Long Island Power Authority
~~Draft~~ *Final* Scope of Work
Caithness Bellport Energy Center
Draft Environmental Impact Statement
~~November 18, 2004~~ *January 26, 2005*

A. INTRODUCTION

In pursuing its goal to provide cost-effective, reliable power to its customers, the Long Island Power Authority (LIPA) issued a Request for Proposals (RFP) seeking proposals for 250 to 600 megawatts (MW) of base-load supply to help meet Long Island's long-term energy needs. In June 2004, after a detailed review of 14 responses (which yielded a total of 17 combinations) to that RFP, LIPA selected a project proposed by Caithness Bellport, LLC. LIPA is pursuing a diverse portfolio of resources to provide electric power to Long Island. These resources include smaller on-Island conventional generating facilities, wind-powered generating facilities (both on- and off-shore), and power cables to import electricity. This project, a large on-Island generating facility is a critical ingredient of LIPA's strategy for ensuring sufficient and reliable electric power to Long Island.

This selected project nominally is about 300 MW at International Organization for Standardization (ISO) conditions, dual-fuel, combined-cycle facility that would be located in the Town of Brookhaven, Long Island, New York (hereinafter referred to as the "project," "proposed facility," or the "Caithness Bellport Energy Center"). The proposed facility's maximum electrical output would be 350 MW when operating the facility's gas-fired duct burner.

LIPA, the State Environmental Quality Review Act (SEQRA) lead agency, has made a determination that the proposed project may have a significant adverse impact on the environment. Therefore, an Environmental Impact Statement (EIS) for the proposed Caithness Bellport Energy Center will be prepared in accordance with SEQRA pursuant to Article 8 of the Environmental Conservation Law (ECL §§ 8-0101 et seq.) and its implementing regulations, 6 NYCRR Part 617.

This ~~Draft~~ *Final* Scope of Work identifies and describes the scope of environmental studies to be conducted to analyze the potential environmental impacts of the project. This document is being distributed by LIPA, as SEQRA lead agency, to the public, and to all interested and involved agencies for review and comment~~. After consideration of public and agency comments, LIPA will issue a Final Scope of Work.~~

A public meeting to receive oral and written comments on ~~this~~ *the* Draft Scope of Work ~~will be~~ *was* held on Wednesday January 5, 2005 at 3:00 PM and at 7:00 PM.~~ The public meeting will be held~~ *at* the Bellport Middle School Auditorium, 35 Kreamer Street, Bellport New York 11713. *In addition, the comment period was held open until Wednesday January 12, 2005 to receive written comments.* ~~From Sunrise Highway, State Route 27, take exit 56 onto Station Road south. Follow Station Road south for about 2 miles and turn right onto Kreamer Street, where the Middle School is located. From South Country Road, take Station Road north to Kreamer Street, which is the first street on the left.~~ *LIPA heard seven oral comments from the public and received six written comments. A summary of the comments and LIPA's responses to them is attached as a separate document.*

Copies of this ~~Draft~~ *Final* Scope of Work can be viewed at the following libraries: Brookhaven Free Library, 273 Beaver Dam Road, Brookhaven, New York 11719 (631) 286-1923; Longwood Public Library, 800 Middle Country Road, Middle Island, New York 11953 (631) 924-6400; and South Country Library, 22 Station Road, Bellport, New York 11713 (631) 286-0818. In addition, this ~~Draft~~ *Final* Scope of Work can be viewed and downloaded from the LIPA web site (www/lipower.org) under the About LIPA, Powering LI: LIPA Projects tab.

~~In addition to receiving oral comments at the public meeting, written comments may be submitted to Long Island Power Authority, 333 Earle Ovington Boulevard, Uniondale, New York 11553, Attention: Caithness Bellport Public Comments. The comment period will be held open until 5:00 PM Wednesday January 12, 2005.~~ The contact person for this project is Edward J. Grilli, Senior Vice President and Chief of Staff, Long Island Power Authority, 333 Earle Ovington Boulevard, Uniondale, New York 11553. Telephone number: (516) 222-7700. Email: egrilli@lipower.org.

B. DESCRIPTION OF THE PROPOSED ACTION

The proposed Caithness Bellport Energy Center would be located on approximately 15 acres within a larger 96-acre parcel that is controlled by the project sponsor. The 15-acre site is located south of the Sills Road interchange (Exit 66) of the Long Island Expressway (LIE) (Interstate 495), within the Town of Brookhaven, Long Island, New York. An additional 28 acres would be temporarily disturbed during construction for materials lay down, equipment storage, and construction parking. The facility would be located in the Town's North Bellport Empire Development Zone. Figure 1 shows the proposed site boundary on the United States Geological Survey (USGS) 7.5-minute map (Bellport, New York Quadrangle) for the surrounding area.

