive management does not establish strong, clearly stated support for internal control, the organization as a whole will most likely not practice good internal control. Similarly, if individuals responsible for control activities are not attentive to their duties, the system of internal control will not be

effective. People can also deliberately defeat the system of internal control. For example, a manager can override a control activity because of time constraints, or two or more employees can act together in collusion to circumvent control and "beat the system." To avoid these kinds of situations, the organization should continually monitor employee activity and emphasize the value of internal control.

While everyone in an organization has responsibility for ensuring the system of internal control is effective, the greatest amount of responsibility rests with the managers of the organization. Management has a role in making sure that all employees have the necessary skills and capacities and in providing employees with appropriate supervision, monitoring, and training to reasonably ensure that the organization has the capability to carry out its work. The organization's top executive, as the lead manager, has the ultimate responsibility. The Internal Control Act provides that the top executive is responsible for establishing the organization's system of internal control, and is also responsible for: (1) establishing a system of internal control review; (2) making management policies and guidelines available to all employees; and (3) implementing education and training about internal control and internal control evaluations. To the extent that the top executive authorizes other managers to perform certain activities, those managers become responsible for those portions of the organization's system of internal control.

The law further requires the head of the organization to designate an internal control officer who reports to him or her. The Internal Control Officer should be an individual with sufficient authority to act on behalf of the agency head in implementing and reviewing the agency's internal control program. This individual should have a broad knowledge of the agency's operations, personnel and policy objectives. Drawing on knowledge and experience with internal control matters, the internal control officer is a critical member of the management team who assists the agency head and other management officials by evaluating and improving the effectiveness of the internal control system. The Internal Control Officer is responsible for: establishing and maintaining a system of internal controls and program review; making management policies and guidelines available for all employees; and ensuring that employees have an adequate awareness and understanding of internal control standards through the implementation of education and training efforts. In general terms, the role of the Internal Control Officer is to work with appropriate personnel within the organization to coordinate the internal control activities and to ensure that the organization's internal control program meets requirements established by law and these standards.

While the Internal Control Officer has responsibility for reviewing the organization's internal control efforts and evaluating the adequacy of the internal control reviews, program and line managers are primarily responsible for conducting reviews to assure adherence to controls, and for analyzing and improving control systems. Ultimately, the organization's managers are still responsible for the appropriateness of the internal control system in their areas of operation.

The Internal Control Officer helps establish specific procedures and requirements; however, the effectiveness of these procedures and requirements must be audited by someone who was not involved in the process of putting them into place. The organization's internal auditor is responsible for evaluating the effectiveness of the system of internal control, and must be independent of the activities that are audited. For this reason, in nearly all instances, the internal auditor cannot properly perform the role of Internal Control Officer.

Documentation of an Organization's Internal Control System

Documentation is a necessary part of an effective internal control system. The level and nature of the documentation required will vary, based on the size of the entity and the complexity of the operational processes the entity performs. Management uses judgment in determining the extent of documentation that

is needed. Documentation is required for the effective design, implementation, and operating effectiveness of an entity's internal control system. These Standards includes minimum documentation requirements as follows:

- Management develops and maintains documentation of its internal control system.
- If management determines that a key internal control principle is not relevant, management supports that determination with documentation that includes the rationale of how, in the absence of that principle, the associated component could be designed, implemented, and operated effectively.
- Management documents in policies the internal control responsibilities of the organization.
- Management evaluates its operations and risks and documents its assessment of vulnerabilities.
- Management evaluates and documents the results of ongoing monitoring and separate evaluations to identify internal control issues.
- Management evaluates and documents internal control issues and determines appropriate corrective actions for internal control deficiencies on a timely basis.
- Management completes and documents corrective actions to remediate internal control deficiencies on a timely basis.

These requirements represent the minimum level of documentation of each component in an entity's internal control system. Management exercises judgment in determining what additional documentation may be necessary or an effective internal control system. If management identifies deficiencies in achieving these documentation requirements, the effect of the identified deficiencies is considered as part of management's summary determination as to whether the related principle is designed, implemented, and operating effectively.

Part II: 5 Components and 17 Principles of Internal Control

The 5 components of internal control must be successfully designed, implemented, and functioning sufficiently in order for the internal control system to be effective. The 17 principles represent the fundamental concepts which are associated with particular components within the system. All components and principles are relevant in establishing an effective internal control system. An organization that has a strong system of internal control exhibits the following actions.

Control Environment <ol style="list-style-type: none">1. Demonstrates commitment to integrity and ethical values2. Exercises oversight responsibility3. Establishes structure, authority and responsibility4. Demonstrates commitment to competence5. Enforces accountability
Risk Assessment <ol style="list-style-type: none">6. Specifies suitable objectives7. Identifies and analyzes risk8. Assesses fraud risk9. Manages risk during change
Control Activities <ol style="list-style-type: none">10. Selects and develops control activities11. Selects and develops general controls over technology12. Deploys controls through policies and procedures
Information and Communication <ol style="list-style-type: none">13. Uses relevant information14. Communicates internally15. Communicates externally
Monitoring <ol style="list-style-type: none">16. Conducts ongoing and/or separate evaluations17. Evaluates and communicates deficiencies

Control Environment

Control environment encompasses the set of standards, processes, and structures that are the backbone for establishing internal control across the organization. It is the attitude toward internal control established and maintained by the management and employees of an organization. It is the product of management's governance—that is, its philosophy, style and supportive attitude—and the sense of competence, ethical values, integrity and morale. The control environment is further affected by the organization's structure and accountability relationships. The control environment has a pervasive influence on the decisions and activities of an organization, and provides the foundation for the overall system of internal control. If this foundation is not strong—if the control environment is not positive—the overall system of internal control will not be as effective as it should be.

The following principles describe how management is responsible for creating a positive control environment, and how employees are responsible for helping to maintain this environment.

Demonstrates Commitment to Integrity and Ethical Values

Integrity and ethical values are key elements contributing to a good control environment. In an organizational context, ethical values are the standards of behavior that form the framework for employee conduct, guiding employees when they make decisions. Management addresses the issue of ethical values when it encourages:

- honesty and fairness;
- recognition of and adherence to laws and policies;
- respect for the organization;
- leadership by example;
- commitment to excellence;
- appropriate respect for authority;
- respect for employees' rights; and
- conformance with professional standards.

Government employees should carry out their responsibilities with exemplary integrity, commensurate with their role as public servants. While it is management's responsibility to establish and communicate the values of the organization, it is everyone's responsibility to demonstrate integrity. Management encourages integrity by:

- establishing and publishing a code of conduct;
- complying with the organization's ethical values and code of conduct;
- rewarding employee commitment to the organization's ethical values;
- establishing methods for reporting ethical violations; and
- consistently enforcing disciplinary practices for all ethical violations.

Exercises Oversight Responsibility

Governance

Governance is the influence on an organization exercised by the executive body or the chief executive. The executive body may be a board of directors, board of trustees, council, legislature or similar entity. The chief executive may be the president, chancellor, commissioner, chief judge or an individual elected or appointed as the highest ranking person in the organization.

Their governance responsibilities are usually founded in a constitution, charter, laws, by-laws, regulations

and other similar documents. The leadership, actions and tone established and practiced by the governing body and/or executive can have a profound impact on how the employees of the organization perform their responsibilities, which in turn affects the achievement of the organization's mission.

Among the critical areas influenced by the governing body or executive are:

- approving and monitoring the organization's mission and strategic plan;
- establishing, practicing, and monitoring the organization's values and ethical code;
- overseeing the design, implementation, and operation of the organization's internal control system;
- providing direction to management on the correction of deficiencies in the internal control system;
- overseeing the decisions and actions of senior managers;
- establishing high-level policy and organizational structure;
- ensuring and providing accountability to stakeholders;
- establishing the overall management style, philosophy and tone; and
- directing management oversight of key business processes.

Management's Operating Style and Philosophy

Management's operating style and philosophy reflects management's basic beliefs regarding how the people and activities of an organization should be managed. There are many styles and philosophies. Although, some may be more effective than others in helping a particular organization accomplish its mission. Management should practice the most effective style and philosophy for the organization, making sure that its approach reflects the ethical values of the organization and positively affects staff morale. Management should practice and clearly communicate and demonstrate these beliefs to staff and periodically evaluate whether the style and philosophy are effective and are practiced consistently.

Management's philosophy and style can be demonstrated in such areas as: its approach to recognizing and responding to risks (both internal and external), including the potential for fraud; its acceptance of regulatory control imposed by others; its attitude toward internal and external reporting; its use of aggressive or conservative accounting principles; its attitude toward information technology and accounting functions; and its support for and responsiveness to internal and external audits and evaluations.

Supportive Attitude

A supportive attitude toward internal controls is a disposition that encourages desired outcomes. Since internal control provides management with reasonable assurance that the organization's mission is being accomplished, management should have a supportive attitude toward internal control and make sure that attitude permeates the organization. Executive management should set a tone that emphasizes the importance of internal control. Such a tone is characterized by:

- minimal and guarded use of control overrides;
- support for conducting control self-assessments and internal and external audits;
- openness and responsiveness to issues raised as the result of the evaluations and audits; and
- ongoing education to ensure everyone understands the system of internal control and their role in supporting it.

Mission

The mission of an organization should be formulated in a clear, concise statement, approved by executive management and/or the governing board of the organization. Management should tell employees about the organization's mission and explain how their jobs contribute to accomplishing the mission. The mission statement will be most effective if all employees perceive they have a personal stake in helping the organization fulfill its mission. Without a clearly defined and communicated mission, an organization may drift aimlessly and accomplish little.

As time passes, both internal and external changes can affect the organization's mission, goals and objectives. Therefore, management should periodically review the mission statement and update it, as necessary, for adequacy and relevancy.

Morale

Morale is the attitude people have about their work, as exhibited by their confidence, discipline and willingness to perform tasks. People's attitude about their jobs, work environment and organization affects how well they do their jobs. Management should recognize the importance of good morale in an effective control environment. Equally important, management should recognize that low employee morale can be detrimental to the control environment, causing a drop in productivity, turn over in key positions and lack of loyalty. Management should monitor the level of staff morale to ensure employees are committed to helping the organization accomplish its mission. Management should also take actions to maintain high morale. Such actions should provide staff with a sense that:

- their opinions and contributions are welcomed, valued and recognized;
- the organization is willing to help improve their level of competency;
- there is opportunity for continuous improvement;
- they have a stake in the mission, goals and objectives of the organization;
- the organization's appraisal and reward systems are fair and consistent;
- disciplinary actions are fair, consistently applied and timely; and
- the lines of communication are open.

Establishes Structure, Authority and Responsibility

Structure is the framework in which the organization's plans are carried out. It should define the functional subunits of an organization and the relationships among them.

An organizational chart can provide a clear picture of the authority and accountability relationships among

functions. The chart should be provided to all employees to help them understand the organization as a whole, the relationships among its various components and where they fit into the organization. Management should review this chart periodically to ensure it accurately reflects the organization's structure.

Management should delegate authority and responsibility throughout the organization. Management is responsible for organizing the entity's authority and accountability relationships among various functions to provide reasonable assurance that work activities are aligned with organizational objectives. With increased delegation of authority and responsibility, there is a need to provide qualified and continuous supervision and to monitor results. Supervision throughout the organization helps ensure that employees are aware of their duties and responsibilities, and know the extent to which they are accountable for the successful completion of specific activities.

Demonstrates Commitment to Competence

Competent employees have the skill, knowledge and ability to perform their assigned tasks. Management's responsibility for ensuring the competency of its employees should begin with establishing appropriate human resource policies and practices that reflect a commitment to:

- establishing levels of knowledge and skill required for every position;
- verifying the qualifications of job candidates;
- hiring and promoting only those with the required knowledge and skills;
- establishing training and education programs that help employees increase their knowledge and skills;
- planning and preparing for succession by developing contingency plans for the assignment of responsibilities when employees change positions or leave the organization.

Management should also ensure that employees have adequate resources, such as equipment, software, policy and procedure manuals, as well as the tools and support they need to perform their jobs.

Enforces Accountability

Management should evaluate performance and hold individuals accountable for their responsibilities in pursuit of organizational objectives. Accountability is driven by the tone at the top and supported by the commitment to integrity and ethical values. Management holds individuals accountable through mechanisms such as performance evaluations and disciplinary actions. Actions to enforce accountability for organizational responsibilities range from information feedback provided by the direct supervisor to formal disciplinary action. The level of enforcement action is determined by the significance of the deficiency to the internal control system.

Management is responsible for evaluating the pressure exerted on individuals to fulfill their assigned duties. Excessive pressure can result in individuals skipping steps or cutting corners to meet established goals. Management can adjust excessive pressures by rebalancing workloads or increasing resource levels.

Risk Assessment

Risk is the possibility that an event will occur and threaten or otherwise adversely affect the achievement of the organization's objectives. Objectives can only be derived from and must be in alignment with the organization's mission, strategic plan, and performance goals. Management should define objectives clearly to enable the identification of risks and define risk tolerances. The act of managing the risks associated with achieving an organization's mission through its objectives requires an assessment of these risks.

Risk assessment involves a dynamic and iterative process for identifying and analyzing these threats through an organization-wide effort, forming a basis for determining how risks should be managed. Management considers possible changes in the external environment and within its own business model that may impede its ability to achieve its objectives. For each risk that is identified, management should decide whether to accept the risk, reduce the risk to an acceptable level, or avoid the risk. Risk management is an ongoing process that must include monitoring the changing environment and tracking planned actions to mitigate the impact and likelihood of risks.

Specifies Suitable Objectives

Objectives are driven by an organization's mission and its strategic plan, which outlines goals and priorities. Objectives detail an organization's areas of focus for accomplishing its mission and meeting its expectations. Management sets internal expectations and requirements through the established standards of conduct, oversight structure, organizational structure, and expectations of competence. Management should evaluate whether defined objectives are consistent with these requirements and expectations, and make revisions as necessary. This consistency enables management to identify and analyze risks associated with achieving the defined objectives as part of the control environment.

By stating objectives in specific and measurable terms, the design of internal control for related risks can be better understood at all levels of the organization. This involves clearly defining what is to be achieved, who is to achieve it, how it will be achieved, and the time frames for achievement. Measurable objectives are generally free of bias and do not require subjective judgment. Measurable objectives are also stated in a quantitative or qualitative form that permits reasonably consistent assessment. For quantitative objectives, performance measures may be a targeted percentage or numerical value. For qualitative objectives, management may need to design performance measures that indicate a level or degree of performance, such as milestones.

Risk tolerance is the acceptable level of variation in performance relative to the achievement of objectives. Management defines the risk tolerances for defined objectives by ensuring that the set levels of variation for performance measures are appropriate for the design of an internal control system. Risk tolerances should be measured in similar terms as the performance measures for instance, if accuracy is a measure of an objective, then risk tolerance would be stated as an acceptable error rate, note that the concept of risk tolerance does not apply to compliance, since an entity is either compliant or not compliant.

Further, management must consider the risk tolerances in the context of the entity's applicable laws, regulations, and standards as well as the entity's standards of conduct, oversight structure, organizational structure, and expectations of competence. If risk tolerances for defined objectives are not consistent with these requirements and expectations, management must make appropriate revisions to achieve consistency.

Identifies and Analyzes Risk

One of the most important components of an organization's internal control program is the process used to identify and evaluate the risks and internal controls associated with specific functions, objectives, and

assessable units.

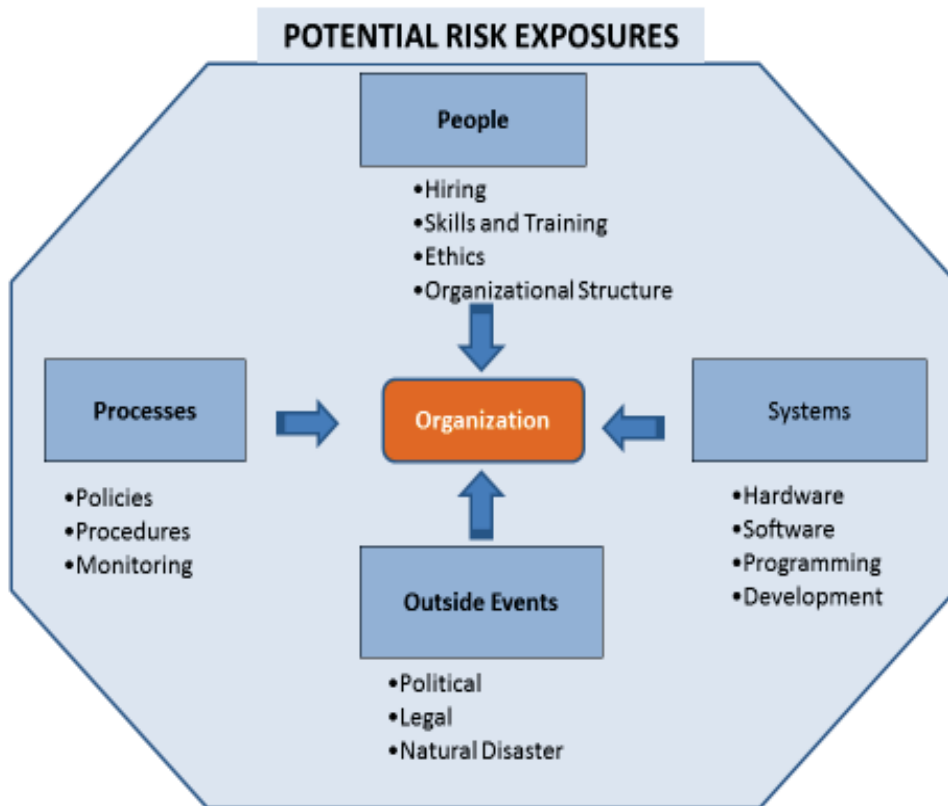
Identify Risk

Management first needs to identify all business objectives of its programs and units, including operational goals, reporting, and compliance requirements. These objectives should be specific enough to provide direction for managing the organization's functions and should be stated in terms that reflect the responsibilities of its subunits. Business objectives should flow from the three objectives of internal control, which were discussed in Part I. For example, the following two business objectives are derived from the operational objective of internal control:

- Ensure all applications are processed (i.e., promoting the effectiveness and efficiency of the entity's operation).
- Ensure access to electronic files is restricted to authorized personnel (i.e., safeguarding assets against loss).

After identifying all the business objectives, managers should identify all the risks associated with each objective (i.e., the events that would threaten the accomplishment of each objective). These risks can be both internal (e.g., human error, fraud, system breakdowns) and external (e.g., changes in legislation, natural disasters). It is essential that managers within the organization identify the risks associated with their respective objectives. There are many ways to look at risks, and no one can identify all potential risks. One recognized approach is to conduct a group brainstorming session with staff to generate ideas on what could go wrong in an organization, operation, or unit. It's a dynamic process, allowing you to consider how potential events might affect the achievement of your objectives.

The following chart illustrates some of the places where an organization can be exposed to risk, although it is not reflective of all potential risks.



The Appendix includes references to many other resources that can help management select the most effective tools and approaches for its operations.

Information Technology Risk

As organizations continue to develop or incorporate technological advances, they become exposed to new and sometimes greater risks. Therefore, organizations must identify and assess the risks accompanying each new device, platform, software application or business model. Among the questions management should consider are:

- How does the new technology contribute to achieving the organization’s mission?
- Does the new technology increase risks that may hinder the accomplishment of objectives?
- Examples may include reduced data security, frequent or prolonged service interruptions, steep learning curves, or decreased morale.
- What changes to internal controls (e.g., control activities) are necessary to manage these risks?

Interdependencies among risks often cross business unit and functional boundaries. In recent years, government organizations have increasingly turned to third-party service providers for information technology solutions. Organizations use third parties for a variety of purposes, ranging from simple web

hosting to complete outsourcing of all information technology (IT) functions. Outsourcing provides organizations with a number of benefits including the ability to utilize technology that may not otherwise be available, to access other skills and knowledge that may not exist in the organization, or to provide 24 hour-a-day, seven-day-a-week support.

The impact that third parties have on an organization can vary considerably. Third parties that provide little more than connectivity services, may have little impact on an organization's internal controls and related control objectives. Conversely, third parties that provide services ranging from application hosting to business process outsourcing to complete management of all IT-related functions can have significant impact on an organization's internal controls and related control objectives.

Regardless of the level of impact a third party can have on an organization, the governing board or organizational head and senior management are ultimately responsible for managing activities conducted through third-party relationships as well as identifying and controlling the risks arising from such relationships to the same extent as if the activity were handled within the organization. Third-party activities must be included in the organization's risk assessment, and management should implement an effective third-party risk management process. Management should appropriately assess, measure, monitor, and control the risk associated with the third-party relationship. Organizations can choose to perform these assurance activities on their own or require an independent assessment of the controls around the services provided. In either situation, the organization should provide for these assurances in the agreement (contract) with the third-party and clearly state its expectations including compliance with these Standards. Management should consider designating a specific officer to coordinate the oversight activities and involve other operational areas in the monitoring process. An effective oversight program will generally include the monitoring of the third party's quality of service, risk management practices, and applicable internal controls.

In some instances in government operations, a third party may be another governmental entity. In those situations, wherever possible, establishing a Memorandum of Understanding (MOU) will help to clarify the requirements for both entities. Agreement on which processes each organization is responsible for, how assurances will be provided and in what format are all factors to include in such an agreement. Where an MOU does not exist, the risks associated with the outsourcing should still be recorded and tracked on a continuous basis. While it may be difficult to fully mitigate risks associated with such arrangements, it is important to inventory these risks and monitor for their occurrence with a plan for response in place should they occur.

Analyze Risk

Management should evaluate each identified risk in terms of its impact and its likelihood of occurrence, as follows:

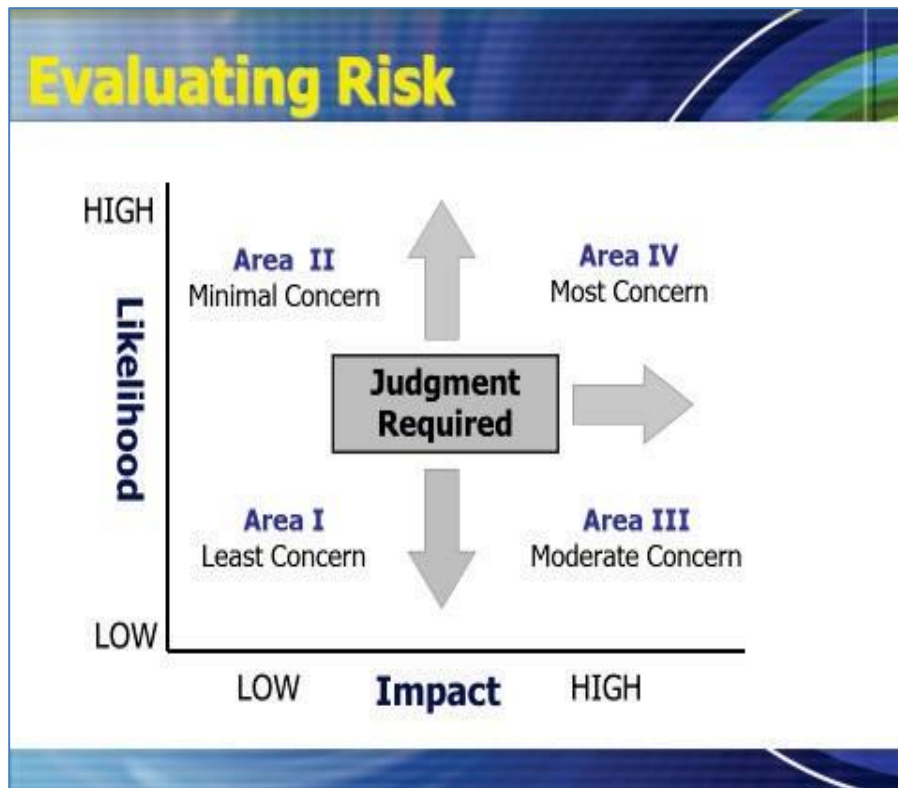
- Impact is the effect an unfavorable event would have on the organization. This effect could be some type of harm or an opportunity that would be lost. The impact is also affected by how quickly an event may happen or spread (speed) and its duration. If possible, these impacts should be quantified or, at the very least, should be described in terms that are specific enough to indicate the significance of the risk.
- Likelihood of occurrence is the probability that an unfavorable event would occur if there were no control activities (as described in the following section) to prevent or reduce the risk. A likelihood of occurrence should be estimated for each identified risk.

The combination of the two factors provides management with a rating for each risk identified. Further, management should identify the amount of risk they are willing to accept in relation to achieving objectives; thereby effectively quantifying management's tolerance for such risks.

Management should use judgment to establish priorities for risks based on their impact and their likelihood of occurrence. Risks should be ranked in a logical manner, from those that are most significant (high impact) and most likely to occur (high likelihood) to the least significant (low impact) and least likely (low likelihood).

This chart depicts one reasonable approach that management may choose to employ to evaluating risks, where Area 1 represents the lowest priority risk and Area 4 represents the highest.

For example, a program manager may have control over two cash accounts: one, the office petty cash fund and the other, for collection of fees and fines from a program activity. Most people would likely consider the petty cash fund to be an Area 1 or 2 risk based on its small balance. In contrast, if management finds that the fees and fines are substantial in amount, are stored in an unlocked location and that there is a six-month backlog in processing them, this would likely result in an Area 4 assessment requiring immediate attention.



Risks may be analyzed on an individual basis or grouped into categories with related risks and analyzed collectively. Regardless of whether risks are analyzed individually or collectively, management should consider the correlation among different risks or groups of risks when estimating their significance. The specific risk analysis methodology used can vary by entity because of differences in missions and the difficulties inherent in qualitatively and quantitatively defining risk tolerances.

Respond to and Manage Risk

Executive management should provide guidance to managers throughout the organization to help them assess both the level and the nature of risks that and distinguish acceptable from unacceptable risks. Managers should use this guidance, along with the results of the organization's specific risk assessments, to determine actions necessary to manage each risk to an acceptable level. In each case, managers must decide whether to accept, reduce, transfer or avoid each risk entirely.

For example, in deciding how to manage the risk that unauthorized persons could gain access to electronic files, managers should consider the following possibilities:

- **Accept the risk:** Do not establish control activities - Management may choose to accept the risk of unauthorized access because it determines that the consequences of such access are not significant. (E.g., the files may not contain data that is sensitive.) Management might also choose to accept the risk if the cost of the associated control activities is greater than the cost of the unfavorable event.

- Reduce the risk: Establish control activities - Management cannot accept the current level of risk of unauthorized access because the files contain confidential or otherwise inherently valuable data. Therefore, management establishes control activities that are intended to reduce the risk of unauthorized access to an acceptable level. However, the risk is reduced only as long as the control activities function as intended.
- Transfer or share the risk - Management may decide to maintain electronic data in a vendor-operated cloud environment or an external data center operated by a business partner. Contract provisions may then allow management to transfer responsibility for all or part of the risk of improper access to the service provider or business partner.
- Avoid the risk: Do not carry out the function - Management determines that it cannot tolerate any risk of unauthorized access to the files or cannot adequately control such access. For example, a file may contain extremely sensitive data, or access controls may not be feasible. In this case, management may decide that the impact of any unauthorized access to this file would be too risky or that access is too difficult or too costly to control. Therefore, management decides not to carry out this function (i.e., decides not to maintain the data).

Reduce Risk

In most cases, government entities do not have the ability to eliminate programs to wholly avoid risks, and options to share or transfer risks to others are also limited. As a result, management must most often take actions to reduce risks to acceptable levels. Management should therefore use risk assessment information to help identify the most effective and efficient control activities available for handling the risk. Specifically, management should answer the following questions:

- What is the cause of the risk? Consider the reasons the risk exists to help identify all the possible control activities that could prevent or reduce the risk.
- What is the potential for fraud? Consider potential threats that could result in fraudulent activities.
- What is the cost of control vs. the cost of the unfavorable event? Compare the cost of the risk's impact with the cost of carrying out various control activities, and select the most cost-effective choice.
- What is the priority of this risk? Use the prioritized list of risks to help decide how to allocate resources among the various control activities used to reduce the risks. The higher the priority, the greater the resources which may be allocated to the control activities intended to reduce the risk.

Management should maintain its analysis and interpretation of the risk assessment information as part of its documentation of the rationale that supports its risk management decisions. Management should review these decisions periodically to determine whether changes in conditions warrant a different approach to managing and reducing risk.

Fraud Risk

All organizations need to consider the potential for fraud to occur in their operations. Fraud is any intentional act or omission designed to deceive others, resulting in the victim suffering a loss and/or the perpetrator achieving a gain. Occupational fraud is the use of one's occupation for personal enrichment through the deliberate misuse or misapplication of the employing organization's resources or assets.

Fraud should be included as part of the risk assessment process, but can be documented separately or in conjunction with other risks. The organization should consider and assess the following when evaluating potential risks for fraud:

- Various Types of Fraud - fraudulent reporting, possible loss of assets, and corruption resulting from the many ways that fraud and misconduct can occur.
- Incentives and Pressures - internal and external motives and demands.
- Opportunities - vulnerabilities to unauthorized acquisition, use, or disposal of assets, altering of the entity's reporting records, or other inappropriate acts. Also consider the opportunities for fraud and abuse afforded certain positions or scopes of authority over operations.
- Attitudes and Rationalizations - how management and other personnel might engage in or justify inappropriate actions.

Management analyzes and responds to identified fraud risks so that they are effectively mitigated. As part of analyzing fraud risk, management also assesses the risk of management override of controls. Management responds to fraud risks through the same risk response process performed for all analyzed risks. Management designs an overall risk response and specific actions for responding to fraud risks. It may be possible to reduce or eliminate certain fraud risks by making changes to the entity's activities and processes. These changes may include stopping or reorganizing certain operations and reallocating roles among personnel to enhance segregation of duties. In addition to responding to fraud risks, management may need to develop further responses to address the risk of management override of controls.

Further, when fraud has been detected, the risk assessment process may need to be revised. In addition to fraud, management considers other forms of misconduct that can occur, such as waste and abuse. Waste is the act of using or expending resources carelessly, extravagantly, or to no purpose. Abuse involves behavior that is deficient or improper when compared with behavior that a prudent person would consider reasonable and necessary operational practice given the facts and circumstances. This includes the misuse of authority or position for personal gain or for the benefit of another. Waste and abuse do not necessarily involve fraud or illegal acts.

Manages Risk During Change

When change occurs in an organization, it often affects the control activities that were designed to prevent or reduce risk. Some examples of change include: new processes, new systems, significant changes in job responsibilities, reorganizations, significant changes in personnel, and changes in legislation. To properly manage risk, management should:

- monitor changes to ensure that each risk continues to be managed as change occurs;
- inform employees responsible for managing the organization's most critical risks about any

proposed changes that may affect their ability to manage those risks; and

- continually monitor the factors that can affect the risks already identified as well as other factors that could create new risks.

Control Activities

Control activities are the actions established through policies and procedures that help ensure that management's directives to mitigate risks to the achievement of objectives are carried out. Management should establish control activities that are effective and efficient and contribute to the mitigation of risks.

Selects and Develops Control Activities

When designing and implementing control activities, management should strive for the maximum benefit at the lowest possible cost. Here are a few simple rules to follow:

- The cost of the control activity should not exceed the cost that would be incurred by the organization if the undesirable event occurred.
- Management should build control activities into business processes and systems as the processes and systems are being designed. Adding control activities after the development of a process or system is generally more costly.
- The allocation of resources among control activities should be based on the impact and likelihood of the risk they are intended to reduce.

Control activities may include a variety of approaches to mitigate risks, considering both manual and automated as well as preventive and detective controls.

- Preventive controls are designed to deter the occurrence of an undesirable event. The development of these controls involves anticipating potential problems before they occur and implementing ways to avoid them.
- Detective controls are designed to identify undesirable events that do occur, and alert managers so they can take corrective action promptly.

Preventive controls can often be more expensive to operate and maintain than detective controls. Costs and benefits should be assessed before control activities are implemented. Management should also remember that an excessive use of preventive controls can impede productivity. No one control activity provides all of the answers to risk management problems. In some situations, a combination of control activities should be used, and in others, one control activity could substitute for another. The following are descriptions of some of the more commonly used control activities. This is by no means an exhaustive listing of the alternatives available to management.

Documentation

Documentation involves preserving evidence to substantiate a decision, event, transaction or system. All documentation should be complete, accurate and recorded timely. Documentation should have a clear purpose and be in a usable format that will add to the efficiency and effectiveness of the organization. Examples of areas where documentation is important include critical decisions, significant events,

transactions, policies, procedures and the system of internal control.

Critical decisions and significant events usually involve executive management. These decisions and events usually result in the use, commitment, exchange or transfer of resources, such as in strategic plans, budgets and executive policies. By recording the information related to such events, management creates an organizational history that can serve as justification for subsequent actions and decisions and will be of value during self-evaluations and audits.

Documentation of transactions should enable managers to trace each transaction from its inception through its completion. This means the entire life cycle of the transaction should be recorded, including: (1) its initiation and authorization; (2) its progress through all stages of processing; and (3) its final classification in summary records. For example, the documentation for the purchase of equipment would start with the authorized purchase request and continue with the purchase order, the vendor invoice and the final payment documentation.

Documentation of policies and procedures is critical to the daily operations of an organization. The organization deploys control activities through policies that establish what is expected and through procedures that put policies into action. These documents set forth the fundamental framework and the underlying methods and processes all employees rely on to do their jobs. They provide specific direction to employees in their daily decision making. Without this framework of understanding by employees, conflict can occur, and poor decisions can be made, causing serious harm to the organization's reputation. Further, the efficiency and effectiveness of operations can be adversely affected.

The documentation of an organization's system of internal control should include the organization's structure, policies, assessable units, control objectives and control activities. The various aspects of a system of internal control can be represented in narrative form, such as in policy and procedure manuals, and/or in the form of flow charts or matrices.

Approval and Authorization

Approval is the confirmation or sanction of employee decisions, events or transactions based on a review. Management should determine which items require approval based on the level of risk to the organization without such approval. Management should clearly document its approval requirements and ensure that employees obtain approvals in all situations where management has decided they are necessary. For example, a manager reviews a purchase request from an employee to determine whether the item is needed. Upon determining the need for the item, the manager signs the request; indicating approval of the purchase.

Authorization is the power management grants employees to carry out certain duties, based on approval received from supervisors. Authorization is a control activity designed to ensure events or transactions are initiated and executed by those designated by management. Management should ensure that the conditions and terms of authorizations are clearly documented and communicated, and that significant transactions are approved and executed only by persons acting within the scope of their authority. For example, a manager may be authorized by his or her supervisors to approve purchase requests, but only those up to a specified dollar amount.

Verification

Verification is the determination of the completeness, accuracy, authenticity and/or validity of transactions, events or information. It is a control activity that enables management to ensure activities are being done in accordance with directives. Management should determine what needs to be verified, based on the risk to the organization if there were no verification. Management should clearly communicate and document

these decisions to those responsible for conducting the verifications. An example of verification is ensuring that a fair price has been obtained in a purchase and funds are available to pay for the purchase.

Supervision

Supervision is the ongoing oversight, management and guidance of an activity by designated employees to help ensure the results of the activity achieve the established objectives. Those with the responsibility for supervision should:

- monitor, review and approve, as appropriate, the work of those performing the activity to ensure the work is performed correctly;
- provide the necessary guidance and training to help minimize errors and waste and to ensure that employees understand and follow management directives; and
- clearly communicate the duties and responsibilities assigned to those performing the activities.

An example of supervision is when an assigned employee (supervisor) reviews the work of another employee processing a purchase order to determine whether it is prepared accurately and completely and has been properly authorized. The supervisor then signs the order to signify his or her review and approval. However, if there are any errors, the supervisor would return the order to the employee and explain how to complete the request properly.

Separation of Duties

Separation of duties is the division of key tasks and responsibilities among various employees and subunits of an organization. By separating key tasks and responsibilities - such as receiving, recording, depositing, securing and reconciling assets - management can reduce the risk of error, waste, or wrongful acts. The purchasing cycle is an area where the separation of duties can minimize the risk of inappropriate, unauthorized or fraudulent activities. Specifically, the various activities related to a purchase (initiation, authorization, approval, ordering, receipt, payment and record keeping) should be done by different employees or subunits of an organization. In cases where tasks cannot be effectively separated, management can substitute increased supervision as an alternative control activity that can help prevent or reduce these risks.

Safeguarding Assets

The safeguarding of assets involves restricting access to resources and information to help reduce the risk of unauthorized use or loss. Management should protect the organization's equipment, information, documents and other resources that could be wrongfully used, damaged or stolen. Management can protect these resources by limiting access to authorized individuals only. Access can be limited by various means such as locks, passwords, electronic firewalls and encryption. Management should decide which resources should be safeguarded and to what extent. Management should make this decision based on the vulnerability of the items being secured and the likelihood of loss.

Reporting

Reporting is a means of conveying information. It serves as a control when it provides information on issues such as timely achievement of goals, budget status and employee concerns. Reporting also helps to promote accountability for actions and decisions. An example of a report that serves as a control activity would be one that compares purchasing activities with the approved budget, indicating and explaining significant variances between the two.

Control Activities for Information Technology

While some of the control activities relating to information technology (IT) are the responsibility of specialized IT personnel, other IT control activities are the responsibility of all employees who use computers in their work. For example, any employee may use:

- encryption tools, protocols, or similar features of software applications that protect confidential or sensitive information from unauthorized individuals;
- backup and restore features of software applications that reduce the risk of lost data;
- virus protection software; and
- passwords that restrict user access to networks, data and applications.

IT control activities can be categorized as either general or application controls. General controls apply to all computerized information systems, including mainframes, personal computers, server networks, virtual private networks and end-user environments. Application controls apply to the processing of data within the application software.

General and application controls are interrelated. General controls support the functioning of application controls, and both types of controls are needed to ensure complete and accurate information processing.

General Controls

General controls are concentrated on six major types of control activities: an entity-wide security management program; access controls; application software development and change; system software controls; segregation of duties; and service continuity.

- An organization-wide security management program includes a comprehensive, high-level assessment of risks to information systems. An organization should have a plan that clearly describes its security management program and policies and the procedures that support it, including procedures for the secure storage and disposal of sensitive information. The organization should also establish a structure to implement and manage the security program with security responsibilities clearly defined. In addition, the organization should monitor the effectiveness of the security program and make changes as needed.
- Access security controls are physical and software processes to prevent or detect unauthorized access to systems and data. These controls protect the systems from inappropriate access and unauthorized use by hackers and other trespassers, and form inappropriate use by agency personnel. Specific control activities may include:
 - restrictions on users allowing access only to the system functions they need to perform their assigned duties;
 - software and hardware firewalls to restrict access to assets, computers, and networks by external persons; and

- frequent changes of passwords and deactivation of former employees' passwords.
- Application software development and change control provides the structure for the safe development of new systems and the modification of existing systems. Control activities should include: system documentation requirements; authorizations for undertaking projects; and reviewing, testing, and approving development and modification activities before placing systems into operation.
- System software control is the controlling and monitoring of access to use and changes made to system software, including: security procedures over the acquisition, implementation, and maintenance of all system software; data-based management systems; telecommunications; security software; and utility programs.
- The concept of segregation of duties in a computer environment is the same as in a manual process. Key tasks and responsibilities should be divided among various employees and subunits of the computer operations. No one individual should control all of the primary elements of a transaction, event or process. Identifying incompatible duties and implementing policies to separate those duties can be monitored through the use of access controls as well as by implementing operating procedures, supervision, and the review of employee activities.
- Service continuity is concerned with maintaining or re-establishing the activities or level of service provided by an organization in the event of a disaster or other damaging occurrence. It is critical that an organization have backup and recovery procedures, and contingency and disaster plans. Data center and client-server operation controls involve steps to prevent and minimize potential damage to hardware and software and the interruption of service through the use of data and program backup procedures. Such procedures include: off-site storage of backup data; environmental controls; staff training; and hardware maintenance and management. Organizations should develop, document and periodically test their contingency plans.

Application Controls

Application controls help ensure that transactions are valid, properly authorized, and processed and reported completely and accurately. These controls also take into account the whole sequence of transaction processing, from the preparation of the initial source document or online data entry to the creation and use of the final output. As such, application controls consist of input, processing, and output controls:

- Input controls include processes for verifying data accuracy and completeness upon data entry to a system. These controls also provide specific mechanisms for input authorization, data conversion, data editing and error handling.
- Processing controls help ensure that data remains complete and accurate during updating, and that the application programs perform as intended.
- Output controls help ensure that system-generated information is accurate, properly recorded, and received or reviewed by authorized individuals only.

As information technologies advance and Internet use increases, modifications will have to be made in each organization's specific IT control activities. However, the basic requirements of control will not change. As more powerful computers place more responsibility for data processing in the hands of the end users and as Internet use grows, organizations must be prepared to implement the controls necessary to maintain an effective system of internal control.

This information is not meant to be a complete explanation of all IT control activities. Additional guidance has been issued by the New York Office of Information Technology Services. Further guidance can also be obtained from sources such as ISACA's COBIT 5: A Business Framework for the Governance and Management of Enterprise IT and the National Institute of Standards and Technology's special publications.

Deploys Controls Through Policies and Procedures

Management documents, in policies, the internal control responsibilities of the organization. This documentation generally consists of the following:

- each unit's responsibility for an operation process's objectives and related risks;
- control activity design;
- implementation; and
- operating effectiveness.

Individuals in key internal control roles may further define policies for day-to-day procedures depending on the propensity for change in the environment and the complexity of the process. Policies should be communicated and available to employees in accordance with their duties, and management should ensure employees understand their responsibilities related to policies affecting their functions. Further, management should periodically and systematically review policies, procedures and related control activities for relevance and effectiveness in achieving objectives and addressing related risks.

Information and Communication

Information is necessary for the organization to carry out internal control responsibilities to support the achievement of its objectives. Management obtains or generates and uses relevant and high-quality information from both internal and external sources, as well as providing communication internally and externally to support the functioning of other components of internal control.

Uses Relevant Information

Management uses relevant and high-quality information to make informed decisions and evaluate the organization's performance in achieving key objectives and addressing risks. For information to be relevant, it must come from reliable internal and external sources in a timely manner based on the identified information requirements. Quality information must be appropriate, current, complete, accurate, accessible, and provided on a timely basis.

Communicates Internally

Internal communication is the continual, iterative process of obtaining, providing, and sharing necessary information. Information should be communicated to management and other employees who need it in a form and within a time frame that helps them to carry out their responsibilities. It enables personnel to receive a clear message from senior management that control responsibilities must be taken seriously.

Information can be communicated verbally, in writing and electronically. While verbal communication may be sufficient for many day-to-day activities, it is best to document important information. This provides a more permanent record and enables managers and others to review the information.

Information should travel in all directions (across, up and down an organization) to ensure that all members of the organization are informed, and that decisions and actions of different units are communicated and coordinated. A good system of communication is essential for an organization to maintain an effective system of internal control. A communication system consists of methods and records established to identify, capture and exchange useful information. Information is only useful when it is timely, sufficiently detailed and appropriate to the user.