The site is located east of Old Dock Road and north of Horseblock Road bounded on the north by the Long Island Railroad (LIRR). Undeveloped land is located to the east of the property and existing light industries are located to the south and west.

Terrain elevations across the 96-acre property range from 95 feet (ft) above mean sea level (MSL) to 110 ft above MSL with elevations within the proposed facility location (15-acre site) ranging from 95 ft above MSL to 106 ft above MSL. However, it is anticipated that the proposed site within the proposed facility fence line would be graded to an elevation of 100 ft above MSL.

The proposed facility would utilize a Siemens Westinghouse Power Corporation 501F steam turbine and would be permitted for full-year operation (24 hours per day, 365 days per year). Natural gas would be utilized as the primary fuel with provisions to use low sulfur distillate fuel oil for up to 30 days as the back-up fuel for the combustion turbine only. The facility would be constructed in a 1-on-1 configuration with one combustion turbine, a heat recovery steam generator (HRSG), and a single steam turbine. The HRSG would be equipped with natural gas-fired duct burners. Air-cooled condensing would be employed to (1) minimize water usage, (2) reduce water treatment costs, and (3) eliminate cooling tower plume impacts. Selective catalytic reduction technology (SCR) and an oxidation catalyst would be utilized to control oxides of nitrogen (NO_x) and carbon monoxide (CO) emissions, respectively. *The project description will show the layout of the proposed power plant on the 15-acre site and within the 96-acre sponsor controlled parcel.*

To accommodate short-term operation on distillate oil, the proposed project would include a 750,000-gallon fuel storage tank and associated off-loading facilities, transfer piping, and pump systems. Consistent with the Suffolk County Department of Health Services requirements, the

tank would have a lined retention basin with a capacity of 110 percent of the tank; all piping outside of the basin would be double walled. Fuel transport to the tanks would be via tanker truck and the fuel off-loading facilities would be capable of handling two trucks simultaneously.

The project site is located within the Sills Industrial Park, in the Town of Brookhaven's L-1 Industrial District, which permits electric generating facilities by special permit issued by the Town Board. The land uses nearby and adjacent to the Caithness Bellport Energy Center site are mainly light industrial, commercial, and undeveloped. Small industries, warehouses, and commercial buildings are located adjacent to the project site's western and southern property boundaries, while undeveloped land is located north and east of the property. A total of six residences are within ½ mile of the project site to the south and west. Other residential developments within the project vicinity are located approximately 1 mile south and northwest of the project site. The Patchougue-Yaphank Road (County Route 101) interchange with the LIE is located approximately 1,600 feet (0.3 miles) north of the property.

West of the proposed project site is the Medford area of the Town of Brookhaven, while northwest and northeast are the areas of Gordon Heights and Yaphank, respectively. The community of Shirley is located to the east while Bellport is to the south and Patchogue is located to the southwest. The proposed site lies on the boundary between the flat coastal region to the south and the elevated terrain region toward the interior of Long Island. Southern Long Island's topography is generally flat, rising from MSL to approximately 110 ft above MSL. On the north side of Long Island, some hills rise more than 300 ft above MSL.

The project would interconnect to the 138-kilovolt (kV) LIPA system within the 96-acre parcel via a new 138 kV substation to be constructed on site and adjacent to the existing LIPA 138 kV Holbrook to Brookhaven transmission line right-of-way, located approximately 1,500 feet from the project's step-up transformers. Natural gas supply would be provided by a new natural gas pipeline lateral.

Figure 2 shows an aerial of the proposed project site and illustrates the boundaries of the site, the proposed facility fence line, and the proposed location of electric and gas interconnections.

C. SUMMARY OF DISCRETIONARY APPROVALS AND INVOLVED AND INTERESTED AGENCIES

Development and operation of the Caithness Bellport Energy Center may require or involve the following discretionary federal, state, and local regulatory agency notifications, actions, permits and approvals.

United States Environmental Protection Agency (USEPA)

- Prevention of Significant Deterioration Permit

Long Island Power Authority

- Facility Power Purchase Agreement

New York State Department of Environmental Conservation (NYSDEC)

- Part 201 State Air Permit
- Title IV Acid Rain Permit
- State Pollutant Discharge Elimination System (SPDES) Permit for Storm Water Discharges Associated with Industrial Activities and Process Wastewater Discharge

- *Major Oil Storage Facility license*
- SPDES General Permit for Stormwater Discharges from Construction Activities

New York State Public Service Commission (PSC)

- Section 68 Certificate of Public Convenience and Necessity (as well as lightened regulation approval)

Suffolk County Department of Health Services (SCDHS)

- Article VI Approval for Water Use
- Article VII Approval for Water Pollution Control
- Article XII Approval for Toxic and Hazardous Materials Storage and Handling Controls (delegated by NYSDEC)

Suffolk County Planning Commission

- Advisory Recommendation

Town of Brookhaven Town Board

- Special Permit Approval for Electric Generating Facility
- Area Variance for Height

Town of Brookhaven Planning Board

- Site Plan Approval

From among three possible configurations, a natural gas pipeline lateral would be developed by an entity other than LIPA or Caithness Bellport, LLC, and would require either PSC (Article VII of the Public Service Law) or the Federal Energy Regulatory Commission (FERC) approval, depending on which of three alternatives currently under consideration is pursued. Approval of the natural gas pipeline lateral is not part of this SEQRA review. It would go through its own separate environmental review and approval process; nevertheless, impacts associated with the Project's connection to the pipeline lateral will be addressed in the EIS as described below.

D. PROPOSED DRAFT EIS SCOPE OF WORK

As set forth in the Positive Declaration, LIPA, as the SEQRA lead agency, has determined that the size and scope of the proposed action may result in one or more significant adverse environmental impacts: thus, a draft EIS (DEIS) must be prepared. The content and scope of the environmental studies to be contained within the DEIS are described below.

COVER PAGE AND TABLE OF CONTENTS

The DEIS will include all elements required by 6 NYCRR 617.9.

EXECUTIVE SUMMARY

The DEIS will contain an Executive Summary that provides a brief description of the project; a list of involved agencies and the approvals required from each such agency; a list of interested agencies; a list of federal agencies which have jurisdiction over the project but are not governed by SEQRA; a brief description of the adverse environmental impacts discussed in the DEIS, conclusions reached about the potential significant adverse impacts and the mitigation proposed

for such impacts; and a brief description of the alternatives to the project that are considered in the DEIS.

PROJECT PURPOSE AND NEED

The DEIS will contain a description of the existing LIPA electric system demands and expected future growth in demand. *How this project fits within the existing LIPA electric system will be described.* The need for future generation capacity will be discussed along with the regulatory requirements for the location of the generation facilities.

The selection process used by LIPA to select this project will be discussed. The factors used to evaluate the 14 projects that were proposed will be explained.

DESCRIPTION OF THE PROPOSED ACTION AND PROJECT

The following information relative to the description of the proposed action will be provided within the DEIS:

- A general description of the project area will include topography, existing road networks, surface waters, tax map boundaries of participating and adjacent land parcels, parcel acreages, and any easements or restrictions that could affect the proposed project.
- Site plan drawings of the project layout will show locations of the proposed electric generating equipment, access roads, substation and related electric transmission facilities, staging and storage areas, parking areas, operations and maintenance facilities, lighting, fences, and gates. *Security measures will be described.* Each of these project components will be portrayed relative to the locations of adjacent land parcels and private buildings, existing overhead electric transmission lines, property lines, wetlands, and public roads. *A brief description of the decommission plan will be given.*
- The DEIS will provide a description of gas and electric interconnections.

Regarding the required transmission interconnection, the DEIS will provide a description of the proposed electric transmission line, including an overview of the proposed transmission line design and associated facilities as well as any reinforcements to the electrical system that may be required as known at the time. The DEIS will assess environmental impacts associated with the project's electric interconnect to the existing LIPA transmission system.

With respect the natural gas pipeline, three alternative proposals currently are under consideration. For each alternative, the DEIS will provide a map-level and literature review assessment of the probable environmental impacts and proposed mitigation to wildlife habitat, wetlands, waterbodies, water resources, groundwater, soils, vegetation, cultural resources, and land use along the proposed gas pipeline corridor.

E. SCOPE OF ENVIRONMENTAL IMPACT ASSESSMENTS

LAND USE, ZONING, AND PUBLIC POLICY

The land use, zoning and public policy study will include identification and mapping of existing land use conditions and zoning designations, consistency with local land use plans and policies, impact analysis, and proposed mitigation, if applicable. The analysis will evaluate impacts

within a primary study area (1-mile radius from the project site) and, where appropriate, a secondary study area (2-mile radius).