Management should establish communication channels that:

- provide timely information;
- can be tailored to individual needs;
- inform employees of their duties and responsibilities;
- enable the reporting of sensitive matters;
- enable employees to provide suggestions for improvement;
- provide the information necessary for all employees to carry out their responsibilities effectively; and
- convey top management's message that internal control responsibilities are important and should be taken seriously.

Internal communication is not an isolated internal control component. It affects every aspect of an organization's operations and helps support its system of internal control. All aspects of a strong internal control system are reliant on timely, relevant and accurate communication methods. An organization must internally communicate information, including objectives and responsibilities for internal control, to support the functioning of all other components of the internal control system. Further, feedback from this communication network can help management evaluate how well the various components of the system of internal control are working.

Communicates Externally

External communication with customers, suppliers, regulators and other outside parties is also essential to effective internal control. Information should be communicated externally through appropriate reporting lines so that external parties can help the entity achieve its objectives and address related risks.

Management should establish separate reporting lines that:

- allow for whistleblower and ethics hotlines for communicating confidential information;
- inform external parties of these separate reporting lines;
- educate the public and employees as to how these reporting lines operate;
- convey how these reporting lines are to be used; and
- instruct how the information will remain confidential.

External information can also be communicated verbally, in writing and electronically. Management considers a variety of factors when selecting an appropriate method of communication including its audience, nature of information provided, availability, cost, and legal or regulatory requirements.

MONITORING

Conducts Ongoing and/or Separate Evaluations

Monitoring is the ongoing evaluation of internal control components, either individually or as a whole system, to ascertain whether they are present and functioning. Management should focus monitoring efforts on internal control and achievement of the organization's mission.

Everyone within an organization has some responsibility for monitoring. The position a person holds in the organization helps to determine the focus and extent of these responsibilities. Therefore, the monitoring performed by staff, supervisors, mid-level managers and executives will not have the same focus, as follows:

- **Staff** - The primary focus of staff members should be on monitoring their own work to ensure it is being done properly. They should correct the errors they identify before work is referred to higher levels for review. Management should educate staff regarding control activities and encourage them to be alert to and report any irregularities. Because of their involvement with the details of the organization's daily operations, staff members have the best vantage point for detecting any problems with existing control activities. Management should also remind staff to note changes in their immediate internal and external environments, to identify any risks and to report opportunities for improvement.
- **Supervisors** - Supervision is a key element of monitoring. Supervisors should monitor all activities and transactions in their unit to ensure that staff members are performing their assigned responsibilities, control activities are functioning properly, the unit is accomplishing its goals, the unit's control environment is appropriate, communication is open and sufficient, and risks and opportunities are identified and properly addressed.
- **Mid-Level Managers** - Mid-level managers should assess how well controls are functioning in multiple units within an organization, and how well supervisors are monitoring their respective units. The focus of these managers should be similar to that of supervisors, but should extend to cover all the units for which they are responsible.
- **Executive Management** - Executive management should focus their monitoring activities

on the major divisions of the organization. Because of this broader focus, executive managers should place even more emphasis on monitoring the achievement of the organization's goals. Executive managers should also monitor for the existence of risks and opportunities in either the internal or external environment that might indicate the need for a change in the organization's plans.

Management should ensure that it takes the proper actions to address the results of monitoring. For example, management may decide to establish new goals and objectives to take advantage of newly identified opportunities, may counsel and retrain staff to correct procedural errors or may adjust control activities to minimize risk in response to changed circumstances. Further, independent evaluations should be performed periodically to provide objective feedback.

The monitoring performed by staff, supervisors, mid-level managers and executives should focus on the following major areas:

- **Control Activities** - Control activities are established to prevent or reduce the risk of an unfavorable event from occurring. If these activities fail, the organization becomes exposed to risk. Control activities can fail when controls are overridden, or when there is collusion for fraudulent purposes. Therefore, management should establish procedures to monitor the functioning of control activities and the use of control overrides. Management should also be alert to signs of collusion. Effective monitoring gives management the opportunity to correct any control activity problems and to control the risk before an unfavorable event occurs.
- **Mission** - Monitoring activities should include the development and review of operational data that would allow management to determine whether the organization is fulfilling its mission. This can be achieved by periodic comparison of operational data to the organization's strategic plan.
- **Control Environment** - Executive management should monitor the control environment to ensure that managers at all levels are maintaining established ethical standards of behavior and that staff morale is at an appropriate level. Managers should also ensure that the staff is competent, that training is sufficient, and that management style and philosophy foster the accomplishment of the organization's mission.
- **Information and Communication** - Managers should periodically verify that the employees they are responsible for are receiving and sharing information appropriately, and that this information is timely, sufficient and appropriate for the users. Management should ensure that there are open lines of communication, which fosters reporting of both positive and negative results.
- **Risks and Opportunities** - Managers should also monitor the organization's internal and external environment to identify any changes in risks and the development of opportunities for improvement. If changes are identified, managers should take appropriate action to address these new or changed risks and opportunities. Management should recognize that delays in responding to risks could result in damage to the organization, and a missed opportunity may result in a loss of new revenue or savings.

Evaluates and Communicates Deficiencies

Management must evaluate and communicate internal control deficiencies in a timely manner to those parties responsible for taking corrective action, including senior management and the board of directors, as appropriate. For monitoring to be most effective, all employees need to understand the organization's mission, objectives, and risk tolerance levels as well as their own responsibilities. (See Part III for further details on evaluation).

Part III: Managing and Evaluating the Internal Control System

These Standards are not intended to dictate a specific structure for managing and evaluating a system of internal control in New York State government operations. That being said, there are common attributes present among operations that have strong systems of internal control. This section highlights the elements common to successful systems of internal control.

Responsibility for Managing the System

This may come as a surprise to some readers, but external and internal auditors are not responsible for an entity's internal controls. External auditors evaluate internal controls as part of their audit planning process to determine if they can be relied on for purposes of issuing financial statements. Internal auditors assess whether an organization's internal controls are effective and evaluate the way an organization operates. Neither is responsible for the design and effectiveness of controls. An organization's management (including any applicable governing board) is responsible for making sure that the right controls are in place, and that they are performing as intended.

If an entity has a governing board, that board's responsibilities for internal controls primarily involve oversight, authorization and ethical leadership. If an entity does not have a governing board, this overarching responsibility falls to the head of the organization (e.g., Commissioner, Executive Director). Generally, governing boards or organizational heads do not design internal controls or prepare the written policies they adopt. Instead, the governing board relies upon management, especially the executive operational head (e.g., Executive Deputy, Deputy Director), to create the policies needed to ensure that the organization accomplishes its mission. Executive management in turn relies upon managers and department heads to recommend and implement procedures that lower identified risks. Wherever the responsibility for final approval of policies and procedures lies, this group or individual should take great care in reviewing these directives to ensure they are addressing risk appropriately.

Within the managerial ranks, the executive operational head provides the leadership needed to establish and guide an integrated internal control framework. This individual must establish a positive "tone at the top" by conducting the organization's affairs in an honest and ethical manner and by establishing accountability at all levels of the organization. If the executive operational head does not demonstrate strong support for internal controls, the organization as a whole will be unlikely to practice good internal controls.

While the executive operational head is responsible for the design and maintenance of the entity's control framework, the operational managers and department heads are the front line for implementing and monitoring internal controls. These individuals are responsible for supporting the internal control initiatives of the board and/or organizational and operational heads of the organization in daily operations. All levels of management must work together to create an integrated framework that lowers risk to an acceptable level and assists the organization in meeting its goals and objectives. Managers and department heads are generally responsible for identifying potential risks, designing and implementing controls for their areas of responsibility, and keeping current with events and changes that may affect the controls they have put into place.

The Importance of Internal Control and Risk Management

For New York State government operations, compliance with the spirit of the Internal Control Act will go a long way toward realizing the benefits of effective internal control and risk management. Compliance is best accomplished by having a system of internal control whose principal aim is to manage risks that

threaten the achievement of an organization's objectives. This entails not only performing risk assessments as discussed in the previous section of these Standards, but also:

- Identifying the organization's risk tolerance (e.g., margin of error, materiality) and what is deemed an unacceptable event;
- Monitoring legislation, market conditions, or political changes and their resulting potential impact on the organization on an ongoing basis; and
- Performing internal assessments of entity-wide risk, both actual and potential, with mitigation strategies.

An annual evaluation, although helpful, should not be the only occasion for risk assessment and monitoring. To ensure that the right controls are in place, it is best to build risk assessment and monitoring into ongoing management processes. Risks facing organizations are continually changing, and a successful system of internal control must be responsive to such changes, enabling adaptation. Effective risk management and internal control are therefore reliant on a regular evaluation of the nature and extent of risks.

In summary, to achieve a strong system of internal control, an organization needs to establish a clear link to risk management. This promotes the most effective and efficient combination of controls necessary to ensure that organizational objectives can be achieved.

Managing the Internal Control System

While the governing body or the head of the organization is responsible for ensuring an adequate internal control system is in place, the operation and monitoring of the system of internal control should be undertaken by individuals who collectively possess the necessary skills, technical knowledge, objectivity, and understanding of the organization. Many organizations have established a distinct internal control or risk management function responsible for assessing the risks to the organization and the control system's adequacy in addressing these risks.

The internal control or risk management function is responsible for identifying and inventorying risks to the mission of the organization on both a unit and entity-wide basis. While monitoring these risks and continually reviewing the organization's environment for changes that could impact its mission is an ongoing process, a formal assessment of all inherently high-risk functions should occur at least annually, and lower risk categories should be reviewed at least every three years. The formal report of deficiencies should be directed to the governing body or head of the agency and the audit committee, if one exists. Further, the Internal Control Officer -or in some entities, the Chief Risk Officer - should present enterprise risks based on analysis of reported deficiencies and appropriate review of the internal and external environmental monitoring.

Some organizations also use a senior-level risk management committee, usually consisting of the Internal Control Officer and executives charged with other functions that routinely deal with enterprise risk and risk mitigation (e.g., Counsel, Information Security Officer, etc.). Further enhancement to a risk committee would ideally include key business unit leaders to ensure that the organization's risk efforts are firmly embedded within core business activities. This group may have many responsibilities that range from establishing consistent risk definitions and terminologies, to reviewing reported deficiencies for completeness, and evaluating trend indicators and organizational risk ratings across the organization. In

addition, risk management committees may also:

- Advise on risk strategy: The risk committee serves as a repository of information and expertise on risk and risk strategy. Thus, the risk committee can help inform the organization of risk exposures and advise on future risk mitigation efforts.
- Assist with identifying risk appetite and tolerance: The risk committee can help establish, communicate, and monitor the risk culture, risk appetite, risk tolerances, and risk utilization of the organization at the enterprise and business-unit levels.
- Oversee risk exposures: The risk committee should be continuously aware of the critical risks and exposures facing the organization and of management's strategy for addressing them. The committee should consider the full range of risks and potential interactions among risks, including risk concentrations, escalating and de-escalating risks, contingent risks, and inherent and residual risk.
- Review crisis management plans: The risk committee should keep abreast of the organization's crisis preparedness and ensure that management has developed and can implement a plan to respond to major risks, such as natural disasters, terrorism, cyber-attacks, epidemics, civil disorder, and other events that could compromise the enterprise's human or other resources or disrupt the value chain.
- Support the internal control program: The risk committee can help ensure that the Internal Control Officer has the skills, authority, and resources to oversee risk in the enterprise. The committee can also support the internal control program through consistent communications and actions regarding the organization's approach to risk and risk management.

Whoever is charged with managing and assessing the system of control must understand the nature and context of control, including an understanding of the following:

- The system of internal control should be embedded in the operations of the organization and form part of its culture.

Control is affected by people throughout the organization, including the governing body, organizational head, management and all other staff. People who are accountable, as individuals or teams, for achieving objectives should also be accountable for the effectiveness of controls that support the achievement of those objectives. It is important that criteria are in place by which the effectiveness of the system of control can be judged. By making individuals accountable, the likelihood that controls will be operated properly is increased.

- Controls should be capable of responding quickly to evolving risks, both internal and external.

Risks include not only those related to the achievement of a specific objective but also those fundamental to the viability and success of the organization, such as failure to maintain the organization's resilience or capacity to identify and exploit opportunities. Resilience refers to the organization's capacity to respond and adapt to unexpected risks

and opportunities, and to make decisions on the basis of telltale indicators in the absence of definitive information.

- The costs of internal controls must be balanced against the benefits, including the risks they are designed to manage.

Design decisions involve the acceptance of some degree of risk. The costs of control must always be balanced against the benefits of controlling the risk. It is possible to reach a position where the incremental cost of additional control is greater than the benefit derived from controlling the risk.

- The system of internal control must include procedures for reporting immediately to appropriate levels of management any significant control failings or weaknesses that are identified, together with details of the corrective action being undertaken.

It should not be assumed, without making appropriate inquiries, that breakdowns in internal controls are isolated occurrences. The key is continual learning rather than attribution of blame. This philosophy should come down from the top of the company. A blame culture encourages the concealment of breakdowns in control. Often, major disasters are the result of the accumulation of a number of smaller, seemingly insignificant events, which if analyzed collectively would have provided the necessary warnings to enable preventive action.

- Controls can help minimize the occurrence of errors and breakdowns but cannot provide absolute assurance that they will not occur.

Human fallibility and the risk of unforeseeable occurrences are inherent limitations in any system of internal control. A control system cannot be designed to provide protection with certainty against an organization failing to meet its objectives or against all material errors, losses, frauds or breaches of laws or regulations.

Evaluation

Evaluation is the process management uses to determine whether:

- the organization will likely achieve its goals and objectives;
- the elements of the organization's internal control system are functioning effectively; and
- risks to the organization and opportunities for improvement are being identified.

It is important to note the distinction between evaluation and monitoring. Monitoring involves performing daily or routine procedures - like supervision, transaction review and problem resolution that help to ensure operations are in compliance with the organization's system of internal control.

Evaluation, on the other hand, involves conducting periodic assessments of the organization's performance compared with established expectations or measurement standards. In New York State government, this usually occurs during the annual certification process for many organizations, but should occur even if an organization is not subject to the Division of the Budget's Budget Policy and Reporting Manual Item B-350, entitled "Government Internal Control and Internal Audit Requirements."

Evaluation can be accomplished through self-assessment and independent review. Regular self-assessment helps management detect problems early, and thus minimizes the costs of these problems. Self-assessments should be scheduled regularly, and should be performed throughout the organization. Self-assessments can include surveys, questionnaires, interviews, observation and specific testing of transactions and key controls. Self-assessments should not only address specific processes, but also evaluate the unit's control environment, communication, monitoring and risk assessment processes.

The frequency of self-assessment should be based, in part, on the results of the organization's risk assessment process. Independent reviews can be performed by external auditors, consultants, and internal auditors who are independent of the operations to be reviewed. Such reviews should not be a substitute for routine self-assessments, but should serve to supplement them.

To perform an orderly, systematic evaluation of an organization's system of internal control, management should segment the organization into "assessable units." Assessable units are not usually the functional subunits found on an organization chart (e.g., bureaus), but are segments of them. For example, a bureau may have five or more assessable units in it, each of which performs a distinct function, program or process.

An assessable unit has certain primary characteristics. It has an ongoing, identifiable purpose that results in the creation of a service or product (used either internally or externally) and/or that fulfills a law, regulation or other mandate. An assessable unit should be large enough to allow managers to evaluate a significant portion of the activity being examined, but not so large that managers cannot perform a meaningful evaluation without extensive time and effort.

Management should maintain an inventory of the assessable units along with the purpose and objectives of each assessable unit, and use it when planning any review of the system of internal control.

The managers of the assessable units should have the responsibility for determining the effectiveness of the system of internal control within their respective units. Managers should ask such questions as:

- Do the unit's objectives provide it with a clear direction?
- Do employees in the unit understand the objectives, and how achievement of the objectives helps to accomplish the organization's mission?
- Does the control environment help to foster achievement of the unit's objectives?
- Does the unit have a means of effectively identifying and managing risk?
- Has unit management established the controls needed to minimize risk?
- Are the controls functioning as designed?
- Are the controls both effective and efficient in accomplishing their purpose?
- Does the unit receive the timely, accurate and useful information needed to achieve its objectives?
- Are communication lines sufficient to meet the needs of senders and receivers of

information?

- Is monitoring within the unit effective in ensuring that daily operations are in compliance with the system of internal control?
- Is the unit effectively monitoring the accomplishment of objectives, the control environment and the communication process?
- Does monitoring adequately identify changes in the internal or external environment?

Management should assess accomplishment of the mission at all levels of the organization on a regular basis. At production or operational levels, management should compare the actual accomplishments of the specific subunits with their operational plans and objectives, as well as, comparing the actual accomplishments of the major organizational divisions with strategic plans and organizational objectives. In addition, any new risks or opportunities that are identified in the assessment process may result in changes to the organization's objectives or modification of its mission.

All aspects of the self-assessment process should be documented, including the evaluation methodologies, the sources and types of information used, reporting relationships, any deficiencies identified, and any corrective action recommended. The results of the assessment should be communicated throughout the organization, and management should have processes in place to ensure that appropriate and prompt actions are taken to address any deficiencies identified. Management should include a review of these corrective actions in a subsequent evaluation process to determine if they have produced the desired outcomes.

Part IV: Supporting Activities

Strategic planning and internal audit are activities that support a good system of internal control. They provide management with additional tools to help ensure that the mission of the organization will be achieved.

Strategic Planning

Strategic plans are proposed courses of action designed to enable an organization to achieve its objectives and goals. Planning should begin at the top levels of management with a strategic plan that focuses on the long-range direction of the organization. The strategic planning process should include establishing the organization's broad organizational objectives and developing the strategies that should be followed to achieve them. On the basis of the direction in the organization's strategic plan, management should develop plans for each major organizational division with a long-range focus specific to that division. The division plans guide managers in developing shorter-range operational plans for each of the major functions performed within their respective divisions.

Objectives

Internal controls need to be tied to specific objectives related to reporting, compliance or operations. Strategic planning helps to define management's organizational and operational objectives. Management derives organizational objectives from the mission and often develops them during the strategic planning process. They are long-range, broad statements that define the desired outcomes of the organization as a whole. Organizational objectives are necessary for coordinating efforts and evaluating overall performance within an organization. Without these clearly defined objectives, employees could be working inefficiently, ineffectively and/or in conflicting directions.

Good organizational objectives can serve as starting points for more specific and detailed operational objectives within the subunits (i.e., divisions, departments, bureaus and assessable units) of the organization. Operational objectives are shorter range and more specific and define the desired outcomes of each of the organization's subunits. They should be structured in a hierarchy so that each subunit's accomplishment of its operational objectives helps the next higher level achieve its operational objectives, all of which helps management meet its organizational objectives.

All objectives should be in writing. Management should provide employees with written organizational and operational objectives along with the mission statement. Management should ensure that employees understand the objectives and how their work helps to achieve them.

Finally, just as changes in the environment can affect the adequacy and relevancy of the mission statement, these same factors can also affect an organization's objectives. For an organization to function effectively and adapt, it should periodically reassess its organizational and operational objectives.

Goals

Goals are objectives translated into specific, measurable targets. They are quantifiable and provide a means for assessing the accomplishment of objectives. Management should translate all objectives into attainable goals. Progress toward these goals can help measure accomplishment of an objective. Sometimes it is difficult to translate an objective into a quantifiable goal. In such instances, management should identify some other appropriate indirect measure.

Operational Plans

Managers at all levels should be able to use operational plans to determine the priority and timing of objectives, to resolve conflicts between objectives, to establish the organization's policies and procedures, and to help set budgets, schedules and resource assignments. Planning should be based on the most objective and accurate information available. All planning processes should identify the most efficient alternatives available for accomplishing the objectives. The plans should be provided to and understood by everyone who must follow them. Management should also establish a process that identifies how and when plans should be changed to reflect both changing conditions and the availability of more accurate information. Plans should be flexible enough to allow for such changes.

Internal Audit

Internal audit functions add value to an organization's internal control system by bringing a systematic, disciplined approach to the evaluation of risk and by making recommendations to increase the effectiveness of risk management efforts, improve the internal control structure and promote good corporate governance. The Legislature, in passing the Internal Control Act, recognized the internal audit function's key role in supporting the internal control system and, as such, made the Division of the Budget responsible for designating which State agencies would be required to maintain internal audit units. The Division of the Budget makes this determination based in part on the size, nature and/or complexity of agency operations. Other entities may choose to establish an internal audit function as part of their management of risks and resources.

In either case, the Internal Control Act requires that these units be organized and operated in accordance with professional audit standards, in particular *The Standards for the Professional Practice of Internal Auditing* promulgated by the Institute of Internal Auditors. This section, with consideration of the recommendations promulgated in 2006 by the New York State Internal Control Task Force, further interprets those standards as they apply to New York State entities and as such, forms the minimum expectations for the organization and operation of internal audit units within New York State government. Other organizational aspects related to the formation of an internal audit unit, including minimum qualifications for internal audit directors, are addressed by the Division of the Budget in Item B-350 of its *Budget Policy and Reporting Manual*.

Auditor Independence and Compatibility with Other Duties

A major underlying principle of professional audit standards is that the internal audit function must be organizationally independent of other business activities and free from interference in establishing the scope of its work and the communication of results. This organizational alignment promotes objectivity and allows the auditor to maintain an impartial, unbiased attitude while avoiding conflicts of interest. Internal audit independence and objectivity are important to credibility and are hallmarks of executive management's commitment to promoting a strong, introspective approach to governance. Executive managers, audit committees and third parties need to know that they can rely upon the internal auditor's independence when considering his or her findings and recommendations.

To ensure independence and objectivity, the internal audit function should report to the highest level of governing body charged with the responsibility to direct and/or oversee the activities and management of the organization. Ideally then, the function should be organized under the chief executive and report directly to any audit committee, board of directors or other governing authority that may exist.

Auditor independence also entails refraining from duties that are incompatible with the objective appraisal

of operations. Internal auditors should therefore avoid assuming operational responsibilities or engaging in other activities that may impair their independence, including functioning as their entity's Internal Control Officer (ICO). On the most basic level, the ICO duties are defined as working with appropriate agency personnel to coordinate the internal control activities, and to ensure that the agency's internal control program meets the requirements established in agency policy. The ICO role is therefore a management function that requires decisions about the overall design and implementation of the internal control system; as such, it is generally incompatible with the role of the internal auditor. Similarly, internal auditors should also avoid functioning as their entity's Information Security Officer (ISO), as this role not only requires specialized expertise, but can also require the auditor to perform management functions or make management-level decisions.

Although it is critical for agencies and other government organizations to preserve the independence of their internal audit operations, as a practical matter, some may experience temporary situations whereby they have insufficient resources to fully separate internal audit from their internal control and information security functions. In these situations, the internal auditor should limit his/her role to the extent possible, being careful to avoid decision making in areas such as the specific type of controls needed or the quality of controls in place. For example, if the internal auditor undertakes any internal control responsibilities, executive management needs to clearly reinforce that agency managers are the individuals responsible for maintaining an appropriate system of internal controls. Further, the agency's annual internal control certification, as well as any subsequent audits of the internal control system, should each fully disclose the internal auditor's role in the internal control process.

Separation of the internal control and internal audit functions does not preclude a strong working relationship that can create synergies between the two activities. Creating a sense of cooperation between the internal control and internal audit functions will improve the overall internal control culture of an agency. The internal control and internal audit functions reinforce one another when:

- The internal auditor uses internal control reports when planning audits;
- The auditor consistently evaluates and reports on compliance with internal control requirements in audit reports, as part of the auditor's assessment of internal controls;
- The ICO reviews internal audit reports on a regular basis to ensure that agency managers incorporate significant risks, findings and recommendations into the internal control system; and
- Follow-up audits address whether significant risks, findings and recommendations have been addressed and incorporated into the agency's internal control system.

Adopting these steps will provide the internal auditor and ICO with continuous feedback on the quality of the internal control system and, as a result, lower the risk that the system may be ineffective or lose its effectiveness over time.

Maintenance of auditor objectivity also requires a continuing assessment of each auditor's relationship with the operations she or he audits. Internal audit units therefore need to establish procedures to identify personal impairments, and should obtain information concerning potential conflicts of interest and bias from audit staff at least annually. Auditors should also immediately report any new impairment that arises to their internal audit director.

Risk-Based Audit Planning

Internal audit units exist in New York State due in major part to the provisions of the Internal Control Act, which focuses largely on control systems internal to the entity. In fact, the Act specifically requires that the internal audit function shall evaluate the agency's internal controls and operations. To fulfill this responsibility, internal audit units must devote resources to examining their organizations' internal operations and cannot simply audit outside parties that conduct business with their organizations, such as contractors, grantees or service providers. Still, the Act does not specify the minimum level of audit resources that must be devoted to internal activities, and there is no expectation that all internal audit resources be directed internally. Rather, the appropriate allocation is best determined as part of a larger analysis of risks facing the particular entity.

The Director of Internal Audit in each State agency also must periodically develop a risk-based plan of audit engagements to determine the priorities for the internal audit activity. This audit plan must be based on a risk assessment, which is updated at least annually. As part of this assessment, the internal audit unit should review, and test documentation maintained by the agency's Internal Control Officer in support of the entity's annual certification. Depending on the results of these tests, the internal audit unit may be able to form a basis to rely on the certification or may decide to set it aside and conduct its own separate review of internal controls. When audits of internal control systems are performed, the auditor should identify the specific objectives of the examination and should consider examining each of the five elements of internal control along with their related principles as discussed in these Standards: control environment, risk assessment, control activities, information and communication, and monitoring. Depending on the needs of the agency, the audit unit may need to expand the scope of its inquiry even further.

Input from senior management and the governing board (where applicable) must also be considered in the audit planning process to ensure the plan of engagements is consistent with the organization's goals. Further, the auditor should share information and coordinate activities with other internal and external providers of relevant assurance and consulting services, both to ensure proper coverage and to minimize duplication of efforts. The Director of Internal Audit should communicate the audit plan and the associated resource requirements, including any significant interim changes, to senior management and to the board for review and approval. The Director of Internal Audit should also communicate the impact of any resource limitations and should ensure that internal audit resources are appropriate, sufficient, and effectively deployed to achieve the approved plan.

Continuing Professional Education

To be effective in a changing world, all audit staff need to maintain and enhance their technical competence through a program of continuing education. Professional audit standards, as well as various professional licensing programs including the Certified Internal Auditor and the Certified Public Accountant, all include periodic continuing education requirements. The Internal Control Task Force report provides an extensive discussion on the need for continuing education and training of the State's internal auditors. The consensus recommendation is that each auditor is required to obtain at least 80 hours of continuing professional education every two years, with not less than 20 hours obtained during any single year. This requirement is consistent with the level of training required of other professionals conducting audits of government programs. The Task Force report appendix entitled Guidance on Continuing Education Requirements for New York State Internal Auditors provides a more detailed discussion of these requirements, and is incorporated by reference as part of these Standards.

Communication

Communication is also a critical factor in ensuring that internal audit operations provide maximum value to the organization. Professional standards require periodic meetings between the internal auditor, executive management and any governing board or audit committee that may exist. These meetings are essential to ensure the independence, effectiveness and accountability of the internal audit activity and should be held at least quarterly. The timely distribution of internal audit reports is another integral way that communication supports the independence, effectiveness and credibility of the internal audit organization. Distributing the audit reports to all stakeholders, including executive management, provides reasonable assurance that the agency will take action on the findings and recommendations contained therein. The internal audit director should be responsible for the distribution of each audit report and should provide copies to the agency head, the deputy head, the internal control officer, the audit committee (if applicable) and the head of the audited operation. Any further distribution of audit reports should be made only with the knowledge and permission of executive management.

Monitoring Audit Findings

The Internal Control Act requires internal auditors to identify internal control weaknesses that have not been corrected and make recommendations to correct those weaknesses. To accomplish this, each unit needs to establish and maintain a system to monitor the disposition of audit recommendations communicated to management. The auditor should document the rationale in deciding which audit recommendations should be followed up on and when, in contrast with recommendations where no follow-up is needed. The auditor should also follow up with management to document either that audit recommendations have been effectively implemented, or that senior management has accepted the risk of not implementing the recommendations. To the extent agreed upon with management, the internal audit unit should also monitor the disposition of recommendations arising for any non-audit services.

Maintaining Audit Documentation

Internal audit units should maintain documentation for each audit and subsequent follow-up. This documentation should contain sufficient information to enable an experienced auditor who has no previous connection with the audit to ascertain the evidence that supports the auditors' significant judgments and conclusions. Each internal audit unit should establish a formal policy that clearly delineates who is responsible for reviewing audit documentation prepared by various staff levels and when that review should occur.

Audit documentation is the auditors' property and should be kept under their control. The auditors should know exactly where all pieces of documentation are at all times during the conduct of the audit. Approval from senior management and/or legal counsel should be obtained prior to releasing copies of audit documentation and reports to external parties. When not in use, documentation should be kept in a locked file or otherwise secured so as not to be readily available to persons who are not unauthorized to access it. This includes protecting electronic information with appropriate IT security controls. Audit documentation should be retained for a minimum of seven years after the date of the audit report. For recurring audits, the documentation supporting previous audits may be filed in a centralized record retention facility provided an individual is assigned to maintain a record of the location of each item sent to record storage and an appropriate destruction date is scheduled for the material.

External Quality Assessment Review

Professional audit standards require each internal audit organization to periodically undergo an independent review of the quality of its audit activities. The purpose of this review is to ensure that the organization's quality control system is suitably designed and consistently complied with to the extent necessary to reasonably ensure compliance with audit standards. External assessments also promote more effective and efficient internal auditing operations by identifying better practices and making recommendations intended to improve performance. Periodic quality assessments are also an important means of reinforcing management's confidence in the work of the internal audit unit. As such, each internal audit unit in New York State government must have an appropriate external quality assessment review performed at least once during every five-year period.

APPENDIX C
WHISTLE BLOWER POLICY
April 2019

PURPOSE

It is the policy of NYSERDA to afford certain protections to individuals who, in good faith, report violations of NYSERDA's Code of Conduct or other instances of potential wrongdoing within NYSERDA. The Whistleblower Policy and Procedures set forth below are intended to encourage and enable employees to raise concerns in good faith within NYSERDA and without fear of retaliation or adverse employment action.

DEFINITIONS

Good Faith: Information concerning potential wrongdoing is disclosed in "good faith" when the individual making the disclosure reasonably believes such information to be true and reasonably believes that the information constitutes potential wrongdoing.

NYSERDA Employee: All NYSERDA board members, officers, and staff whether full-time, part-time, employed pursuant to contract, employees on probation, and temporary employees.

Personnel action: Any action affecting compensation, appointment, promotion, transfer, assignment, reassignment, reinstatement, or evaluation of performance.

Whistleblower: Any NYSERDA Employee who in good faith discloses information concerning wrongdoing by another NYSERDA Employee, or wrongdoing concerning the business of NYSERDA itself.

Wrongdoing: Any alleged corruption, fraud, criminal or unethical activity, misconduct, waste, conflict of interest, intentional reporting of false or misleading information, or abuse of authority engaged in by a NYSERDA Employee that relates to NYSERDA.

SECTION I: REPORTING WRONGDOING

All NYSERDA Employees who discover or have knowledge of potential Wrongdoing concerning board members, officers, or employees of NYSERDA; or a person having business dealings with NYSERDA; or concerning NYSERDA itself, shall report such activity in accordance with the following procedures:

- a) All NYSERDA Employees who discover or have knowledge of Wrongdoing shall report such Wrongdoing in a prompt and timely manner.
- b) The NYSERDA Employee shall disclose any information concerning Wrongdoing either orally or in a written report to his or her supervisor, or to the Director of Internal Audit, an Officer, any member of Counsel's Office, an independent Fraud and Abuse Hotline service available to NYSERDA employees, the Ethics Officer, or a representative from human resources.
- c) The identity of the whistleblower and the substance of his or her allegations will be kept confidential to the maximum extent possible.

d) Upon receipt of an allegation of Wrongdoing, the individual to whom the potential Wrongdoing is reported shall notify the General Counsel, and the General Counsel shall determine who will conduct the investigation. All claims or reporting of Wrongdoing will be thoroughly investigated by NYSERDA under the direction and supervision of the Office of the General Counsel, unless the General Counsel refers the investigation to the Office of the Inspector General, Authorities Budget Office or other outside authority to investigate. Once the investigation is complete, the General Counsel or the individual who conducted the investigation shall provide to the President and CEO and the Director of Internal Audit a summary report, which shall include the findings of the investigation and a recommendation for resolving the matter. The Director of Internal Audit shall advise the Audit and Finance Committee at its next regularly scheduled meeting of any material or significant weaknesses or deviations identified in such report. Should the findings of such investigation(s) reveal substantiated claims of Wrongdoing, NYSERDA shall take appropriate action, which may include referral to the Inspector General's Office, referral to the Members for recommended action requiring Member approval, or referral to NYSERDA's President and CEO for recommended disciplinary or administrative action.

e) The individual to whom the potential Wrongdoing is reported may refer such information to the Authorities Budget Office or an appropriate law enforcement agency where applicable.

f) Allegations of corruption, fraud, criminal activity, conflicts of interest or abuse by a NYSERDA Employee or any persons having business dealings with NYSERDA must be reported to the State Inspector General.

g) All NYSERDA Employees shall cooperate fully with internal investigations and investigations by the State Inspector General pertaining to NYSERDA operations.

h) All reports and draft reports delivered to NYSERDA by the State Inspector General shall be reviewed by the Audit and Finance Committee, which shall serve as the point of contact on such reports.

i) Should a NYSERDA Employee believe in good faith that disclosing information within NYSERDA pursuant to Section 1(a) above would likely subject him or her to adverse personnel action or be wholly ineffective, the NYSERDA Employee may instead disclose the information to the Authorities Budget Office or an appropriate law enforcement agency, if applicable. The Authorities Budget Office's toll-free number (1-800-560-1770) should be used in such circumstances.

SECTION II: NO RETALIATION OR INTERFERENCE

No NYSERDA Employee shall retaliate against any Whistleblower for the disclosure of potential Wrongdoing, whether through threat, coercion, or abuse of authority; and, no NYSERDA Employee shall interfere with the right of any other NYSERDA Employee by any improper means aimed at deterring disclosure of potential Wrongdoing. Any attempts at retaliation or interference are strictly prohibited. In addition:

a) No NYSERDA Employee who in good faith discloses potential violations of the NYSERDA Code of Conduct or other instances of potential Wrongdoing, shall suffer harassment, retaliation or adverse personnel action as a result of such disclosure.

b) All allegations of retaliation against a Whistleblower or interference with an individual seeking to disclose potential Wrongdoing shall be thoroughly investigated by NYSERDA.

c) Any NYSERDA Employee who retaliates against or attempts to interfere with any individual for disclosing or attempting to disclose potential violations of the NYSERDA Code of Conduct or other instances of potential Wrongdoing is subject to discipline, which may include termination of employment.

d) Any allegation of retaliation or interference will be taken and treated seriously and irrespective of the outcome of the initial complaint, such allegation will be treated as a separate matter.

SECTION III: OTHER LEGAL RIGHTS NOT IMPAIRED

The Whistleblower Policy and Procedures set forth herein are not intended to limit, diminish, or impair any other rights or remedies that an individual may have under the law with respect to disclosing potential Wrongdoing free from retaliation or adverse personnel action.

a) Specifically, these Whistleblower Policy and Procedures are not intended to limit any rights or remedies that an individual may have under the laws of the State of New York, including but not limited to the following provisions: Civil Service Law § 75-b, Labor Law § 740, State Finance Law § 191 (commonly known as the “False Claims Act”), and Executive Law § 55(1).

b) With respect to any rights or remedies that an individual may have pursuant to Civil Service Law § 75- b or Labor Law § 740, any NYSERDA Employee who wishes to preserve such rights shall prior to disclosing information to a government body, have made a good faith effort to provide the appointing authority or his or her designee the information to be disclosed and shall provide the appointing authority or designee a reasonable time to take appropriate action unless there is imminent and serious danger to public health or safety. (See Civil Service Law § 75-b[2][b]; Labor Law § 740[3])

Resolution No. _____

RESOLVED, that the amendments to the Authority's Internal Control Manual as presented at this April 27, 2021 meeting with such non-substantive, editorial changes as the President and CEO, in her discretion, may deem necessary or appropriate, are hereby recommended for approval and adoption.

is resulting from Tier2 loans which are anticipated to require a higher price/yield to reflect the historically higher loss rates on these loans.

If successful, utilizing the participation approach will result in a decrease in the amount of RGGI funds required to support the loan program on an ongoing basis, or the currently allocated funding could be used to support an increase in program loan originations by lowering the loan interest rates.

NYSERDA will conform with all approvals and regulatory requirements, as may be required.

Resolution No. _____

RESOLVED, that the Audit and Finance Committee recommends that the Board approve a resolution in substantially the same form as attached hereto as Exhibit A.

Resolution No. _____

WHEREAS, pursuant to special act of the Legislature of the State of New York (Title 9 of Article 8 of the Public Authorities Law of New York, as from time to time amended and supplemented, herein called the “Act”), the New York State Energy Research and Development Authority (the “Authority”) has been established as a body corporate and politic, constituting a public benefit corporation; and

WHEREAS, pursuant to special act of the Legislature of the State of New York (Title 9-A of Article 8 of the Public Authorities Law of New York, as from time to time amended and supplemented, herein called the “Green Jobs – Green New York Program”), the Authority has been authorized to use innovative financing mechanisms to finance energy efficiency improvements and technologies eligible for net metering through energy cost savings; and

WHEREAS, the Authority may wish to sell participation interests, not to exceed 90%, in one or more pools of Green Jobs – Green New York Program residential consumer loans (the “Loans”) to community banks or credit unions; and

WHEREAS, the Authority will enter into an agreement with LoanStreet, Inc., an online platform that provides a streamlined process for sharing, managing, and originating loans for credit unions, Banks, and direct lenders, to serve as the seller for the Authority’s participating interests under the Green Jobs – Green New York Program; and

NOW, THEREFORE, BE IT RESOLVED BY THE MEMBERS OF THE NEW YORK STATE ENERGY RESEARCH AND DEVELOPMENT AUTHORITY AS FOLLOWS:

Section 1. The offering, sale, and delivery of the Loans in one or more pools, not to exceed 90% of the principal balance of eligible loans as of April 30, 2021, upon the terms and conditions and for the purposes described in this resolution are hereby authorized. The Loans shall be sold for an amount of Net Proceeds as determined by the President and CEO, the Vice Presidents, the Treasurer, or the Secretary of the Authority (collectively, the “Authorized Representatives”) provided that such price shall not be less than fair market value as determined by an independent valuation consultant. The sale of the Loans shall be subject to such provisions as set forth in agreements between the Authority and Loan Street, Inc.

Section 2. The Authorized Representatives are each hereby authorized to execute, acknowledge, and deliver any agreements or other transaction documents as such Authorized Representatives shall approve. Execution of such documents by an Authorized Representative shall be conclusive evidence of any approval required by this section.

Section 3. The Authorized Representatives are hereby authorized to provide any appropriate disclosure in connection with the transactions contemplated by this resolution, including but not limited to the use of the financial statements of the Authority or Green Jobs – Green New York Program information. The foregoing approval shall not be deemed to constitute an acknowledgment by the Authority of any responsibility for any information which has been furnished by any other party.

**New York State Energy Research and
Development Authority
(dba as the New York Green Bank)**

Bank of America, N.A.
Summary of Preliminary Terms (Revised)

Purchase of the Revenue and Principal Repayments of a Specific
Loan Portfolio

March 19, 2021

BANK OF AMERICA, N.A. (“BANA”) DISCLAIMER:

This term sheet is for discussion purposes only and should not be construed as an offer to purchase or invest or advance financing. This term sheet does not constitute a commitment to arrange or provide, or to offer to arrange or provide, a financing of any kind or the obligation for either party to enter into the proposed transaction, on the terms described herein or otherwise. Any such commitment, if forthcoming, would be evidenced by a separate written agreement, executed and delivered by the applicable BANA entity. In addition, the transaction described herein has not been reviewed or approved by all internal groups whose approval is normally needed prior to any commitment by BANA of participating in the consummation of a transaction. The information presented herein is presented for the sole purpose of enabling you to evaluate the proposed transaction. Please be advised that BANA is not, and does not hold itself out to be, an advisor as to legal, tax, accounting or regulatory matters in any jurisdiction. No member of the BANA group is acting as your agent, trustee or representative of any kind in connection with this proposal. You should consult with your own advisors concerning legal, accounting, tax and regulatory matters and shall be responsible for making an independent investigation and appraisal of the risks, benefits and suitability of the transactions contemplated by this presentation, and BANA shall have no responsibility or liability with respect thereto. BANA and each of its agents, affiliates or representatives make no representation or warranty as to the completeness of the statements contained herein. By receipt of these materials, you and your representatives acknowledge the foregoing and agree not to disclose the contents or substance of these materials to any third party without the prior written consent of BANA, provided however, the U.S. federal tax structure or U.S. federal tax treatment of such transactions is not confidential.

WE ARE NOT YOUR MUNICIPAL ADVISORS OR FIDUCIARIES.

BofA Securities, Inc. (“BofA Securities”) is providing the information contained herein for discussion purposes only in anticipation of being engaged to serve as an underwriter. Bank of America, N.A. and its subsidiaries and affiliates (“BANA”) are providing the information contained herein for discussion purposes only in connection with a proposed arm’s-length commercial banking transaction between you and BANA. This information is provided to you by BofA Securities and BANA pursuant to and in reliance upon the responses to requests for proposals or qualifications exemption provided under SEC Rule 15Ba1-1(d)(3)(iv), the participation by an independent registered municipal advisor exemption provided under SEC Rule 15Ba1-1(d)(3)(vi), and the bank exemption provided under SEC Rule 15Ba1-1(d)(3)(iii). BofA Securities and BANA are acting for their own interest and have financial and other interests that differ from yours. BofA Securities and BANA are not acting as a municipal advisor or financial advisor within the meaning of Section 15B of the Securities Exchange Act of 1934, as amended (the “Act”), and BofA Securities and BANA have no fiduciary duty to you or any other person pursuant to Act with respect to the information and material contained in this communication. BofA Securities is seeking to serve as an underwriter on a future transaction and not as a financial advisor or municipal advisor. The primary role of BofA Securities, as an underwriter, is to purchase securities with a view to distribution in an arm’s-length commercial transaction between you and BofA Securities. All underwriting services referenced herein are provided by BofA Securities and all commercial banking products referenced herein are provided by BANA. Before acting on the information or material contained herein, you should discuss it with any and all of your own internal and external financial and/or municipal, legal, accounting, tax and other advisors as you deem appropriate.