LAND USE

Primary Study Area

The DEIS will include a study of the existing land uses within a 1-mile radius of the project site (primary study area). The land use assessment will include:

- A generalized map of existing land uses within the primary study area.
- Aerial orthophotographs of the site and primary study area, indicating the current conditions of land uses in the area.
- A map(s) of proposed future land uses within the primary study area in 2007, the year the proposed facility would be expected to be in operation. Information would be gathered through interviews with state and local planning officials and from other sources.
- A qualitative assessment of the compatibility of the Project with existing and proposed land uses within the primary study area. The qualitative assessment will evaluate the probable effects of the proposed project on the use and enjoyment of those areas for the current and known planned uses.
- A qualitative assessment of the compatibility of proposed aboveground interconnections with existing, potential, and proposed land uses within the primary study area.

Secondary Study Area

An identification and analysis of the recreational land uses within the secondary study area, including the nearby historic sites, state parks, county parks and nature preserves, golf courses, and town and village parks that might be affected by the sight or sound of the construction or operation of the project and interconnections, including a summary describing the nature of the probable environmental impact due to project construction and operation on recreational uses and identification of how the impact is minimized.

ZONING

The DEIS will provide a map depicting existing zoning districts within the primary study area.

The DEIS will provide a discussion of zoning requirements, setbacks, site development details, and local code requirements appropriate to the zone and the type and scale of the development. For each local zoning provision identified, the DEIS will include a discussion or other showing demonstrating the degree of compliance with the substantive provision. The DEIS will discuss the Project's consistency with criteria relevant to issuance of local approvals such as site plan and special permits approvals. The DEIS will also discuss any variances required for the project and the relevant standards for approval of such variances.

PUBLIC POLICY

The DEIS will provide a qualitative assessment of the compatibility of the project with applicable local and regional land use plans, including the Brookhaven Comprehensive Land Use Plan and the Suffolk County Smart Growth Policy Plan.

For the primary and secondary study area, the DEIS will include a map of existing economic development zones, agricultural districts, designated Coastal Zone boundaries, Wild, Scenic and Recreation Corridors, Scenic Areas of Statewide Significance, and critical environmental areas designated pursuant to the SEQRA. The project's relationship to and/or potential impacts on these designated areas will be evaluated.

COMMUNITY FACILITIES

LOCAL SERVICE PROVIDERS

This section will identify and quantify local community service demands anticipated for the project as well as those service providers that are currently responsible for providing services to the project site. These service providers will include emergency services, including police protection, fire, and emergency medical. Each of the service providers responsible for serving the project site listed will be contacted by mail or telephone and interviewed as to their capacity to serve the proposed facility. Service providers will be asked about their current ability to service the proposed facility, either alone, or in conjunction with a similar service provider in the area. Logs of telephone conversations and/or written responses from service providers will be included in the Agency Correspondence Appendix of the DEIS. For each relevant community service, when necessary, an analysis will be performed to assess potential impacts of the project and to develop suitable mitigation measures. Where capacity to serve the proposed project is not clear from such providers, a discussion will be provided addressing how anticipated service needs will be met.

OTHER COMMUNITY RESOURCES

The DEIS will also include an inventory of other community facility resources (e.g., hospitals, religious facilities, parks, schools, libraries) within a 1-mile radius of the project site. The DEIS will evaluate the effect on these resources due to the development of the proposed project.

CULTURAL RESOURCES

The DEIS will include an assessment of the probable impacts on cultural resources of the construction and operation of the project. The methodology for assessing the potential impacts on cultural resources will be in accordance with standards and methods contained in Standards for Cultural Resource Investigations and the Curation of Archaeological Collections in New York State, published by the New York Archaeological Council in 1994.

The DEIS will include a summary of the nature of the probable environmental impact on any historic and cultural resources identified and identify how those impacts are avoided or minimized. The New York State Office of Parks, Recreation, and Historic Preservation (OPRHP) Coordinator will be consulted throughout the investigation.

ARCHAEOLOGICAL RESOURCES

Regarding archaeological resources, the assessment will include:

- Phase IA studies and, if required as determined through consultation with OPRHP, Phase IB studies for the Area of Potential Effect (APE) for the project site and any areas to be used for interconnections, including a description of the methodology used for such studies.