“Bank of America” and “BofA Securities” are the marketing names used by the Global Banking and Global Markets divisions of Bank of America Corporation. Lending, other commercial banking activities, and trading in certain financial instruments are performed globally by banking affiliates of Bank of America Corporation, including Bank of America, N.A., Member FDIC. Trading in securities and financial instruments, strategic advisory, and other investment banking activities, are performed globally by investment banking affiliates of Bank of America Corporation, including, in the United States, BofA Securities, Inc. and Merrill Lynch Professional Clearing Corp., both of which are registered broker-dealers and Members of SIPC, and, in other jurisdictions, by locally registered entities. BofA Securities, Inc. and Merrill Lynch Professional Clearing Corp. are registered as futures commission merchants with the CFTC and are members of the NFA. References to BofA Securities, Inc. herein refer to the institutional business of Merrill Lynch, Pierce, Fenner & Smith Incorporated prior to May 13, 2019, and as of that date to BofA Securities, Inc.

CONFIDENTIAL NOTICE TO RECIPIENT

"Bank of America" and "BofA Securities" are the marketing names used by the Global Banking and Global Markets divisions of Bank of America Corporation. Lending, other commercial banking activities, and trading in certain financial instruments are performed globally by banking affiliates of Bank of America Corporation, including Bank of America, N.A., Member FDIC. Equal Housing Lender. Trading in securities and financial instruments, and strategic advisory, and other investment banking activities, are performed globally by investment banking affiliates of Bank of America Corporation ("Investment Banking Affiliates"), including, in the United States, BofA Securities, Inc. and Merrill Lynch Professional Clearing Corp., both of which are registered broker-dealers and Members of SIPC, and, in other jurisdictions, by locally registered entities.

BofA Securities, Inc. and Merrill Lynch Professional Clearing Corp. are registered as futures commission merchants with the CFTC and are members of the NFA.

**Investment products offered by Investment Banking Affiliates:
Are Not FDIC Insured * May Lose Value * Are Not Bank Guaranteed.**

These materials have been prepared by one or more subsidiaries of Bank of America Corporation for the client or potential client to whom such materials are directly addressed and delivered (the "Company") in connection with an actual or potential mandate or engagement and may not be used or relied upon for any purpose other than as specifically contemplated by a written agreement with us. These materials are based on information provided by or on behalf of the Company and/or other potential transaction participants, from public sources or otherwise reviewed by us. We assume no responsibility for independent investigation or verification of such information (including, without limitation, data from third party suppliers) and have relied on such information being complete and accurate in all material respects. To the extent such information includes estimates and forecasts of future financial performance prepared by or reviewed with the managements of the Company and/or other potential transaction participants or obtained from public sources, we have assumed that such estimates and forecasts have been reasonably prepared on bases reflecting the best currently available estimates and judgments of such managements (or, with respect to estimates and forecasts obtained from public sources, represent reasonable estimates). No representation or warranty, express or implied, is made as to the accuracy or completeness of such information and nothing contained herein is, or shall be relied upon as, a representation, whether as to the past, the present or the future. These materials were designed for use by specific persons familiar with the business and affairs of the Company and are being furnished and should be considered only in connection with other information, oral or written, being provided by us in connection herewith. These materials are not intended to provide the sole basis for evaluating, and should not be considered a recommendation with respect to, any transaction or other matter. These materials do not constitute an offer or solicitation to sell or purchase any securities and are not a commitment by Bank of America Corporation or any of its affiliates to provide or arrange any financing for any transaction or to purchase any security in connection therewith. These materials are for discussion purposes only and are subject to our review and assessment from a legal, compliance, accounting policy and risk perspective, as appropriate, following our discussion with the Company. We assume no obligation to update or otherwise revise these materials. These materials have not been prepared with a view toward public disclosure under applicable securities laws or otherwise, are intended for the benefit and use of the Company, and may not be reproduced, disseminated, quoted or referred to, in whole or in part, without our prior written consent. These materials may not reflect information known to other professionals in other business areas of Bank of America Corporation and its affiliates.

Bank of America Corporation and its affiliates (collectively, the "BAC Group") comprise a full service securities firm and commercial bank engaged in securities, commodities and derivatives trading, foreign exchange and other brokerage activities, and principal investing as well as providing investment, corporate and private banking, asset and investment management, financing and strategic advisory services and other commercial services and products to a wide range of corporations, governments and individuals, domestically and offshore, from which conflicting interests or duties, or a perception thereof, may arise. In the ordinary course of these activities, parts of the BAC Group at any time may invest on a principal basis or manage funds that invest, make or hold long or short positions, finance positions or trade or otherwise effect transactions, for their own accounts or the accounts of customers, in debt, equity or other securities or financial instruments (including derivatives, bank loans or other obligations) of the Company, potential counterparties or any other company that may be involved in a transaction. Products and services that may be referenced in the accompanying materials may be provided through one or more affiliates of Bank of America Corporation. We have adopted policies and guidelines designed to preserve the independence of our research analysts. These policies prohibit employees from offering research coverage, a favorable research rating or a specific price target or offering to change a research rating or price target as consideration for or an inducement to obtain business or other compensation. We are required to obtain, verify and record certain information that identifies the Company, which information includes the name and address of the Company and other information that will allow us to identify the Company in accordance, as applicable, with the USA Patriot Act (Title III of Pub. L. 107-56 (signed into law October 26, 2001)) and such other laws, rules and regulations as applicable within and outside the United States.

We do not provide legal, compliance, tax or accounting advice. If any person uses or refers to any such tax statement in promoting, marketing or recommending a partnership or other entity, investment plan or arrangement to any taxpayer, then the statement expressed herein is being delivered to support the promotion or marketing of the transaction or matter addressed and the recipient should seek advice based on its particular circumstances from an independent tax advisor. Notwithstanding anything that may appear herein or in other materials to the contrary, the Company shall be permitted to disclose the tax treatment and tax structure of a transaction (including any materials, opinions or analyses relating to such tax treatment or tax structure, but without disclosure of identifying information or any nonpublic commercial or financial information (except to the extent any such information relates to the tax structure or tax treatment)) on and after the earliest to occur of the date of (i) public announcement of discussions relating to such transaction, (ii) public announcement of such transaction or (iii) execution of a definitive agreement (with or without conditions) to enter into such transaction; provided, however, that if such transaction is not consummated for any reason, the provisions of this sentence shall cease to apply.

Issuer Entity:	A Delaware Statutory Trust or a Bankruptcy remote Limited Liability Corporation (the "Issuer or "SPV").
Seller:	The New York State Energy Research and Development Authority (dba as the New York Green Bank) (the "Seller").
Loan Servicer:	Seller.
Pledged Revenue/Notes/ Transaction Portfolio:	<p>A Gross Revenue Pledge. The Seller will sell, pledge and assign to the Notes Trustee its interest in repayments from the Transaction Portfolio through a Purchase and Sale Agreement and Trust Indenture Agreement for the issuance of asset-backed notes (the "Notes").</p> <p>The unconditional sale of the Pledged Revenues pursuant to the Uniform Commercial Code and the Sellers ability to grant a statutory pledge under its enabling statute as a public benefit corporation:</p> <p>Pledged Revenues are generated from the following approximately \$405,000,000 outstanding principal of the renewable energy loans as of September 30, 2020 (the "Transaction Portfolio"):</p> <ul style="list-style-type: none"> • Sunrun Hera – A • Sunrun Hera – B • Northport • Hebrew Home • Odyssey • Sunrun Neptune • Valcour OpCo • Valcour HoldCo • Rock Wind Holdings • Spruce • EcoSave • Delaware River TL • AES DG • Generate Plug Power • BQ Energy • True Green CIT • Generate CDG • Sunrun Mars • OYA Solar (A & B) • Cypress Creek
Cash Management Account:	All Revenues will be subject to a Cash Management Account and Account Control Agreement.
Portfolio Valuation/ Loan to Value Calculation:	The Transaction size will be limited, among other things, to a percentage of the outstanding principal amount of the loan balance of the gross Transaction Portfolio: 83% (subject to BANA due diligence review).
Gross Note Proceeds:	83% of the Transaction Portfolio principal balance as of the Closing Date (Subject to BANA due diligence review).
Net Proceeds to NY Green Bank:	Gross Note Proceeds minus upfront BANA funding fee of \$4,500,000.

**All terms subject to change.*



Additional Debt:	Additional Bonds may be issued subject to certain agreed upon coverage, loan to value, legal opinions and BANA approval.
Notes Purchaser:	Bank of America, N.A. ("BANA"). BANA intends to purchase the Notes from the Issuer and hold the securities for its own account.
Note Purchase Commitment:	Subject to BANA due diligence, documentation, legal opinions, internal credit and capital commitment committee approvals.
Ratings:	Unrated. No third party public rating is required.
Notes Offering Type:	Direct purchase of the Notes. Not an offering of securities and no offering memorandum or disclosure document is required.
Collateral Pledge:	Gross Revenue Pledge of the Transaction Portfolio.
Limited Repurchase Obligation:	Seller will provide a limited repurchase obligation for misrepresentations of underwriting warranties and current performance of the individual loans within the Transaction Portfolio that generates the revenues for the sizing of the transaction.
Recourse to Seller:	None. Pledged Revenues only and Limited Repurchase Obligation described above.
General Notes Structure:	Quarterly Pay Pass-Through Notes.
Timing / Closing Date:	BANA Credit Approval: April [___], 2021 Closing Date: June 1, 2021 (Expected)
Final Notes Maturity Date:	March 30, 2036 (one year past final loan portfolio maturity date).
Notes Anticipated Repayment Date ("ARD"):	March 30, 2028.
Notes Denomination:	Minimum \$250,000 and increments of \$1 in excess thereof.
Notes Interest Rate Structure:	Quarterly per annum Floating Rate of interest calculated on each Rate Reset Date taking into account the interest rate index and add-on calculations described further below.
Notes Interest Accrual Period:	Each Notes Interest Payment Date through, but excluding, the subsequent Notes Interest Payment Date, commencing on the Closing Date.
Notes Rate Reset Date:	The Business Day immediately preceding each Notes Interest Payment Date at the commencement of each Notes Interest Accrual Period, commencing on the Business Day immediately preceding the Closing Date.
Short-Term Rate Index:	3-Month Secured Overnight Financing Rate ("SOFR") Average published by the Federal Reserve Bank of NY. In no event will the Short Term Index be less than 0.00%.
Adjustment Factor:	The positive difference between [3-year LIBOR swap rate] and [3-year SOFR swap rate] as of the Closing Date. In no event shall the Adjustment Factor be less than 0.00%. [Approximately 0.17% as of March 18, 2021.]
Pre-ARD Notes Interest Rate:	Short-Term Rate Index + Adjustment Factor + 2.10% per annum.

**All terms subject to change.*



Notes Interest Default and Post-ARD Premium:	5.00% per annum. Upon a failure to pay Notes interest amounts due on any Quarterly Payment Date, or on and after the ARD, Notes shall immediately commence accruing and paying Interest at a rate equal to the sum of the Pre-ARD Notes Interest Rate and the Notes Interest Default and Post-ARD Premium.
Notes Interest Calculations:	Actual/360.
Servicer Fee:	0.05% per annum on outstanding balance of Transaction Portfolio loans payable quarterly in arrears.
Notes Interest Payment Dates:	Quarterly on each March 30, June 30, September 30, December 30, commencing September 30, 2021 (each a "Quarterly Payment Date").
General Cash Flow Waterfall Priority:	<ol style="list-style-type: none"> (1) Notes accrued and unpaid interest (2) Trustee fee and expenses (3) Servicer fee (4) Amounts, if any, required to increase the balance of the Expense Reserve to the Expense Reserve Requirement (5) Notes Principal to the extent available therefor or until the Notes have been paid in full (6) Amounts remaining after all Notes Interest (including Notes Interest Default and Post-ARD Premium, if any), Trustee fee and expenses, Servicer fee and Notes Principal have been paid in full, to the Seller, including amounts remaining in the Expense Reserve not required to be used for its stated purposes.
Notes Principal Amortization ("Turbo Redemption"):	Commencing on the Quarterly Payment Date on September 30, 2021, the Notes shall be subject to mandatory redemption amounts, without premium, on each Quarterly Payment Date in an amount equal to 100% of net revenue (including recoveries of loan principal, by reason of prepayment, insurance award, condemnation award, or otherwise, of the underlying Transaction Portfolio) available after payment of quarterly interest due on such Quarterly Payment Date, subject to the Cash Flow Waterfall indicated above, until all Notes have been paid in full.
Debt Service Reserve Fund ("DSRF") Requirement:	None.
Minimum DSC Ratio:	None.
Cash Flow Trapping:	100% due to Turbo Redemption structure.
Events of Default:	Usual and customary events of defaults for pooled revenue financings under the Receivables Purchase Agreement ("RPA") or the Servicing Agreement ("SA").
Key Issuer Covenants:	Usual and customary under the RPA and the SA.
Representations and Warranties:	Usual and customary representations and warranties under the RPA and the SA.
Limited Indemnification:	Seller shall indemnify the Purchaser and the Trustee from and against any and all losses, liabilities, expenses, claims, and damages arising from or

**All terms subject to change.*



relating to fraud, misrepresentation and misappropriation (“Bad Acts on the part of the Seller”) in the Transaction Documents.

Expense Reserve Fund:	A small liquidity reserve available to pay certain ongoing expenses of the Trust to the extent Trust fees and expenses are due and payable between Revenue availability dates, as approved for payment by the Notes Purchaser and funded pursuant to the General Cash Flow Waterfall.
Expense Reserve Fund Requirement:	\$50,000.
Ongoing Commitment Fees:	None.
Cost of Issuance:	Seller is responsible for paying the fees and expenses associated with its counsel(s) and advisor(s). All issuance expenses associated with the Notes Purchaser’s counsel(s), Trustee upfront fees and counsel expense, third party experts for due diligence review (property assessment, engineering bring down, financial verification, etc.) document management site, DTC settlement, CUSIP number service, as applicable, to be paid by the Notes Purchaser out of its upfront funding fee.
Purchaser’s Counsel:	Kutak Rock LLP.
Notes Trustee:	To be selected and determined by the Notes Purchaser.
Calculation Agent:	The Notes Trustee.
Ongoing Information:	The Servicer shall agree to provide ongoing financial, subsidiary, Seller operating and performance related information to BANA and the Notes Trustee. Details of required ongoing disclosure information shall be specified within the Notes documentation.
Due Diligence Items, including Underlying Loans (Preliminary):	<ul style="list-style-type: none">• Review of project site reports• Review of engineering reports• Payment history/delinquency for operating projects• Default risks and past defaults• Shortfall risk• Note structure/payment priorities• Servicing and backup servicing• Servicer termination events• Termination events• Default or cancellation risk in the agreements• Financial guarantees of installers for operation/energy savings for energy project components• Obligor Credit profile and obligor default remediation options.• Contractor Credit Profile• Technology installed• Insurance and risk of loss• Security• Excess debt service coverage (17%) as a subordinated interest in the transaction• LIBOR fallback language
Primary Transaction Documents (Preliminary):	<ul style="list-style-type: none">• Trust Indenture• Receivable Purchase Agreement• Servicer Agreement

**All terms subject to change.*



- Account Control / Cash Management Lockbox Agreement
- UCC filings
- Board Resolutions and Authorizations

Primary Legal Opinions:

- Authorization, Validity and Enforceability;
- No Litigation (each underlying Loan)
- SPV or Bankruptcy remote Issuer;
- Exemption from the Investment Company Act of 1940;
- Exemption from the SEC Act of 1933 and 1934;
- Issuer has free and clear title to the Collateral and that the Trust will have a first perfected security interest in the Collateral.

Governing Law:

New York



Attachment 2

Bank of America – Direct Purchase Illustrative Term Sheet Analysis

MOELIS & COMPANY

Direct purchase of interest in revenues from Transaction Portfolio with 100% cash sweep

KEY ECONOMIC ASSUMPTIONS

- \$329mm securitization based on 83% advance rate to deployed capital
- Base rate of 3mL and a spread of 2.10%¹
- Servicing fee of 0.05% per annum being paid to NY Green Bank
- Post-Availability Period step-up of 500 bps, which is effective after 7 year Availability Period
- \$4.5mm upfront fee for engineers, lawyers, due diligence and other miscellaneous expenses
- No KBRA upfront or ongoing fee
- 7 year anticipated repayment schedule, with a 15 year facility tenor
- 100% cash sweep until debt balance has been paid in full, after which cash flows revert to NYGB

ILLUSTRATIVE SOURCES & USES²

Sources (\$ in 000s)	Amount (\$)	Amount (%)
Sale Exchange Proceeds:	\$ 329,093	100.00%
Total:	\$ 329,093	100.00%

Uses (\$ in 000s)	Amount (\$)	Amount (%)
Upfront Fee:	\$ 4,500	1.37%
Professional Fee:	3,291	1.00%
Proceeds to NYGB:	321,302	97.63%
Total:	\$ 329,093	100.00%

PRO FORMA DEBT PAYDOWN

(\$ in 000s)	Fiscal Year Ending March 31,							Remainder ³
	FY 2022	FY 2023	FY 2024	FY 2025	FY 2026	FY 2027	FY 2028	
<i>Collateral Balances:</i>								
Committed Capital - EOP:	\$ 333,755	\$ 269,159	\$ 229,675	\$ 189,715	\$ 124,551	\$ 66,358	\$ 52,402	\$ -
Deployed Capital - EOP:	338,333	281,601	241,617	201,889	145,281	73,317	52,402	-
<i>Cash Flow Waterfall:</i>								
Portfolio Revenue:	\$ 10,232	\$ 12,029	\$ 10,112	\$ 9,040	\$ 8,139	\$ 4,627	\$ 2,959	\$ 7,302
Plus: Portfolio Repayments / Maturities:	65,550	56,732	39,984	39,729	56,607	71,965	20,914	52,402
Less: KBRA Monitoring Fees:	-	-	-	-	-	-	-	-
Cash Flow Available for Debt (P&I) Service:	\$ 75,783	\$ 68,761	\$ 50,096	\$ 48,769	\$ 64,746	\$ 76,592	\$ 23,874	\$ 59,705
<i>Debt Service:</i>								
Interest Payment:	\$ 5,948	\$ 6,557	\$ 4,853	\$ 3,487	\$ 2,402	\$ 322	\$ -	\$ -
Principal Payment:	69,835	62,203	45,242	45,282	62,344	44,187	-	-
Total Debt Service:	\$ 75,783	\$ 68,761	\$ 50,096	\$ 48,769	\$ 64,746	\$ 44,510	\$ -	\$ -
<i>Cash in Suspense:</i>								
EOP Cash to NYGB (Cumulative):	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 32,082	\$ 55,955	\$ 115,660
<i>Debt Balance:</i>								
BOP Debt Balance:	\$ 329,093	\$ 259,259	\$ 197,055	\$ 151,813	\$ 106,531	\$ 44,187	\$ -	\$ -
Less: Principal Amortization:	(69,835)	(62,203)	(45,242)	(45,282)	(62,344)	(44,187)	-	-
EOP Debt Balance:	\$ 259,259	\$ 197,055	\$ 151,813	\$ 106,531	\$ 44,187	\$ -	\$ -	\$ -
Total EOP Debt Balance:	\$ 259,259	\$ 197,055	\$ 151,813	\$ 106,531	\$ 44,187	\$ -	\$ -	\$ -
Additional Capacity:	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
<i>Leverage Metrics:</i>								
DSCR (0.0x):	1.00x	1.00x	1.00x	1.00x	1.00x	1.72x	-	-
EOP A/R:	76.63%	69.98%	62.83%	52.77%	30.41%	0.00%	0.00%	0.00%

Resolution No. _____

RESOLVED, that the Audit and Finance Committee recommends that the Board approve a resolution in substantially the same form as attached hereto as Exhibit A.

Resolution No. _____

WHEREAS, pursuant to special act of the Legislature of the State of New York (Title 9 of Article 8 of the Public Authorities Law of New York, as from time to time amended and supplemented, herein called the “Act”), the New York State Energy Research and Development Authority (the “Authority”) has been established as a body corporate and politic, constituting a public benefit corporation; and

WHEREAS, pursuant to the New York State Public Service Commission’s “Order Establishing New York Green Bank and Providing Initial Capitalization,” issued and effective December 19, 2013 (Case 13-M 0412), NY Green Bank (“NYGB”) has been established as an unincorporated division of the Authority and capitalized with \$1 billion in ratepayer and other capital for the purpose of making investments in sustainable infrastructure projects in New York State; and

WHEREAS, pursuant to the Act, the Authority is authorized to sell, convey, mortgage, lease, pledge or otherwise dispose of personal property, including investments made by NYGB and any rights thereunder, upon such terms and conditions as the Authority deems advisable, together with such rights and privileges as may be incidental and appurtenant thereto; and

WHEREAS, NYGB intends to maintain and increase the level of its investment activity in New York State in support of the goals of New York State’s Climate Leadership and Community Protection Act of 2019 without requesting any additional ratepayer capital;

WHEREAS, in order to achieve the aforementioned purpose, NYGB intends to generate proceeds for reinvestment in New York State by selling NYGB’s repayment interests in financing receivables (the “Revenues”) from twenty (20) loans in NYGB’s portfolio (the “Loans”) (estimated to have an aggregate outstanding principal balance of \$396.5 million as of February 28, 2021) to ESG Green Acquisition Trust (the “Purchaser”), a statutory trust organized under the laws of the State of Delaware and beneficially owned by Bank of America, N.A. (“BANA”), all pursuant to a Receivables Purchase Agreement (the “RPA”) between NYGB, a division of the Authority, and the Purchaser;

WHEREAS, pursuant to the RPA, as consideration for the sale of its interest in the Revenues to the Purchaser, NYGB will receive (i) a cash purchase price equal to 83% of the aggregate outstanding principal balance plus anticipated committed but undrawn balances of the Loans as of a cutoff date prior to the closing date, not to exceed \$336.15 million in gross proceeds, less a \$4.5 million upfront funding fee to BANA (such amount, the “Net Proceeds”) and (ii) a residual certificate issued by the Purchaser, representing a residual interest in the Revenues once the Purchaser’s Notes issued to BANA and secured by Revenues have been repaid; and

WHEREAS, after the consummation of the sale of the Revenues to the Purchaser, NYGB will remain the lender of record of the Loans and service the Loans pursuant to a Servicing Agreement with the Purchaser for a servicing fee equal to 0.05% per annum on the aggregate outstanding principal balance of the Loans; and

NOW, THEREFORE, BE IT RESOLVED BY THE BOARD MEMBERS OF THE NEW YORK STATE ENERGY RESEARCH AND DEVELOPMENT AUTHORITY AS FOLLOWS:

Section 1. The sale of the Revenues upon the terms and conditions and for the purpose described in this resolution are hereby authorized. The Revenues shall be sold for an amount of Gross Proceeds equal to the 83% of the aggregate outstanding principal balance plus anticipated committed but undrawn balances of the Loans, not to exceed \$336.15 million in gross proceeds, less \$4.5 million (net proceeds not to exceed \$331.65 million). The sale of the Loans shall be subject to such provisions as set forth in the RPA.

Section 2. The President and CEO, the Vice Presidents, the Treasurer, the Secretary of the Authority, or the President of NY Green Bank (the “Authorized Representatives”) are each hereby authorized to execute, acknowledge, and deliver the RPA, the Servicing Agreement and any other transaction documents as such Authorized Representative shall approve. Execution of such documents by an Authorized Representative shall be conclusive evidence of any approval required by this Section.

Section 3. The Authorized Representatives are hereby authorized to provide any appropriate disclosure in connection with the transactions contemplated by this resolution, including but not limited to the use of the financial statements of the Authority or NYGB. The foregoing approval shall not be deemed to constitute an acknowledgment by the Authority or NYGB of any responsibility for any information which has been furnished by any other party.

Section 4. The Authorized Representatives are each hereby authorized to execute, acknowledge, and deliver any other agreements, documents, or certificates, including certificates confirming on behalf of the Authority the accuracy and completeness of information relating to the Revenues, the Loans, the Authority and NYGB, and to do and cause to be done any such other acts and things and to make such other changes, omissions, insertions, revisions, or amendments to the documents referred to in Sections 1 through 5 of this resolution as they may determine necessary or proper for carrying out, giving effect to, and consummating the transactions contemplated by this resolution. Execution of such documents by an Authorized Representative shall be conclusive evidence of any approval required by this Section. Any Authorized Representative, the Assistant Treasurer, and the Acting Secretary of the Authority are each hereby authorized to affix the seal of the Authority on such documents and attest the same.

Section 5. The sale of the Revenues shall not give rise to any indebtedness of or a charge against the general credit of the Authority. The sale of the Revenues shall not constitute a debt of the State of New York.



NYSERDA

ANDREW M. CUOMO
Governor

RICHARD L. KAUFFMAN
Chair

DOREEN M. HARRIS
President and CEO

NOTICE OF MEETING AND AGENDA

April 18, 2021

TO THE MEMBERS OF THE PROGRAM PLANNING COMMITTEE:

PLEASE TAKE NOTICE that the one hundred twelfth (112th) meeting of the Program Planning Committee of the New York State Energy Research and Development Authority (“Authority”) will be held by videoconference, on Tuesday, April 27, 2021, commencing at 12:00 p.m., for the following purposes:

1. To consider and act upon the Minutes of the 111th meeting of the Program Planning Committee held on February 2, 2021.
2. To receive a report on the Authority’s Diversity, Equity, and Inclusion Initiative.
3. To receive a report on the Authority’s work to benefit disadvantaged communities.
4. To transact such other business as may properly come before the Committee.

Members of the public may attend the meeting via the video conference which can be accessed at <https://www.nyserdera.ny.gov/About/Board-Governance/Board-and-Committee-Meetings>.

The Authority will be posting a video and a transcript of the meeting to the web as soon as practicable after the meeting. The video and transcript will be posted at <http://www.nyserdera.ny.gov/About/Board-Governance/Board-and-Committee-Meetings>.

Sara L. LeCain
Secretary to the Program Planning Committee

New York State Energy Research and Development Authority

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Management Program**
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(F) 716-942-9961



ANDREW M. CUOMO
Governor

NYSERDA

RICHARD L. KAUFFMAN
Chair

DOREEN M. HARRIS
President and CEO

NOTICE OF MEETING AND AGENDA

April 16, 2020

TO THE MEMBERS OF THE NEW YORK STATE ENERGY RESEARCH AND DEVELOPMENT AUTHORITY:

PLEASE TAKE NOTICE that a regular (the 252nd) meeting of the New York State Energy Research and Development Authority (“Authority”) will be held via video conference, on Tuesday, April 27, 2021, commencing at 1:30 p.m., for the following purposes:

I. Discussion Agenda:

1. To receive a report from the President and CEO.
2. To consider a resolution to enter into a private session for the purpose of discussing attorney-client privileged matters.
3. To receive a report from the Governance Committee.
4. To receive a report from the Audit and Finance Committee.
5. To receive a report from the Program Planning Committee.
6. To receive a report from NY Green Bank.
7. To receive a report from one of the Authority’s Programs.

II. Consent Agenda

1. To consider and act upon resolutions approving:
 - a. amendments to the Authority’s Conflict of Interest Policy;
 - b. general salary increases for Officers consistent with New York State Budget approvals for Management Confidential employees;
 - c. amendments to the Authority’s Internal Control Manual;
 - d. the financing of the Green Jobs – Green New York Program;

New York State Energy Research and Development Authority

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- e. a debt facility on behalf of NY Green Bank; and
- f. the periodic contracts report.

III. To transact such other business as may properly come before the meeting.

Members of the public may attend the meeting via the video conference which can be accessed at <https://www.nyserda.ny.gov/About/Board-Governance/Board-and-Committee-Meetings>.

The Authority will be posting a video and a transcript of the meeting to the web as soon as practicable after the meeting. The video and transcript will be posted at <http://www.nyserda.ny.gov/About/Board-Governance/Board-and-Committee-Meetings>.



Peter J. Costello
Secretary

President's Report

Governance Committee Report

Resolution No. _____

RESOLVED, that pursuant to Section 108 of the Public Officers Law, the Members shall convene in private session on April 27, 2021 for the purpose of discussing attorney-client privileged matters.

Audit & Finance Committee Report

Program Planning Committee Report

NEW YORK STATE ENERGY RESEARCH AND DEVELOPMENT AUTHORITY

CONFLICT OF INTEREST POLICY FOR BOARD MEMBERS

(~~January 2020~~ April 2021)

All ~~Board~~ ~~board~~ ~~Members~~ ~~members~~ shall be provided with this Conflict of Interest Policy upon their appointment to the NYSERDA Board and are required to acknowledge that they have read, understand, and are in compliance with the terms of the Policy. Board ~~Members~~ ~~members~~ should review, on an ongoing basis, circumstances that constitute a conflict of interest or the appearance of a conflict of interest and should abide by this policy and seek guidance when necessary and appropriate.

This policy is intended to supplement, but not replace, any applicable state and federal laws and regulations governing conflicts of interest applicable to unpaid ~~Board~~ ~~board~~ ~~Members~~ ~~members~~ of public authorities.

Conflicts of Interest: A conflict of interest is a situation in which the financial, familial, or personal interests of a board member come into actual or perceived conflict with their duties and responsibilities as a board member of the Authority. Perceived conflicts of interest are situations where there is the appearance that a board member can personally benefit from actions or decisions made in their official capacity, or where a board member may be influenced to act in a manner that does not represent the best interests of the Authority. The perception of a conflict of interest may occur if circumstances would suggest to a reasonable person that a board member may have a conflict. The appearance of a conflict and an actual conflict should be treated in the same manner for the purposes of this Policy.

Board members must conduct themselves at all times in a manner that avoids any appearance that they can be improperly or unduly influenced, that they could be affected by the position of or relationship with any other party, or that they are acting in violation of the public trust. While it is not possible to describe or anticipate ~~all of all~~ the circumstances that might involve a conflict of interest, a conflict of interest typically arises whenever a board member has or will have:

- A financial or personal interest in any person, firm, corporation or association which has or will have a transaction, agreement or any other arrangement in which the Authority participates;
- The ability to use his or her position, confidential information or the assets of the Authority, to his or her personal advantage;
- Any other circumstance that may or appear to make it difficult for the board member to exercise independent judgment and properly exercise his or her official duties.

PROCEDURES

Duty to Disclose: All material facts related to the conflict of interest (including the nature of the interest and information about the conflicting transaction) shall be disclosed in good faith to the General Counsel and/or Ethics Officer. Such disclosure shall be made part of the official record of the proceedings of the Authority.

Determining Whether a Conflict of Interest Exists: The General Counsel and/or Ethics Officer shall advise the individual who appears to have a conflict of interest how to proceed. The General Counsel and/or

Ethics Officer should seek guidance from the Joint Commission on Public Ethics (JCOPE) when dealing with cases where they are unsure of what to do.

Recusal and Abstention: No board member may participate in any decision or take any official action with respect to any matter requiring the exercise of discretion, including discussing the matter and voting, when he or she knows or has reason to know that the action could confer a direct or indirect financial or material benefit on himself or herself, a relative, or any organization in which he or she is deemed to have an interest. Board members must recuse themselves from deliberations, votes, or internal discussion on matters relating to any organization, entity or individual where their impartiality in the deliberation or vote might be reasonably questioned, and are prohibited from attempting to influence other board members in the deliberation and voting on the matter.

Records of Conflict of Interest: The minutes of the Authority's meetings during which a perceived or actual conflict of interest is disclosed or discussed shall reflect the name of the interested person, the nature of the conflict, and a description of how the conflict was resolved.

Confidential Information: Information obtained as a result of board membership, and not otherwise public, must not be disclosed, and may not be used to further your interests or the interests of a relative.

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Unwarranted Privileges: Do not use or attempt to use your position on the board to obtain preferential treatment for yourself or others.

Nepotism: Do not participate in any way in a decision to hire, promote or discipline a family member paid by ~~your Agency~~ the Authority.

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Gifts: Do not accept anything of value where (a) it could reasonably be inferred that it is a gift intended to influence you, in the performance of your board duties; or (b) was given to you as a sign of appreciation for board member action. Ask the General Counsel and/or Ethics Officer to determine the appropriate course of action in a particular circumstance.

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Political Activity: Certain board members cannot do the following – please ~~talk~~ discuss with the General Counsel and/or Ethics Officer ~~about~~ whether these prohibitions apply to you:

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- a. Serve as an officer of any political party or political organization;
- b. Serve as a member of any political party committee, including serving as a political party district leader or member of the national committee of a political party; or
- c. Give or raise monetary contributions for the State of New York Governor's political campaign.

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Outside Activities: You may not engage in outside activities that would impair your judgment or compromise or interfere with your ability to properly perform your duties. You may not engage in outside activities that create an actual conflict of interest or the appearance of a conflict of interest. You should consult with the General Counsel and/or Ethics Officer if you have any questions concerning your potential conflicts of interest arising from outside activities you are engaged in. You may not use NYSERDA time, materials, equipment or other assets in connection with outside activities.

Reverse Two Year Bar: For the first two years you serve on the ~~Board of~~ NYSERDA Board, you should not participate or be involved in the decision-making process for NYSERDA in relation to any matter involving a person or business in the private sector by whom you are currently employed or by whom you were employed during the two years preceding NYSERDA service or employment.

Reporting of Violations: Board members should promptly report any violations of this Policy to Authority's General Counsel, Ethics Officer or Director of Human Resources in accordance with the Authority's Whistleblower Policy and Procedures.

Penalties: Any board member that fails to comply with this policy may be penalized in the manner provided for in law, rules or regulations.

Resolution No. _____

RESOLVED, that the Conflict of Interest Policy for Board Members as presented at this April 27th, 2021 meeting, is hereby approved by the Board.

Resolution No. ____

RESOLVED, that the proposed 2% salary increase retroactive to April 7, 2021 payable to the President and CEO consistent with terms and conditions as may be authorized for State Management/Confidential employees by the New York State Division of the Budget, are hereby approved; and

BE IT FURTHER RESOLVED, the Members approve that any Authority Officer shall be entitled to receive periodic future salary increases consistent with terms and conditions as may be authorized from time to time for State Management/Confidential employees by the New York State Division of the Budget.

NEW YORK STATE
ENERGY RESEARCH AND DEVELOPMENT AUTHORITY

INTERNAL CONTROL MANUAL:
Ensuring Efficiency, Accountability, and Transparency

Revised ~~January 2018~~ April 2021

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SECTION 1: PURPOSE; BOARD MEMBER RESPONSIBILITIES

The purpose of this manual is to set forth NYSERDA's policies and procedures for ensuring an effective system of internal controls that also promotes accountability and transparency.

Public Authorities Law, Article 9, Title 8, §2931, known as the New York State Governmental Accountability Audit and Internal Control Act ("Internal Control Act") requires NYSERDA to establish and maintain a system of internal controls. The Internal Control Act defines internal controls as a "process that integrates the activities, plans, attitudes, policies, systems, resources and efforts of the people of an organization working together, and that is designed to provide reasonable assurance that the organization will achieve its objectives and mission" (Article 9, §2930).

The Internal Control Act lists specific objectives of an internal control system including, but not limited to:

- the safeguarding of assets;
- checking the accuracy and reliability of accounting data and financial reporting;
- promoting the effectiveness and efficiency of operations;
- ensuring compliance with applicable laws and regulations; and
- encouraging adherence to prescribed managerial policies.

The Public Authorities Accountability Act of 2005, which amends various sections of the Public Authorities Law, seeks to ensure greater efficiency, openness and accountability for the State's public authorities by codifying model governance principles, removing legal impediments that prevent full implementation of model governance principles, establish a new public authorities office within the Executive Department to provide additional oversight and ensure full compliance with the principles, and allow for the creation of an independent inspector general to ensure greater accountability for public authority activities and operations.

As explained below and through their review and approval of various guidelines, reports, planning documents, and other activities of NYSERDA staff, NYSERDA's Board Members are actively engaged in overseeing NYSERDA use of processes, policies, and procedures that accomplish NYSERDA's mission through an effective system of internal controls that incorporates accountability and transparency.

Board Member Internal Control Responsibilities. The Internal Control Act requires that the governing board of NYSERDA:

- establish and maintain for NYSERDA guidelines for a system of internal control that are in accordance with this article and internal control standards;
- establish and maintain for NYSERDA a system of internal control and a program of internal control review. The program of internal control review shall be designed to identify internal control weaknesses, identify actions that are needed to correct actions and periodically assess the adequacy of NYSERDA's ongoing internal controls;
- make available to each Board Member, officer and employee a clear and concise statement of the generally applicable managerial policies and standards with which he or she is expected to comply. Such statement shall emphasize the importance of effective internal control to NYSERDA and the responsibility of each Board Members, officer and employee for effective internal control;
- designate an internal control officer, who shall report to the head of NYSERDA, to implement

- and review the internal control responsibilities established pursuant to this section;
- implement education and training efforts to ensure that Board Members, officers and employees have achieved adequate awareness and understanding of internal control standards and, as appropriate, evaluation techniques; and
- periodically evaluate the need for an internal audit function.

Board Member Accountability Responsibilities, The Public Authority Accountability Act of 2005 requires the Board Members to:

- execute direct oversight of NYSERDA’s President and CEO and other senior management in the effective and ethical management of NYSERDA;
- understand, review and monitor the implementation of fundamental financial and management controls and operational decisions of NYSERDA;
- establish policies regarding the payment of salary, compensation and reimbursements to, and establish rules for the time and attendance of the President and CEO and senior management;
- adopt a code of ethics applicable to each officer, director and employee that, at a minimum, includes the standards established in section seventy-four of the public officers law;
- establish written policies and procedures on personnel including acts of wrongdoing, misconduct, malfeasance, or other inappropriate behavior by an employee or Board Member of NYSERDA, investments, travel, the acquisition of real property and the disposition of real and personal property and the procurement of goods and services;
- adopt a defense and indemnification policy and disclose such plan to any and all prospective Board Members; and
- attend State approved training, including such continuing training as may be required to remain informed of best practices, regulatory and statutory changes relating to the effective oversight of the management and financial activities of public authorities and to adhere to the highest standards of responsible government.

Through all of the processes, policies, and procedures set forth in this manual, the three underlying manuals (the Personnel Handbook, Information Security Policies Manual, Accounting Policies and Procedures Manual, and Operations and Procedures Manual), and through its review and approval of a diverse set of guidelines, reports, planning documents and more detailed Committee review of staff activities, NYSERDA’s Board Members comply with these statutory requirements.

NYSERDA’s Board has established the following standing committees:

Audit and Finance Committee. The Audit and Finance Committee is a standing advisory committee of the Authority. The Committee has not fewer than three or more than six Board Members. The Committee shall consist of not less than three independent Board Members who shall constitute a majority on the Committee and who shall possess the necessary skills to understand the duties and function of the Committee, provided, however, that in the event that there are less than three independent Members, the Members may appoint non-independent Members, provided that the independent Members constitute a majority of the Members of the Committee. In addition, the membership of the Committee includes the Chair of the Authority who serves ex-officio and who enjoys all the rights and privileges of membership, including the right to vote. A majority of the members of the Committee then in office, not including the Chair of the Authority, gathered together in the presence of each other or through the use of videoconferencing, constitutes a quorum, and the Chair of the Authority if present counts toward a quorum. Members of the Committee shall

be familiar with corporate financial and accounting practices.

The Audit and Finance Committee recommends the hiring of a certified independent accounting firm, establishes the compensation to be paid, and provides direct oversight of the performance of the independent audit performed, reviews the annual financial statements of the Authority prior to submission for approval to the Board Members of the Authority, reviews proposals for the issuance of debt by the Authority and makes recommendations, and may examine and consider such other matters in relation to the internal and external audit of the Authority's accounts, the Authority's financings, and in relation to the financial affairs of the Authority and its accounts as the Audit and Finance Committee may determine to be desirable.

Program Planning Committee. The Program Planning Committee is a standing advisory committee of the Authority. The Committee has not fewer than three or more than six Board Members, who are elected from among the Board Members of the Authority other than the Chair. A majority of these committee members are other than Board Members of the Authority who serve ex-officio. In addition, the membership of the Committee includes the Chair of the Authority, who serves ex-officio and who enjoys all the rights and privileges of membership, including the right to vote. A majority of the members of the Committee then in office, not including the Chair, gathered together in the presence of each other or through the use of videoconferencing, constitutes a quorum, and the Chair of the Authority if present counts toward a quorum.

The Program Planning Committee reviews the annual updating of the Authority's Strategic Program Plan; and preparation of the portions of the Authority's annual budget related to the energy research and innovation, market development, clean energy financing, and other related programs and initiatives; and provides guidance to the Authority's officers and employees in the preparation of those plans and those portions of the budget; and considers such other matters related to the Authority's energy research and development programs, energy services programs, energy analysis program, and economic development program as the officers of the Authority may refer to the Committee.

Waste and Facilities Management Committee. The Waste and Facilities Management Committee is a standing advisory committee of the Authority. The Committee has not fewer than three or more than six members, who are elected from among the Board Members of the Authority other than the Chair. A majority of these committee members are other than Board Members of the Authority who serve ex-officio. In addition, the membership of the Committee includes the Chair of the Authority, who serves ex-officio and who enjoys all the rights and privileges of membership, including the right to vote. A majority of the members of the Committee then in office, not including the Chair of the Authority, gathered together in the presence of each other or through the use of videoconferencing, constitutes a quorum, and the Chair of the Authority if present counts toward a quorum.

The Waste and Facilities Management Committee reviews the Authority's program and plans for management of the Western New York Nuclear Service Center, including the West Valley Demonstration Project, and for radioactive waste policy and nuclear coordination; reviews the preparation of the Authority's annual West Valley site management program and radioactive waste policy and nuclear coordination budgets; reviews the Authority's plans and provides guidance for the facilities owned by or under the control of the Authority; provides guidance to the Authority's officers and employees in the preparation of the plans and in preparation of such

annual program budgets; and considers such other matters related to West Valley site management and radioactive waste policy and nuclear coordination programs as the Officers of the Authority may refer to such Committee.

Governance Committee. The Governance Committee is a standing advisory committee of the Authority. The Committee shall consist of not less than three independent Members who shall constitute a majority on the Committee and who shall possess the necessary skills to understand the duties and function of the Committee, provided, however, that in the event that there are less than three independent Members, the Members may appoint non-independent Members, provided that the independent Members constitute a majority of the Members of the Committee. The Committee has not fewer than three or more than six members. In addition, the membership of the Committee includes the Chair of the Authority who shall serve ex-officio and who enjoys all the rights and privileges of membership, including the right to vote. A majority of the members of the Committee then in office, not including the Chair of the Authority, gathered together in the presence of each other or through the use of videoconferencing, constitutes a quorum, and the Chair of the Authority if present counts toward a quorum.

The Governance Committee keeps the Board Members informed of current best practices, reviews corporate governance trends, updates the Authority's corporate governance principles, as necessary, recommend updates to the corporate governance principles, advises appointing authorities on the skills and experience required of Board Members, examine ethical and conflict of interest issues, perform Board self-evaluation, and recommend By-laws which include rules and procedures for conduct of Board business.

All meetings of the Authority subject to the Open Meetings Law will be broadcast on the Internet.

Board Member Compliance with Lobbying Laws

Procurement Lobbying: State Finance Law Sections 139-j and 139-k applies to all solicitations issued and procurements under active consideration that may result in a procurement contract in an amount in excess of \$15,000. Such solicitations and procurements under consideration must: (1) designate individuals at NYSERDA who may be contacted about the procurement by persons attempting to influence the procurement process (*i.e.*, offerers and persons hired by the offerer who attempt to influence the procurement), and (2) outline NYSERDA's procedures relating to contacts that are not permitted under the State Finance Law. All solicitations and procurements will identify NYSERDA employees, and not Board Members, as the individuals that may be contacted under such circumstances.

The responsibility to record information about contacts that reasonably appear to be attempts to influence the procurement process applies during the "restricted period." The restricted period begins once NYSERDA has made a decision to initiate procurement and extends until execution of the contract. It begins again at any time a modification to the contract is proposed and extends until the modification is executed.

The decision to initiate procurement occurs at the earliest of: (1) the Greenlight Committee's approval of the proposed issuance of a solicitation, (2) an employee's receipt of a proposal for a program project that does not meet the definition of Competitive Procurement Method under the Contracting Guidelines, or (3) at such other time when a determination is made to proceed with an

administrative procurement. At this time and until the time a contract is executed, Board Members must: (1) record information regarding contacts that reasonably appear to be attempts to influence the procurement process within the restricted period, and (2) submit the record to

NYSERDA's Director of Contract Management who will maintain such records in the appropriate file. The record is to include the contact including the name, the organization, the address, the telephone number, the place of principal employment, and the occupation of the contact and whether the person or organization making the contact is a "potential contractor" or is retained, employed, or designated by the potential contractor to appear before or to contact the agency regarding the procurement.

Failure to comply with the requirements may result in a contractor being barred from governmental procurements. Board Members should contact the General Counsel if they have any questions concerning these requirements.

Project Sunlight: Project Sunlight, a component of the Public Integrity Reform Act of 2011, is intended to provide the public with an opportunity to see when outside individuals and entities are interacting with—and attempting to influence—state government decision-makers in particular ways. Project Sunlight requires the reporting in an online database of all interactions that constitute "appearances" between "covered individuals" inside NYSEKDA and "covered individuals" outside NYSEKDA concerning one of five designated Project Sunlight subject areas.

An "appearance" is an in-person meeting, telephonic conversation, or video conference that is a substantive interaction meant to influence state government decision-making. The location, formality, and initiator of the interaction are irrelevant. Excluded from "appearance" are all written communications; administrative or ministerial interactions; purely informational exchanges; interactions regarding legislation or the budget; and meetings that are open to the public. NYSEKDA "covered individuals" are those individuals designated as "policy-makers," which includes Board Members. "Covered individuals" outside NYSEKDA include internal and external representatives of outside entities, individuals representing themselves, and representatives of advocacy groups. Not included are employees of other state agencies and of other governments; state elected officials, executive and legislative employees, judges, and employees of the judiciary; representatives of the media; and persons under the age of 18. An "appearance" between "covered individuals" must be reported if it concerns one of five designated subject areas: procurement (outside of the restricted period defined by the Procurement Lobbying Law), regulatory matters, rulemaking, judicial or quasi-judicial proceedings, and rate making.

Reportable appearances must be timely recorded in the database, within five business days after they occur. NYSEKDA covered individuals complete the Project Sunlight reporting form available on NYSEKDA's intranet and emails it to the dedicated email inbox: projectsunlight@nyserda.ny.gov. NYSEKDA's Project Sunlight Liaison, designated by the General Counsel, coordinates and oversees NYSEKDA's reporting efforts. Board Members should contact the Project Sunlight Liaison or General Counsel if they have any questions concerning these requirements.

Regulatory Lobbying: Public Authorities Law §2987 requires every Member, Officer, or employee to record all contacts, whether oral or written, that are an attempt to influence the adoption or rejection of any rule or regulation having the force and effect of law that is issued by NYSEKDA. The record must include the day and time of the contact, the identity of the lobbyist, and a general summary of the substance of the contact. NYSEKDA shall maintain these records for not less than seven years.

INTERNAL CONTROL POLICY

It is the responsibility of every employee to abide by the requirements of the internal controls system. All employees are expected to be aware of NYSERDA's internal controls system and regularly consider the system in performing their tasks. NYSERDA has prepared a Code of Conduct, attached hereto as Appendix B, summarizing a number of basic standards and State and Federal laws which NYSERDA employees are required to follow. The Code of Conduct sets forth NYSERDA's expectations that its employees conduct themselves in an honest and ethical manner and is provided to all employees.

If an employee identifies a potential weakness in, or deviation from, NYSERDA's internal control systems or generally accepted systems of internal controls, he or she shall report such potential weakness or deviation immediately in accordance with NYSERDA's Whistleblower Policy, attached hereto as Appendix C.

INTERNAL CONTROL SYSTEM

The procedures herein establish checks and balances over NYSERDA's administration and operations practices, financial and accounting practices and personnel practices, regularly reviewing the adequacy of the controls, especially in areas of highest vulnerability, revising those controls as necessary to reflect organizational changes, new program mandates or staffing adjustments, and taking corrective action when internal control weaknesses are identified. NYSERDA stresses to its Directors and they to their staffs the importance of communicating and adhering to the policies and procedures in the Internal Control System.

The Internal Control Officer is responsible for assisting with the implementation and review of the internal control system and for implementing education and training of staff.

All employees and officers have access to all the manuals that comprise the internal control system which are:

- Internal Control Manual – the compilation of the accounting, operating and administrative controls of NYSERDA as described more fully in the following manuals:
- Operations and Procedures Manual – details the policies and procedures followed in planning and implementing NYSERDA's programs and administration, including its contracting process to ensure compliance with State statutes, regulatory requirements and Executive Orders;
- Accounting Policies and Procedures Manual – details the financing and accounting practices; and
- Personnel Handbook – details NYSERDA's personnel practices and policies which apply to all employees.

This manual also summarizes the primary functions and control objectives of each of NYSERDA's assessable units. Assessable units are defined in the Comptroller's Internal Control Standards, as units which perform a distinct function or service and/or that fulfill a law, regulation or mandate. NYSERDA's assessable units include:

- Energy Programs (Market Development, Innovation and Research, and other energy program activities)

- NY Green Bank
- Policy & Regulatory Affairs
- Radioactive Waste Management
- Bond Financing
- Contracts Management
- Accounting
- Human Resources
- Computer Systems
- Counsel's Office
- Governmental Affairs
- Communications
- Corporate Marketing
- Consumer Services and Events Management
- Internal Audit

All staff shall maintain NYSERDA records in accordance with the General Retention and Disposition Schedule for New York State Government Records.

INTERNAL CONTROL TRAINING AND AWARENESS

The Internal Control Officer shall coordinate training and awareness activities to ensure that all NYSERDA employees have an understanding of internal control principles and how they relate to the performance of their work assignments.

In addition, the Internal Control Officer and executive management shall periodically communicate to NYSERDA staff regarding internal control principles and responsibilities, not less frequently than once each year.

INTERNAL CONTROL REVIEW PROCESS

The Internal Control Officer shall coordinate a process of organization-wide risk assessment not less frequently than once every three years. The risk assessment shall identify significant risks which threaten the achievement of unit/organizational objectives, the controls in place to eliminate or mitigate these risks, and an assessment of the relative likelihood of occurrence and the impact of such risks (using a rating system to be established by executive management). Each risk assessment shall be reviewed and approved by the manager's supervisory personnel through executive management, and shall also be provided to the Director of Internal Audit for review and comment. The results of the organization wide risk assessment shall be communicated to the Audit and Finance Committee for review and comment.

In addition, the Internal Control Officer shall convene a multi-disciplinary internal control working group not less frequently than once a year to review NYSERDA's internal control policies and procedures, organizational structure and inventory of functions, and to consider and recommend changes to improve internal controls.

The Internal Control Officer shall be responsible for monitoring the implementation of corrective actions which result from internal control reviews, internal control testing, internal audit reports, or reports issued by external auditors related to internal control matters. The Internal Control Officer shall provide a report to the President and CEO not less frequently than annually summarizing the status of all such corrective actions.

INTERNAL CONTROL TESTING

To supplement the ongoing evaluation of the adequacy of NYSERDA's internal controls, NYSERDA shall conduct periodic compliance testing, at least annually, to determine the extent to which staff follow prescribed policies and procedures.

ANNUAL REPORTING

NYSERDA prepares the annual report required by Section 2800 of the Public Authorities Law and submits it to the Board Members for review and approval. The report is certified in writing by the President and CEO and the Treasurer that based on his or her knowledge the information provided therein is accurate, correct and does not contain any untrue statement of material fact, does not omit any material fact which, if omitted, would cause the financial statements to be misleading in light of the circumstances under which such statement are made and fairly presents in all material respects the financial condition and results of operations of NYSERDA as of and for the periods presented in the report.

Attached as part of the annual report is a copy of the annual independent audit report, performed by a certified public accounting firm in accordance with generally accepted government auditing standards, and management letter with any other external examination of the books and accounts (other than reports of any examinations made by the State Comptroller).

This annual report is submitted to the persons designated by Sections 2800 and 2802 of the Public Authorities Law.

NYSERDA also submits the annual internal control certification and report in accordance with requirements established by the Authorities Budget Office.

SECTION 2: ENERGY PROGRAMS

(MARKET DEVELOPMENT, INNOVATION AND RESEARCH, AND OTHER ENERGY PROGRAM ACTIVITIES)

Primary Functions

- Program Planning Program Development
- Project Development
- Project Management Metrics Reporting

Controls

Program Planning

NYSERDA's multi-year strategic plan (Plan) includes goals, objectives, and funding for each program. Staff presents the Plan to NYSERDA's Program Planning Committee annually for review and approval. The Program Planning Committee is composed of NYSERDA Board members and is charged with reviewing, amending, and recommending approval of the Plan to the members of the Board. NYSERDA's Board must approve the Plan before it can be implemented by NYSERDA.

Program Development

Programs must operate in manner that is consistent with the Plan as approved by NYSERDA's Board. Programs must operate in a manner that is also consistent with any approved operating plan, funding agreement, Public Service Commission Order, law or regulation related to the program funding source. The Team Lead of each program is primarily responsible for development and implementation of their program area, for consistency with the Board-approved Plan, and for ensuring the collection and tracking of all required information and metrics needed for compliance filings according to the Public Authorities Law and other statutory and administrative requirements, in consultation with oversight provided by the Officer or Business Unit Lead (an employee that reports to the President with oversight of a Program or administrative area that has one or more Team Leads reporting to them) responsible for such Team.

Project Development

NYSERDA uses its best efforts to use competitive methods for selecting contractors, pursuant to Article III: Requirements regarding selection of contractors of NYSERDA's Contracting Guidelines, as adopted by the Board. In addition, projects selected for funding must be consistent with the goals and objectives of the Plan. Solicitations are developed by a Project Manager working in conjunction with a multi-disciplinary team (Team) comprised of: the Team Lead, an assigned attorney from Counsel's Office, and an assigned contract administrator from the Contracts Management department. Once approved by the Team, the request is approved by the Business Unit Lead¹. Solicitation results are reviewed by a Scoring Committee based upon the evaluation criteria set forth in the Solicitation document. The results of the Scoring

¹ Business Unit Leads are defined as any employee that reports to the President with oversight of a Program or administrative area that has one or more Team Leads reporting to them. In cases where Team Leads report to the President, the President may serve as Business Unit Lead or designate the authority to another Business Unit Lead.

Committee are summarized by the Project Manager, reviewed by the Team and approved by the Business Unit Lead.

Project Management

The Project Manager is responsible for developing, in conjunction with the contractor, a clear and defined project statement of work (SOW), budget, and implementation schedule. The Project Manager is responsible for monitoring and oversight of the contractor's performance to ensure that it adheres to the work required under the contract while anticipating and resolving technical and administrative problems arising during the project. Project Managers communicate with contractors, review progress reports, conduct site visits, review and approve contractor invoices, review and approve technical reports, and approve final project reports.

Metrics reporting

Programs shall be responsible for collecting all relevant data to measure program progress according to predetermined metrics, such as data that can be used to address the anticipated energy, environmental and economic benefits that are realized by projects, and as required by each operating plan or reporting requirement. All estimates shall reference credible sources and estimating procedures, and all assumptions shall be documented. This data will also be used to evaluate program impacts and progress towards goals.

SECTION 3: NY GREEN BANK

Primary Functions

- Business Planning
- Business Operation
- Procurement Activities
- Financial Investments
- Portfolio Management
- Metrics Reporting

Controls

Business Planning

In addition to participating in NYSERDA's Multi-Year Strategic Program Plan, as described in Section 2, Program Planning, above, NY Green Bank develops an annual ~~Strategic Review~~ and Business Plan (Business Plan). NY Green Bank staff presents the Business Plan to NY Green Bank's Investment and Risk Committee (IRC) annually for review and approval. The IRC is composed of the President and Chief Executive Officer of NYSERDA, Treasurer of NYSERDA, President of NY Green Bank, and one or more NY Green Bank Managing Directors. The IRC is charged with reviewing and approving the Business Plan. The IRC must approve the Business Plan before it can be implemented by NY Green Bank.

Business Operation

NY Green Bank must operate in a manner that is consistent with the Business Plan, as approved by the IRC. In addition, NY Green Bank must operate in a manner that is consistent with any approved operating plan, funding agreement, Public Service Commission Order, law or regulation related to its funding source(s).

NY Green Bank's President reports to the President and Chief Executive Officer of NYSERDA, and Managing Directors report to the President of NY Green Bank. In its operations, NY Green Bank follows the NY Green Bank Operations and Procedures Manual, which is incorporated by reference into NYSERDA's Operations and Procedures Manual, forms part of NYSERDA's system of internal controls, and is designed to supplement existing NYSERDA controls.

The President of NY Green Bank is primarily responsible for oversight of the operations of NY Green Bank in a manner that is consistent with the Business Plan and the NY Green Bank Operations and Procedures Manual, and for ensuring the collection and tracking of all required information and metrics needed for compliance filings according to the Public Authorities Law and other statutory and administrative requirements.

Procurement Activities

When NY Green Bank procures goods and services, it does so subject to NYSERDA's Contracting Guidelines, as adopted by the Board, and the procedures summarized in Section 2, Project Management, above.

Financial Investments

Potential financial investments that are considered for funding by NY Green Bank must meet the requirements of its investment process, including minimum investment criteria prescribed by the Public Service Commission (the “PSC”) and specific evaluation criteria. All such criteria, along with NY Green Bank’s investment process, are consistent with NY Green Bank’s goals and objectives, and are set out in various PSC Order and public filing made by NY Green Bank. NY Green Bank’s origination of clients, counterparties, collaborators, and potential transactions results from interactions with market participants who submit proposals that either: (i) respond to a NY Green Bank- specific solicitation and/or other publication of NY Green Bank’s investment criteria (a Competitive Opportunity) or (ii) identify a NY Green Bank role consistent with its mandate, but which does not strictly fall within the definition of “Competitive Opportunity” (Strategic Opportunity).

While open and public competitive processes are favored in the origination of NY Green Bank, clients, counterparties, collaborators and transactions, it is nevertheless recognized that there may be circumstances in which the strategic mission of NY Green Bank is best served by undertaking one or more Strategic Opportunities. Strategic selection methods may be utilized if it is determined by NY Green Bank management, with approval from the IRC, that the opportunity: (i) is presented by a private sector party with exceptional, relevant experience and expertise; (ii) is one-of-a-kind by virtue of location, high visibility, probability of a successful closing or leverage with other already committed private or public funding or possesses other unique attributes; (iii) has exceptionally strong compatibility with the strategic objectives and mandate of NY Green Bank; (iv) represents an urgent need as a result of public exigency or emergency, or would become unavailable as a result of delay, or would take an unacceptable length of time for a similar opportunity to reach the same level of readiness; and/or (v) relates to the next phase of a multiphase proposal or the expenditure is necessary to support or protect an existing NY Green Bank investment or initiative.

Competitive Opportunities are designed to comply with the definition of a “competitive procurement” set forth in the Office of the State Comptroller Rules, Part 206 to NYCRR Title 2 (Comptroller’s Regulations). For any proposed Strategic Opportunity involving NY Green Bank funding that will exceed \$1 million, NY Green Bank staff consults with NY Green Bank’s internal counsel regarding the application of the Comptroller’s Regulations.

Prior to issuing a solicitation for a Competitive Opportunity, or to undertake a Strategic Opportunity, NY Green Bank staff develops a summary thereof (Opportunity Summary) for review and approval by the IRC. Once an Opportunity Summary for a Competitive Opportunity is approved by the IRC, NY Green Bank personnel prepares that solicitation in collaboration with NYSERDA’s Contract Administrator and Counsel’s Office. The solicitation takes into account any comments or qualifications made by the IRC in conjunction with its approval. In the case of an Opportunity Summary for a Strategic Opportunity, once approved by the IRC, NY Green Bank initiates due diligence.

For Competitive Opportunities, a proposal evaluation and scoring committee, consisting of at least three (3) internal members who are designated by the President of NY Green Bank, evaluates proposals for transactions arising from NY Green Bank solicitations and recommends those opportunities that best meet NY Green Bank’s published investment criteria. Opportunities recommended by the committee will be subject to more detailed exploration and analysis.

For proposals selected for further exploration, whether as the result of a Competitive or Strategic Opportunity, NY Green Bank staff further evaluates and negotiates the proposed transaction and will prepare a Greenlight Memorandum (except in extraordinary circumstances that may permit a proposal to be immediately submitted to the IRC), which provides an analysis of the transaction. A Greenlight Committee, composed of at least three members of the IRC, reviews those transactions selected by staff for advancement, and may make general recommendations, or recommend required contingencies or conditions with regard to a proposed transaction, may recommend additional due diligence, or may recommend rejection of a proposed transaction. If the Greenlight Committee recommends rejection of a transaction, the recommendation shall be brought to the President and Chief Executive Officer of NYSERDA, who shall decide whether to accept the recommendation, or who may decide to require conditions or contingencies that have to be met in order for the transaction to proceed. When transactions are being considered, members of the Greenlight Committee and IRC will recuse themselves where there are any conflicts of interest.

For transactions receiving a recommendation to proceed in accordance with the above, NY Green Bank staff continues to evaluate and negotiate the proposed transaction. A Transaction Approval Memorandum, which provides a comprehensive analysis of a transaction, is then presented to the IRC for review and approval. Each IRC member is given the opportunity to submit comments, make recommendations, or suggest contingencies with regard to a proposed transaction, or may recommend additional due diligence. Once each IRC member is given the opportunity to comment and provide recommendations, the President and Chief Executive Officer of NYSERDA may approve or reject the transaction, either of which may require conditions and contingencies.

For approved transactions, assigned staff, along with any retained consultants, will then proceed to finalize any remaining diligence and all transaction documentation, taking in to account any recommendations and contingencies expressed by the IRC. Only after transaction approval and only if the agreements are according to all material aspects of the transaction approval may a binding commitment or documentation be executed.

Any proposed post-closing modification to the terms and conditions of a transaction that may cause a material change in the investment outcome will be reviewed by the IRC, in accordance with the procedures set forth above for an original approval.

Portfolio Management

NY Green Bank monitors all of its investments (irrespective of whether funded or unfunded commitments are involved) pursuant to monthly, quarterly and annual transaction reviews to assess performance; quarterly reviews that compare operating and financial results and investment value with expectations; and quarterly portfolio and pipeline reviews with the IRC. NY Green Bank assesses and rates the risk associated with each transaction individually and monitors these risks on an individual and portfolio basis, maintaining overall risk of loss within defined limits.

NY Green Bank also regularly reviews information received in connection with metrics on its investments (both internal and those for disclosure through required periodic public reporting).

The IRC reviews portfolio reports, and will make portfolio-related recommendations, as well as recommendations on the disposition of transaction waivers, amendments, and restructurings as may be required or presented for approval.

For each NY Green Bank transaction disbursement, a checklist is completed to evidence that each condition precedent set forth in the transaction documents has been satisfied or waived (after appropriate discussion), together with any internal processes or checks devised to monitor and protect NY Green Bank's investment. For each transaction disbursement, this checklist is executed by members of both the Investment & Portfolio Management team (including the sponsoring Managing Director) and Investment Administration and Portfolio Support team. Following checklist execution and using role-based security that properly segregates user access, NY Green Bank initiates and approves funding disbursements, which are released by the Department of Taxation and Finance.

Appropriate financial management and planning processes and procedures for the operation and oversight of capital deployed by NY Green Bank have been developed to support management of NY Green Bank and reporting requirements to the PSC. Accordingly, transactions are monitored using funds disbursed, principal payments, interest payments, relevant fees and any losses and recoveries for all existing assets of NY Green Bank. NY Green Bank utilizes a third-party administrator to assist in the processing and monitoring of all NY Green Bank transactions.

Metrics Reporting

NY Green Bank shall be responsible for collecting certain data to support the calculation and reporting of agreed operational, risk management and financial metrics. In addition, NY Green Bank, in collaboration with other Authority staff, shall collect and process certain data required to assess the anticipated energy, environmental and economic benefits, as well as financial market impacts, that are realized by NY Green Bank's investments in clean energy projects, and as required by any applicable PSC Order or reporting requirement. All estimates shall reference credible sources and estimating procedures, and all key assumptions shall be documented. This data will be used to evaluate impacts and progress towards goals.

SECTION 4: ENERGY AND ENVIRONMENTAL ANALYSIS AND PROGRAM EVALUATION

Primary Functions

- Modeling and Analytics
- Data and Markets
- Policy Development
- Environmental Research
- Program Evaluation

Control Objectives

Modeling and Analytics

Statewide Energy Planning

Energy and Environmental Analysis provides a coordinating and leadership role on behalf of NYSERDA in the development and preparation of the statutorily mandated State Energy Plan. Energy and Environmental Analysis oversees the overall State Energy Plan process, including scope development, coordination of participating agencies and authorities, stakeholder outreach, scheduling, deliverables from other agencies, writing, editing, and document and website management.

The President and CEO of NYSERDA serves as the Chair of the Energy Planning Board, which consists of the chief executives from the 15 designated agencies and authorities who have responsibilities that affect or are affected by energy policy. The Director of Energy and Environmental Analysis serves as the Director of the Energy Coordinating Working Group, which functions as the staff arm of the Energy Planning Board. Analyses, documents and all costs associated with the coordination, development and production by Energy Analysis staff to support the State Energy Plan process are reviewed by the Energy Analysis Director and ultimately by the Chair of the Energy Planning Board.

Modeling and Forecasting

Energy and Environmental Analysis performs quantitative analyses using a wide range of analytical tools to provide the underpinnings for State policy and program development, regulatory initiatives, and energy decision-making. Responsibility for review, accuracy, and relevance of the various analyses and discussion papers developed is generally held by the Team Lead depending on the nature and sensitivity of the assignment.

Data and Markets

Energy Data Clearinghouse

Energy and Environmental Analysis serves as a source for NY State energy-related data and information. This program collects, compiles, maintains, and publishes a wide range of energy data, making extensive use of NYSERDA's web site to reach stakeholders. Information is reviewed by the responsible Team Lead prior to release.

Energy Markets Monitoring & Intelligence

Energy and Environmental Analysis monitors New York's major energy supply industries, including petroleum (liquid fuels), natural gas, coal, and electricity. Responsibility for review, accuracy, and relevance of the various analyses and discussion papers developed is generally held by the Team Lead depending on the nature and sensitivity of the assignment.

State Energy Emergency Planning and Response

Under Section 5-117 of the Energy Law, NYSERDA is responsible for developing and maintaining the New York State Energy Emergency Plan. Energy and Environmental Analysis maintains a process for annual review and update of the Energy Emergency Plan to assure the Plan is accurate, timely, and can be readily implemented as needed. In addition to Energy and Environmental Analysis, numerous State agencies including the Department of Public Service, Office of Emergency Management, and Office of Homeland Security contribute to the annual review.

Radioactive Waste Policy and Nuclear Coordination.

As required by Section 1854-d(1) of Public Authorities Law and Part 502 of Chapter XI of Title 21 NYCRR, Energy and Environmental Analysis collects and maintains data on the generation of low-level radioactive waste by facilities in the State and the subsequent storage, treatment, and disposal of that waste. After review by NYSERDA executive management, an annual final report is provided to the Governor and Legislature. NYSERDA is the State's lead agency for addressing radioactive waste policy issues. NYSERDA is the State's lead agency for addressing radioactive waste policy issues. Pursuant to NYSERDA's mandate under Section 7-101 of the Energy Law, Energy and Environmental Analysis coordinates the State's radioactive materials regulatory programs, and the State's oversight of nuclear power plant activities. Staff also provides technical nuclear engineering support to the New York State Department of Health as part of the State's nuclear power plant emergency preparedness and response program. Significant issues, communications and reports are reviewed and approved by senior management as appropriate.

Policy Development

State Energy Policy Development

Energy and Environmental Analysis supports, coordinates or leads in the development of specific energy policies, and provides both quantitative and qualitative analysis of policy development and program implementation support. Areas of policy development support work include environmental, fuel and electricity financial and trading markets. Energy and Environmental Analysis provides draft policy initiative documents to Senior Management for approval prior to being distributed outside of NYSERDA.

NYSERDA Program Development

Program offerings within NYSERDA are planned and designed in a cooperative manner. Energy and Environmental Analysis participates in this process to help ensure that the programs as designed and delivered are likely to achieve or exceed their stated goals and can be properly evaluated. In addition, as evaluation findings and conclusions are completed on specific programs, Energy and Environmental Analysis provides a formal feedback loop to the program implementation teams for improved program design and delivery, as warranted.

NYSERDA Strategic Planning

Annually, the Authority develops a Strategic Plan, which describes how the Authority will pursue its mission, goals, and objectives over the ensuing three years. Energy and Environmental Analysis meets with senior management and program staff to discuss and evaluate goals and strategy options, and reviews and researches program planning documents. Energy and Environmental Analysis prepares a draft and a final version of the Plan, which is reviewed by senior management before sending to the Program Planning Committee and the Board for approval.

Regulatory Affairs and Administrative Proceedings

Energy and Environmental Analysis actively monitors NYSERDA's interests in regulatory and administrative proceedings related to the State's energy and environmental policy goals, including those of the New York State Public Service Commission and Department of Environmental Conservation rulemakings. Energy and Environmental Analysis staff participates on internal teams with Counsel and other program staff to address particular issues or proceedings, helping to compile and analyze data, and prepare formal submissions, which are approved by senior management prior to submission.

Federal Energy Policy and Planning

Energy and Environmental Analysis maintains relationships with national organizations and stakeholders in the energy arena in order to influence policy and program agendas, to track emerging policy trends and to coordinate NYSERDA responses based on the possible impact on existing or future programs, with senior management approval. In addition, Energy and Environmental Analysis identifies and works with other staff to pursue high value opportunities for collaboration with other state agencies, regional organizations, and neighboring states, with the goal of leveraging our resources and creating a larger impact. Energy and Environmental Analysis in cooperation with other staff also tracks federal solicitations to develop partnerships and high quality responses in areas consistent with NYSERDA's program and policy objectives.

Environmental Research

Energy and Environmental Analysis supports environmental monitoring and associated research and analysis that are critical for assessing and quantifying the environmental soundness and effectiveness of energy programs, and for providing the foundation for researchers and policymakers to design and implement the most effective policies and programs. Energy and Environmental Analysis relies upon a network of professional contacts and working groups of science and policy experts to identify critical gaps and research needs in New York State. Multiple groups, including both the established Program Advisory Group and Science Advisory Committee, provide guidance on the areas representing the major issues and cutting-edge scientific understanding related to energy-related environmental impacts. The results of this input are compiled into a comprehensive Research Plan designed to guide energy-related environmental research in New York State. The network of professional contacts also assists in measuring progress of environmental research activities.

Program Evaluation

Performance and Market Standards is responsible for evaluating NYSERDA's market development, innovation and research, and other energy program activities. Performance and Market Standards is structured to assess the effectiveness of programs toward achieving the State's public policy goals. Performance and Market Standards conducts evaluation using competitively selected, expert evaluation contractors who measure and verify impacts attributable to NYSERDA's program activities and examine program efficiency and effectiveness.

NYSERDA reports monthly, quarterly, and annually on the performance of various programs to the Governor, the New York State Legislature, the Public Service Commission, other program sponsors, advisory groups and stakeholders based upon reporting requirements established by the program sponsor. NYSERDA program staff and management are integral to the evaluation process, providing both data inputs and acting on recommendations. Evaluation and status reports are reviewed by NYSERDA's Senior Management prior to being finalized.

SECTION 5: RADIOACTIVE WASTE MANAGEMENT

Primary Functions

- Management of NYSERDA's activities in the West Valley Demonstration Project (WVDP)
- Management of the State Licensed Disposal Area and Retained Premises of the Western New York Nuclear Service Center (WNYNSC)

Controls

The West Valley Demonstration Project Act - The WVDP Act directs the U.S. Department of Energy (DOE) to carry out a demonstration project on high-level radioactive waste solidification and decommissioning at the WNYNSC. The WVDP Act directs DOE and NYSERDA to enter into a Cooperative Agreement to carry out the WVDP. The WVDP Act also stipulates that the federal government will pay 90 percent of the WVDP costs and New York State will pay 10 percent.

Cooperative Agreement Between United States Department of Energy and New York State Energy Research and Development Authority on the Western New York Nuclear Service Center at West Valley, New York - The Cooperative Agreement lays out a framework between DOE and NYSERDA on the implementation of the WVDP. The Agreement stipulates that DOE has the sole responsibility for carrying out the Project, but also provides for continued consultation and coordination between DOE and NYSERDA during the conduct of the WVDP. The Cooperative Agreement also provides for NYSERDA's participation in DOE's procurement process for selecting the management and operations contractor for the WVDP. NYSERDA provides DOE with input on WVDP activities, progress, plans, funding, issues and concerns, and participates in WVDP meetings with the public, regulators, technical consultants and experts and other stakeholders.

Consent Decree - The Consent Decree, filed with and approved by the U.S. District Court, resolves the majority of claims brought in a lawsuit filed by NYSERDA and New York State against DOE and the federal government regarding cost allocation for cleanup at the WNYNSC. In addition to the 90/10 cost split identified in the WVDP Act and the Cooperative Agreement for WVDP facilities, the Consent Decree identifies a specific cost split between NYSERDA and DOE for all remaining facilities and contamination at the WNYNSC. The Consent Decree is implemented in accordance with a Consultation Agreement prepared by DOE and NYSERDA.

Waste and Facilities Management Committee - The West Valley Site Management Program reports to NYSERDA's Board through its Waste and Facilities Management Committee. The Waste and Facilities Management Committee is provided with routine updates on WVSMP activities, accomplishments, issues, and other noteworthy items. The Committee provides guidance to the West Valley Site Management Program in regard to West Valley activities for the WVDP and the State License Disposal Area (SDA). The Chair of the Committee reports on the West Valley program to the full Board.

Regulatory Requirements – Work performed at the SDA is subject to numerous regulatory requirements and mechanisms, including a Radioactive Materials License issued by the NYS Department of Health, a Radiation Control Permit and a State Pollutant Discharge Elimination System permit issued by the New York State Department of Environmental Conservation, and a Consent Order issued by the NYS Department of Environmental Conservation and the U.S. Environmental Protection Agency. NYSERDA must also comply with all other applicable State and federal regulations, including regulations for

hazardous waste generation, management, and disposal; worker industrial safety; wetland protection; and environmental review.

Written Plans and Procedures – Written plans and procedures provide the mechanism for implementing the regulatory requirements identified above and for implementing additional best management practices. Plans and procedures are prepared by technical staff or contractors, and are reviewed and approved by the SDA Program Manager before they are incorporated into the program for implementation. Radiation Safety and Health and Safety plans and procedures are also reviewed and approved by the Team Lead and Radiation Safety Committee or Safety Committee before they are incorporated into the program for implementation.

Radiation Safety Committee – The WVSMP Radiation Safety Committee oversees the WVSMP’s Radiation Protection Program, ensuring that all individuals who work with, or in the vicinity of radioactive materials at the SDA have sufficient training and experience to perform their duties safely and in accordance with applicable NYS Department of Health regulations and the Radioactive Materials License. The Radiation Safety Committee also ensures that all uses of radioactive materials at the SDA is conducted in a safe manner and in accordance with applicable regulations.

Safety Committee – The West Valley Site Management Program Safety Committee oversees the WVSMP Health and Safety Program to establish policies, administrative controls and procedures to protect workers at the SDA and other NYSEERDA-controlled areas of the WNYNSC in accordance with applicable Occupational Safety and Health Administration and NYS Department of Labor regulations. The Safety Committee also provides guidance to the Safety and Health Supervisor on the implementation of the Safety and Health Program.

Project Initiation Request Committee – The Project Initiation Request Committee reviews all potential contract actions at an early stage to provide initial WVSMP management review and input on all activities requiring NYSEERDA contract actions, in accordance with NYSEERDA Contracting Guidelines requirements. The Committee evaluates and provides input on the purpose and need for the activity, the contracting approach, funding considerations, resource needs and availability, and staff involvement.

SECTION 6: BOND FINANCING

Primary Functions

- Issue tax-exempt bonds for utilities and other qualifying entities to finance eligible facilities
- Administer utility bonds previously issued

Controls

Issue tax-exempt bonds for qualified entities to finance eligible facilities

Proposed financings are reviewed for eligibility by both NYSERDA staff and independent bond counsel.

An intent to issue new tax-exempt bonds may initially be evidenced by the approval of an inducement resolution or declaration of intent by the Audit and Finance Committee of NYSERDA's Board. The purpose of the inducement resolution or declaration of intent is to preserve, under the Federal Internal Revenue Code, the eligibility of the costs incurred from the date the action is taken to the date of the future financing for tax-exempt status.

New financings and refunding's also require the approval of an implementing resolution adopted by NYSERDA's Board.

In addition to NYSERDA Approval:

- The State Comptroller must approve bonds issued through a private negotiation sale, instead of public bid. As Chair of the State Securities Coordinating Committee, the Comptroller also oversees scheduling of major State and public authority financings.
- The Commissioner of the Department of Taxation and Finance approves certain arrangements of a bond sale, such as procedures for the security, collection, and investment of bond proceeds.
- The Public Authorities Control Board (PACB) reviews and approves the adequacy of the financial security of the bond issue.
- The Governor approves the minutes of NYSERDA's Board meetings. The Internal Revenue Code also requires the Governor's approval for new bond financings that qualify as private activity bonds.

Administer bonds previously issued

The Finance Department prepares billings for annual administrative fees as summarized in the bond documents.

SECTION 7: CONTRACTS MANAGEMENT

Primary Functions

- Manage procurement and contracting process
- Contract management and administration

Controls

Manage procurement and contracting process

The Director of Contract Management approves all procurements and contracts and ensures that they are consistent with NYSERDA's Contracting Guidelines and applicable Executive Orders and other requirements.

The Director of Contract Management reports to the Board on NYSERDA's compliance with the Contracting Guidelines as specified in those guidelines.

Duties are segregated between procurement, contract negotiation, and contract execution.

NYSERDA maintains standard contract terms and conditions. Significant exceptions to terms and conditions are identified for contract execution.

Contract Management staff provide training to staff on procurement and contracting policies and procedures to ensure compliance.

Each solicitation issued by the Authority shall designate the person(s) who may be contacted by offerers related to procurement pursuant to Section 139-j of the State Finance Law. Generally, any communication from an outside party which could reasonably be considered an attempt to influence the procurement may only be made to the designated person(s) in the solicitation.

Contract management and administration

The Contracts Management unit maintains central files including solicitations and contractual agreements.

The Contract Management unit is responsible for verifying compliance with contractual obligations, particularly provision for insurance and recoupment.

SECTION 8: ACCOUNTING

Primary Functions

- Preparation and approval of annual Budget and Financial Plan
- Maintenance of accounting records and systems and preparation of financial statements
- Cash and investments management
- Revenue processing
- Payment processing
- Payroll Processing
- Fixed assets

Controls

Preparation and approval of annual Budget and Financial Plan

A proposed Budget and Financial Plan are initially prepared by Authority staff in accordance with generally accepted accounting principles on a modified accrual basis. Included are a corresponding proposed Budget and Financial Plan prepared on a cash basis, based on reasonable assumptions and methods of estimation. They are presented in a manner consistent with the Authority's programs and functions and include detailed estimates of revenues and expenditures for each program or function.

The proposed Budget and proposed Financial Plan are made available for public inspection, through posting on NYSERDA's website, no less than 60 days before the start of the fiscal year and at least 30 days before approval by the Board Members.

NYSERDA's proposed Budget and proposed Financial Plan are accompanied by:

- a description of the budget process, including the dates of key Budget decisions;
- a description of the principal Budget assumptions, including sources of revenues, staffing and future collective bargaining costs, and programmatic goals;
- a self-assessment of budgetary risks;
- a revised forecast of the current year's budget;
- a reconciliation that identifies changes in estimates from the projections in the previously approved budget and financial plan;
- a statement of the last completed fiscal year's actual financial performance in categories consistent with the proposed budget or financial plan
- a projection of the number of full-time and full-time equivalents employees, including sources of funding, and functional classifications;
- a statement of each revenue-enhancement and cost-reduction initiative that represents a component of any gap-closing program and the annual impact on revenues, expenses and staffing;
- a statement of the source and amount of any material non-recurring resource that is planned for use in any given fiscal year;
- a statement of any transactions that shift material resources from one year to another and the amount of any reserves;
- a statement of borrowed debt projected to be outstanding at the end of the fiscal year covered by the proposed Budget or proposed Financial Plan, the planned use or purpose of debt issuances,

scheduled debt service payments for both issued and proposed debt, the principal amount of proposed debt and assumed interest rate(s), debt service for each issuance as a percentage of total pledged revenues listed by type or category of pledge revenues, cumulative debt service as a percentage of available revenues, and the amount of debt that can be issued until legal limits are met;

- a statement of the annual projected capital cost broken down by category and sources of funding, and for each capital project, estimates of the annual commitment, total project cost, expected date of completion and the annual cost for operating and maintaining those capital projects or capital categories that, when placed into service, are expected to have a material impact on the operating budget; and
- a certification by the President and CEO that, to the best of his or her knowledge and belief after reasonable inquiry, the proposed Budget and proposed Financial Plan are based on reasonable assumptions and methods of estimation.

As part of the annual budget process, NYSERDA staff prepare working papers that detail the assumptions and methods of estimation used in preparing the proposed Budget and proposed Financial Plan.

The proposed Budget and Financial Plan are then submitted to NYSERDA's Board Members for approval in accordance with Section 2801 of the Public Authorities Law. After approval, the approved Budget and Financial Plan are submitted to the persons designated in such Section 2801 to receive such Budget and Financial Plan. This includes submitting copies of the approved Budget and Financial Plan to the State Comptroller within 7 days of approval by the Board Members, subject to approval by the Governor pursuant to Section 1854 of the Public Authorities Law. The approved Budget and Financial Plan are also made available for public inspection, through posting on NYSERDA's website, not less than 7 days before the start of the fiscal year.

Thereafter, the Treasurer provides quarterly updates to the Board Members on the status of actual revenues and expenses compared to the Budget targets. The Treasurer also provides the Board Members with a written mid-year report to explain and quantify material variances that are due to timing or have a budgetary impact, and provide an assessment of the impact. The report includes the status of capital projects, including but not limited to commitments, expenditures and completions, and an explanation of material cost overruns and delays. Subsequent changes to the Budget and the Financial Plan are made, as required, subject to approval by the Board Members.

Through posting on NYSERDA's website, not less than 90 days after the close of each fiscal year, the Treasurer publicly posts actual versus estimated Budget results as reported in NYSERDA's audited financial statements. The Treasurer also notifies the Board Members and the State Comptroller, in writing, at any point during the fiscal year when he or she learns of any adverse development that would materially affect the Budget or Financial Plan.

Maintenance of accounting records and systems and preparation of financial statements

As required by statute, NYSERDA's annual financial statements, which are prepared in accordance with generally accepted accounting principles and accounting standards promulgated by the Governmental Accounting Standards Board, are audited by independent auditors selected by the Audit and Finance Committee and the Board. In addition, the Treasurer provides quarterly financial statements to the Board, including a comparison of actual results against budgeted amounts. Expenditure statements are also provided quarterly to Program Directors, Program Managers and department heads.

Accounting, through a third-party service provider, prepares, reviews and/or signs tax reporting forms (eg., payroll/employment taxes, informational reporting of exemptions, taxable fringe benefits and other payments) required by Federal, State and local regulations.

NYSERDA ensures compliance with Federal, State, and Local tax reporting obligations of NYSERDA. In addition, NYSERDA solicits a tax compliance review from an independent accounting firm as deemed necessary, but not less than once every three years, to review NYSERDA's compliance with applicable tax regulations.

Cash and investments management

The Commissioner of Taxation and Finance serves as fiscal agent to NYSERDA pursuant to statute. There are no funds under NYSERDA's direct control. The fiscal agent, at the direction of NYSERDA, actually purchases, sells, and retains custody, where appropriate, of NYSERDA investments.

NYSERDA is subject to the provisions of Public Authorities Law Section 2925, the Office of the State Comptroller's "Investment Guidelines for Public Authorities," the provisions of NYSERDA's enabling legislation concerning NYSERDA investments, and NYSERDA's own "Investment Guidelines, Operative Policy and Instructions." At least annually, the Audit and Finance Committee of NYSERDA's Board reviews and evaluates NYSERDA's investment program results and approves any revisions to the Guidelines.

Duties are segregated between receipt and custody, depositing, recording, and reconciling cash and checks received.

The purchase and sale of investments is authorized by the Treasurer (or in his/her absence, the Controller and Assistant Treasurer, or any NYSERDA Officer), according to policy guidelines. Duties are segregated between authorization and recording of investments.

Receipts are deposited promptly, generally weekly.

The fiscal agent reconciles cash and investment accounts monthly. NYSERDA staff independently reconcile this data with the accounting records.

Revenue processing

Proper segregation of duties exists in the initiation, recording, and reconciliation of revenues. Only Accounting staff not responsible for cash reconciliations or deposits are authorized to prepare invoices.

A list of outstanding invoices is produced monthly and reconciled with the general ledger. Notices are sent for any outstanding invoices more than 30 days past due. The Controller and Assistant Treasurer, with the assistance of the Senior Energy Accountant, is responsible for following up on delinquent accounts.

An account receivable may only be written-off after all reasonable collection efforts have been exhausted and requires the approval of the Controller and Assistant Treasurer or any other NYSERDA Officer. The Controller and Assistant Treasurer or any other NYSERDA Officer must also approve any deferred

payment arrangements.

Accounts receivable more than 120 days past-due may be submitted to a private collection agency or the Attorney General's Office for collection.

As an alternative to receiving payments from RD&D program contractors through recoupment, and in an effort to assist in growing small businesses, NYSERDA may instead elect to take an equity position in an RD&D contractor. When deemed appropriate, an equity investment is consummated through a negotiated Stock Purchase Agreement, which outlines the terms and conditions of NYSERDA's investment.