- For on-site interconnection locations, where Phase IA and IB studies were already completed as part of another project, these previous studies will be summarized in the DEIS.
- Where warranted based on Phase I study results, Phase II intensive archaeological field investigations will be conducted to assess the boundaries, integrity, and significance of cultural resources identified in Phase I studies. Phase II studies will be designed to obtain detailed information on the integrity, limits, structure, function, and cultural/historic context of an archaeological site, as feasible, sufficient to evaluate its potential National Register eligibility. The need for and scope of work for such investigations will be determined by the project archaeologists in consultation with OPRHP.
- All archaeological materials recovered during the project cultural resources investigation will be cleaned, catalogued, inventoried, and curated according to New York Archaeological Council standards. To the extent possible, recovered artifacts will be identified as to material, temporal or cultural/chronological associations, style, and function. The project archaeologists will provide temporary storage for artifacts until a permanent curatorial facility is identified.
- The DEIS will include an Unanticipated Discovery Plan that will identify the actions to be taken in the unexpected event that resources of cultural, historical, or archaeological importance are encountered during the excavation process. This plan will include a provision for work stoppage upon the discovery of possible archaeological or human remains. In addition, the plan will specify that the methodology used to assess any discoveries will follow the most recent Standards for Cultural Resource Investigations and Curation of Archaeological Collections in New York State. Such an assessment, if warranted, will be conducted by a professional archaeologist, qualified according to the standards of the New York State Archaeological Council and the National Park Service (36 CFR 61).

HISTORIC RESOURCES

The analysis of potential impacts to historic resources will include:

- A review of the files maintained by the OPRHP and other appropriate databases to identify any sites, districts, or structures listed on the State or National Register of Historic Places within a 2-mile radius of the project site.
- Identification of any locally designated historic sites, districts, or structures within a 2-mile radius of the project site.
- Potential visual impacts to significant historic structures within the project viewshed that are individually listed on the State or National Register of Historic Places, will be characterized as part of the visual resources study, as described in "Visual Resources," below.

VISUAL RESOURCES

The DEIS will include a visual impact assessment (VIA) to determine the extent and assess the significance of project visibility. The components of the VIA will include identification of visually sensitive resources, confirmatory visual assessment fieldwork, visual simulations (photographic overlays), cumulative visual impact analysis, and proposed visual impact mitigation. The methodologies, standards and definitions for assessing visual resources of state concern will follow procedures outlined in the NYSDEC Program Policy, NYSDEC, Assessing and Mitigating Visual Impacts, DEP-00-2, 7/31/2000.

The VIA will address the following issues:

- The character and visual quality of the existing landscape.
- Visibility of the project, including visibility of operational characteristics, such as visible plumes from the exhaust stacks.
- Visibility of all aboveground interconnections.
- Appearance of the project upon completion, including building/structure size, architectural design, facade and roofing colors and texture.
- Exterior lighting and similar features.
- Representative views (photographic simulations) and architectural scale renderings of the project, including front, side, and rear views, indicating proposed elevations.
- Nature and degree of visual change resulting from construction of the project and aboveground interconnections.
- Nature and degree of visual change resulting from operation of the project.
- Proposed mitigation and mitigation alternatives based on an assessment of mitigation strategies listed in NYSDEC's program policy noted above, including landscaping, architectural design, visual offsets, relocation or rearranging facility components, reduction of project component profiles, project color and design, cooling system alternatives, lighting options for work areas and safety requirements, and lighting or marking options for the stacks, if required by the Federal Aviation Administration (FAA).
- A description of all visual resources listed in the NYSDEC Visual Resources Policy that would be impacted by the project.

The VIA will be based on the major physical features of the plant (i.e., turbine structures/building and stack). Since visibility alone does not constitute a visual or aesthetic impact, the assessment will rely on the results of a field investigation. The VIA will be conducted as follows:

- Visually sensitive resources will be identified within a 2-mile radius of the proposed project site using existing maps and other published sources, including the National and State Registers of Historic Places. Visually sensitive resources are defined as those sites where visual quality and aesthetics are important to the use and enjoyment of the site. Visually sensitive resources are anticipated to include historic buildings and sites; parks and other public recreation areas; designated scenic districts and roads; and scenic vistas and overlooks. Visually sensitive resources will be mapped at an appropriate scale for presentation in the DEIS.
- A visual resource inventory will be used to determine the sensitive viewing areas and locations of viewer groups in the project vicinity. These will include recreational areas (i.e., golf course, state parks), residences, businesses, institutional, historic sites (listed or eligible), and travelers (interstate and other highway users). In addition, any open space sites identified in the Town's Comprehensive Plan and in Suffolk's County's open space plans will be included in the inventory. The resources listed in the NYSDEC's policy will be utilized to prepare the visual resources inventory.
- Identified visually sensitive resources will be evaluated in the field to determine if the proposed project will be visible and to assess the relative importance of views that may include the proposed plant. Project visibility will be documented through the use of a

tethered weather balloon elevated to the height of the proposed stack and the facility's air-cooled condenser (the next tallest structure). The field investigations will make note of viewer context, existing landscape quality, and the extent of potential project visibility (i.e., partial or full view). Photographs will be taken to document existing views toward the proposed project and the tethered balloon location and for use in developing photosimulations of the proposed facility.