Payment processing

Section 2880 of the Public Authorities Law requires that payment be made to vendors within 30 days on all valid invoices. Failure to do so will result in the payment of interest.

Accounting staff prepares a weekly report of outstanding vouchers and their due dates which is reviewed by the Controller or Treasurer. NYSERDA reports annually to the Board at the June meeting on its compliance with the prompt payment policy.

Prior to payment, proper authorization must exist for payments to contractors.

All contracts or purchase orders must be signed by an Officer. Contracts or agreements in excess of \$1,000,000 must be signed by the President and CEO. Generally, goods and services in excess of \$5,000 require a written contract or purchase order.

Accounting staff monitor all payments, assuring that all invoices are mathematically correct, contain proper documentation, are within authorized funding limits, and are in accordance with the terms and conditions of the contract or purchase order.

Additional approval for payment is required from the Project Manager for payments under program contractual agreements, or from the Program Manager or department head, for administrative costs. Invoices equal to or greater than \$500,000 require secondary approval by the initial approvers' Supervisor.

NYSERDA checks require the signature of the Commissioner of Taxation and Finance, NYSERDA's fiscal agent. Payees electing to receive payment from NYSERDA by electronic transfer provide the necessary information and authorization in writing. Approval for disbursements is noted on a warrant request, which must be signed by an authorized signatory: the Controller and Assistant Treasurer or any NYSERDA Officer. For payees receiving payment by electronic transfer, the automated accounting system produces an electronic file containing necessary banking information for payees, which is transmitted to the bank by NYSERDA Finance staff and later released for processing to the bank by the Department of Taxation and Finance after all their reviews have been completed.

NYSERDA's integrated financial management system provides for automated, role-based security that properly segregates user access to functions for vendor accounting information addition and maintenance, invoice entry, invoice approval, and payment preparation. In addition, the system's budgetary management system prevents expenditure or encumbrance of funds in excess of authorized program funding.

Payroll Processing

NYSERDA's President and CEO, or designee authorizes in writing payroll additions or salary changes. The Director of Human Resources provides notice, in writing, of any salary deletions. Human Resources staff initiates all ministerial changes such as benefit changes in accordance with requests submitted by employees.

All employees are required to maintain daily time records on a bi-weekly basis, using the automated time and attendance system. Employee timesheets require approval by the individual's supervisor.

NYSERDA uses a computerized payroll system to calculate and process payroll and checks. Access to the system is password restricted to only those individuals in the Accounting unit with responsibility for processing payroll.

Fixed assets

Accounting staff maintain a computerized fixed asset system, ensuring that all fixed assets are identified by location, and that the fixed asset ledger is reconciled to the general ledger. Only assets with a dollar value in excess of \$2,500 and a useful life greater than two years are recorded.

The disposition of real property and personal property shall be in accordance with the Guidelines, Operative Policy, and Instructions for the Disposal of Real and Personal Property. The Treasurer is responsible for ensuring compliance with these guidelines, including the preparation of an annual report listing all real property of the Authority and a description of all real and personal property disposed of during such period. The Controller and Assistant Treasurer will be responsible for approving recommendations to dispose of surplus equipment.

Financial Statements

NYSERDA prepares annual financial statements in accordance with generally accepted accounting principles (GAAP) applicable to state and local government entities, which are approved by the Board at the June meeting. The annual financial statements include a comparison of actual results versus financial projections and a certification by the Officers and the Director of Internal Audit that the financial statements and disclosures fairly present, in all material respects, the operations and financial condition of NYSERDA. NYSERDA's most recent annual financial statements are made available on the NYSERDA web site. Interim quarterly financial statements are also provided to the Board.

Financial statements are audited by an outside independent accounting firm selected by the Audit and Finance Committee and Board. The independent auditors are selected in accordance with the requirements of Section 2802 of the Public Authorities Law and are prohibited from providing non-audit services to NYSERDA contemporaneously with the audit, except as provided in Section 2802 of the Public Authorities Law. Non-audit services include bookkeeping or other services related to the accounting records or financial statements of NYSERDA; financial information systems design and implementation; appraisal or valuation services, fairness opinions or contribution-in-kind reports; actuarial services; internal audit outsourcing services; management functions or human services; broker or dealer, investment advisor, or investment banking services; and legal services and expert services unrelated to the audit.

The independent auditors must timely report to the Audit and Finance Committee all critical accounting

policies and practices to be used, all alternative treatments of financial information within generally accepted accounting principles that have been discussed with Authority management officials, ramifications of the use of such alternative disclosures and treatments, and the treatment preferred by the certified independent public accounting firm; and other material written communications between the independent auditors and NYSERDA management, such as the management letter along with management's response or plan of corrective action, material corrections identified or schedule of unadjusted differences, where applicable.

The audit partner or lead audit partner responsible for reviewing the audit must not have performed audit services for the Authority in each of the five previous fiscal years.

SECTION 9: HUMAN RESOURCES

Primary Functions

- Recruit employees
- Manage compensation functions to appropriately reward employees
- Manage performance programs to reinforce and correct behaviors
- Manage employee benefits programs
- Facilitate employee training

Controls

Recruit employees: Prohibited Actions

All NYSERDA positions are filled based on merit. A position posting containing minimum education and skill levels are established for every position. Reference, employment, criminal background and education information is verified for all prospective employees. The President and CEO, Treasurer, or Director of Internal Audit cannot have been employed by the Authority's independent auditors during the two-year period preceding an audit.

NYSERDA employees and board members are prohibited from participating in any hiring or employment decision or any contracting decision relating to any relative, and no employee may be hired into a position that reports to a relative.

No employee involved in recruiting, interviewing, or hiring applicants for employment or making promotional, disciplinary, or other employment decisions may ask any such applicant or employee to reveal their party affiliation, whether he or she has made campaign contributions, or whether the candidate voted for any elected official or candidate for elective office.

Manage compensation functions to appropriately reward employees

Merit payment recommendations are reviewed and approved by the Director of Human Resources and the Officers for conformance with NYSERDA's policies.

Manage performance programs to reinforce and correct behaviors

An annual Performance Review is drawn up between each employee and employee's supervisor which summarizes the employee's job responsibilities and specific performance objectives which are used for the performance evaluation. The document also summarizes planned training and development activities.

Performance Improvement Plans are completed by supervisors and approved by Human Resources for employees whose performance warrants significant improvement.

Manage employee benefits programs

Human Resource staff provides assistance to employees with enrollment, changes, or answering questions for various NYSERDA-sponsored employee benefit programs. Special benefits, such as flexible work hours or part-time work are evaluated on a case-by-case basis with approval from the employee's supervisor and the Director of Human Resources to ensure consistent and equitable application.

Facilitate employee training

Human Resources facilitates various Statewide mandatory as well as other Authority-wide employee training programs using internal and external trainers. Individual employee training and professional development needs are generally identified as part of the evaluation process. Requests are approved by the direct supervisor, Team Lead, and Director of Human Resources.

SECTION 10: INFORMATION TECHNOLOGY

Primary Functions

- Provide best practices and technical solutions for systems and data
- Procure, operate and maintain computer hardware and software
- Review program solicitations that contain a software development component for compliance with NYS cybersecurity and ADA (Americans with Disabilities Act) requirements.
- Maintain security of computer hardware and software
- Provide training to staff on computer hardware and software usage
- Maintain Authority Web Site

Controls

Procure, operate and maintain computer hardware and software

Hardware and software requests must be submitted via the help desk system.

The Director of Information Technology~~An Information Technology staff person, as assigned by the Chief Information Officer,~~ must approve the purchase of computer hardware or software.

The IT unit maintains a service desk (help desk) during normal business hours to respond to staff questions and problems with NYSERDA hardware or software.

The IT group contains several governance committees created to review, approval, and prioritize information technology projects. These committees include the following:

1. PeopleSoft (NEIS) – For Financial/Contractual system governance
2. Web – For projects related to web site development either internally or externally
3. Development – For enhancements to existing systems
4. Salesforce – For enhancements and new build requests on the Salesforce platform
5. Data Warehouse – For enhancements, new build and data quality work associated with the data warehouse

Each of the above governance committees contains IT staff and business unit,~~Operational Transformation & Lean, Business unit, and Officer level~~ representation.

All information technology development projects shall conform with system development life cycle standards in accordance with New York State policy requirements (NYS-S13-001).

Maintain security of computer hardware and software

All electronic data stored on the network file server is automatically backed up on a nightly basis. Once daily a copy of the backup is transmitted to an off-site server where up to 30 days of backups are retained. On a quarterly basis, a long-term backup is migrated to offsite, cloud-based immutable storage,~~dropped to disk and stored off site in a fireproof safe.~~

Staff are encouraged to store any data considered critical to the operation of NYSERDA on the network

server, rather than on staff personal computers. This allows the data to become part of the automatic backup and disaster recovery procedures.

Electronic data stored on personal computers is backed up by the staff member to whom the computer is assigned. As an additional level of protection, non-sensitive personal computer backup media can be stored off-site, either at the staff member's home or at NYSERDA's off-site storage locations. This data must be encrypted prior to removal from the premises. The service desk can assist with the process.

Every reasonable effort is taken to ensure access to the network is restricted to valid users, and each user is given a password. The password can be changed by the user at any time or by the system administrator. System integrity is maintained by restricting network user privileges and by centralizing management duties to a password protected system administrator. Only the system administrators can alter network programs, security or operations. Physical access to the network computer systems equipment is limited to authorized staff.

All data stored on the network or personal computers is considered NYSERDA work product. NYSERDA computers and information systems (including email) must be used in accordance with New York State policy requirements (NYS-P14-001).

Recovery from the physical destruction of the network computer system is accomplished by using the most recent backup available and restoring data to another computer network system. At that time, single users can access critical computer-based information until NYSERDA operations can be reestablished at another location. Recovery from personal or network computer failure is accomplished by using spare computers or parts and restoring lost data from backup media. In some situations, accidentally deleted data can be recovered with the use of software utilities available to the system administrator.

Employees may borrow certain equipment for use outside NYSERDA for a finite length of time. The employee must sign the hardware out from the Service Desk Supervisor or his/her/their designee.

It is NYSERDA's policy to adhere to the stipulations of relevant end user license agreements and the copy protection laws which apply to a software package. Illegal copying of NYSERDA software, or use of illegal copies of software packages on any of NYSERDA's computers, is not permitted. In the event that an illegal copy of software is found on the premises, it will be destroyed immediately.

Non-NYSERDA software may not be copied or installed on NYSERDA computers without written authorization (generally in the form of an approved service desk ticket) from the Service Desk Supervisor.

Every staff member of NYSERDA is assigned a computer (or virtual machine) and is given access to the network. It is the responsibility of each staff member to protect NYSERDA's investment in computer technology. The computers and software provided by NYSERDA for staff use are to be used for NYSERDA business purposes only. While employed by NYSERDA, each staff member shall be responsible for all assigned computer items. Staff members shall report immediately any lost, damaged or missing items.

The Information Technology unit records the serial number of each piece of equipment provided to each staff member; maintains a record of manuals and software programs provided to staff members; and updates these records as equipment, manuals and software are added or removed.

As part of the employee exit interview process, ~~the~~ an IT Director or designee representative, signs the Exit Clearance Form, described in NYSERDA's Personnel Handbook, indicating that all assigned computer equipment, manuals and disks have been returned. All discrepancies must be cleared before the final paycheck can be released.

Review program solicitations that contain a software development component for compliance with NYS cybersecurity and ADA (Americans with Disabilities Act) requirements

The Chief Information Officer, or their designee, will review program solicitations or statements of work that contain a software development task. The review is done prior to the solicitation being made public with the goal of assuring that cybersecurity and ADA compliance are maintained.

Provide training to staff on computer hardware and software usage

Information Technology unit staff conduct one-on-one or group training on various software applications and computer technology or can research and recommend outside training when requested. The IT staff will work with the trainer in the Strategic Operations unit to provide consistent authority-wide technology training.

Maintain Authority Web Site

The Information Technology unit is responsible for maintaining the Authority's web site(s) based on requests approved by the Communication & Corporate Marketing department. At a minimum, the web site shall include a description of NYSERDA's mission, current activities, most recent financial reports, current year budget, its most recent independent audit report, and Guidelines, Operative Policy and Instructions for the Disposal of Real and Personal Property.

SECTION 11: INFORMATION SECURITY

Primary Functions

- Protect and maintain the confidentiality, integrity and availability of information and related infrastructure assets
- Manage the risk of security exposure or compromise
- Assure a secure and stable information technology (IT) environment
- Identify and respond to events involving information asset misuse, loss or unauthorized disclosure
- Monitor systems for anomalies that might indicate compromise
- Promote and increase the awareness of information security

Controls

The NYS Office of Information Technology Services (ITS) establishes and regularly updates policies, standards, and guidelines for information security (collectively referred to as “ITS Security Policies”) for State Entities, including NYSERDA. These policies apply to all NYSERDA information technology devices and data, regardless of their medium or form. All individuals, including but not limited to, NYSERDA employees, contractors, temporary employees, and interns, who handle NYSERDA information must adhere to the provisions of these policies.

The Information Security Officer is the central point of contact for all information security matters. He or she reports independently to the Treasurer. The duties of the Information Security Officer are segregated from the operation of the information technology systems.

The Information Security Officer is responsible for the design, implementation and monitor of systems and procedures to protect and assure the availability of NYSERDA’s information and related infrastructure assets and to monitor for, and respond to, events involving information misuse, loss or unauthorized disclosure.

All data collected and stored by, or on behalf of, NYSERDA are classified and managed per policies and procedures outlined in NYSERDA’s Data Classification and Security Controls Policy. NYSERDA’s Data Governance Office is responsible for classifying data and coordinating external sharing requests with the Office of the General Counsel and Information Technology. Also, the Data Governance Office ensures that user authorization and permissions are set to protect confidential data.

To protect NYSERDA's computer systems against the introduction or spread of a computer virus, the network server and staff personal computers have been equipped with virus protection software. The virus protection software is configured for automatic checking and system shielding to detect and contain viruses as soon as possible. Network server files are scanned for viruses each time they are used while personal computer files are scanned once per day when the user first logs onto the LAN. The virus protection software also enables staff to manually scan hard drives, USB Drives, and CD’s as needed. In addition, portable computers that are signed out are scanned upon being returned.

All NYSERDA employees are required to complete annual state cyber security training.

SECTION 12: COUNSEL'S OFFICE

Primary Functions

- Provides legal advice and drafts legal opinions and documents for NYSERDA.
- Provides legal advice and oversight of the contracting process.
- ~~The Office of the General Counsel provides guidance to the Communications department in responding to Freedom of Information Law (FOIL) requests.~~ Responsible for responding to Freedom of Information Law (FOIL) requests.
- Renders advice concerning all NYSERDA programs and policies
- As designated by the President and CEO, a Counsel's Office attorney serves as NYSERDA's ethics officer.
- Reviews NYSERDA related proposed legislation and regulations by providing assistance to the Governmental Affairs Director.
- Assists in the drafting of NYSERDA's rules and regulations and reviews NYSERDA's applications for permits and environmental assessments.
- Performs the secretarial function for the standing committees of the Board.
- Coordinates NYSERDA records management systems

Controls

Provides legal advice for all NYSERDA matters.

General Counsel represents NYSERDA's interests in legal actions or proceedings and consults with executive management as deemed necessary.

Upon receipt of notice that an offerer has made contact with someone other than the Designated contact with respect to a procurement for a reason inconsistent with subsection 3 of Section 139-j of the State Finance Law, the ethics officer will immediately investigate the allegation, in accordance with the procedures set forth in, and make a determination as required by, such Section 139-j. A finding that an offerer has knowingly and willfully violated subsection 3 of Section 139-j of the State Finance Law will result in a finding of non-responsibility for such offerer as required by such section.

The General Counsel assigns and oversees a Records Access Officer to respond to Freedom of Information Law FOIL requests.

NYSERDA's President and CEO designates a Records Management Officer and has currently designated a member of Counsel's Office to act in that capacity. In consultation with the New York State Archives, the Records Management Officer is tasked with implementing the records management system, and providing staff with guidelines for maintaining records.

As part of the records management system, NYSERDA has adopted the General Retention and Disposition Schedule for New York State Government Records as issued by the New York State Archives Government Records Services. No record may be destroyed without the express consent of the Records Management Officer in accordance with the General Retention and Disposition Schedule for New York State Government Records, which is located on NYSERDA's intranet.

SECTION 13: GOVERNMENTAL AFFAIRS

Primary Functions

- To serve as a liaison between NYSERDA and all elected officials
- To address inquiries from the Governor's office, members of the federal and State legislature, as well as local government officials

Controls

Records

The Office of Governmental Affairs tracks federal and State legislation that directly impacts energy-efficiency and environmental conservation policies, as well as legislation that may have other potential implications for NYSERDA and its stakeholders. Additionally, staff monitors legislative hearings, assists with the preparation of testimony for hearings, and coordinates the management of NYSERDA's legislative agenda.

The Director of External Affairs will maintain all records of contacts, whether oral or written, that are an attempt to influence the adoption or rejection of any rule or regulations having the force and effect of law that is issued by NYSERDA.

SECTION 14: COMMUNICATIONS

Primary Functions

- Responds to media and public inquiries on programs and acts as a liaison to the Governor's Press and Scheduling Offices
- Issues news releases, arranges media events, and oversees social media accounts
- ~~Responsible for responding to Freedom of Information Law (FOIL) requests with guidance from Counsel's Office~~

Controls

Responds to media and public inquiries on programs

Staff receiving phone calls, messages or other inquiries from the print or electronic media (including freelance journalists or reporters) are required to immediately forward such inquiries to Communications staff for response. As appropriate, Communications staff discusses responses with technical, legal, contracts, or administrative staff.

Issues news releases, arranges media events and oversees social media accounts

Communications staff are responsible for press releases regarding NYSERDA news, events, and programs. Communications works with the staff responsible for programs or events to draft a press release. Press releases are reviewed and approved by the Director of Communications (or designee), the President and CEO, and other parties involved.

Communications staff review NYSERDA-funded projects with special attention to the technology transfer components. Communications staff work with staff from other departments on technology transfer efforts that require communications expertise.

Communications staff are also responsible for targeting information to appropriate audiences-internal and external- to maximize the effectiveness of NYSERDA's outreach efforts.

All social media content distributed by NYSERDA across its various social media platforms is overseen by the Digital Content Editor and Social Media Manager who report into the Director of Communications.

~~Responding to Freedom of Information Requests~~

~~The Director of Communications assigns and oversees a Records Access Officer to respond to Freedom of Information Law (FOIL) requests with guidance from the Office of the General Counsel.~~

SECTION 15: CORPORATE MARKETING

Primary Functions

- Oversee execution of brand standards and visual guidelines across all NYSERDA communications
- Work with program staff, leading the development and execution of marketing plans
- Coordinate activities with assigned Communications, Social Media, and Web staff
- Develop messaging to ensure consistency in market
- Produce marketing materials and publications
- Oversee electronic communications sent via Salesforce CRM
- Produce and distribute general and technical reports about NYSERDA and its programs

Work follows one of two paths:

- Marketing works with competitively selected marketing firm to plan and implement a program to meet business objectives. This work is funded through program budgets.
- Marketing Services, an in-house marketing resource, creates materials, presentations, case studies, and other materials to support marketing of an identified initiative.

Controls

Marketing materials and publications

Marketing staff work with executive and program staff to produce effective marketing materials (reports, brochures, case studies and fact sheets, paid advertising, displays, direct mail, exhibits, videos, presentations, conference materials, website content, and marketing collateral). Materials are reviewed and approved by an identified list of approvers for each project. Staff coordinate and monitor external mailings, NYSERDA photography and content.

SECTION 16: CONSUMER SERVICES AND EVENTS MANAGEMENT

Primary Functions

- Provide consumer information
- Manage and coordinate NYSERDA marketing events

Controls

Consumer Services

The department manages the contract for NYSERDA's toll-free telephone inquiry line for consumer information operated by an outside contractor. Staff maintains up-to-date knowledge of NYSERDA's initiatives and eligibility criteria to train and support contract staff as well as respond directly to questions and inquires as necessary.

Events Management

Staff identify appropriate events, conferences, and exhibit opportunities for NYSERDA program marketing, outreach, and education, and provide conference and meeting support including venue selection and contracting, equipment and facility logistics. The department maintains a NYSERDA-wide events calendar to provide for coordination of activities.

SECTION 17: INTERNAL AUDIT CHARTER

The Authority shall maintain an internal audit function, consistent with Public Authorities Law Section 2932.

Purpose and Mission

The purpose of the Authority's internal audit function is to provide independent and objective assurance and consulting services designed to add value and improve the Authority's operations, and, consistent with Public Authorities Law Section 2932, evaluate the Authority's internal controls and operations, identify internal control weaknesses that have not been corrected and make recommendations to correct these weaknesses. The mission of internal audit is to enhance and protect organizational value by providing risk-based and objective assurance, advice, and insight. This is to be accomplished through a systematic, disciplined approach of evaluating and improving the effectiveness of, ~~and, when appropriate, recommending improvements to~~ risk management, control, and governance processes.

Standards for the Professional Practice of Internal Auditing

The internal audit function will govern itself by adherence to the mandatory elements of The Institute of Internal Auditors' International Professional Practices Framework, including the Core Principles for the Professional Practice of Internal Auditing, the Code of Ethics, the *International Standards for the Professional Practice of Internal Auditing* (the *Standards*), and the Definition of Internal Auditing. The Director of Internal Audit will report periodically to senior management and the Audit and Finance Committee regarding the internal audit function's conformance to the Code of Ethics and the *Standards*.

Organization, Reporting Structure and Authority

The internal audit function shall be directed by a chief audit executive ("Director of Internal Audit"), who shall be appointed by the Board Members, as determined by the Audit and Finance Committee. Selection of the Director of Internal Audit shall be based upon his or her internal auditing credentials, including knowledge, skills, experience, and professional certifications necessary to perform the responsibilities described in this section.

The Director of Internal Audit shall report functionally to the Authority's Audit and Finance Committee and administratively (i.e., day-to-day operations) to the President and CEO. To establish, maintain, and assure that the Authority's internal audit function has sufficient authority to fulfill its duties, the Audit and Finance Committee will:

- Approve the internal audit function's description in this Section.
- Approve the risk-based internal audit plan.
- Provide input to the Director of Internal Audit for the internal audit function's budget and resource plan.
- Receive communications from the Director of Internal Audit on the internal audit function's performance relative to its plan and other matters.
- Approve the appointment or dismissal of the Director of Internal Audit.
- Make appropriate inquiries of management and the Director of Internal Audit to determine whether there are inappropriate scope or resource limitations.

The Chair of the Audit and Finance Committee will consult with the President and CEO on the performance reviews and compensation of the Director of Internal Audit.

The Director of Internal Audit shall have unrestricted access to, and communicate and interact directly with the Audit and Finance Committee and the Board, including, if necessary, private meetings without management present.

The Audit and Finance Committee authorizes the internal audit function to:

- Have full, free, and unrestricted access to all functions, records, property, and personnel pertinent to carrying out any engagement, subject to accountability for confidentiality and safeguarding of records and information.
- Allocate resources within budgets approved by the board, set frequencies, select subjects, determine scopes of work, apply techniques required to accomplish audit objectives, and issue reports.
- Obtain assistance from the necessary personnel of the Authority, as well as other specialized services from within or outside the Authority, in order to complete the engagement.

Independence and Objectivity

The Director of Internal Audit will ensure that the internal audit function remains free from all conditions that threaten the ability of internal auditors to carry out their responsibilities in an unbiased manner, including matters of audit selection, scope, procedures, frequency, timing, and report content. If the Director of Internal Audit determines that independence or objectivity may be impaired in fact or appearance, the details of the impairment will be disclosed to appropriate parties.

Internal auditors will maintain an unbiased mental attitude that allows them to perform engagements objectively and in such a manner that they believe in their work product, that no quality compromises are made, and that they do not subordinate their judgment on audit matters to others.

Internal auditors will have no direct operational responsibility or authority over any of the activities audited. Accordingly, internal auditors will not implement internal controls, develop procedures, install systems, prepare records, or engage in any other activity that may impair their judgment, including:

- Assessing specific operations for which they had responsibility within the previous year.
- Performing any operational duties for the Authority or its affiliates.
- Initiating or approving transactions external to the internal audit function.
- Directing the activities of any Authority employee not employed by internal audit, except to the extent that such employees have been appropriately assigned to auditing teams or to otherwise assist internal auditors.

Where the Director of Internal Audit has or is expected to have roles and/or responsibilities that fall outside of internal auditing, safeguards will be established to limit impairments to independence or objectivity.

Internal auditors will:

- Disclose any impairment of independence or objectivity, in fact or appearance, to appropriate parties.
- Exhibit professional objectivity in gathering, evaluating, and communicating information about the activity or process being examined.

- Make balanced assessments of all available and relevant facts and circumstances.
- Take necessary precautions to avoid being unduly influenced by their own interests or by others in forming judgments.

The Director of Internal Audit will confirm to the Audit and Finance Committee, at least annually, the organizational independence of the internal audit function.

The Director of Internal Audit will disclose to the Audit and Finance Committee any interference and related implications in determining the scope of internal auditing, performing work, and/or communicating results.

Scope of Internal Audit Activities

The scope of internal audit activities encompasses, but is not limited to, objective examinations of evidence for the purpose of providing independent assessments to the Audit and Finance Committee, management, and outside parties on the adequacy and effectiveness of governance, risk management, and control processes for the Authority. Internal audit assessments include evaluating whether:

- Risks relating to the achievement of the Authority’s strategic objectives are appropriately identified and managed.
- The actions of the Authority’s officers, directors, employees, and contractors are in compliance with the Authority’s policies, procedures, and applicable laws, regulations, and governance standards.
- The results of operations or programs are consistent with established goals and objectives.
- Operations or programs are being carried out effectively and efficiently.
- Established processes and systems enable compliance with the policies, procedures, laws, and regulations that could significantly impact the Authority.
- Information and the means used to identify, measure, analyze, classify, and report such information are reliable and have integrity.
- Resources and assets are acquired economically, used efficiently, and protected adequately.

The Director of Internal Audit will report periodically to senior management and the Audit and Finance Committee regarding:

- The internal audit function’s purpose, authority, and responsibility.
- The internal audit function’s plan and performance relative to its plan.
- The internal audit function’s conformance with The Institute of Internal Auditor’s Code of Ethics and *Standards*, and action plans to address any significant conformance issues.
- Significant risk exposures and control issues, including fraud risks, governance issues, and other matters requiring the attention of, or requested by, the Audit and Finance Committee or the Board.
- Results of audit engagements or other activities.
- Resource requirements.
- Any response to risk by management that may be unacceptable to the Authority.

The Director of Internal Audit also coordinates activities, where possible, and considers relying upon the work of other internal and external assurance and consulting service providers as needed. The internal audit function may perform advisory and related client service activities, the nature and scope of which will be agreed with the client, provided the internal audit function does not assume management responsibility.

Opportunities for improving the efficiency of governance, risk management, and control processes may be identified during engagements. These opportunities will be communicated to the appropriate level of management.

Responsibility

The Director of Internal Audit has the responsibility to:

- Submit, at least annually, to senior management a risk-based internal audit plan.
- Submit, at least annually, to the Audit and Finance Committee a risk-based internal audit plan for review and approval.
- Communicate to senior management and the Audit and Finance Committee the impact of resource limitations on the internal audit plan.
- Review and adjust the internal audit plan, as necessary, in response to changes in the Authority's business, risks, operations, programs, systems, and controls.
- Communicate to senior management and the Audit and Finance Committee any significant interim changes to the internal audit plan.
- Ensure each engagement of the internal audit plan is executed, including the establishment of objectives and scope, the assignment of appropriate and adequately supervised resources, the documentation of work programs and testing results, and the communication of engagement results with applicable conclusions and recommendations to appropriate parties.
- Follow up on engagement findings and corrective actions, and report periodically to senior management and the Audit and Finance Committee any corrective actions not effectively implemented.
- Ensure the principles of integrity, objectivity, confidentiality, and competency are applied and upheld.
- Ensure the internal audit function collectively possesses or obtains the knowledge, skills, and other competencies needed to meet the requirements of this Section.
- Ensure trends and emerging issues that could impact the Authority are considered and communicated to senior management, and the Audit and Finance Committee as appropriate.
- Ensure emerging trends and successful practices in internal auditing are considered.
- Establish and ensure adherence to policies and procedures designed to guide the internal audit function.
- Ensure adherence to the Authority's relevant policies and procedures, unless such policies and procedures conflict with this Section. Any such conflicts will be resolved or otherwise communicated to senior management and the Audit and Finance Committee.

- Ensure conformance of the internal audit function with the *Standards*, with the following qualifications:
 - If the internal audit function is prohibited by law or regulation from conformance with certain parts of the *Standards*, the Director of Internal Audit will ensure appropriate disclosures and will ensure conformance with all other parts of the *Standards*.
 - If the *Standards* are used in conjunction with requirements issued by other authoritative bodies, the Director of Internal Audit will ensure that the internal audit function conforms with the *Standards*, even if the internal audit function also conforms with the more restrictive requirements of other authoritative bodies.

Quality Assurance and Improvement Program

The internal audit function will maintain a quality assurance and improvement program that covers all aspects of the internal audit function. The Quality Assurance and Improvement Program will include an evaluation of the internal audit function's conformance with the *Standards* and an evaluation of whether internal auditors apply The Institute of Internal Auditors' Code of Ethics. The Quality Assurance and Improvement Program will also assess the efficiency and effectiveness of the internal audit function and identify opportunities for improvement.

The Director of Internal Audit will communicate to senior management and the Audit and Finance Committee on the internal audit function's Quality Assurance and Improvement Program, including results of internal assessments (both ongoing and periodic) and external assessments conducted at least once every five years by a qualified, independent assessor or assessment team from outside the Authority.

SECTION 18: DISCRETIONARY FUNDS

The expenditure of the Authority's discretionary funds must relate directly to an enumerated power, duty, or purpose of the Authority. Public funds may not be used to purchase items that are considered personal expenses or that are intended to personally benefit a Member, Officer, or employee. The Authority may not use discretionary funds for purchases that are not necessary to advance the mission of the Authority, including supporting the private or personal interests of the Members, Officers, or employees of the Authority.

Examples of inappropriate use of discretionary funds may include, but are not limited to, the purchase of flowers and gifts for Members, Officers, employees, or family members; celebrations for special occasions; charitable contributions or sponsorships; renewal of professional licenses; personal use of Authority vehicles; and costs to purchase or mail holiday cards or expressions of sympathy.

The Authority's handbooks and manuals provide further guidance regarding appropriate uses of the Authority's discretionary funds for expenses directly related to an enumerated power, duty, or purpose of the Authority. The additional guidance sets forth a process for approving discretionary expenditures and indicates the individual authorized to approval such expenditures. The Personnel Handbook contains specific policies regarding reimbursement for food while traveling, professional memberships, use of Authority equipment and vehicles, and tuition reimbursement. The Operations and Procedures Manual details the Authority's policies regarding sponsorships and the purchase of food for meetings and conferences. The Code of Conduct details additional policies regarding use of Authority equipment and vehicles.

APPENDIX A

New York State Comptroller Standards for Internal Control in New York State Government (Revised March 2016)

INTRODUCTION

The New York State Governmental Accountability, Audit and Internal Control Act of 1987 (Internal Control Act) required State agencies and other organizations to promote and practice good internal control and to provide accountability for their activities. In 1999, this legislation was made permanent and the State Finance Law was amended to require the State Comptroller to issue internal control standards for State agencies, public authorities and other organizations.

To fulfill this requirement, the State Comptroller developed the internal control standards contained in this publication: Standards for Internal Control in New York State Government. These Standards are based in part on the work of those advocated by leading authorities in the field of internal control, such as the Committee of Sponsoring Organizations of the Treadway Commission (COSO), the U.S. Government Accountability Office (GAO) and other professional organizations. All organizations subject to audit by the Office of the State Comptroller, including State agencies and public authorities, are expected to adhere to these standards, and will be evaluated accordingly in any audits that are performed by that Office.

Internal control is defined as a process, effected by an entity's board of directors, management, and other personnel, designed to provide reasonable assurance regarding the achievement of objectives relating to operations, reporting, and compliance. It is the integration of the activities, plans, attitudes, policies, systems, resources and efforts of the people of an organization working together to achieve its mission. Thus, internal control is focused on the mission of the organization, and this mission must be kept in mind when evaluating the appropriateness of specific internal control practices.

The fundamental concepts of internal control are rooted in well-established organizational techniques and practices. The use of these techniques and practices to achieve a strong, effective system of internal control can best be understood within the following conceptual framework: the five basic components of internal control (control environment, information and communication, risk assessment, control activities, and monitoring) and the two supporting activities (strategic planning and internal audit). Each component is composed of key principles representing the fundamental concepts that are suitable for all organizations. A principle that is not present or functioning is deemed to be a "major deficiency" in internal controls. Accordingly, this publication is organized on the basis of this conceptual framework of five internal control components and seventeen related principles, together with two supporting activities.

The application of internal controls is dynamic, and practices that fit past circumstances may need to be adjusted as those circumstances change. To keep yourself informed about developments in the field of internal control and learn what other organizations are doing to meet their internal control needs, you can consult the professional literature, visit relevant websites, join professional accountability organizations, and attend training programs on the subject of internal control. Some of these potential sources of information are listed in the appendix to this publication.

Part I: New York State's Internal Control Framework

The State of New York is a very large enterprise, with an annual budget around \$150 billion and a quarter million employees, as well as over 100 public authorities. It is larger than most of the Fortune 500 companies. Although governments do not seek profits, the responsibility of government officials to protect the taxpayers' money and to use public resources efficiently to serve the people is similar to the responsibility corporate executives have to their shareholders. The similarities between New York State government and big business do not end with economic comparisons. Government and many private sector companies are large organizations with many employees, multiple processes, diverse products and services and numerous customers. In order to succeed, both government and business should manage their operations effectively. While there are many different styles of effective management, there is one common feature among them: attention to internal control and risk management.

Everyone experiences internal control in their daily business activities as well as in their personal lives. Yet it is a subject that is very often misunderstood, ignored or undervalued. Internal control helps bring order, direction and consistency in daily operations and in long-term strategic planning. So, how can a subject of such importance be so unappreciated? The question underscores the need to better define internal control and what it does. This publication is intended to explain to employees of New York State government organizations how internal control plays an important part in their daily work activities.

Most people think that internal controls are about accounting for funds. While that is true, it is a myth that internal controls are only about money. Internal controls are also about demonstrating the value of an entity's programs and reporting its accomplishments. Internal controls are about protecting assets, information, and employees, and enabling the organization to make the best decisions. Internal controls are ingrained in all business systems and functions. They are essential to ensuring that an organization is functioning effectively and efficiently.

Government managers should be able not only to account for funds spent on a program, but also to assess the value of the program and measure its accomplishments. An effective system of internal control can give managers the means to provide accountability for their programs, as well as the means to obtain reasonable assurance that the programs they direct meet established goals and objectives. While managers have a significant impact on an organization's system of internal control, every employee of the organization has a responsibility and a role in ensuring that the system is effective in achieving the organization's mission.

Although an internal control system can vary widely among organizations, the standards for a good system are generally the same. The standards presented in this publication are applicable to all State government organizations, including State agencies and public authorities. You should view them as the minimally acceptable standards for New York State government organizations.

Your existing operations likely already address, at least implicitly, many of the principles and practices that are formalized in these Standards. You should view this information as a guide for evaluating your organization's system of internal control. More information about internal control is available in libraries, from other professional organizations and from experts on the subject, including the Office of the State Comptroller.

Definition of Internal Control

Many groups and organizations have published standards and guidelines on internal control and defined it in various ways. Each of those definitions has captured the basic concept of internal control using different words. The definitions find common ground in recognizing internal control's extensive scope, its

relationship to an organization's mission, and its dependence on people in the organization.

Internal control is focused on the achievement of the organization's mission. Mission is the organization's reason for existing. It provides a sense of direction and purpose to all members of the organization, regardless of their position, and provides a guide when making critical decisions. Therefore, it is essential that an organization have a clearly stated mission that is known and understood by everyone in the organization. It is also important to understand that, while good internal control will provide "reasonable assurance" that goals and objectives are met, good internal control cannot guarantee organizational success. However, goals and objectives are much less likely to be achieved if internal control is poor.

Internal control is defined as follows:

Internal control is a process, effected by an entity's board of directors, management, and other personnel, designed to provide reasonable assurance regarding the achievement of objectives relating to operations, reporting, and compliance.

In essence, internal control ensures that the right people are using the right systems to accomplish the right thing in the right way.

This definition reflects certain fundamental concepts. Internal control is:

- Geared to achieving objectives in one or more of the following categories—operations, reporting, and compliance.
- A process consisting of ongoing tasks and activities.
- Effected by people—it involves management and staff and the actions they take at every level in an organization, it cannot be reduced simply to policies, procedure manuals, systems, and forms. Internal control will succeed or fail depending on the attention the organization's employees give to it.
- Able to provide reasonable—but not absolute—assurance to an entity's senior management and board of directors.
- Adaptable to the entity structure—flexible in application to the entire entity or to a particular subsidiary, division, operating unit, or business process.

Three Objectives of Internal Control

The overall purpose of internal control is to help an organization achieve its mission. There are three types of objectives which emphasize differing aspects of internal control:

- **Operations Objectives** - pertaining to effectiveness and efficiency of the entity's operations, including operational and financial performance goals. These objectives promote orderly, economical operations and help produce quality products and services consistent with the organization's mission. They also serve to safeguard resources against loss due to waste, abuse, mismanagement, errors and fraud.
- **Reporting Objectives** - relating to internal and external financial and nonfinancial reporting. These objectives may encompass reliability, timeliness, transparency, or other terms as set forth by regulators, recognized standard setters, or the organization's policies.
- **Compliance Objectives** - dealing with adherence to laws, regulations, contracts and management directives to which the entity is subject.

Why Internal Controls are Important

Internal controls help an organization to achieve its objectives. They are the checks and balances to support the mission while helping prevent fraud, waste, and abuse and ensuring the efficient use of resources. Internal controls are the first line of defense and the best mechanism an organization has to safeguard its assets and resources, even though they can provide only reasonable—not absolute— assurance. All organizations need internal controls to:

- Accomplish their missions;
- Reduce opportunities for fraud;
- Prevent loss of funds or other resources;
- Establish standards of performance;
- Ensure compliance with laws, regulations, policies, and procedures;
- Preserve integrity;
- Avoid bad publicity;
- Ensure public confidence; and
- Protect all employees.

Consequences of weak internal controls can range from inaccurate or incomplete information, to the waste or misuse of assets, and even to embezzlement or theft. One of the most dangerous things about a weak internal control system is that it engenders a lack of accountability. If adverse events occur, such as theft or a severe failure, it can be difficult to identify the specific cause of the problem and determine who may be responsible if accountability is not established. As a result, innocent staff can fall under suspicion. Strong controls can help to identify who or what went wrong, and what corrective actions are needed. On the broader level, a lack of accountability can result in the erosion of public confidence and support, and can also hamper an organization's ability to serve the public effectively.

Organizational Roles

Every member of an organization has a role in the system of internal control. The human factor is critical to the system's success. Internal controls are developed by people, guide people, and provide them with a means of accountability. People are responsible for implementing each element of the system properly. Individual roles in the system of internal control vary greatly throughout an organization. Very often, an individual's position in the organization determines the extent of that person's involvement in internal control.

The strength of the system of internal control is dependent on people's attitudes toward internal control and their attention to it. Executive management needs to set the organization's "tone" regarding internal control. If executive management does not establish strong, clearly stated support for internal control, the organization as a whole will most likely not practice good internal control. Similarly, if individuals responsible for control activities are not attentive to their duties, the system of internal control will not be

effective. People can also deliberately defeat the system of internal control. For example, a manager can override a control activity because of time constraints, or two or more employees can act together in collusion to circumvent control and "beat the system." To avoid these kinds of situations, the organization should continually monitor employee activity and emphasize the value of internal control.

While everyone in an organization has responsibility for ensuring the system of internal control is effective, the greatest amount of responsibility rests with the managers of the organization. Management has a role in making sure that all employees have the necessary skills and capacities and in providing employees with appropriate supervision, monitoring, and training to reasonably ensure that the organization has the capability to carry out its work. The organization's top executive, as the lead manager, has the ultimate responsibility. The Internal Control Act provides that the top executive is responsible for establishing the organization's system of internal control, and is also responsible for: (1) establishing a system of internal control review; (2) making management policies and guidelines available to all employees; and (3) implementing education and training about internal control and internal control evaluations. To the extent that the top executive authorizes other managers to perform certain activities, those managers become responsible for those portions of the organization's system of internal control.

The law further requires the head of the organization to designate an internal control officer who reports to him or her. The Internal Control Officer should be an individual with sufficient authority to act on behalf of the agency head in implementing and reviewing the agency's internal control program. This individual should have a broad knowledge of the agency's operations, personnel and policy objectives. Drawing on knowledge and experience with internal control matters, the internal control officer is a critical member of the management team who assists the agency head and other management officials by evaluating and improving the effectiveness of the internal control system. The Internal Control Officer is responsible for: establishing and maintaining a system of internal controls and program review; making management policies and guidelines available for all employees; and ensuring that employees have an adequate awareness and understanding of internal control standards through the implementation of education and training efforts. In general terms, the role of the Internal Control Officer is to work with appropriate personnel within the organization to coordinate the internal control activities and to ensure that the organization's internal control program meets requirements established by law and these standards.

While the Internal Control Officer has responsibility for reviewing the organization's internal control efforts and evaluating the adequacy of the internal control reviews, program and line managers are primarily responsible for conducting reviews to assure adherence to controls, and for analyzing and improving control systems. Ultimately, the organization's managers are still responsible for the appropriateness of the internal control system in their areas of operation.

The Internal Control Officer helps establish specific procedures and requirements; however, the effectiveness of these procedures and requirements must be audited by someone who was not involved in the process of putting them into place. The organization's internal auditor is responsible for evaluating the effectiveness of the system of internal control, and must be independent of the activities that are audited. For this reason, in nearly all instances, the internal auditor cannot properly perform the role of Internal Control Officer.

Documentation of an Organization's Internal Control System

Documentation is a necessary part of an effective internal control system. The level and nature of the documentation required will vary, based on the size of the entity and the complexity of the operational processes the entity performs. Management uses judgment in determining the extent of documentation that

is needed. Documentation is required for the effective design, implementation, and operating effectiveness of an entity's internal control system. These Standards includes minimum documentation requirements as follows:

- Management develops and maintains documentation of its internal control system.
- If management determines that a key internal control principle is not relevant, management supports that determination with documentation that includes the rationale of how, in the absence of that principle, the associated component could be designed, implemented, and operated effectively.
- Management documents in policies the internal control responsibilities of the organization.
- Management evaluates its operations and risks and documents its assessment of vulnerabilities.
- Management evaluates and documents the results of ongoing monitoring and separate evaluations to identify internal control issues.
- Management evaluates and documents internal control issues and determines appropriate corrective actions for internal control deficiencies on a timely basis.
- Management completes and documents corrective actions to remediate internal control deficiencies on a timely basis.