Photographic simulations (photographic overlays) of the project will be prepared from representative viewpoints, selected as part of the field investigation performed as part of 2(c) above, to demonstrate the post-construction appearance of the project. The photographic overlays from each of the viewpoints selected will be limited to the project, as it would appear under typical operating conditions.

Each set of existing and simulated views of the project will be compared and the change, if any, in visual character will be identified. Based upon the likely viewers, and their likely visual sensitivity, the potential impact will be discussed within the DEIS. Should significant visual impacts from the proposed project be identified, potential mitigation measures will be outlined, and the extent to which they effectively minimize such impacts will be discussed.

SOCIOECONOMICS AND ENVIRONMENTAL JUSTICE

Projects similar to the proposed facility have resulted in direct and indirect social and economic effects during construction as well as during operation. Impacts to the socioeconomic environment due to construction of a facility are shorter in term, but typically have a greater impact than the impacts due to operation. This is primarily due to the influx of construction personnel and the secondary effects of capital spending and construction payroll. Socioeconomic impacts of the project will be evaluated in terms of demographics, economic status (i.e., income levels) and employment. Potential project impacts on low-income and minority populations will also be addressed as part of an Environmental Justice Analysis.

The DEIS will provide the following information regarding socioeconomics and environmental justice:

SOCIOECONOMICS

Regarding potential socioeconomic effects of the project, the DEIS will provide:

- An estimate of the number of temporary construction jobs to be created by the project, including an estimate of the average construction work force and an estimate of the peak construction employment level.
- An estimate of the construction payroll, by trade, during the peak construction period of the project; an estimate of annual direct non-payroll expenditures likely to be made in the vicinity of the project (e.g., materials, services, rentals) during the period of construction; and an estimate of the secondary employment and economic activity likely to be generated in the vicinity of the project by the construction of the proposed facility. This analysis will state the basis of any economic multiplier factor or other assumption used.
- An estimate of the annual on-site payroll, secondary employment, and economic activity*, including general property transactions,* likely to be generated in the vicinity of the project by the operation of the proposed facility. This analysis will state the basis of any economic multiplier factor or other assumption used.

- An estimate of the number of jobs during a typical year once the proposed facility is in operation and an estimate of other expenditures likely to be made in the vicinity of the project during a typical year of operation.
- A qualitative analysis of the potential cost impacts that could be incurred by the Town of Brookhaven, Suffolk County, and any other affected public authority.

ENVIRONMENTAL JUSTICE

On March 19, 2003, the NYSDEC published "CP-29: Environmental Justice and Permitting." The policy sets forth guidance for incorporating environmental justice (EJ) concerns into the NYSDEC environmental permit review process. The policy amends the NYSDEC environmental permit process by identifying potential environmental justice areas; providing information on environmental justice to applicants with proposed projects in those communities; enhancing public participation requirements for proposed projects in those communities; establishing requirements for projects in potential environmental justice areas with the potential for at least one significant adverse environmental impact; and providing alternative dispute resolution opportunities to allow communities and project sponsors to resolve issues of concern to the community.

The environmental justice policy applies to permits administered under Article 70 of the Environmental Conservation Law (ECL) and Title 6 of the New York Code of Rules and Regulations (NYCRR) Part 621. Any application for a new permit that is classified as a major project (as defined by 6 NYCRR Part 621.4) from applicable programs or an application for a major modification of an existing permit from the same applicable programs is subject to the environmental justice screening process. The NYSDEC programs that are subject to review for environmental justice impact, as they relate to the proposed project are:

- Air Pollution Control - 6 NYCRR Part 201; and
- State Pollutant Discharge Elimination System (SPDES) - 6 NYCRR Parts 750 through 758.

The NYSDEC policy establishes that upon receipt of an application for a permit covered by the NYSDEC policy, the NYSDEC Division of Environmental Permits will conduct a preliminary screen to identify whether the proposed action is in or near potential environmental justice areas and determine whether potential adverse environmental impacts related to the proposed action are likely to affect potential environmental justice areas. Following the completion of the preliminary screening process, the NYSDEC Division of Environment Permits staff provides permit applicants with the NYSDEC findings relevant to environmental justice issues associated with the project and whether detailed studies will be required to address potential impacts to identified communities of concern. The NYSDEC employs a two-step methodology for conducting the preliminary screening analysis:

Step 1: Identify potential adverse environmental impacts and area to be affected. NYSDEC staff in the Division of Environmental Permits and the affected environmental quality divisions will identify potential adverse environmental impacts associated with the proposed action. Environmental quality program staff will identify the area to be affected by the potential adverse environmental impacts (i.e., the screening area).

Step 2: Determine whether potential adverse environmental impacts are likely to affect a potential environmental justice area. An integrated geographic and demographic information program will be used to determine whether potential adverse environmental impacts from the

proposed action are likely to affect a potential environmental justice area. First, census block groups are analyzed to determine whether there are any environmental justice areas (i.e., minority and/or low-income characteristics meet or exceed NYSDEC established thresholds) within the screening area. The NYSDEC Policy defines a low-income community as a census block group, or continuous area with multiple census block groups, having a low-income population equal to or greater than 23.59 percent of the total population. A minority community is defined within the policy as having a minority population equal to or greater than 51.1 percent in an urban area and 33.8 percent in rural areas.

If census block groups meeting or exceeding the thresholds for a potential environmental justice area are not identified within the screening area, the NYSDEC policy states that the proposed action is not likely to affect any potential environmental justice area and the permit review process may continue independent of the environmental justice concerns. If census block groups meeting the low-income and minority population thresholds are identified, the proposed action is determined to be likely to affect a potential environmental justice area and the remainder of the NYSDEC policy requirements must be incorporated into the review process.

A preliminary review of the proposed project indicates that an environmental justice analysis may be required for the project. If so, the following tasks will be accomplished and summarized in the DEIS as part of an Environmental Justice Analysis:

- Review of technical guidance and examples received from USEPA and NYSDEC, including USEPA's Environmental Justice NEPA Compliance Analysis and USEPA Region 2's Draft Interim Policy on Identifying EJ Areas and the NYSDEC environmental justice policy, "CP-29: Environmental Justice and Permitting," and the "Final Report of the New York State Department of Environmental Conservation Disproportionate Adverse Environmental Impact Analysis Work Group" issued in July 2004. The DEIS will present a summary overview of these documents.
- Performance of a socioeconomic analysis of the screening area. The analysis will include a description and map for each census tract whose geographic center is within a 2-mile radius of the project summarizing the following parameters: population, percent minority vs. percent non-Hispanic white, and household income based on the latest available Census data. The results of this socioeconomic analysis will be summarized in a table and compared to socioeconomic characteristics of designated reference communities—Suffolk County and New York State.
- For the identified community of concern, if applicable, an analysis will be conducted to determine whether potentially disproportionate and adverse environmental impact(s) related to the proposed action are likely to affect the identified community of concern. The analysis will identify and map all potential adverse environmental impact(s), discerning where possible, varying levels of impact through air quality modeling isopleth maps or other tools such as Geographic Information System (GIS) mapping for other environmental impact categories, such as hazardous waste generators.
- Should a community of concern be identified and a full environmental justice analysis is required, a public participation plan would be developed and implemented in accordance with the NYSDEC environmental justice policy. The public participation plan, if required, would include the following components:
    - The distribution and posting of information regarding the proposed action and permitting process throughout the identified community of concern.

- The holding of public information meetings to keep the public informed about the proposed action and the permit review process.
- The establishment of an easily accessible document repository or repositories in or near the identified community of concern.
- The development of a project website and project brochures detailing progress on project permitting activities, substantive public or agency concerns raised to date, all issues resolved or outstanding, and components of the project's public participation plan yet to be implemented and the expected time for completion.

In accordance with the NYSDEC environmental justice policy, the project will submit its public participation plan to the NYSDEC for review and approval prior to implementation.

TRAFFIC AND TRANSPORTATION

The DEIS to be submitted will include a study of the probable traffic and transportation impacts resulting from the operation of the project (traffic study). The methodology for assessing the potential traffic and transportation impacts from traffic generated by the construction and operation of the project will follow the instructions provided in Transportation Research Board, National Research Council, Highway Capacity Manual, HCM 2000.