These requirements represent the minimum level of documentation of each component in an entity's internal control system. Management exercises judgment in determining what additional documentation may be necessary or an effective internal control system. If management identifies deficiencies in achieving these documentation requirements, the effect of the identified deficiencies is considered as part of management's summary determination as to whether the related principle is designed, implemented, and operating effectively.

Part II: 5 Components and 17 Principles of Internal Control

The 5 components of internal control must be successfully designed, implemented, and functioning sufficiently in order for the internal control system to be effective. The 17 principles represent the fundamental concepts which are associated with particular components within the system. All components and principles are relevant in establishing an effective internal control system. An organization that has a strong system of internal control exhibits the following actions.

Control Environment <ol style="list-style-type: none">1. Demonstrates commitment to integrity and ethical values2. Exercises oversight responsibility3. Establishes structure, authority and responsibility4. Demonstrates commitment to competence5. Enforces accountability
Risk Assessment <ol style="list-style-type: none">6. Specifies suitable objectives7. Identifies and analyzes risk8. Assesses fraud risk9. Manages risk during change
Control Activities <ol style="list-style-type: none">10. Selects and develops control activities11. Selects and develops general controls over technology12. Deploys controls through policies and procedures
Information and Communication <ol style="list-style-type: none">13. Uses relevant information14. Communicates internally15. Communicates externally
Monitoring <ol style="list-style-type: none">16. Conducts ongoing and/or separate evaluations17. Evaluates and communicates deficiencies

Control Environment

Control environment encompasses the set of standards, processes, and structures that are the backbone for establishing internal control across the organization. It is the attitude toward internal control established and maintained by the management and employees of an organization. It is the product of management's governance—that is, its philosophy, style and supportive attitude—and the sense of competence, ethical values, integrity and morale. The control environment is further affected by the organization's structure and accountability relationships. The control environment has a pervasive influence on the decisions and activities of an organization, and provides the foundation for the overall system of internal control. If this foundation is not strong—if the control environment is not positive—the overall system of internal control will not be as effective as it should be.

The following principles describe how management is responsible for creating a positive control environment, and how employees are responsible for helping to maintain this environment.

Demonstrates Commitment to Integrity and Ethical Values

Integrity and ethical values are key elements contributing to a good control environment. In an organizational context, ethical values are the standards of behavior that form the framework for employee conduct, guiding employees when they make decisions. Management addresses the issue of ethical values when it encourages:

- honesty and fairness;
- recognition of and adherence to laws and policies;
- respect for the organization;
- leadership by example;
- commitment to excellence;
- appropriate respect for authority;
- respect for employees' rights; and
- conformance with professional standards.

Government employees should carry out their responsibilities with exemplary integrity, commensurate with their role as public servants. While it is management's responsibility to establish and communicate the values of the organization, it is everyone's responsibility to demonstrate integrity. Management encourages integrity by:

- establishing and publishing a code of conduct;
- complying with the organization's ethical values and code of conduct;
- rewarding employee commitment to the organization's ethical values;
- establishing methods for reporting ethical violations; and
- consistently enforcing disciplinary practices for all ethical violations.

Exercises Oversight Responsibility

Governance

Governance is the influence on an organization exercised by the executive body or the chief executive. The executive body may be a board of directors, board of trustees, council, legislature or similar entity. The chief executive may be the president, chancellor, commissioner, chief judge or an individual elected or appointed as the highest ranking person in the organization.

Their governance responsibilities are usually founded in a constitution, charter, laws, by-laws, regulations

and other similar documents. The leadership, actions and tone established and practiced by the governing body and/or executive can have a profound impact on how the employees of the organization perform their responsibilities, which in turn affects the achievement of the organization's mission.

Among the critical areas influenced by the governing body or executive are:

- approving and monitoring the organization's mission and strategic plan;
- establishing, practicing, and monitoring the organization's values and ethical code;
- overseeing the design, implementation, and operation of the organization's internal control system;
- providing direction to management on the correction of deficiencies in the internal control system;
- overseeing the decisions and actions of senior managers;
- establishing high-level policy and organizational structure;
- ensuring and providing accountability to stakeholders;
- establishing the overall management style, philosophy and tone; and
- directing management oversight of key business processes.

Management's Operating Style and Philosophy

Management's operating style and philosophy reflects management's basic beliefs regarding how the people and activities of an organization should be managed. There are many styles and philosophies. Although, some may be more effective than others in helping a particular organization accomplish its mission. Management should practice the most effective style and philosophy for the organization, making sure that its approach reflects the ethical values of the organization and positively affects staff morale. Management should practice and clearly communicate and demonstrate these beliefs to staff and periodically evaluate whether the style and philosophy are effective and are practiced consistently.

Management's philosophy and style can be demonstrated in such areas as: its approach to recognizing and responding to risks (both internal and external), including the potential for fraud; its acceptance of regulatory control imposed by others; its attitude toward internal and external reporting; its use of aggressive or conservative accounting principles; its attitude toward information technology and accounting functions; and its support for and responsiveness to internal and external audits and evaluations.

Supportive Attitude

A supportive attitude toward internal controls is a disposition that encourages desired outcomes. Since internal control provides management with reasonable assurance that the organization's mission is being accomplished, management should have a supportive attitude toward internal control and make sure that attitude permeates the organization. Executive management should set a tone that emphasizes the importance of internal control. Such a tone is characterized by:

- minimal and guarded use of control overrides;
- support for conducting control self-assessments and internal and external audits;
- openness and responsiveness to issues raised as the result of the evaluations and audits; and
- ongoing education to ensure everyone understands the system of internal control and their role in supporting it.

Mission

The mission of an organization should be formulated in a clear, concise statement, approved by executive management and/or the governing board of the organization. Management should tell employees about the organization's mission and explain how their jobs contribute to accomplishing the mission. The mission statement will be most effective if all employees perceive they have a personal stake in helping the organization fulfill its mission. Without a clearly defined and communicated mission, an organization may drift aimlessly and accomplish little.

As time passes, both internal and external changes can affect the organization's mission, goals and objectives. Therefore, management should periodically review the mission statement and update it, as necessary, for adequacy and relevancy.

Morale

Morale is the attitude people have about their work, as exhibited by their confidence, discipline and willingness to perform tasks. People's attitude about their jobs, work environment and organization affects how well they do their jobs. Management should recognize the importance of good morale in an effective control environment. Equally important, management should recognize that low employee morale can be detrimental to the control environment, causing a drop in productivity, turn over in key positions and lack of loyalty. Management should monitor the level of staff morale to ensure employees are committed to helping the organization accomplish its mission. Management should also take actions to maintain high morale. Such actions should provide staff with a sense that:

- their opinions and contributions are welcomed, valued and recognized;
- the organization is willing to help improve their level of competency;
- there is opportunity for continuous improvement;
- they have a stake in the mission, goals and objectives of the organization;
- the organization's appraisal and reward systems are fair and consistent;
- disciplinary actions are fair, consistently applied and timely; and
- the lines of communication are open.

Establishes Structure, Authority and Responsibility

Structure is the framework in which the organization's plans are carried out. It should define the functional subunits of an organization and the relationships among them.

An organizational chart can provide a clear picture of the authority and accountability relationships among

functions. The chart should be provided to all employees to help them understand the organization as a whole, the relationships among its various components and where they fit into the organization. Management should review this chart periodically to ensure it accurately reflects the organization's structure.

Management should delegate authority and responsibility throughout the organization. Management is responsible for organizing the entity's authority and accountability relationships among various functions to provide reasonable assurance that work activities are aligned with organizational objectives. With increased delegation of authority and responsibility, there is a need to provide qualified and continuous supervision and to monitor results. Supervision throughout the organization helps ensure that employees are aware of their duties and responsibilities, and know the extent to which they are accountable for the successful completion of specific activities.

Demonstrates Commitment to Competence

Competent employees have the skill, knowledge and ability to perform their assigned tasks. Management's responsibility for ensuring the competency of its employees should begin with establishing appropriate human resource policies and practices that reflect a commitment to:

- establishing levels of knowledge and skill required for every position;
- verifying the qualifications of job candidates;
- hiring and promoting only those with the required knowledge and skills;
- establishing training and education programs that help employees increase their knowledge and skills;
- planning and preparing for succession by developing contingency plans for the assignment of responsibilities when employees change positions or leave the organization.

Management should also ensure that employees have adequate resources, such as equipment, software, policy and procedure manuals, as well as the tools and support they need to perform their jobs.

Enforces Accountability

Management should evaluate performance and hold individuals accountable for their responsibilities in pursuit of organizational objectives. Accountability is driven by the tone at the top and supported by the commitment to integrity and ethical values. Management holds individuals accountable through mechanisms such as performance evaluations and disciplinary actions. Actions to enforce accountability for organizational responsibilities range from information feedback provided by the direct supervisor to formal disciplinary action. The level of enforcement action is determined by the significance of the deficiency to the internal control system.

Management is responsible for evaluating the pressure exerted on individuals to fulfill their assigned duties. Excessive pressure can result in individuals skipping steps or cutting corners to meet established goals. Management can adjust excessive pressures by rebalancing workloads or increasing resource levels.

Risk Assessment

Risk is the possibility that an event will occur and threaten or otherwise adversely affect the achievement of the organization's objectives. Objectives can only be derived from and must be in alignment with the organization's mission, strategic plan, and performance goals. Management should define objectives clearly to enable the identification of risks and define risk tolerances. The act of managing the risks associated with achieving an organization's mission through its objectives requires an assessment of these risks.

Risk assessment involves a dynamic and iterative process for identifying and analyzing these threats through an organization-wide effort, forming a basis for determining how risks should be managed. Management considers possible changes in the external environment and within its own business model that may impede its ability to achieve its objectives. For each risk that is identified, management should decide whether to accept the risk, reduce the risk to an acceptable level, or avoid the risk. Risk management is an ongoing process that must include monitoring the changing environment and tracking planned actions to mitigate the impact and likelihood of risks.

Specifies Suitable Objectives

Objectives are driven by an organization's mission and its strategic plan, which outlines goals and priorities. Objectives detail an organization's areas of focus for accomplishing its mission and meeting its expectations. Management sets internal expectations and requirements through the established standards of conduct, oversight structure, organizational structure, and expectations of competence. Management should evaluate whether defined objectives are consistent with these requirements and expectations, and make revisions as necessary. This consistency enables management to identify and analyze risks associated with achieving the defined objectives as part of the control environment.

By stating objectives in specific and measurable terms, the design of internal control for related risks can be better understood at all levels of the organization. This involves clearly defining what is to be achieved, who is to achieve it, how it will be achieved, and the time frames for achievement. Measurable objectives are generally free of bias and do not require subjective judgment. Measurable objectives are also stated in a quantitative or qualitative form that permits reasonably consistent assessment. For quantitative objectives, performance measures may be a targeted percentage or numerical value. For qualitative objectives, management may need to design performance measures that indicate a level or degree of performance, such as milestones.

Risk tolerance is the acceptable level of variation in performance relative to the achievement of objectives. Management defines the risk tolerances for defined objectives by ensuring that the set levels of variation for performance measures are appropriate for the design of an internal control system. Risk tolerances should be measured in similar terms as the performance measures for instance, if accuracy is a measure of an objective, then risk tolerance would be stated as an acceptable error rate, note that the concept of risk tolerance does not apply to compliance, since an entity is either compliant or not compliant.

Further, management must consider the risk tolerances in the context of the entity's applicable laws, regulations, and standards as well as the entity's standards of conduct, oversight structure, organizational structure, and expectations of competence. If risk tolerances for defined objectives are not consistent with these requirements and expectations, management must make appropriate revisions to achieve consistency.

Identifies and Analyzes Risk

One of the most important components of an organization's internal control program is the process used to identify and evaluate the risks and internal controls associated with specific functions, objectives, and

assessable units.

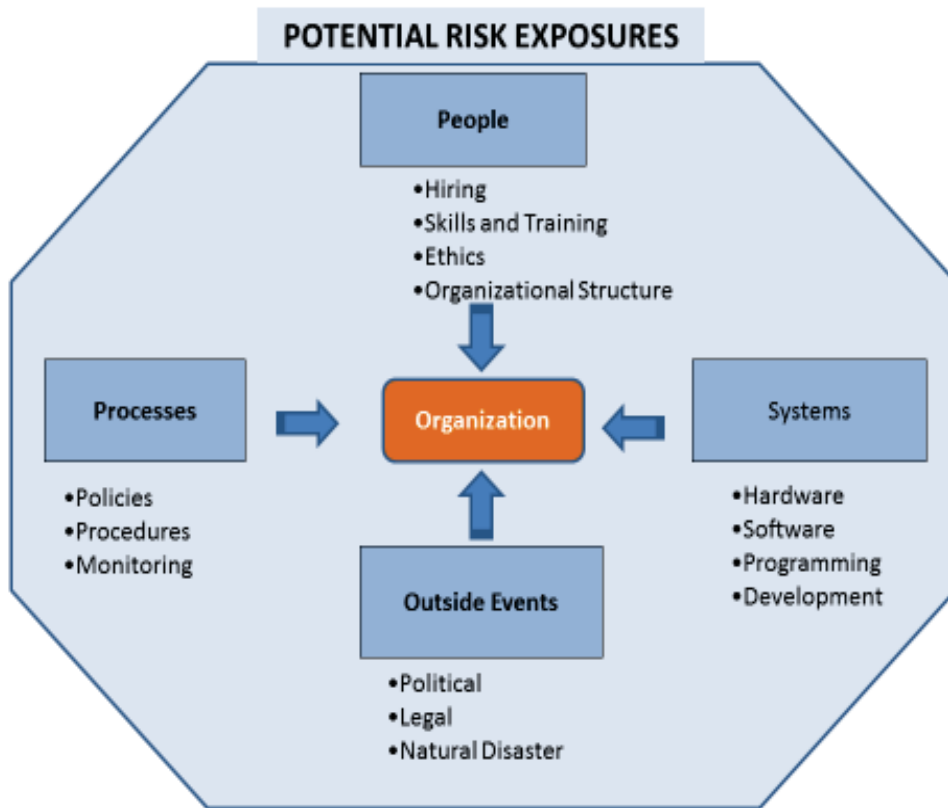
Identify Risk

Management first needs to identify all business objectives of its programs and units, including operational goals, reporting, and compliance requirements. These objectives should be specific enough to provide direction for managing the organization's functions and should be stated in terms that reflect the responsibilities of its subunits. Business objectives should flow from the three objectives of internal control, which were discussed in Part I. For example, the following two business objectives are derived from the operational objective of internal control:

- Ensure all applications are processed (i.e., promoting the effectiveness and efficiency of the entity's operation).
- Ensure access to electronic files is restricted to authorized personnel (i.e., safeguarding assets against loss).

After identifying all the business objectives, managers should identify all the risks associated with each objective (i.e., the events that would threaten the accomplishment of each objective). These risks can be both internal (e.g., human error, fraud, system breakdowns) and external (e.g., changes in legislation, natural disasters). It is essential that managers within the organization identify the risks associated with their respective objectives. There are many ways to look at risks, and no one can identify all potential risks. One recognized approach is to conduct a group brainstorming session with staff to generate ideas on what could go wrong in an organization, operation, or unit. It's a dynamic process, allowing you to consider how potential events might affect the achievement of your objectives.

The following chart illustrates some of the places where an organization can be exposed to risk, although it is not reflective of all potential risks.



The Appendix includes references to many other resources that can help management select the most effective tools and approaches for its operations.

Information Technology Risk

As organizations continue to develop or incorporate technological advances, they become exposed to new and sometimes greater risks. Therefore, organizations must identify and assess the risks accompanying each new device, platform, software application or business model. Among the questions management should consider are:

- How does the new technology contribute to achieving the organization’s mission?
- Does the new technology increase risks that may hinder the accomplishment of objectives?
- Examples may include reduced data security, frequent or prolonged service interruptions, steep learning curves, or decreased morale.
- What changes to internal controls (e.g., control activities) are necessary to manage these risks?

Interdependencies among risks often cross business unit and functional boundaries. In recent years, government organizations have increasingly turned to third-party service providers for information technology solutions. Organizations use third parties for a variety of purposes, ranging from simple web

hosting to complete outsourcing of all information technology (IT) functions. Outsourcing provides organizations with a number of benefits including the ability to utilize technology that may not otherwise be available, to access other skills and knowledge that may not exist in the organization, or to provide 24 hour-a-day, seven-day-a-week support.

The impact that third parties have on an organization can vary considerably. Third parties that provide little more than connectivity services, may have little impact on an organization's internal controls and related control objectives. Conversely, third parties that provide services ranging from application hosting to business process outsourcing to complete management of all IT-related functions can have significant impact on an organization's internal controls and related control objectives.

Regardless of the level of impact a third party can have on an organization, the governing board or organizational head and senior management are ultimately responsible for managing activities conducted through third-party relationships as well as identifying and controlling the risks arising from such relationships to the same extent as if the activity were handled within the organization. Third-party activities must be included in the organization's risk assessment, and management should implement an effective third-party risk management process. Management should appropriately assess, measure, monitor, and control the risk associated with the third-party relationship. Organizations can choose to perform these assurance activities on their own or require an independent assessment of the controls around the services provided. In either situation, the organization should provide for these assurances in the agreement (contract) with the third-party and clearly state its expectations including compliance with these Standards. Management should consider designating a specific officer to coordinate the oversight activities and involve other operational areas in the monitoring process. An effective oversight program will generally include the monitoring of the third party's quality of service, risk management practices, and applicable internal controls.

In some instances in government operations, a third party may be another governmental entity. In those situations, wherever possible, establishing a Memorandum of Understanding (MOU) will help to clarify the requirements for both entities. Agreement on which processes each organization is responsible for, how assurances will be provided and in what format are all factors to include in such an agreement. Where an MOU does not exist, the risks associated with the outsourcing should still be recorded and tracked on a continuous basis. While it may be difficult to fully mitigate risks associated with such arrangements, it is important to inventory these risks and monitor for their occurrence with a plan for response in place should they occur.

Analyze Risk

Management should evaluate each identified risk in terms of its impact and its likelihood of occurrence, as follows:

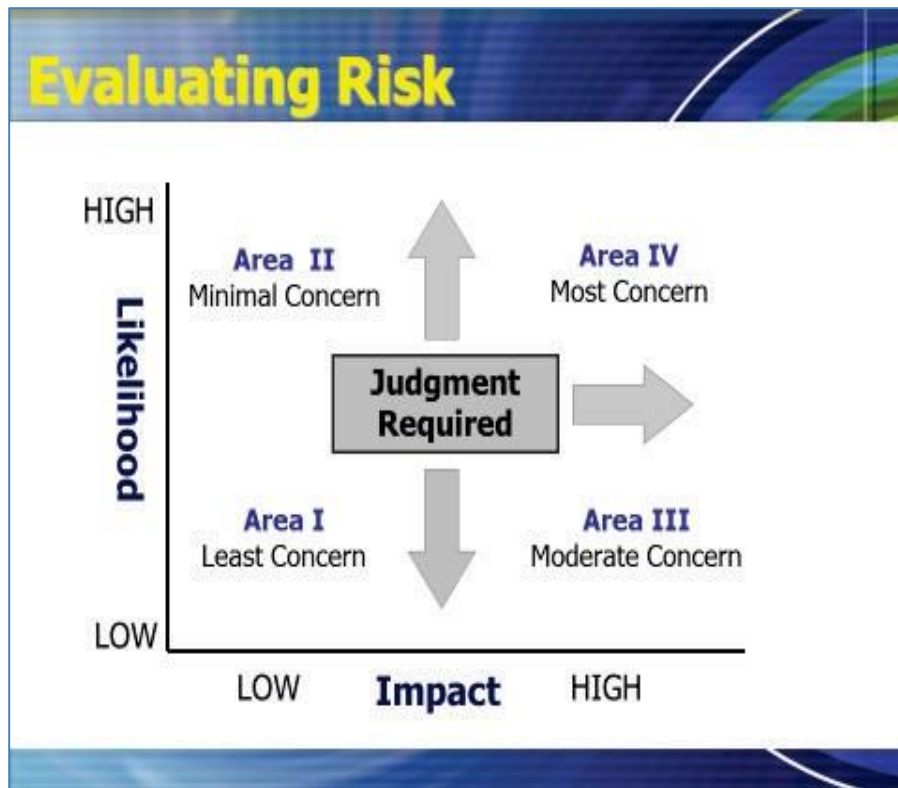
- Impact is the effect an unfavorable event would have on the organization. This effect could be some type of harm or an opportunity that would be lost. The impact is also affected by how quickly an event may happen or spread (speed) and its duration. If possible, these impacts should be quantified or, at the very least, should be described in terms that are specific enough to indicate the significance of the risk.
- Likelihood of occurrence is the probability that an unfavorable event would occur if there were no control activities (as described in the following section) to prevent or reduce the risk. A likelihood of occurrence should be estimated for each identified risk.

The combination of the two factors provides management with a rating for each risk identified. Further, management should identify the amount of risk they are willing to accept in relation to achieving objectives; thereby effectively quantifying management's tolerance for such risks.

Management should use judgment to establish priorities for risks based on their impact and their likelihood of occurrence. Risks should be ranked in a logical manner, from those that are most significant (high impact) and most likely to occur (high likelihood) to the least significant (low impact) and least likely (low likelihood).

This chart depicts one reasonable approach that management may choose to employ to evaluating risks, where Area 1 represents the lowest priority risk and Area 4 represents the highest.

For example, a program manager may have control over two cash accounts: one, the office petty cash fund and the other, for collection of fees and fines from a program activity. Most people would likely consider the petty cash fund to be an Area 1 or 2 risk based on its small balance. In contrast, if management finds that the fees and fines are substantial in amount, are stored in an unlocked location and that there is a six-month backlog in processing them, this would likely result in an Area 4 assessment requiring immediate attention.



Risks may be analyzed on an individual basis or grouped into categories with related risks and analyzed collectively. Regardless of whether risks are analyzed individually or collectively, management should consider the correlation among different risks or groups of risks when estimating their significance. The specific risk analysis methodology used can vary by entity because of differences in missions and the difficulties inherent in qualitatively and quantitatively defining risk tolerances.

Respond to and Manage Risk

Executive management should provide guidance to managers throughout the organization to help them assess both the level and the nature of risks that and distinguish acceptable from unacceptable risks. Managers should use this guidance, along with the results of the organization's specific risk assessments, to determine actions necessary to manage each risk to an acceptable level. In each case, managers must decide whether to accept, reduce, transfer or avoid each risk entirely.

For example, in deciding how to manage the risk that unauthorized persons could gain access to electronic files, managers should consider the following possibilities:

- **Accept the risk:** Do not establish control activities - Management may choose to accept the risk of unauthorized access because it determines that the consequences of such access are not significant. (E.g., the files may not contain data that is sensitive.) Management might also choose to accept the risk if the cost of the associated control activities is greater than the cost of the unfavorable event.

- Reduce the risk: Establish control activities - Management cannot accept the current level of risk of unauthorized access because the files contain confidential or otherwise inherently valuable data. Therefore, management establishes control activities that are intended to reduce the risk of unauthorized access to an acceptable level. However, the risk is reduced only as long as the control activities function as intended.
- Transfer or share the risk - Management may decide to maintain electronic data in a vendor-operated cloud environment or an external data center operated by a business partner. Contract provisions may then allow management to transfer responsibility for all or part of the risk of improper access to the service provider or business partner.
- Avoid the risk: Do not carry out the function - Management determines that it cannot tolerate any risk of unauthorized access to the files or cannot adequately control such access. For example, a file may contain extremely sensitive data, or access controls may not be feasible. In this case, management may decide that the impact of any unauthorized access to this file would be too risky or that access is too difficult or too costly to control. Therefore, management decides not to carry out this function (i.e., decides not to maintain the data).

Reduce Risk

In most cases, government entities do not have the ability to eliminate programs to wholly avoid risks, and options to share or transfer risks to others are also limited. As a result, management must most often take actions to reduce risks to acceptable levels. Management should therefore use risk assessment information to help identify the most effective and efficient control activities available for handling the risk. Specifically, management should answer the following questions:

- What is the cause of the risk? Consider the reasons the risk exists to help identify all the possible control activities that could prevent or reduce the risk.
- What is the potential for fraud? Consider potential threats that could result in fraudulent activities.
- What is the cost of control vs. the cost of the unfavorable event? Compare the cost of the risk's impact with the cost of carrying out various control activities, and select the most cost-effective choice.
- What is the priority of this risk? Use the prioritized list of risks to help decide how to allocate resources among the various control activities used to reduce the risks. The higher the priority, the greater the resources which may be allocated to the control activities intended to reduce the risk.

Management should maintain its analysis and interpretation of the risk assessment information as part of its documentation of the rationale that supports its risk management decisions. Management should review these decisions periodically to determine whether changes in conditions warrant a different approach to managing and reducing risk.

Fraud Risk

All organizations need to consider the potential for fraud to occur in their operations. Fraud is any intentional act or omission designed to deceive others, resulting in the victim suffering a loss and/or the perpetrator achieving a gain. Occupational fraud is the use of one's occupation for personal enrichment through the deliberate misuse or misapplication of the employing organization's resources or assets.

Fraud should be included as part of the risk assessment process, but can be documented separately or in conjunction with other risks. The organization should consider and assess the following when evaluating potential risks for fraud:

- Various Types of Fraud - fraudulent reporting, possible loss of assets, and corruption resulting from the many ways that fraud and misconduct can occur.
- Incentives and Pressures - internal and external motives and demands.
- Opportunities - vulnerabilities to unauthorized acquisition, use, or disposal of assets, altering of the entity's reporting records, or other inappropriate acts. Also consider the opportunities for fraud and abuse afforded certain positions or scopes of authority over operations.
- Attitudes and Rationalizations - how management and other personnel might engage in or justify inappropriate actions.

Management analyzes and responds to identified fraud risks so that they are effectively mitigated. As part of analyzing fraud risk, management also assesses the risk of management override of controls. Management responds to fraud risks through the same risk response process performed for all analyzed risks. Management designs an overall risk response and specific actions for responding to fraud risks. It may be possible to reduce or eliminate certain fraud risks by making changes to the entity's activities and processes. These changes may include stopping or reorganizing certain operations and reallocating roles among personnel to enhance segregation of duties. In addition to responding to fraud risks, management may need to develop further responses to address the risk of management override of controls.

Further, when fraud has been detected, the risk assessment process may need to be revised. In addition to fraud, management considers other forms of misconduct that can occur, such as waste and abuse. Waste is the act of using or expending resources carelessly, extravagantly, or to no purpose. Abuse involves behavior that is deficient or improper when compared with behavior that a prudent person would consider reasonable and necessary operational practice given the facts and circumstances. This includes the misuse of authority or position for personal gain or for the benefit of another. Waste and abuse do not necessarily involve fraud or illegal acts.

Manages Risk During Change

When change occurs in an organization, it often affects the control activities that were designed to prevent or reduce risk. Some examples of change include: new processes, new systems, significant changes in job responsibilities, reorganizations, significant changes in personnel, and changes in legislation. To properly manage risk, management should:

- monitor changes to ensure that each risk continues to be managed as change occurs;
- inform employees responsible for managing the organization's most critical risks about any

proposed changes that may affect their ability to manage those risks; and

- continually monitor the factors that can affect the risks already identified as well as other factors that could create new risks.

Control Activities

Control activities are the actions established through policies and procedures that help ensure that management's directives to mitigate risks to the achievement of objectives are carried out. Management should establish control activities that are effective and efficient and contribute to the mitigation of risks.

Selects and Develops Control Activities

When designing and implementing control activities, management should strive for the maximum benefit at the lowest possible cost. Here are a few simple rules to follow:

- The cost of the control activity should not exceed the cost that would be incurred by the organization if the undesirable event occurred.
- Management should build control activities into business processes and systems as the processes and systems are being designed. Adding control activities after the development of a process or system is generally more costly.
- The allocation of resources among control activities should be based on the impact and likelihood of the risk they are intended to reduce.

Control activities may include a variety of approaches to mitigate risks, considering both manual and automated as well as preventive and detective controls.

- Preventive controls are designed to deter the occurrence of an undesirable event. The development of these controls involves anticipating potential problems before they occur and implementing ways to avoid them.
- Detective controls are designed to identify undesirable events that do occur, and alert managers so they can take corrective action promptly.

Preventive controls can often be more expensive to operate and maintain than detective controls. Costs and benefits should be assessed before control activities are implemented. Management should also remember that an excessive use of preventive controls can impede productivity. No one control activity provides all of the answers to risk management problems. In some situations, a combination of control activities should be used, and in others, one control activity could substitute for another. The following are descriptions of some of the more commonly used control activities. This is by no means an exhaustive listing of the alternatives available to management.

Documentation

Documentation involves preserving evidence to substantiate a decision, event, transaction or system. All documentation should be complete, accurate and recorded timely. Documentation should have a clear purpose and be in a usable format that will add to the efficiency and effectiveness of the organization. Examples of areas where documentation is important include critical decisions, significant events,

transactions, policies, procedures and the system of internal control.

Critical decisions and significant events usually involve executive management. These decisions and events usually result in the use, commitment, exchange or transfer of resources, such as in strategic plans, budgets and executive policies. By recording the information related to such events, management creates an organizational history that can serve as justification for subsequent actions and decisions and will be of value during self-evaluations and audits.

Documentation of transactions should enable managers to trace each transaction from its inception through its completion. This means the entire life cycle of the transaction should be recorded, including: (1) its initiation and authorization; (2) its progress through all stages of processing; and (3) its final classification in summary records. For example, the documentation for the purchase of equipment would start with the authorized purchase request and continue with the purchase order, the vendor invoice and the final payment documentation.

Documentation of policies and procedures is critical to the daily operations of an organization. The organization deploys control activities through policies that establish what is expected and through procedures that put policies into action. These documents set forth the fundamental framework and the underlying methods and processes all employees rely on to do their jobs. They provide specific direction to employees in their daily decision making. Without this framework of understanding by employees, conflict can occur, and poor decisions can be made, causing serious harm to the organization's reputation. Further, the efficiency and effectiveness of operations can be adversely affected.

The documentation of an organization's system of internal control should include the organization's structure, policies, assessable units, control objectives and control activities. The various aspects of a system of internal control can be represented in narrative form, such as in policy and procedure manuals, and/or in the form of flow charts or matrices.

Approval and Authorization

Approval is the confirmation or sanction of employee decisions, events or transactions based on a review. Management should determine which items require approval based on the level of risk to the organization without such approval. Management should clearly document its approval requirements and ensure that employees obtain approvals in all situations where management has decided they are necessary. For example, a manager reviews a purchase request from an employee to determine whether the item is needed. Upon determining the need for the item, the manager signs the request; indicating approval of the purchase.

Authorization is the power management grants employees to carry out certain duties, based on approval received from supervisors. Authorization is a control activity designed to ensure events or transactions are initiated and executed by those designated by management. Management should ensure that the conditions and terms of authorizations are clearly documented and communicated, and that significant transactions are approved and executed only by persons acting within the scope of their authority. For example, a manager may be authorized by his or her supervisors to approve purchase requests, but only those up to a specified dollar amount.

Verification

Verification is the determination of the completeness, accuracy, authenticity and/or validity of transactions, events or information. It is a control activity that enables management to ensure activities are being done in accordance with directives. Management should determine what needs to be verified, based on the risk to the organization if there were no verification. Management should clearly communicate and document

these decisions to those responsible for conducting the verifications. An example of verification is ensuring that a fair price has been obtained in a purchase and funds are available to pay for the purchase.

Supervision

Supervision is the ongoing oversight, management and guidance of an activity by designated employees to help ensure the results of the activity achieve the established objectives. Those with the responsibility for supervision should:

- monitor, review and approve, as appropriate, the work of those performing the activity to ensure the work is performed correctly;
- provide the necessary guidance and training to help minimize errors and waste and to ensure that employees understand and follow management directives; and
- clearly communicate the duties and responsibilities assigned to those performing the activities.

An example of supervision is when an assigned employee (supervisor) reviews the work of another employee processing a purchase order to determine whether it is prepared accurately and completely and has been properly authorized. The supervisor then signs the order to signify his or her review and approval. However, if there are any errors, the supervisor would return the order to the employee and explain how to complete the request properly.

Separation of Duties

Separation of duties is the division of key tasks and responsibilities among various employees and subunits of an organization. By separating key tasks and responsibilities - such as receiving, recording, depositing, securing and reconciling assets - management can reduce the risk of error, waste, or wrongful acts. The purchasing cycle is an area where the separation of duties can minimize the risk of inappropriate, unauthorized or fraudulent activities. Specifically, the various activities related to a purchase (initiation, authorization, approval, ordering, receipt, payment and record keeping) should be done by different employees or subunits of an organization. In cases where tasks cannot be effectively separated, management can substitute increased supervision as an alternative control activity that can help prevent or reduce these risks.

Safeguarding Assets

The safeguarding of assets involves restricting access to resources and information to help reduce the risk of unauthorized use or loss. Management should protect the organization's equipment, information, documents and other resources that could be wrongfully used, damaged or stolen. Management can protect these resources by limiting access to authorized individuals only. Access can be limited by various means such as locks, passwords, electronic firewalls and encryption. Management should decide which resources should be safeguarded and to what extent. Management should make this decision based on the vulnerability of the items being secured and the likelihood of loss.

Reporting

Reporting is a means of conveying information. It serves as a control when it provides information on issues such as timely achievement of goals, budget status and employee concerns. Reporting also helps to promote accountability for actions and decisions. An example of a report that serves as a control activity would be one that compares purchasing activities with the approved budget, indicating and explaining significant variances between the two.

Control Activities for Information Technology

While some of the control activities relating to information technology (IT) are the responsibility of specialized IT personnel, other IT control activities are the responsibility of all employees who use computers in their work. For example, any employee may use:

- encryption tools, protocols, or similar features of software applications that protect confidential or sensitive information from unauthorized individuals;
- backup and restore features of software applications that reduce the risk of lost data;
- virus protection software; and
- passwords that restrict user access to networks, data and applications.

IT control activities can be categorized as either general or application controls. General controls apply to all computerized information systems, including mainframes, personal computers, server networks, virtual private networks and end-user environments. Application controls apply to the processing of data within the application software.

General and application controls are interrelated. General controls support the functioning of application controls, and both types of controls are needed to ensure complete and accurate information processing.

General Controls

General controls are concentrated on six major types of control activities: an entity-wide security management program; access controls; application software development and change; system software controls; segregation of duties; and service continuity.

- An organization-wide security management program includes a comprehensive, high-level assessment of risks to information systems. An organization should have a plan that clearly describes its security management program and policies and the procedures that support it, including procedures for the secure storage and disposal of sensitive information. The organization should also establish a structure to implement and manage the security program with security responsibilities clearly defined. In addition, the organization should monitor the effectiveness of the security program and make changes as needed.
- Access security controls are physical and software processes to prevent or detect unauthorized access to systems and data. These controls protect the systems from inappropriate access and unauthorized use by hackers and other trespassers, and form inappropriate use by agency personnel. Specific control activities may include:
 - restrictions on users allowing access only to the system functions they need to perform their assigned duties;
 - software and hardware firewalls to restrict access to assets, computers, and networks by external persons; and

- frequent changes of passwords and deactivation of former employees' passwords.
- Application software development and change control provides the structure for the safe development of new systems and the modification of existing systems. Control activities should include: system documentation requirements; authorizations for undertaking projects; and reviewing, testing, and approving development and modification activities before placing systems into operation.
- System software control is the controlling and monitoring of access to use and changes made to system software, including: security procedures over the acquisition, implementation, and maintenance of all system software; data-based management systems; telecommunications; security software; and utility programs.
- The concept of segregation of duties in a computer environment is the same as in a manual process. Key tasks and responsibilities should be divided among various employees and subunits of the computer operations. No one individual should control all of the primary elements of a transaction, event or process. Identifying incompatible duties and implementing policies to separate those duties can be monitored through the use of access controls as well as by implementing operating procedures, supervision, and the review of employee activities.
- Service continuity is concerned with maintaining or re-establishing the activities or level of service provided by an organization in the event of a disaster or other damaging occurrence. It is critical that an organization have backup and recovery procedures, and contingency and disaster plans. Data center and client-server operation controls involve steps to prevent and minimize potential damage to hardware and software and the interruption of service through the use of data and program backup procedures. Such procedures include: off-site storage of backup data; environmental controls; staff training; and hardware maintenance and management. Organizations should develop, document and periodically test their contingency plans.

Application Controls

Application controls help ensure that transactions are valid, properly authorized, and processed and reported completely and accurately. These controls also take into account the whole sequence of transaction processing, from the preparation of the initial source document or online data entry to the creation and use of the final output. As such, application controls consist of input, processing, and output controls:

- Input controls include processes for verifying data accuracy and completeness upon data entry to a system. These controls also provide specific mechanisms for input authorization, data conversion, data editing and error handling.
- Processing controls help ensure that data remains complete and accurate during updating, and that the application programs perform as intended.
- Output controls help ensure that system-generated information is accurate, properly recorded, and received or reviewed by authorized individuals only.

As information technologies advance and Internet use increases, modifications will have to be made in each organization's specific IT control activities. However, the basic requirements of control will not change. As more powerful computers place more responsibility for data processing in the hands of the end users and as Internet use grows, organizations must be prepared to implement the controls necessary to maintain an effective system of internal control.

This information is not meant to be a complete explanation of all IT control activities. Additional guidance has been issued by the New York Office of Information Technology Services. Further guidance can also be obtained from sources such as ISACA's COBIT 5: A Business Framework for the Governance and Management of Enterprise IT and the National Institute of Standards and Technology's special publications.

Deploys Controls Through Policies and Procedures

Management documents, in policies, the internal control responsibilities of the organization. This documentation generally consists of the following:

- each unit's responsibility for an operation process's objectives and related risks;
- control activity design;
- implementation; and
- operating effectiveness.

Individuals in key internal control roles may further define policies for day-to-day procedures depending on the propensity for change in the environment and the complexity of the process. Policies should be communicated and available to employees in accordance with their duties, and management should ensure employees understand their responsibilities related to policies affecting their functions. Further, management should periodically and systematically review policies, procedures and related control activities for relevance and effectiveness in achieving objectives and addressing related risks.

Information and Communication

Information is necessary for the organization to carry out internal control responsibilities to support the achievement of its objectives. Management obtains or generates and uses relevant and high-quality information from both internal and external sources, as well as providing communication internally and externally to support the functioning of other components of internal control.

Uses Relevant Information

Management uses relevant and high-quality information to make informed decisions and evaluate the organization's performance in achieving key objectives and addressing risks. For information to be relevant, it must come from reliable internal and external sources in a timely manner based on the identified information requirements. Quality information must be appropriate, current, complete, accurate, accessible, and provided on a timely basis.

Communicates Internally

Internal communication is the continual, iterative process of obtaining, providing, and sharing necessary information. Information should be communicated to management and other employees who need it in a form and within a time frame that helps them to carry out their responsibilities. It enables personnel to receive a clear message from senior management that control responsibilities must be taken seriously.

Information can be communicated verbally, in writing and electronically. While verbal communication may be sufficient for many day-to-day activities, it is best to document important information. This provides a more permanent record and enables managers and others to review the information.

Information should travel in all directions (across, up and down an organization) to ensure that all members of the organization are informed, and that decisions and actions of different units are communicated and coordinated. A good system of communication is essential for an organization to maintain an effective system of internal control. A communication system consists of methods and records established to identify, capture and exchange useful information. Information is only useful when it is timely, sufficiently detailed and appropriate to the user.

Management should establish communication channels that:

- provide timely information;
- can be tailored to individual needs;
- inform employees of their duties and responsibilities;
- enable the reporting of sensitive matters;
- enable employees to provide suggestions for improvement;
- provide the information necessary for all employees to carry out their responsibilities effectively; and
- convey top management's message that internal control responsibilities are important and should be taken seriously.

Internal communication is not an isolated internal control component. It affects every aspect of an organization's operations and helps support its system of internal control. All aspects of a strong internal control system are reliant on timely, relevant and accurate communication methods. An organization must internally communicate information, including objectives and responsibilities for internal control, to support the functioning of all other components of the internal control system. Further, feedback from this communication network can help management evaluate how well the various components of the system of internal control are working.

Communicates Externally

External communication with customers, suppliers, regulators and other outside parties is also essential to effective internal control. Information should be communicated externally through appropriate reporting lines so that external parties can help the entity achieve its objectives and address related risks.

Management should establish separate reporting lines that:

- allow for whistleblower and ethics hotlines for communicating confidential information;
- inform external parties of these separate reporting lines;
- educate the public and employees as to how these reporting lines operate;
- convey how these reporting lines are to be used; and
- instruct how the information will remain confidential.

External information can also be communicated verbally, in writing and electronically. Management considers a variety of factors when selecting an appropriate method of communication including its audience, nature of information provided, availability, cost, and legal or regulatory requirements.

MONITORING

Conducts Ongoing and/or Separate Evaluations

Monitoring is the ongoing evaluation of internal control components, either individually or as a whole system, to ascertain whether they are present and functioning. Management should focus monitoring efforts on internal control and achievement of the organization's mission.

Everyone within an organization has some responsibility for monitoring. The position a person holds in the organization helps to determine the focus and extent of these responsibilities. Therefore, the monitoring performed by staff, supervisors, mid-level managers and executives will not have the same focus, as follows:

- **Staff** - The primary focus of staff members should be on monitoring their own work to ensure it is being done properly. They should correct the errors they identify before work is referred to higher levels for review. Management should educate staff regarding control activities and encourage them to be alert to and report any irregularities. Because of their involvement with the details of the organization's daily operations, staff members have the best vantage point for detecting any problems with existing control activities. Management should also remind staff to note changes in their immediate internal and external environments, to identify any risks and to report opportunities for improvement.
- **Supervisors** - Supervision is a key element of monitoring. Supervisors should monitor all activities and transactions in their unit to ensure that staff members are performing their assigned responsibilities, control activities are functioning properly, the unit is accomplishing its goals, the unit's control environment is appropriate, communication is open and sufficient, and risks and opportunities are identified and properly addressed.
- **Mid-Level Managers** - Mid-level managers should assess how well controls are functioning in multiple units within an organization, and how well supervisors are monitoring their respective units. The focus of these managers should be similar to that of supervisors, but should extend to cover all the units for which they are responsible.
- **Executive Management** - Executive management should focus their monitoring activities

on the major divisions of the organization. Because of this broader focus, executive managers should place even more emphasis on monitoring the achievement of the organization's goals. Executive managers should also monitor for the existence of risks and opportunities in either the internal or external environment that might indicate the need for a change in the organization's plans.

Management should ensure that it takes the proper actions to address the results of monitoring. For example, management may decide to establish new goals and objectives to take advantage of newly identified opportunities, may counsel and retrain staff to correct procedural errors or may adjust control activities to minimize risk in response to changed circumstances. Further, independent evaluations should be performed periodically to provide objective feedback.

The monitoring performed by staff, supervisors, mid-level managers and executives should focus on the following major areas:

- **Control Activities** - Control activities are established to prevent or reduce the risk of an unfavorable event from occurring. If these activities fail, the organization becomes exposed to risk. Control activities can fail when controls are overridden, or when there is collusion for fraudulent purposes. Therefore, management should establish procedures to monitor the functioning of control activities and the use of control overrides. Management should also be alert to signs of collusion. Effective monitoring gives management the opportunity to correct any control activity problems and to control the risk before an unfavorable event occurs.
- **Mission** - Monitoring activities should include the development and review of operational data that would allow management to determine whether the organization is fulfilling its mission. This can be achieved by periodic comparison of operational data to the organization's strategic plan.
- **Control Environment** - Executive management should monitor the control environment to ensure that managers at all levels are maintaining established ethical standards of behavior and that staff morale is at an appropriate level. Managers should also ensure that the staff is competent, that training is sufficient, and that management style and philosophy foster the accomplishment of the organization's mission.
- **Information and Communication** - Managers should periodically verify that the employees they are responsible for are receiving and sharing information appropriately, and that this information is timely, sufficient and appropriate for the users. Management should ensure that there are open lines of communication, which fosters reporting of both positive and negative results.
- **Risks and Opportunities** - Managers should also monitor the organization's internal and external environment to identify any changes in risks and the development of opportunities for improvement. If changes are identified, managers should take appropriate action to address these new or changed risks and opportunities. Management should recognize that delays in responding to risks could result in damage to the organization, and a missed opportunity may result in a loss of new revenue or savings.

Evaluates and Communicates Deficiencies

Management must evaluate and communicate internal control deficiencies in a timely manner to those parties responsible for taking corrective action, including senior management and the board of directors, as appropriate. For monitoring to be most effective, all employees need to understand the organization's mission, objectives, and risk tolerance levels as well as their own responsibilities. (See Part III for further details on evaluation).

Part III: Managing and Evaluating the Internal Control System

These Standards are not intended to dictate a specific structure for managing and evaluating a system of internal control in New York State government operations. That being said, there are common attributes present among operations that have strong systems of internal control. This section highlights the elements common to successful systems of internal control.

Responsibility for Managing the System

This may come as a surprise to some readers, but external and internal auditors are not responsible for an entity's internal controls. External auditors evaluate internal controls as part of their audit planning process to determine if they can be relied on for purposes of issuing financial statements. Internal auditors assess whether an organization's internal controls are effective and evaluate the way an organization operates. Neither is responsible for the design and effectiveness of controls. An organization's management (including any applicable governing board) is responsible for making sure that the right controls are in place, and that they are performing as intended.

If an entity has a governing board, that board's responsibilities for internal controls primarily involve oversight, authorization and ethical leadership. If an entity does not have a governing board, this overarching responsibility falls to the head of the organization (e.g., Commissioner, Executive Director). Generally, governing boards or organizational heads do not design internal controls or prepare the written policies they adopt. Instead, the governing board relies upon management, especially the executive operational head (e.g., Executive Deputy, Deputy Director), to create the policies needed to ensure that the organization accomplishes its mission. Executive management in turn relies upon managers and department heads to recommend and implement procedures that lower identified risks. Wherever the responsibility for final approval of policies and procedures lies, this group or individual should take great care in reviewing these directives to ensure they are addressing risk appropriately.

Within the managerial ranks, the executive operational head provides the leadership needed to establish and guide an integrated internal control framework. This individual must establish a positive "tone at the top" by conducting the organization's affairs in an honest and ethical manner and by establishing accountability at all levels of the organization. If the executive operational head does not demonstrate strong support for internal controls, the organization as a whole will be unlikely to practice good internal controls.

While the executive operational head is responsible for the design and maintenance of the entity's control framework, the operational managers and department heads are the front line for implementing and monitoring internal controls. These individuals are responsible for supporting the internal control initiatives of the board and/or organizational and operational heads of the organization in daily operations. All levels of management must work together to create an integrated framework that lowers risk to an acceptable level and assists the organization in meeting its goals and objectives. Managers and department heads are generally responsible for identifying potential risks, designing and implementing controls for their areas of responsibility, and keeping current with events and changes that may affect the controls they have put into place.

The Importance of Internal Control and Risk Management

For New York State government operations, compliance with the spirit of the Internal Control Act will go a long way toward realizing the benefits of effective internal control and risk management. Compliance is best accomplished by having a system of internal control whose principal aim is to manage risks that

threaten the achievement of an organization's objectives. This entails not only performing risk assessments as discussed in the previous section of these Standards, but also:

- Identifying the organization's risk tolerance (e.g., margin of error, materiality) and what is deemed an unacceptable event;
- Monitoring legislation, market conditions, or political changes and their resulting potential impact on the organization on an ongoing basis; and
- Performing internal assessments of entity-wide risk, both actual and potential, with mitigation strategies.

An annual evaluation, although helpful, should not be the only occasion for risk assessment and monitoring. To ensure that the right controls are in place, it is best to build risk assessment and monitoring into ongoing management processes. Risks facing organizations are continually changing, and a successful system of internal control must be responsive to such changes, enabling adaptation. Effective risk management and internal control are therefore reliant on a regular evaluation of the nature and extent of risks.

In summary, to achieve a strong system of internal control, an organization needs to establish a clear link to risk management. This promotes the most effective and efficient combination of controls necessary to ensure that organizational objectives can be achieved.

Managing the Internal Control System

While the governing body or the head of the organization is responsible for ensuring an adequate internal control system is in place, the operation and monitoring of the system of internal control should be undertaken by individuals who collectively possess the necessary skills, technical knowledge, objectivity, and understanding of the organization. Many organizations have established a distinct internal control or risk management function responsible for assessing the risks to the organization and the control system's adequacy in addressing these risks.

The internal control or risk management function is responsible for identifying and inventorying risks to the mission of the organization on both a unit and entity-wide basis. While monitoring these risks and continually reviewing the organization's environment for changes that could impact its mission is an ongoing process, a formal assessment of all inherently high-risk functions should occur at least annually, and lower risk categories should be reviewed at least every three years. The formal report of deficiencies should be directed to the governing body or head of the agency and the audit committee, if one exists. Further, the Internal Control Officer -or in some entities, the Chief Risk Officer - should present enterprise risks based on analysis of reported deficiencies and appropriate review of the internal and external environmental monitoring.

Some organizations also use a senior-level risk management committee, usually consisting of the Internal Control Officer and executives charged with other functions that routinely deal with enterprise risk and risk mitigation (e.g., Counsel, Information Security Officer, etc.). Further enhancement to a risk committee would ideally include key business unit leaders to ensure that the organization's risk efforts are firmly embedded within core business activities. This group may have many responsibilities that range from establishing consistent risk definitions and terminologies, to reviewing reported deficiencies for completeness, and evaluating trend indicators and organizational risk ratings across the organization. In

addition, risk management committees may also:

- Advise on risk strategy: The risk committee serves as a repository of information and expertise on risk and risk strategy. Thus, the risk committee can help inform the organization of risk exposures and advise on future risk mitigation efforts.
- Assist with identifying risk appetite and tolerance: The risk committee can help establish, communicate, and monitor the risk culture, risk appetite, risk tolerances, and risk utilization of the organization at the enterprise and business-unit levels.
- Oversee risk exposures: The risk committee should be continuously aware of the critical risks and exposures facing the organization and of management's strategy for addressing them. The committee should consider the full range of risks and potential interactions among risks, including risk concentrations, escalating and de-escalating risks, contingent risks, and inherent and residual risk.
- Review crisis management plans: The risk committee should keep abreast of the organization's crisis preparedness and ensure that management has developed and can implement a plan to respond to major risks, such as natural disasters, terrorism, cyber-attacks, epidemics, civil disorder, and other events that could compromise the enterprise's human or other resources or disrupt the value chain.
- Support the internal control program: The risk committee can help ensure that the Internal Control Officer has the skills, authority, and resources to oversee risk in the enterprise. The committee can also support the internal control program through consistent communications and actions regarding the organization's approach to risk and risk management.

Whoever is charged with managing and assessing the system of control must understand the nature and context of control, including an understanding of the following:

- The system of internal control should be embedded in the operations of the organization and form part of its culture.

Control is affected by people throughout the organization, including the governing body, organizational head, management and all other staff. People who are accountable, as individuals or teams, for achieving objectives should also be accountable for the effectiveness of controls that support the achievement of those objectives. It is important that criteria are in place by which the effectiveness of the system of control can be judged. By making individuals accountable, the likelihood that controls will be operated properly is increased.

- Controls should be capable of responding quickly to evolving risks, both internal and external.

Risks include not only those related to the achievement of a specific objective but also those fundamental to the viability and success of the organization, such as failure to maintain the organization's resilience or capacity to identify and exploit opportunities. Resilience refers to the organization's capacity to respond and adapt to unexpected risks

and opportunities, and to make decisions on the basis of telltale indicators in the absence of definitive information.

- The costs of internal controls must be balanced against the benefits, including the risks they are designed to manage.

Design decisions involve the acceptance of some degree of risk. The costs of control must always be balanced against the benefits of controlling the risk. It is possible to reach a position where the incremental cost of additional control is greater than the benefit derived from controlling the risk.

- The system of internal control must include procedures for reporting immediately to appropriate levels of management any significant control failings or weaknesses that are identified, together with details of the corrective action being undertaken.

It should not be assumed, without making appropriate inquiries, that breakdowns in internal controls are isolated occurrences. The key is continual learning rather than attribution of blame. This philosophy should come down from the top of the company. A blame culture encourages the concealment of breakdowns in control. Often, major disasters are the result of the accumulation of a number of smaller, seemingly insignificant events, which if analyzed collectively would have provided the necessary warnings to enable preventive action.

- Controls can help minimize the occurrence of errors and breakdowns but cannot provide absolute assurance that they will not occur.

Human fallibility and the risk of unforeseeable occurrences are inherent limitations in any system of internal control. A control system cannot be designed to provide protection with certainty against an organization failing to meet its objectives or against all material errors, losses, frauds or breaches of laws or regulations.

Evaluation

Evaluation is the process management uses to determine whether:

- the organization will likely achieve its goals and objectives;
- the elements of the organization's internal control system are functioning effectively; and
- risks to the organization and opportunities for improvement are being identified.

It is important to note the distinction between evaluation and monitoring. Monitoring involves performing daily or routine procedures - like supervision, transaction review and problem resolution that help to ensure operations are in compliance with the organization's system of internal control.

Evaluation, on the other hand, involves conducting periodic assessments of the organization's performance compared with established expectations or measurement standards. In New York State government, this usually occurs during the annual certification process for many organizations, but should occur even if an organization is not subject to the Division of the Budget's Budget Policy and Reporting Manual Item B-350, entitled "Government Internal Control and Internal Audit Requirements."

Evaluation can be accomplished through self-assessment and independent review. Regular self-assessment helps management detect problems early, and thus minimizes the costs of these problems. Self-assessments should be scheduled regularly, and should be performed throughout the organization. Self-assessments can include surveys, questionnaires, interviews, observation and specific testing of transactions and key controls. Self-assessments should not only address specific processes, but also evaluate the unit's control environment, communication, monitoring and risk assessment processes.

The frequency of self-assessment should be based, in part, on the results of the organization's risk assessment process. Independent reviews can be performed by external auditors, consultants, and internal auditors who are independent of the operations to be reviewed. Such reviews should not be a substitute for routine self-assessments, but should serve to supplement them.

To perform an orderly, systematic evaluation of an organization's system of internal control, management should segment the organization into "assessable units." Assessable units are not usually the functional subunits found on an organization chart (e.g., bureaus), but are segments of them. For example, a bureau may have five or more assessable units in it, each of which performs a distinct function, program or process.

An assessable unit has certain primary characteristics. It has an ongoing, identifiable purpose that results in the creation of a service or product (used either internally or externally) and/or that fulfills a law, regulation or other mandate. An assessable unit should be large enough to allow managers to evaluate a significant portion of the activity being examined, but not so large that managers cannot perform a meaningful evaluation without extensive time and effort.

Management should maintain an inventory of the assessable units along with the purpose and objectives of each assessable unit, and use it when planning any review of the system of internal control.

The managers of the assessable units should have the responsibility for determining the effectiveness of the system of internal control within their respective units. Managers should ask such questions as:

- Do the unit's objectives provide it with a clear direction?
- Do employees in the unit understand the objectives, and how achievement of the objectives helps to accomplish the organization's mission?
- Does the control environment help to foster achievement of the unit's objectives?
- Does the unit have a means of effectively identifying and managing risk?
- Has unit management established the controls needed to minimize risk?
- Are the controls functioning as designed?
- Are the controls both effective and efficient in accomplishing their purpose?
- Does the unit receive the timely, accurate and useful information needed to achieve its objectives?
- Are communication lines sufficient to meet the needs of senders and receivers of

information?

- Is monitoring within the unit effective in ensuring that daily operations are in compliance with the system of internal control?
- Is the unit effectively monitoring the accomplishment of objectives, the control environment and the communication process?
- Does monitoring adequately identify changes in the internal or external environment?

Management should assess accomplishment of the mission at all levels of the organization on a regular basis. At production or operational levels, management should compare the actual accomplishments of the specific subunits with their operational plans and objectives, as well as, comparing the actual accomplishments of the major organizational divisions with strategic plans and organizational objectives. In addition, any new risks or opportunities that are identified in the assessment process may result in changes to the organization's objectives or modification of its mission.

All aspects of the self-assessment process should be documented, including the evaluation methodologies, the sources and types of information used, reporting relationships, any deficiencies identified, and any corrective action recommended. The results of the assessment should be communicated throughout the organization, and management should have processes in place to ensure that appropriate and prompt actions are taken to address any deficiencies identified. Management should include a review of these corrective actions in a subsequent evaluation process to determine if they have produced the desired outcomes.

Part IV: Supporting Activities

Strategic planning and internal audit are activities that support a good system of internal control. They provide management with additional tools to help ensure that the mission of the organization will be achieved.

Strategic Planning

Strategic plans are proposed courses of action designed to enable an organization to achieve its objectives and goals. Planning should begin at the top levels of management with a strategic plan that focuses on the long-range direction of the organization. The strategic planning process should include establishing the organization's broad organizational objectives and developing the strategies that should be followed to achieve them. On the basis of the direction in the organization's strategic plan, management should develop plans for each major organizational division with a long-range focus specific to that division. The division plans guide managers in developing shorter-range operational plans for each of the major functions performed within their respective divisions.

Objectives

Internal controls need to be tied to specific objectives related to reporting, compliance or operations. Strategic planning helps to define management's organizational and operational objectives. Management derives organizational objectives from the mission and often develops them during the strategic planning process. They are long-range, broad statements that define the desired outcomes of the organization as a whole. Organizational objectives are necessary for coordinating efforts and evaluating overall performance within an organization. Without these clearly defined objectives, employees could be working inefficiently, ineffectively and/or in conflicting directions.

Good organizational objectives can serve as starting points for more specific and detailed operational objectives within the subunits (i.e., divisions, departments, bureaus and assessable units) of the organization. Operational objectives are shorter range and more specific and define the desired outcomes of each of the organization's subunits. They should be structured in a hierarchy so that each subunit's accomplishment of its operational objectives helps the next higher level achieve its operational objectives, all of which helps management meet its organizational objectives.

All objectives should be in writing. Management should provide employees with written organizational and operational objectives along with the mission statement. Management should ensure that employees understand the objectives and how their work helps to achieve them.

Finally, just as changes in the environment can affect the adequacy and relevancy of the mission statement, these same factors can also affect an organization's objectives. For an organization to function effectively and adapt, it should periodically reassess its organizational and operational objectives.

Goals

Goals are objectives translated into specific, measurable targets. They are quantifiable and provide a means for assessing the accomplishment of objectives. Management should translate all objectives into attainable goals. Progress toward these goals can help measure accomplishment of an objective. Sometimes it is difficult to translate an objective into a quantifiable goal. In such instances, management should identify some other appropriate indirect measure.

Operational Plans

Managers at all levels should be able to use operational plans to determine the priority and timing of objectives, to resolve conflicts between objectives, to establish the organization's policies and procedures, and to help set budgets, schedules and resource assignments. Planning should be based on the most objective and accurate information available. All planning processes should identify the most efficient alternatives available for accomplishing the objectives. The plans should be provided to and understood by everyone who must follow them. Management should also establish a process that identifies how and when plans should be changed to reflect both changing conditions and the availability of more accurate information. Plans should be flexible enough to allow for such changes.

Internal Audit

Internal audit functions add value to an organization's internal control system by bringing a systematic, disciplined approach to the evaluation of risk and by making recommendations to increase the effectiveness of risk management efforts, improve the internal control structure and promote good corporate governance. The Legislature, in passing the Internal Control Act, recognized the internal audit function's key role in supporting the internal control system and, as such, made the Division of the Budget responsible for designating which State agencies would be required to maintain internal audit units. The Division of the Budget makes this determination based in part on the size, nature and/or complexity of agency operations. Other entities may choose to establish an internal audit function as part of their management of risks and resources.

In either case, the Internal Control Act requires that these units be organized and operated in accordance with professional audit standards, in particular *The Standards for the Professional Practice of Internal Auditing* promulgated by the Institute of Internal Auditors. This section, with consideration of the recommendations promulgated in 2006 by the New York State Internal Control Task Force, further interprets those standards as they apply to New York State entities and as such, forms the minimum expectations for the organization and operation of internal audit units within New York State government. Other organizational aspects related to the formation of an internal audit unit, including minimum qualifications for internal audit directors, are addressed by the Division of the Budget in Item B-350 of its *Budget Policy and Reporting Manual*.

Auditor Independence and Compatibility with Other Duties

A major underlying principle of professional audit standards is that the internal audit function must be organizationally independent of other business activities and free from interference in establishing the scope of its work and the communication of results. This organizational alignment promotes objectivity and allows the auditor to maintain an impartial, unbiased attitude while avoiding conflicts of interest. Internal audit independence and objectivity are important to credibility and are hallmarks of executive management's commitment to promoting a strong, introspective approach to governance. Executive managers, audit committees and third parties need to know that they can rely upon the internal auditor's independence when considering his or her findings and recommendations.

To ensure independence and objectivity, the internal audit function should report to the highest level of governing body charged with the responsibility to direct and/or oversee the activities and management of the organization. Ideally then, the function should be organized under the chief executive and report directly to any audit committee, board of directors or other governing authority that may exist.

Auditor independence also entails refraining from duties that are incompatible with the objective appraisal

of operations. Internal auditors should therefore avoid assuming operational responsibilities or engaging in other activities that may impair their independence, including functioning as their entity's Internal Control Officer (ICO). On the most basic level, the ICO duties are defined as working with appropriate agency personnel to coordinate the internal control activities, and to ensure that the agency's internal control program meets the requirements established in agency policy. The ICO role is therefore a management function that requires decisions about the overall design and implementation of the internal control system; as such, it is generally incompatible with the role of the internal auditor. Similarly, internal auditors should also avoid functioning as their entity's Information Security Officer (ISO), as this role not only requires specialized expertise, but can also require the auditor to perform management functions or make management-level decisions.

Although it is critical for agencies and other government organizations to preserve the independence of their internal audit operations, as a practical matter, some may experience temporary situations whereby they have insufficient resources to fully separate internal audit from their internal control and information security functions. In these situations, the internal auditor should limit his/her role to the extent possible, being careful to avoid decision making in areas such as the specific type of controls needed or the quality of controls in place. For example, if the internal auditor undertakes any internal control responsibilities, executive management needs to clearly reinforce that agency managers are the individuals responsible for maintaining an appropriate system of internal controls. Further, the agency's annual internal control certification, as well as any subsequent audits of the internal control system, should each fully disclose the internal auditor's role in the internal control process.

Separation of the internal control and internal audit functions does not preclude a strong working relationship that can create synergies between the two activities. Creating a sense of cooperation between the internal control and internal audit functions will improve the overall internal control culture of an agency. The internal control and internal audit functions reinforce one another when:

- The internal auditor uses internal control reports when planning audits;
- The auditor consistently evaluates and reports on compliance with internal control requirements in audit reports, as part of the auditor's assessment of internal controls;
- The ICO reviews internal audit reports on a regular basis to ensure that agency managers incorporate significant risks, findings and recommendations into the internal control system; and
- Follow-up audits address whether significant risks, findings and recommendations have been addressed and incorporated into the agency's internal control system.

Adopting these steps will provide the internal auditor and ICO with continuous feedback on the quality of the internal control system and, as a result, lower the risk that the system may be ineffective or lose its effectiveness over time.

Maintenance of auditor objectivity also requires a continuing assessment of each auditor's relationship with the operations she or he audits. Internal audit units therefore need to establish procedures to identify personal impairments, and should obtain information concerning potential conflicts of interest and bias from audit staff at least annually. Auditors should also immediately report any new impairment that arises to their internal audit director.

Risk-Based Audit Planning

Internal audit units exist in New York State due in major part to the provisions of the Internal Control Act, which focuses largely on control systems internal to the entity. In fact, the Act specifically requires that the internal audit function shall evaluate the agency's internal controls and operations. To fulfill this responsibility, internal audit units must devote resources to examining their organizations' internal operations and cannot simply audit outside parties that conduct business with their organizations, such as contractors, grantees or service providers. Still, the Act does not specify the minimum level of audit resources that must be devoted to internal activities, and there is no expectation that all internal audit resources be directed internally. Rather, the appropriate allocation is best determined as part of a larger analysis of risks facing the particular entity.

The Director of Internal Audit in each State agency also must periodically develop a risk-based plan of audit engagements to determine the priorities for the internal audit activity. This audit plan must be based on a risk assessment, which is updated at least annually. As part of this assessment, the internal audit unit should review, and test documentation maintained by the agency's Internal Control Officer in support of the entity's annual certification. Depending on the results of these tests, the internal audit unit may be able to form a basis to rely on the certification or may decide to set it aside and conduct its own separate review of internal controls. When audits of internal control systems are performed, the auditor should identify the specific objectives of the examination and should consider examining each of the five elements of internal control along with their related principles as discussed in these Standards: control environment, risk assessment, control activities, information and communication, and monitoring. Depending on the needs of the agency, the audit unit may need to expand the scope of its inquiry even further.

Input from senior management and the governing board (where applicable) must also be considered in the audit planning process to ensure the plan of engagements is consistent with the organization's goals. Further, the auditor should share information and coordinate activities with other internal and external providers of relevant assurance and consulting services, both to ensure proper coverage and to minimize duplication of efforts. The Director of Internal Audit should communicate the audit plan and the associated resource requirements, including any significant interim changes, to senior management and to the board for review and approval. The Director of Internal Audit should also communicate the impact of any resource limitations and should ensure that internal audit resources are appropriate, sufficient, and effectively deployed to achieve the approved plan.

Continuing Professional Education

To be effective in a changing world, all audit staff need to maintain and enhance their technical competence through a program of continuing education. Professional audit standards, as well as various professional licensing programs including the Certified Internal Auditor and the Certified Public Accountant, all include periodic continuing education requirements. The Internal Control Task Force report provides an extensive discussion on the need for continuing education and training of the State's internal auditors. The consensus recommendation is that each auditor is required to obtain at least 80 hours of continuing professional education every two years, with not less than 20 hours obtained during any single year. This requirement is consistent with the level of training required of other professionals conducting audits of government programs. The Task Force report appendix entitled Guidance on Continuing Education Requirements for New York State Internal Auditors provides a more detailed discussion of these requirements, and is incorporated by reference as part of these Standards.

Communication

Communication is also a critical factor in ensuring that internal audit operations provide maximum value to the organization. Professional standards require periodic meetings between the internal auditor, executive management and any governing board or audit committee that may exist. These meetings are essential to ensure the independence, effectiveness and accountability of the internal audit activity and should be held at least quarterly. The timely distribution of internal audit reports is another integral way that communication supports the independence, effectiveness and credibility of the internal audit organization. Distributing the audit reports to all stakeholders, including executive management, provides reasonable assurance that the agency will take action on the findings and recommendations contained therein. The internal audit director should be responsible for the distribution of each audit report and should provide copies to the agency head, the deputy head, the internal control officer, the audit committee (if applicable) and the head of the audited operation. Any further distribution of audit reports should be made only with the knowledge and permission of executive management.

Monitoring Audit Findings

The Internal Control Act requires internal auditors to identify internal control weaknesses that have not been corrected and make recommendations to correct those weaknesses. To accomplish this, each unit needs to establish and maintain a system to monitor the disposition of audit recommendations communicated to management. The auditor should document the rationale in deciding which audit recommendations should be followed up on and when, in contrast with recommendations where no follow-up is needed. The auditor should also follow up with management to document either that audit recommendations have been effectively implemented, or that senior management has accepted the risk of not implementing the recommendations. To the extent agreed upon with management, the internal audit unit should also monitor the disposition of recommendations arising for any non-audit services.

Maintaining Audit Documentation

Internal audit units should maintain documentation for each audit and subsequent follow-up. This documentation should contain sufficient information to enable an experienced auditor who has no previous connection with the audit to ascertain the evidence that supports the auditors' significant judgments and conclusions. Each internal audit unit should establish a formal policy that clearly delineates who is responsible for reviewing audit documentation prepared by various staff levels and when that review should occur.

Audit documentation is the auditors' property and should be kept under their control. The auditors should know exactly where all pieces of documentation are at all times during the conduct of the audit. Approval from senior management and/or legal counsel should be obtained prior to releasing copies of audit documentation and reports to external parties. When not in use, documentation should be kept in a locked file or otherwise secured so as not to be readily available to persons who are not unauthorized to access it. This includes protecting electronic information with appropriate IT security controls. Audit documentation should be retained for a minimum of seven years after the date of the audit report. For recurring audits, the documentation supporting previous audits may be filed in a centralized record retention facility provided an individual is assigned to maintain a record of the location of each item sent to record storage and an appropriate destruction date is scheduled for the material.

External Quality Assessment Review

Professional audit standards require each internal audit organization to periodically undergo an independent review of the quality of its audit activities. The purpose of this review is to ensure that the organization's quality control system is suitably designed and consistently complied with to the extent necessary to reasonably ensure compliance with audit standards. External assessments also promote more effective and efficient internal auditing operations by identifying better practices and making recommendations intended to improve performance. Periodic quality assessments are also an important means of reinforcing management's confidence in the work of the internal audit unit. As such, each internal audit unit in New York State government must have an appropriate external quality assessment review performed at least once during every five-year period.

APPENDIX C
WHISTLE BLOWER POLICY
April 2019

PURPOSE

It is the policy of NYSERDA to afford certain protections to individuals who, in good faith, report violations of NYSERDA's Code of Conduct or other instances of potential wrongdoing within NYSERDA. The Whistleblower Policy and Procedures set forth below are intended to encourage and enable employees to raise concerns in good faith within NYSERDA and without fear of retaliation or adverse employment action.

DEFINITIONS

Good Faith: Information concerning potential wrongdoing is disclosed in "good faith" when the individual making the disclosure reasonably believes such information to be true and reasonably believes that the information constitutes potential wrongdoing.

NYSERDA Employee: All NYSERDA board members, officers, and staff whether full-time, part-time, employed pursuant to contract, employees on probation, and temporary employees.

Personnel action: Any action affecting compensation, appointment, promotion, transfer, assignment, reassignment, reinstatement, or evaluation of performance.

Whistleblower: Any NYSERDA Employee who in good faith discloses information concerning wrongdoing by another NYSERDA Employee, or wrongdoing concerning the business of NYSERDA itself.

Wrongdoing: Any alleged corruption, fraud, criminal or unethical activity, misconduct, waste, conflict of interest, intentional reporting of false or misleading information, or abuse of authority engaged in by a NYSERDA Employee that relates to NYSERDA.

SECTION I: REPORTING WRONGDOING

All NYSERDA Employees who discover or have knowledge of potential Wrongdoing concerning board members, officers, or employees of NYSERDA; or a person having business dealings with NYSERDA; or concerning NYSERDA itself, shall report such activity in accordance with the following procedures:

- a) All NYSERDA Employees who discover or have knowledge of Wrongdoing shall report such Wrongdoing in a prompt and timely manner.
- b) The NYSERDA Employee shall disclose any information concerning Wrongdoing either orally or in a written report to his or her supervisor, or to the Director of Internal Audit, an Officer, any member of Counsel's Office, an independent Fraud and Abuse Hotline service available to NYSERDA employees, the Ethics Officer, or a representative from human resources.
- c) The identity of the whistleblower and the substance of his or her allegations will be kept confidential to the maximum extent possible.

d) Upon receipt of an allegation of Wrongdoing, the individual to whom the potential Wrongdoing is reported shall notify the General Counsel, and the General Counsel shall determine who will conduct the investigation. All claims or reporting of Wrongdoing will be thoroughly investigated by NYSERDA under the direction and supervision of the Office of the General Counsel, unless the General Counsel refers the investigation to the Office of the Inspector General, Authorities Budget Office or other outside authority to investigate. Once the investigation is complete, the General Counsel or the individual who conducted the investigation shall provide to the President and CEO and the Director of Internal Audit a summary report, which shall include the findings of the investigation and a recommendation for resolving the matter. The Director of Internal Audit shall advise the Audit and Finance Committee at its next regularly scheduled meeting of any material or significant weaknesses or deviations identified in such report. Should the findings of such investigation(s) reveal substantiated claims of Wrongdoing, NYSERDA shall take appropriate action, which may include referral to the Inspector General's Office, referral to the Members for recommended action requiring Member approval, or referral to NYSERDA's President and CEO for recommended disciplinary or administrative action.

e) The individual to whom the potential Wrongdoing is reported may refer such information to the Authorities Budget Office or an appropriate law enforcement agency where applicable.

f) Allegations of corruption, fraud, criminal activity, conflicts of interest or abuse by a NYSERDA Employee or any persons having business dealings with NYSERDA must be reported to the State Inspector General.

g) All NYSERDA Employees shall cooperate fully with internal investigations and investigations by the State Inspector General pertaining to NYSERDA operations.

h) All reports and draft reports delivered to NYSERDA by the State Inspector General shall be reviewed by the Audit and Finance Committee, which shall serve as the point of contact on such reports.

i) Should a NYSERDA Employee believe in good faith that disclosing information within NYSERDA pursuant to Section 1(a) above would likely subject him or her to adverse personnel action or be wholly ineffective, the NYSERDA Employee may instead disclose the information to the Authorities Budget Office or an appropriate law enforcement agency, if applicable. The Authorities Budget Office's toll-free number (1-800-560-1770) should be used in such circumstances.

SECTION II: NO RETALIATION OR INTERFERENCE

No NYSERDA Employee shall retaliate against any Whistleblower for the disclosure of potential Wrongdoing, whether through threat, coercion, or abuse of authority; and, no NYSERDA Employee shall interfere with the right of any other NYSERDA Employee by any improper means aimed at deterring disclosure of potential Wrongdoing. Any attempts at retaliation or interference are strictly prohibited. In addition:

a) No NYSERDA Employee who in good faith discloses potential violations of the NYSERDA Code of Conduct or other instances of potential Wrongdoing, shall suffer harassment, retaliation or adverse personnel action as a result of such disclosure.

b) All allegations of retaliation against a Whistleblower or interference with an individual seeking to disclose potential Wrongdoing shall be thoroughly investigated by NYSERDA.

c) Any NYSERDA Employee who retaliates against or attempts to interfere with any individual for disclosing or attempting to disclose potential violations of the NYSERDA Code of Conduct or other instances of potential Wrongdoing is subject to discipline, which may include termination of employment.

d) Any allegation of retaliation or interference will be taken and treated seriously and irrespective of the outcome of the initial complaint, such allegation will be treated as a separate matter.

SECTION III: OTHER LEGAL RIGHTS NOT IMPAIRED

The Whistleblower Policy and Procedures set forth herein are not intended to limit, diminish, or impair any other rights or remedies that an individual may have under the law with respect to disclosing potential Wrongdoing free from retaliation or adverse personnel action.

a) Specifically, these Whistleblower Policy and Procedures are not intended to limit any rights or remedies that an individual may have under the laws of the State of New York, including but not limited to the following provisions: Civil Service Law § 75-b, Labor Law § 740, State Finance Law § 191 (commonly known as the “False Claims Act”), and Executive Law § 55(1).

b) With respect to any rights or remedies that an individual may have pursuant to Civil Service Law § 75- b or Labor Law § 740, any NYSERDA Employee who wishes to preserve such rights shall prior to disclosing information to a government body, have made a good faith effort to provide the appointing authority or his or her designee the information to be disclosed and shall provide the appointing authority or designee a reasonable time to take appropriate action unless there is imminent and serious danger to public health or safety. (See Civil Service Law § 75-b[2][b]; Labor Law § 740[3])

Resolution No. _____

RESOLVED, that the amendments to the Authority's Internal Control Manual as presented at this April 27, 2021 meeting with such non-substantive, editorial changes as the President and CEO, in her discretion, may deem necessary or appropriate, are hereby approved and adopted.

Periodic Contracts Approvals

From Date
12/15/2020

Contracts executed or modified during the period - 12/15/2020 to 3/16/2021

To Date
3/16/2021

	Count of Contracts	Committed this Period
Procurement Contracts > 1year	87	\$24.3M
Competitive Program Contracts > \$3M	10	\$247.8M
Non-competitive Program Contracts > \$1M	1	\$0.3M
Grand Total	98	\$272.4M

Contracts anticipated to be executed or modified during the period - 12/15/2020 to 3/16/2021

	Count of Contracts	Anticipated Amount
Procurement Contracts > 1year	29	\$6.1M
Competitive Program Contracts > \$3M	9	\$179.1M
Non-competitive Program Contracts > \$1M	1	\$0.8M
Grand Total	39	\$186.0M

NYSERDA PERIODIC CONTRACTS APPROVAL REPORT: Section 1
Summary - 12/15/2020 to 3/16/2021

Category	Report Type	Type	Count of Contracts	Committed this period
PCMT	Procurement	Competitive	60	\$21,839,093
		Discretionary	25	\$2,316,890
		Non-Competitive	2	\$154,190
	Total		87	\$24,310,173
PGRM	Procurement	Competitive	10	\$247,828,953
		Non-Competitive	1	\$300,000
	Total		11	\$248,128,953
Grand Total			98	\$272,439,126

Section 1 Summary - Percentages

% Contract Counts Competitively

% of \$Committed this period Competitively

96.77%	99.30%
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NYSERDA PERIODIC CONTRACTS APPROVAL REPORT - 12/15/2020 to 3/16/2021

Category	Initiative	Type	Term > 1 Year	Contract ID	Contractor	Contract Description	Date	Committed this period	Committed to Date	Amt Paid this Period	Amt Paid to Date
PCMT		Discretionary	Y	159163	Allison van Hee	Contractor to NY Green Bank	10/05/2020	\$50,000	\$50,000	\$9,181	\$9,181
		Discretionary	Y	164371	Adewale Aremu Adesanya	Havenergy Technical Assistance	02/10/2021	\$500,000	\$500,000		
Capital Planning		Competitive	Y	164468	Kelliher Samets Volk	TWO 38 MF Low Carbon	02/12/2021	\$20,060	\$20,060		
CI Carbon Challenge		Competitive	Y	ADH0014470	CHA Consulting Inc.	SA.019_TWO#1 - Industrial	11/20/2020	\$302,348	\$302,348	\$0	\$0
		Competitive	Y	ADH0014874	CHA Consulting Inc.	SA.030_TWO#2 - Industrial	11/20/2020	\$179,000	\$179,000	\$0	\$0
		Competitive	Y	ADH0014876	CHA Consulting Inc.	SA.031_TWO#3 - Industrial	11/24/2020	\$157,500	\$157,500	\$0	\$0
		Competitive	Y	ADH0014878	CHA Consulting Inc.	SA.034_TWO#5 - Industrial	11/25/2020	\$150,142	\$150,142	\$6,223	\$6,223
		Competitive	Y	ADH0014886	EME Consulting Engineering Group, LLC	SA.034_TWO#4 - Industrial	11/24/2020	\$154,757	\$154,757		
Cleantech Ignition		Discretionary	Y	158224A	RFP Enterprises LLC	RFP Enterprises LLC	01/15/2021	\$25,000	\$25,000	\$18,750	\$18,750
Consumer Ed and Market Support		Discretionary	Y	161970	Caroline Hazard	SFR Consulting Project Support	12/11/2020	\$350,000	\$350,000	\$20,986	\$20,986
Empire Building Challenge		Competitive	Y	162269	EME Consulting Engineering Group, LLC	SA.065a - TWO #12 - AES_PM	12/18/2020	\$477,103	\$477,103		
ENERGY ANALYSIS		Competitive	Y	151905	PA Consulting Group	TWO #3 Nat. Gas Tech. Support	02/27/2020	\$200,000	\$700,000	\$82,027	\$581,706
		Competitive	Y	161130	The Cadmus Group, LLC	TWO #10 Climate Facilitation	11/19/2020	\$925,672	\$925,672	\$251,784	\$251,784
		Competitive	Y	ADH0014578	Allegis Group Holdings Inc	SA.020_TWO #5_EEA Coordinator	01/20/2021	\$15,067	\$15,067		
		Non-Competitive	Y	162967	IHS Global Inc.	IHS Markit/PointLogic Subscrip	01/05/2021	\$54,190	\$54,190	\$54,190	\$54,190
Environmental Research		Competitive	Y	155697	Consensus Building Institute, Inc.	TWO #1 -Facilitator	07/13/2020	\$414,965	\$458,295	\$12,166	\$43,271
		Competitive	Y	155698	Eastern Research Group, Inc.	TWO #2 Coordinator Assessment	07/13/2020	\$2,600,000	\$2,625,427		\$9,699
		Competitive	Y	156228	The Research Foundation for the State	Low-Cost AQ Sensors	07/27/2020	\$544,569	\$544,569	\$6,056	\$6,056
		Competitive	Y	158363	Harrisburg University of Science and Tec	spatial and temporal variation	09/17/2020	\$150,000	\$499,976		
		Competitive	Y	165376	NESCAUM	TWO #11 Wood Heating	03/09/2021	\$399,500	\$399,500		
		Discretionary	Y	164362	Pace University	A-TWG facilitation services	02/10/2021	\$49,997	\$49,997		
Eval MCDC: MF Building Stock		Competitive	Y	160541	The Cadmus Group, LLC	Statewide Multifamily Baseline	11/05/2020	\$3,500,000	\$3,500,000		
EVPRZ:Implementation		Competitive	Y	164651	TRC Energy Services	SA.071_TWO# 20_Clean Trans_PM	02/18/2021	\$405,633	\$405,633		
Geothermal Incentive Program		Competitive	Y	127557	Frontier Energy, Inc.	3695 TWO Umbrella Agreement	06/04/2018	\$100,000	\$700,000	\$24,497	\$618,671
		Competitive	Y	148235	Energy & Resource Solutions, Inc.	TWO 6 - Performance Monitoring	11/27/2019	\$224,476	\$1,543,451	\$111,811	\$1,087,200
GJGNY REVOLVING LOAN FUND		Discretionary	Y	164873	Sycamore Advisors, LLC	Financial Advisor	02/25/2021	\$220,000	\$220,000		
Healthy Homes VB Payment Pilot		Competitive	Y	150497	Guidehouse Inc.	TWO 3 NYS Healthy Homes VBP	01/22/2020	\$198,960	\$398,960	\$39,111	\$49,911
Home Perf w Energy Star		Competitive	Y	107771	CLEAResult Consulting, Inc.	Centralized Services & Support	12/08/2016	\$2,745,814	\$11,401,416	\$667,648	\$8,650,522
		Competitive	Y	141322	Randstad North America, Inc.	Payroll Services	06/12/2019	\$60,000	\$123,278	\$8,925	\$72,180

NYSERDA PERIODIC CONTRACTS APPROVAL REPORT - 12/15/2020 to 3/16/2021

Category	Initiative	Type	Term > 1 Year	Contract ID	Contractor	Contract Description	Date	Committed this period	Committed to Date	Amt Paid this Period	Amt Paid to Date
PCMT	Housing Agencies Support	Discretionary	Y	162054	HPDC Energy LLC	Affordable housing strategy	12/15/2020	\$499,920	\$499,920	\$28,654	\$28,654
	Innovation	Discretionary	Y	162272	JFL Consulting LLC	Hydrogen Energy Consulting	12/18/2020	\$125,000	\$125,000	\$20,375	\$20,375
	K-12 SCHOOLS	Competitive	Y	ADH0014842	TRC Energy Services	SA.026a_TWO#13 - EPE	11/19/2020	\$346,403	\$346,403	\$0	\$0
		Competitive	Y	ADH0014877	CHA Consulting Inc.	SA.035_TWO#4 - EPE	11/20/2020	\$168,695	\$168,695	\$0	\$0
	Low Rise New Construction	Competitive	Y	ADH0014924	TRC Energy Services	SA.041_TWO#14 - NCP PM	11/30/2020	\$419,522	\$419,522	\$31,133	\$31,133
	Low-Income Forum on Energy	Discretionary	Y	163674	Trustees of University of PA	Climate Justice in NYS	01/25/2021	\$50,000	\$50,000		
	Multifam New Construction	Competitive	Y	ADH0014941	TRC Energy Services	SA.042_TWO#17 - NCP NYC PM	12/03/2020	\$415,185	\$415,185	\$21,934	\$21,934
	Multifam Performance Pgm	Competitive	Y	117926	TRC Energy Services	Staff Augmentation Services	09/06/2017	\$310,593	\$9,269,190	\$401,080	\$5,542,390
	New Construction Housing	Competitive	Y	ADH0014934	TRC Energy Services	SA.040_TWO #16 - NC PM	01/14/2021	\$132,423	\$132,423	\$0	\$0
	NEW YORK GREEN BANK	Competitive	Y	46964	Luminate, LLC	Outside Technical and Eng. Srv	09/05/2014	\$35,000	\$115,761	\$7,136	\$65,102
		Competitive	Y	126362	Moelis & Company Group LP	3PC raise advisory Services	05/01/2018	\$250,000	\$1,100,000	\$250,000	\$1,029,172
		Competitive	Y	149695	Holland & Knight LLP	RFP 12 - NYGB Legal Services	12/31/2019	\$2,967	\$214,216	\$2,967	\$214,216
		Competitive	Y	149696	Nixon Peabody LLP	RFP 12 - NYGB Legal Services	12/31/2019	\$62,810	\$62,810	\$62,810	\$62,810
		Competitive	Y	161973	Randstad North America, Inc.	PS.038_NYGB Analyst	12/14/2020	\$199,095	\$199,095	\$20,675	\$20,675
Competitive		Y	163103	Randstad North America, Inc.	Payroll Services -NYGB Analyst	01/08/2021	\$199,095	\$199,095	\$13,018	\$13,018	
Competitive		Y	ADH0014459	Allegis Group Holdings Inc	Staff Augmentation Services	02/05/2021	\$75,266	\$75,266			
Discretionary		Y	138377	Proenergy Consulting LLC	NEW YORK GREEN BANK	03/27/2019	\$60,000	\$160,000	\$9,990	\$108,911	
Discretionary		Y	150958	PLB Oil & Gas Consult LLC	NYGB Investment Support	02/04/2020	\$50,000	\$150,000	\$49,343	\$149,144	
Discretionary		Y	164915	West Publishing Corporation	Westlaw Core Plan platform	02/25/2021	\$45,320	\$45,320			
NYCH: Roadmap	Competitive	Y	161199	New Buildings Institute, Inc.	TWO #2 Bldg Elec Roadmap Writi	11/23/2020	\$211,315	\$211,315			
NYCH: Talent Ppin:CE and OJT	Competitive	Y	161831	BW Research Partnership	TWO# 2 JTWG Jobs Study	12/10/2020	\$300,000	\$300,000			
NYSERDA ADMINISTRATION	Competitive	Y	107299	CLEAResult Consulting, Inc.	Phone Email & Web Support	11/28/2016	\$123,078	\$636,280	\$26,749	\$510,412	
	Competitive	Y	109917	BDO USA LLP	Background Investigation Servi	02/07/2017	\$9,600	\$95,450	\$7,400	\$93,250	
	Competitive	Y	124908	First Columbia Property Services, LLC	Property Management	03/27/2018	\$230,072	\$983,829	\$46,764	\$661,061	
	Competitive	Y	152608	Marshall & Sterling, Inc.	RFP 4301 Insurance	03/16/2020	\$269,000	\$515,745	\$70,920	\$312,381	
	Competitive	Y	159691	CVENT, Inc.	Event Management/Virtual Event	10/19/2020	\$27,000	\$175,080		\$64,310	
	Competitive	Y	161828	Gartner Inc.	Gartner 2021	12/09/2020	\$39,164	\$39,164	\$32,637	\$32,637	
	Competitive	Y	163723	SHI, Inc.	Embarcadero ER/Studio Support	01/26/2021	\$18,208	\$18,208			
	Competitive	Y	164321	Tech Valley Talent, LLC	TWO Sr.Software Eng – Carrick	02/09/2021	\$183,300	\$183,300			

NYSERDA PERIODIC CONTRACTS APPROVAL REPORT - 12/15/2020 to 3/16/2021

Category	Initiative	Type	Term > 1 Year	Contract ID	Contractor	Contract Description	Date	Committed this period	Committed to Date	Amt Paid this Period	Amt Paid to Date
PCMT	NYSERDA ADMINISTRATION	Competitive	Y	164556	ePlus inc	nVidia VDI Licensing	02/17/2021	\$17,760	\$17,760	\$17,760	\$17,760
		Discretionary	Y	109141	Tully Rinckey PLLC	outside counsel services	01/18/2017	\$12,000	\$27,000		\$5,546
		Discretionary	Y	161238	Walter Snyder Printer, Inc.	External Program Printing	11/24/2020	\$30,000	\$30,000	\$941	\$941
		Discretionary	Y	161240	Benchmark Printing, Inc.	External Program Printing	11/24/2020	\$8,000	\$8,000	\$694	\$694
		Discretionary	Y	161296	Fort Orange Press Incorporated	Program External Printing	11/24/2020	\$5,000	\$5,000		
		Discretionary	Y	161298	Northco Products, Inc.	Program External Printing	11/24/2020	\$12,000	\$12,000	\$285	\$285
		Discretionary	Y	161301	Dowd-Witbeck Printing Corp.	Program External Printing	11/24/2020	\$12,000	\$12,000	\$1,665	\$1,665
		Discretionary	Y	161974	Low-Level Radioactive Waste Forum, Inc.	LLRW Forum Membership Fee 2021	12/14/2020	\$5,000	\$5,000	\$5,000	\$5,000
		Discretionary	Y	162058	Tech Valley Talent, LLC	SecureAuth Renewal 2021-2022	12/15/2020	\$41,949	\$41,949	\$41,949	\$41,949
		Discretionary	Y	162337	Arctic Air Mechanical Corp	HVAC Preventative Maintenance	12/21/2020	\$16,800	\$16,800		
		Discretionary	Y	163249	ThunderCat Technology LLC	Rightstar Scanning license	01/13/2021	\$5,460	\$5,460	\$5,460	\$5,460
		Discretionary	Y	163305	Promantek Inc.	Employee Web-based tool	01/14/2021	\$42,309	\$42,309		
		Discretionary	Y	163907	Maureen Data Systems, Inc.	VMWare Airwatch - 2021 - 2022	02/01/2021	\$7,020	\$7,020		
		Discretionary	Y	164719	ThunderCat Technology LLC	DocuSign Subscription 21 - 22	02/23/2021	\$94,115	\$94,115		
		NYSERDA Fixed Asset		Competitive	Y	153100	Knoll, Inc.	Furniture for Green Bank Offii	04/02/2020	\$610	\$185,548
Competitive	Y			165195	ePlus inc	VDI Server Cluster Hardware	03/04/2021	\$192,536	\$192,536		
On-Site Energy Manager		Competitive	Y	164561	Michaels Energy, Inc.	TWO 1 - EMP Impact Evaluation	02/17/2021	\$587,431	\$587,431		
OREC: Technical Support		Competitive	Y	163476	Holland & Knight LLP	OSW Reg Matters_Cable Coord.	01/19/2021	\$100,000	\$100,000		
		Competitive	Y	163477	Sive Paget & Riesel PC	OSW Regulatory Matters	01/19/2021	\$100,000	\$100,000		
Real Time Enrgy Management		Competitive	Y	164576	EME Consulting Engineering Group, LLC	SA.073_TWO# 13_AES PM	02/17/2021	\$405,633	\$405,633		
REC:CES REC System Dev Costs		Competitive	Y	163482	Tech Valley Talent, LLC	TWO 1 Salesforce Dev. Rajesh K	01/20/2021	\$177,450	\$177,450		
Renewable Heat NY		Competitive	Y	162801	NESCAUM	TWO #10 Air Quality	12/30/2020	\$835,000	\$835,000		
SARATOGA TECHNOLOGY & ENER..		Competitive	Y	107762	Rosenblum Property Services, LLC	STEP Property Mgmt Services	12/07/2016	\$24,600	\$939,065	\$55,398	\$623,592
Strategic Energy Manager		Competitive	Y	104532	Apprise, Incorporated	RFQ3183 Umbrella Agreement	10/05/2016	\$19,578	\$344,206		\$158,889
		Competitive	Y	137243	TRC Energy Services	SA.047_TWO #19 - EPE	02/19/2019	\$322,016	\$591,194	\$23,459	\$258,428
		Competitive	Y	ADH0014980	EME Consulting Engineering Group, LLC	SA.044_TWO#5_EPE PM	02/05/2021	\$198,123	\$198,123		
Technical Services		Competitive	Y	162057	American Society of Heating,Refrigeratin	ASHRAE - EPE Team Support TWO	12/15/2020	\$105,000	\$105,000	\$38,129	\$38,129
WEST VALLEY DEVELOPMENT PROGRAM		Competitive	Y	155706	Joseph R Chimera	Ops and Maintenance	07/13/2020	\$800,000	\$1,500,000	\$18,706	\$154,750
		Non-Competiti..	Y	107662	U.S. Nuclear Regulatory Commission	PO Payment of NRC License Fees	12/06/2016	\$100,000	\$350,000	\$4,046	\$210,892

NYSDA PERIODIC CONTRACTS APPROVAL REPORT - 12/15/2020 to 3/16/2021

Category	Initiative	Type	Term > 1 Year	Contract ID	Contractor	Contract Description	Date	Committed this period	Committed to Date	Amt Paid this Period	Amt Paid to Date
PGRM	>200KW PV	Competitive	Y	163111	National Solar Technologies	NY Sun	01/11/2021	\$3,300,000	\$3,300,000		
	Cleantech Incubator	Non-Competiti..	Y	110474	Long Island High Technology Incubator	PON3413 Clean Energy Incubator	02/17/2017	\$300,000	\$1,800,000	\$342,500	\$1,683,825
	ESTOR: Bulk Storage Incentive	Competitive	Y	162341	Able Grid Infrastructure Holdings	Bulk Storage Incentive	12/21/2020	\$22,500,000	\$22,500,000		
		Competitive	Y	162343	NYC Energy LLC	Bulk Storage Incentive	12/21/2020	\$23,970,000	\$23,970,000		
	High Performing Grid	Competitive	Y	159622	BLUEPRINT POWER TECHNOLOGIES INC	A DECARBONIZATION BLUEPRINT	10/15/2020	\$3,000,000	\$3,000,000		
	LARGE SCALE RENEWABLES	Competitive	Y	67783	APX Inc.	NYGATS	06/24/2015	\$95,000	\$3,626,730	\$119,859	\$3,210,727
	Real Time Enrgy Management	Competitive	Y	149500	Siemens Industry, Inc.	Siemens - Multisite - RTEM	12/26/2019	\$3,681,202	\$3,681,202		
	REC: CES REC Contracts	Competitive	Y	102993A-1	HECATE ENERGY ALBANY 1 LLC	Coeymans Solar	01/26/2021	\$18,449,496	\$18,449,496		
		Competitive	Y	122285B	Sky High Solar, LLC	RESRFP17-1	12/15/2020	\$22,362,290	\$22,362,290		
		Competitive	Y	162141	Hecate Energy-	RESRFP20-1_Hecate Cider Solar	12/16/2020	\$150,155,815	\$150,155,815		
	Talent Pipeline: CE and OJT	Competitive	Y	37382	TRC Energy Services	Technical Review and Program S	11/15/2013	\$315,150	\$4,101,294	\$297,287	\$2,935,061
Grand Total								\$272,439,126	\$307,720,037	\$3,506,851	\$29,998,663

NYSDERDA PERIODIC CONTRACTS APPROVAL REPORT: Contractor Addresses - 12/15/2020 to 3/16/2021

Contractor	SupplierAddress	SupplierCity	SupplierState	SupplierZipCode	Business Type	WBE	MBE	SDVOB	SBE
Able Grid Infrastructure Holdings	Levy Grid, LLC	Palo Alto	CA	94306	FSBE				
Adewale Aremu Adesanya	Havenergy Consulting Inc.	Guilderland	NY	12084-9998	NYSBE		X		
Allegis Group Holdings Inc	7301 Parkway Drive	Hanover	MD	21076	FSBE				
Allison van Hee	66 Rockwell Place	Brooklyn	NY	11217	NYSBE				
American Society of Heating,Refrigeratin	1791 Tullie Circle, N.E.	Atlanta	GA	30329-2305	FSBE				
Apprise, Incorporated	32 Nassau Street, Suite 200	Princeton	NJ	08542	FSBE				
APX Inc.	224 Airport Parkway #600	San Jose	CA	95110	FSBE				
Arctic Air Mechanical Corp	13-47 209th St	Bayside	NY	11360	NYSBE				
BDO USA LLP	PO Box 642743	Pittsburgh	PA	15264-2743	FSBE				
Benchmark Printing, Inc.	1890 Maxon Rd Ext	Schenectady	NY	12308-1140	NYSBE				
BLUEPRINT POWER TECHNOLOGIES INC	99 BELLEWOOD AVE	DOBBS FERRY	NY	10522	NYSBE				
BW Research Partnership	6120 Paseo Del Norte, Suite D2	Carlsbad	CA	92011	FSBE				
Caroline Hazard	19 W 21st Street, Suite 604	New York	NY	10010	NYSBE				
CHA Consulting Inc.	3 Winners Circle	Albany	NY	12205	NYSBE				
CLEAResult Consulting, Inc.	4301 Westbank Dr., A-150	Austin	TX	78746	FSBE				
Consensus Building Institute, Inc.	100 Cambridgepark Drive	Cambridge	MA	02140	FSBE				
CVENT, Inc.	1765 Greensboro Station Place	Tyson's Corner	VA	22102	FSBE				
Dowd-Witbeck Printing Corp.	599 Pawling Ave.	Troy	NY	12180-5899	NYSBE	X			
Eastern Research Group, Inc.	110 Hartwell Ave	Lexington	MA	02421	FSBE				
EME Consulting Engineering Group, LLC	129 West 27th Street	New York	NY	10001	NYSBE				
Energy & Resource Solutions, Inc.	120 Water Street, Suite 350	North Andover	MA	01845	FSBE				
ePlus inc	13595 Dulles Technology Dr	Herndon	VA	20171-3413	FSBE				
First Columbia Property Services, LLC	22 Century Hill Dr Ste 301	Latham	NY	12110-2116	NYSBE				
Fort Orange Press Incorporated	11 Sand Creek Rd # 828	Albany	NY	12205-1442	NYSBE				
Frontier Energy, Inc.	2695 Bingley Rd	Cazenovia	NY	13035	NYSBE				
Gartner Inc.	56 Top Gallant Rd	Stamford	CT	06902	FSBE				
Guidehouse Inc.	150 N Riverside Plz Ste 2100	Chicago	IL	60606-1528	FSBE				
Harrisburg University of Science and Tec	326 Market Street	Harrisburg	PA	17101	FSBE				
HECATE ENERGY ALBANY 1 LLC	621 W Randolph	Chicago	IL	60661	FSBE				
Hecate Energy-	d/b/a Cider Solar LLC	Chicago	IL	60661	FSBE				

NYSDERDA PERIODIC CONTRACTS APPROVAL REPORT: Contractor Addresses - 12/15/2020 to 3/16/2021

Contractor	SupplierAddress	SupplierCity	SupplierState	SupplierZipCode	Business Type	WBE	MBE	SDVOB	SBE
Holland & Knight LLP	PO Box 864084	Orlando	FL	32886	FSBE				
HPDC Energy LLC	253 West 35th Street	New York	NY	10001	NYSBE				
IHS Global Inc.	15 Inverness Way East	Englewood	CO	80112	FSBE				
JFL Consulting LLC	16 Diamond Place	Saratoga Springs	NY	12866	NYSBE				
Joseph R Chimera	d/b/a JR & Sons Excavating	Angola	NY	14006	NYSBE				
Kelliher Samets Volk	212 Battery Street	Burlington	VT	05401	FSBE				
Knoll, Inc.	1235 Water Street	East Greenville	PA	18041	FSBE				
Long Island High Technology Incubator	25 Health Sciences Drive	Stony Brook	NY	11790	NYSBE				
Low-Level Radioactive Waste Forum, Inc.	1619 12th Street	Washington	DC	20009	FSBE				
Luminate, LLC	1801 Broadway, Ste 1620	Denver	CO	80202	FSBE				
Marshall & Sterling, Inc.	125 High Rock Ave., Ste 206	Saratoga Springs	NY	12866	NYSBE				
Maureen Data Systems, Inc.	500 West 43rd Street, Apt. 33C	New York	NY	10036	NYSBE	X			
Michaels Energy, Inc.	400 Main Street, Suite 200	La Crosse	WI	54601	FSBE				
Moelis & Company Group LP	399 Park Avenue, 5th Floor	New York	NY	10022	NYSBE				
National Solar Technologies	166 Taylor Dr.	Depew	NY	14043	NYSBE				
NESCAUM	89 South Street	Boston	MA	02111	FSBE				
New Buildings Institute, Inc.	623 SW Oak Street	Portland	OR	97205	FSBE				
Nixon Peabody LLP	1300 Clinton Square	Rochester	NY	14604	NYSBE				
Northco Products, Inc.	1612 NY Route 7	Troy	NY	12180	NYSBE				
NYC Energy LLC	322 West 57th Street	New York	NY	10019	NYSBE				
PA Consulting Group	55 Cambridge Parkway	Cambridge	MA	02142	FSBE				
Pace University	Attn: Loretta Musial	White Plains	NY	10603	NYSBE				
PLB Oil & Gas Consult LLC	2 Pinecrest Road	Riverside	CT	06878	FSBE				
Proenergy Consulting LLC	245 West 99th Street	New York	NY	10025	NYSBE				
Promantek Inc.	d/b/a TrakStar	Seattle	WA	98122	FSBE				
Randstad North America, Inc.	PO Box 2084	Carol Stream	IL	60132-2084	FSBE	X			
RFP Enterprises LLC	33 Hudson St.	Jersey City	NJ	07302	FSBE				
Rosenblum Property Services, LLC	PO Box 38070	Albany	NY	12203	NYSBE				
SHI, Inc.	P.O. Box 952121	Dallas	TX	75395	FSBE				
Siemens Industry, Inc.	85 Northpointe Parkway	Buffalo	NY	14228	NYSBE				

NYSDERDA PERIODIC CONTRACTS APPROVAL REPORT: Contractor Addresses - 12/15/2020 to 3/16/2021

Contractor	SupplierAddress	SupplierCity	SupplierState	SupplierZipCode	Business Type	WBE	MBE	SDVOB	SBE	
Sive Paget & Riesel PC	560 Lexington Ave., Floor 15	New York	NY	10022-1994	NYSBE					
Sky High Solar, LLC	39 Hudson Falls Road	South Glens Falls	NY	12803	NYSBE					
Sycamore Advisors, LLC	612 East 13th Street	Indianapolis	IN	46202	FSBE	X				
Tech Valley Talent, LLC	PO Box 935587	Atlanta	GA	31193-5587	FSBE	X				
The Cadmus Group, LLC	100 5th Ave., Ste 100	Waltham	MA	02451	FSBE					
The Research Foundation for the State	SUNY-ESF, ESF Outreach	Syracuse	NY	13210	NYSBE					
ThunderCat Technology LLC	1925 Isaac Newton Square	Reston	VA	20190	FSBE			X		
TRC Energy Services	21 Griffin Rd North	Windsor	CT	06095	FSBE					
Trustees of University of PA	3451 Wanut Street	Philadelphia	PA	19104-6284	FSBE					
Tully Rinckey PLLC	441 New Karner Road	Albany	NY	12205	NYSBE			X		
U.S. Nuclear Regulatory Commission	P.O. Box 979051	Saint Louis	MO	63197-9000	FSBE					
Walter Snyder Printer, Inc.	691 River St	Troy	NY	12180-1504	NYSBE					
West Publishing Corporation	DBA Thomas Reuters	Eagan	MN	55123	FSBE					

NYSDA PERIODIC CONTRACTS APPROVAL REPORT: Anticipated Contracts - 12/15/2020 to 3/16/2021

Category	Type	Term > 1 Year	Contract ID	Contractor	Contract Description	Reason	Date	Anticipated Amount	Total Contract Amount
PCMT	Competitive	Y	30191	Abt Associates Inc.	Flex Energy Tech Analysis 2	Added New Tasks	11/09/2012	\$100,000	\$970,943
	Competitive	Y	85025	Tech Valley Talent, LLC	RFP3143 Umbrella Agreement	Added New Tasks	12/18/2015	\$259,388	\$8,188,970
	Competitive	Y	104075	Enercon Services Inc	RFP 3305 Licence Consultation	Added New Tasks	09/21/2016	\$30,000	\$432,676
	Competitive	Y	104535	NMR Group, Inc.	RFQ 3183 NMR Group, Inc.	New Agreement	10/05/2016	\$107,662	\$405,583
	Competitive	Y	107771	CLEAResult Consulting, Inc.	Centralized Services & Support	Added New Tasks	12/08/2016	\$466,500	\$11,867,916
	Competitive	Y	118163	D.L. English Consulting, Inc.	Indian Point Consultant	Added New Tasks	09/13/2017	\$50,000	\$406,475
	Competitive	Y	137240	EME Consulting Engineering Group, LLC	SA.038A_TWO #7 - New Con	Added New Tasks	02/19/2019	\$268,938	\$798,543
	Competitive	Y	139864	Abt Associates Inc.	TWO#1 Pathways Health	Added New Tasks	05/02/2019	\$80,000	\$280,000
	Competitive	Y	144828	DNV GL Energy Insights USA Inc.	TWO 8 CEF Comm Impact_DNV	Added New Tasks	09/12/2019	\$213,454	\$596,274
	Competitive	Y	144829	Energy & Resource Solutions, Inc.	TWO 5 CEF Comm Impact_ERS	Added New Tasks	09/12/2019	\$170,595	\$674,515
	Competitive	Y	149307A	E Source Companies LLC	RFQL3711 TWO Bldg Assets	New Agreement	01/29/2021	\$290,000	\$290,000
	Competitive	Y	152281	Energy and Environmental Economics Inc.	TWO#22 Bldg. Elec. Roadmap	New Agreement	03/09/2020	\$150,000	\$780,000
	Competitive	Y	155547	Green Light New York, Inc.	Energy Efficiency Training TWO	Added New Tasks	07/08/2020	\$150,000	\$579,822
	Competitive	Y	161831	BW Research Partnership	TWO# 2 JTWG Jobs Study	New Agreement	12/10/2020	\$55,664	\$355,664
	Competitive	Y	165148	TRC Energy Services	SA.072_TWO #25_NY-SUN_Sr. PM	New Agreement	03/03/2021	\$557,709	\$557,709
	Competitive	Y	165196	ePlus inc	VDI Horizon Hardware / Service	New Agreement	03/04/2021	\$15,219	\$15,219
	Competitive	Y	165245	ICF Resources, LLC	TWO#9 NYS Elect System Model	New Agreement	03/05/2021	\$35,329	\$35,329
	Competitive	Y	165248	TRC Energy Services	SA.042_TWO#17b - NCP NYC PM	New Agreement	03/05/2021	\$137,638	\$137,638
	Competitive	Y	165541	Energy & Resource Solutions, Inc.	TWO 2 - New Construction Eval		03/12/2021	\$2,007,165	\$2,007,165
	Competitive	Y	ADH0014924	TRC Energy Services	SA.041_TWO#14 - NCP PM	New Agreement	11/30/2020	\$300,000	\$719,522
	Competitive	Y	ADH0014941	TRC Energy Services	SA.042_TWO#17 - NCP NYC PM	New Agreement	12/03/2020	\$300,000	\$715,185
	Discretionary	Y	141211	Honeywell International Inc.	SQA HPwES/EmPower in LI	New Agreement	06/10/2019	\$25,000	\$50,000
	Discretionary	Y	153641	Fusco Personnel, Inc.	TS.015 Contract Mangament Coor	New Agreement	04/21/2020	\$66,495	\$132,990
	Discretionary	Y	164369	Cornell University	Cornell Climate Stewards	New Agreement	02/10/2021	\$50,000	\$50,000
Discretionary	Y	165489	Rensselaer Polytechnic Institute	A survey of Climate Change	New Agreement	03/11/2021	\$47,789	\$47,789	
Discretionary	Y	165542	APPEXTREMES, LLC	Conga Composer Maintenance 1yr	New Agreement	03/12/2021	\$14,400	\$14,400	
Non-Competitive	Y	125834	Level 3 Communications, LLC	NYSDA ADMINISTRATION	Added New Tasks	04/17/2018	\$72,000	\$481,000	
Non-Competitive	Y	156808	Abt Associates Inc.	TWO 2 formerly 30191 TWO #5	Added New Tasks	08/10/2020	\$75,000	\$175,000	
Non-Competitive	Y	164912	International Code Council, Inc.	NYStretch 2020 Code Book	New Agreement	02/25/2021	\$16,500	\$16,500	
PGRM	Competitive	Y	102993A-2	HECATE ENERGY GREENE 1 LLC	Greene County 1	New Agreement	01/28/2021	\$18,449,496	\$18,449,496
	Competitive	Y	102993A-3	HECATE ENERGY GREENE 2 LLC	Greene County 2	New Agreement	01/28/2021	\$9,224,210	\$9,224,210
	Competitive	Y	129293	Consolidated Edison Company	P4P Con Ed MOU and NDA	New Agreement	07/26/2018	\$8,106,666	\$8,106,666

NYSDERDA PERIODIC CONTRACTS APPROVAL REPORT: Anticipated Contracts - 12/15/2020 to 3/16/2021

Category	Type	Term > 1 Year	Contract ID	Contractor	Contract Description	Reason	Date	Anticipated Amount	Total Contract Amount
PGRM	Competitive	Y	135614	L&S Energy Services, Inc.	L&S GJGNY Energy Audits	Added New Tasks	12/28/2018	\$850,331	\$3,505,441
	Competitive	Y	160205	Metro IAF	NYCH: Technical Assistance	New Agreement	10/30/2020	\$4,000,000	\$4,000,000
	Competitive	Y	162131	EDF Renewables Development, Inc	RESRFP20-1	New Agreement	12/16/2020	\$38,222,829	\$38,222,829
	Competitive	Y	162132	EDF Renewables Development, Inc.	RESRFP20-1	New Agreement	12/16/2020	\$57,198,394	\$57,198,394
	Competitive	Y	162133	EDF Renewables Development, Inc.	RESRFP20-1	New Agreement	12/16/2020	\$39,029,473	\$39,029,473
	Competitive	Y	165537	SunPower Corporation	<200KW PV	New Agreement	03/12/2021	\$4,037,670	\$4,037,670
	Non-Competitive	Y	124254	Launch New York, Inc.	Launch NY ECO Incubator	Extend Contract Term	03/09/2018	\$800,000	\$2,600,000
Grand Total								\$186,031,513	\$216,157,006

NYSERDA PERIODIC CONTRACTS APPROVAL REPORT: Section 1
Summary - 12/15/2020 to 3/16/2021

Category	Report Type	Type	Count of Contracts	Committed this period
PGRM	Program	Competitive	833	\$445,306,786
		Discretionary	9	\$712,940
		Non-Competitive	1	\$300,000
Total			843	\$446,319,726
Grand Total			843	\$446,319,726

Section 1 Summary - Percentages

% Contract Counts Competitively

% of \$Committed this period Competitively

99.88%	99.93%
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NYSERDA PERIODIC PROGRAM REPORT

12/15/2020 to 3/16/2021

Table: All Market Focus Committed this Period

MarketFocus	Count of Contracts	Committed this period
Administration	1	\$24,768
Agriculture	4	\$18,991
Anaerobic Digesters	1	\$277,750
Building Innovation	6	\$1,290,160
Clean Heating and Cooling	10	\$4,281,133
Clean Trans (Innov & Research)	14	\$5,017,787
Codes	3	\$468,475
Commercial	125	\$12,329,030
Communities and Local Governme	5	\$2,185,129
Energy & EnvironmentalAnalysis	3	\$385,631
Energy Storage	170	\$53,561,214
Energy-RItd Environmental Res	1	\$30,000
Fuel Cells	1	\$550,000
Grid Modernization	6	\$6,754,703
Industrial	14	\$4,450,391
Information Brokering	1	\$1,400,000
Innovation	3	\$560,000
Large Scale Renewables	15	\$194,297,367
LMI	42	\$3,642,327
Low Income	1	\$6,700

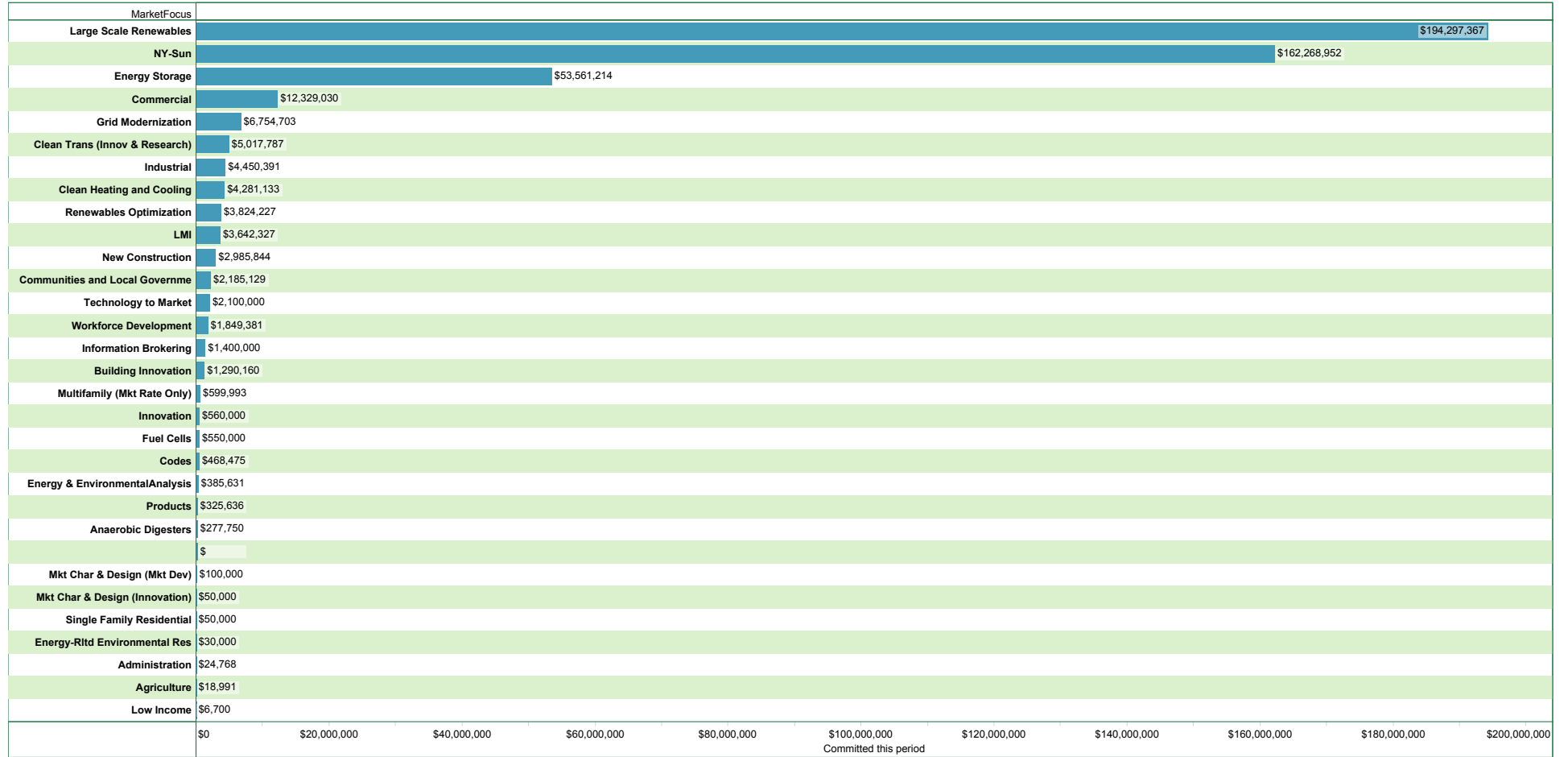
NYSDA PERIODIC PROGRAM REPORT

12/15/2020 to 3/16/2021

Table: All Market Focus Committed this Period

MarketFocus	Count of Contracts	Committed this period
Mkt Char & Design (Innovation)	1	\$50,000
Mkt Char & Design (Mkt Dev)	2	\$100,000
Multifamily (Mkt Rate Only)	45	\$599,993
New Construction	25	\$2,985,844
NY-Sun	387	\$162,268,952
Products	4	\$325,636
Renewables Optimization	5	\$3,824,227
Single Family Residential	1	\$50,000
Technology to Market	5	\$2,100,000
Workforce Development	75	\$1,849,381
Grand Total	978	\$465,910,974

NYSDA PERIODIC PROGRAM REPORT
 12/15/2020 to 3/16/2021
 Graph: All Market Focus Committed this Period



NYSERDA PERIODIC PROGRAM REPORT
12/15/2020 to 3/16/2021
Table: By REDC Region and County

REDC Region	County	Count of Contracts	Committed this Period
Capital Region	Albany	27	\$67,133,569
	Columbia	12	\$7,025,697
	Greene	3	\$1,388,517
	Rensselaer	9	\$3,509,889
	Saratoga	13	\$28,558,742
	Schenectady	7	\$55,023
	Warren	2	\$16,556
	Washington	2	\$3,653,180
	Total	75	\$111,341,172
Central New York	Cayuga	3	\$2,306,261
	Cortland	4	\$5,469,187
	Madison	6	\$79,896
	Onondaga	30	\$14,383,209
	Oswego	6	\$1,350,589
	Total	49	\$23,589,141
Finger Lakes	Genesee	7	\$152,576,355
	Livingston	4	\$1,060,073
	Monroe	44	\$11,167,730
	Ontario	5	\$799,347

NYSERDA PERIODIC PROGRAM REPORT
12/15/2020 to 3/16/2021
Table: By REDC Region and County

REDC Region	County	Count of Contracts	Committed this period
Finger Lakes	Orleans	2	\$3,053,770
	Seneca	1	\$1,056,354
	Wayne	8	\$404,647
	Wyoming	3	\$1,625,266
	Yates	2	\$2,099,855
	Total	76	\$173,843,397
Long Island	Nassau	84	\$3,508,808
	Suffolk	88	\$1,431,414
	Total	171	\$4,928,263
Mid-Hudson	Dutchess	19	\$1,523,243
	Orange	25	\$7,569,318
	Putnam	6	\$27,723
	Rockland	29	\$1,381,894
	Sullivan	4	\$229,069
	Ulster	16	\$2,696,133
	Westchester	46	\$14,248,121
	Total	145	\$27,675,500
Mohawk Valley	Fulton	3	\$2,206,764
	Herkimer	2	\$24,628
	Montgomery	1	\$2,922,520
	Oneida	18	\$15,206,715

NYSERDA PERIODIC PROGRAM REPORT
12/15/2020 to 3/16/2021
Table: By REDC Region and County

REDC Region	County	Count of Contracts	Committed this period
Mohawk Valley	Otsego	4	\$142,106
	Schoharie	1	\$9,216
	Total	29	\$20,511,949
New York City	Bronx	55	\$3,858,473
	Kings	69	\$2,245,015
	New York	108	\$6,093,940
	Queens	27	\$1,975,798
	Richmond	9	\$1,421,922
	Total	268	\$15,595,148
North Country	Clinton	3	\$155,901
	Essex	2	\$22,464
	Franklin	2	\$1,447,799
	Jefferson	3	\$3,035,284
	Lewis	3	\$1,001,606
	St. Lawrence	9	\$15,923,900
	Total	22	\$21,586,955
Southern Tier	Broome	6	\$77,898
	Chemung	2	\$24,135
	Chenango	4	\$883,977
	Delaware	2	\$12,543
	Steuben	4	\$5,603,030

NYSERDA PERIODIC PROGRAM REPORT
12/15/2020 to 3/16/2021
Table: By REDC Region and County

REDC Region	County	Count of Contracts	Committed this period
Southern Tier	Tioga	3	\$1,892,818
	Tompkins	6	\$204,597
	Total	27	\$8,698,999
Statewide	STATEWIDE	68	\$30,973,041
	Total	68	\$30,973,041
Western New York	Allegany	1	\$1,930,240
	Cattaraugus	5	\$5,574,294
	Chautauqua	5	\$3,647,736
	Erie	22	\$12,448,739
	Niagara	11	\$3,554,438
	Total	44	\$27,155,447
Grand Total		975	\$465,910,974

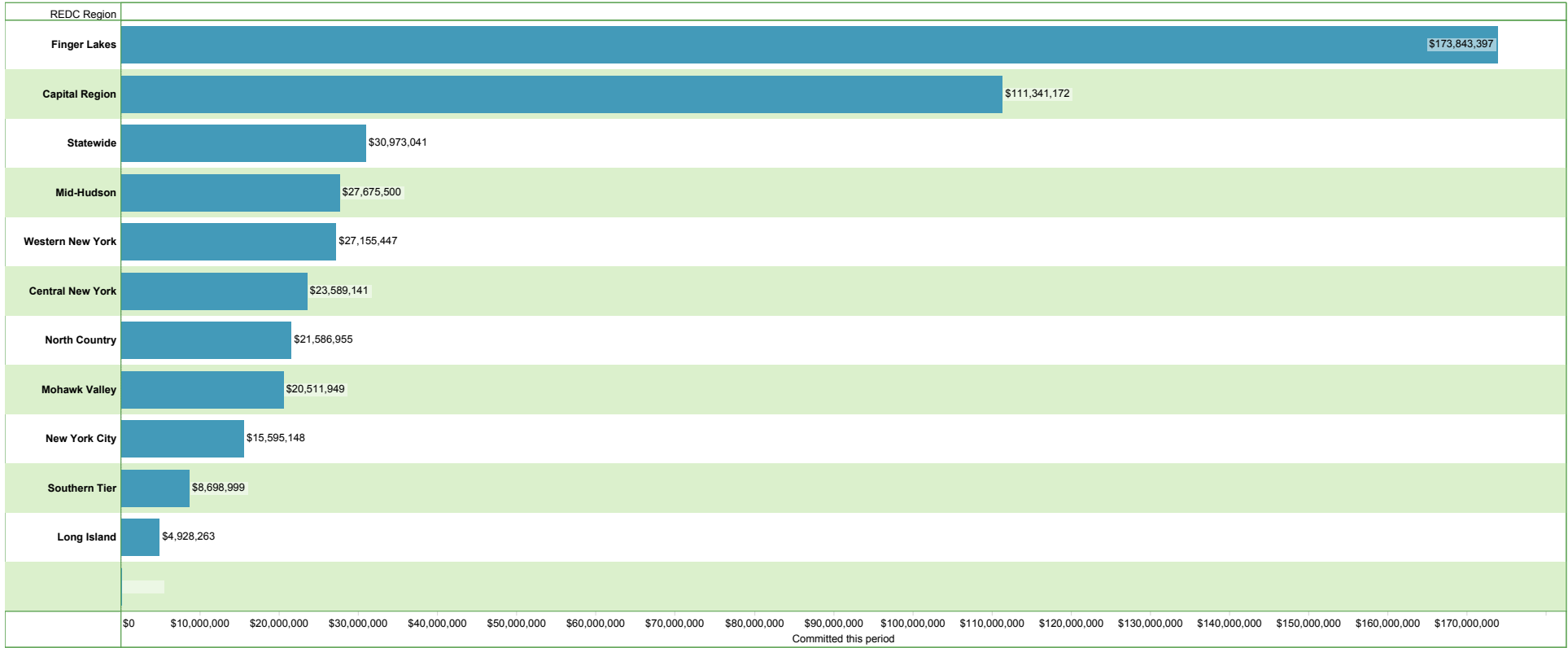
NYSDA PERIODIC PROGRAM REPORT
12/15/2020 to 3/16/2021
Table: By Electric Utility

Electric Utility	Count of Contracts	Committed this period
Central Hudson Gas and Electric	43	\$9,087,548
Consolidated Edison	311	\$29,698,222
Long Island Power Authority	172	\$4,940,225
Municipal Utilities	4	\$1,660,800
National Grid	208	\$345,962,058
NYS Electric and Gas	71	\$32,508,989
Orange and Rockland Utilities	48	\$3,781,325
Rochester Gas and Electric	48	\$7,298,766
Statewide	68	\$30,973,041
Grand Total	973	\$465,910,974

NYSDA PERIODIC PROGRAM REPORT

12/15/2020 to 3/16/2021

Graph: By REDC Region

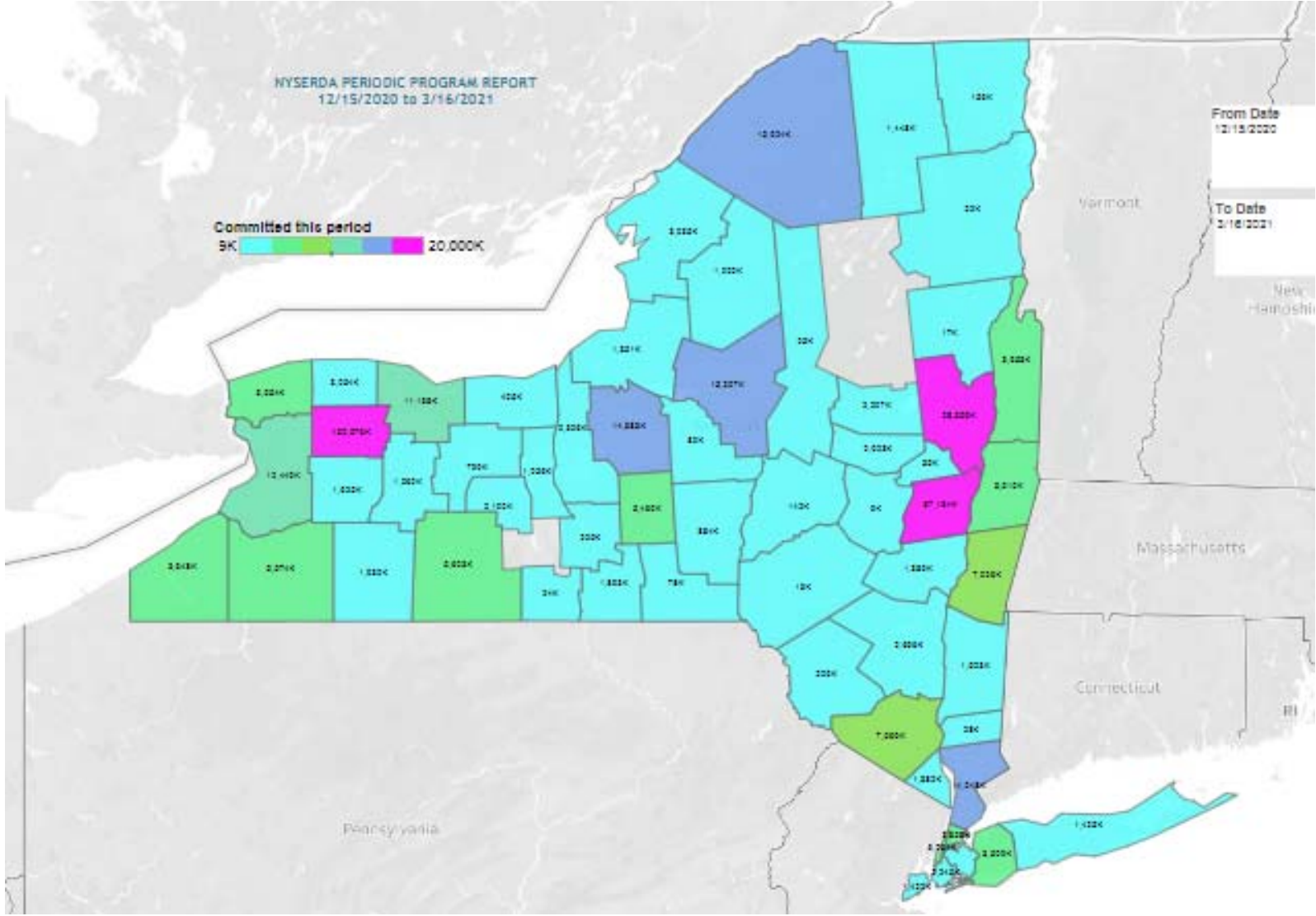


NYSDA PERIODIC PROGRAM REPORT
12/15/2020 to 3/16/2021

From Date
12/15/2020

To Date
3/16/2021

Committed this period
5K 20,000K



Resolution No. ____

RESOLVED, that the Periodic Contracts Report, covering the period December 16, 2020 through March 15, 2021, as presented at this meeting, including but not limited to the contracts identified therein which have been, or are expected to be, executed and which do have, or are expected to have, a period of performance in excess of one year, is hereby approved in accordance with Public Authorities Law Section 2879.