The traffic study will include a description of the pre-construction characteristics of the roadways in the vicinity of the project. The description will include:

- The results of peak period turning movement counts for a typical weekday morning (7 to 9 AM) and weekday afternoon (4 to 6 PM) to be conducted at the following intersections:
  - Sills Road and Long Island Avenue North;
  - Sills Road and Long Island Avenue South;
  - Sills Road and Long Island Expressway Exit 66 Entrance;
  - Sills Road and Long Island Expressway Exit 66 Exit;
  - Sills Road and Horseblock Road;
  - Old Dock Road and Horseblock Road;
  - Zorn Road and Horseblock Road;
  - CR 16/Horseblock Road and LIE Exit 65 Exit;
  - CR 16/Horseblock Road and LIE Exit 65 Entrance;
  - Alexan Apt Entrance and CR 16; and
  - Mill Road and Main Street/Sills Road.
- The results of hourly volumes and vehicle classification counts tallied by placing an Automatic Traffic Recorder machine along CR 16 for a period of 3 days.
- For each intersection listed above, description of intersection geometry and traffic control devices by approaches.
- A calculation of the existing level of service (LOS) for each intersection listed above, giving detail for each turning movement.

- An estimate of the annual rate of traffic growth in the vicinity of the project incorporating: (1) general background growth due to regional traffic volume increases as obtained from the New York State Department of Transportation (NYSDOT) LITP2000 Study; and (2) growth from publicly announced land developments, but not including traffic generated by the proposed project.
- A review of accident data from the NYSDOT and Suffolk County Department of Public Works for each study intersection and the roadways sections identified above for the most recent 3-year period available. The results of this review will be tabulated and summarized in the DEIS.

The traffic study will include a site plan, drawn at an appropriate scale, depicting all project site driveway intersections, the number of approach lanes, and traffic control devices by approaches.

The traffic study will include an estimate of the trip generation characteristics of the project during operation. The estimate will include:

- A description of the operation of the project, including the number of employees per shift.
- An estimate of the number and frequency of vehicle trips generated during operation of the project, including arrival and departure distribution, by size and type of vehicle.

If the trip generation analysis shows that the project could cause more than 35 cars to use an intersection during a peak hour, the following analyses will be undertaken. The traffic study will include an analysis and evaluation of the traffic and transportation impacts of the project, including:

- A comparison of projected future traffic conditions with and without the proposed project for each intersection listed above and the site access drive will be conducted for the project. The traffic volumes will be adjusted to future levels.
- An evaluation of the adequacy of the road system to accommodate the projected traffic associated with typical operations of the completed project.
- An identification and evaluation of reasonable mitigation measures regarding traffic and transportation impacts, if needed, including the construction of physical roadway improvements and the installation of new traffic control devices.

AIR QUALITY

The DEIS will examine the probable impacts of criteria pollutants and other NYSDEC-regulated pollutants (“Criteria Pollutant Study”) and non-criteria pollutants (“Non-Criteria Pollutant Study”) from the project on air quality. The components of the Criteria Pollutant Study will include identification of climate and air quality conditions, an inventory of proposed emission sources at the proposed Caithness Bellport Energy Center, and an assessment of project technology and design, emissions, impacts, and cumulative impacts with major combustion sources in the vicinity of the proposed site. The components of the Non-Criteria Pollutant Study will include identification of emission constituents and an assessment of project impacts.

The methodologies, standards, and definitions for assessing air quality will follow procedures outlined, and use data contained, in the following documents:

For performing air quality dispersion modeling:

- NYSDEC, Air Guide 26, NYSDEC Guidelines on Modeling Procedures for Source Impact Analyses (December 1996).
- NYSDEC, Air Guide 36, Emission Inventory Development for Cumulative Air Quality Impacts Analysis (June 1995), if necessary.
- Air Modeling Protocol to be established to the satisfaction of the USEPA and NYSDEC specifically for this project (hereinafter Air Modeling Protocol).
- USEPA, Draft New Source Review Workshop Manual (October 1990).
- USEPA, Guidelines on Air Quality Models, Appendix W of 40 CFR Part 51.

For determining stack height:

- USEPA, Guidelines for Determination of Good Engineering Practice Stack Height (EPA Technical Support Document for the Stack Height Regulations), Document Number EPA-450/4-80-023R (June 1995).

For quantification and assessment of the project's contribution to the New York State total deposition of sulfates and nitrates, in accordance with the State Acid Deposition Control Act:

- Memorandum from Leon Sedefian to IAM Staff (March 4, 1993).

For performing visibility modeling:

- USEPA, Workbook for Plume Visual Impact Screening and Analysis. Document Number EPA-454/R-92-023 (October 1992).

For non-criteria pollutant ambient air guidelines and benchmarks:

- NYSDEC.DAR-1.AGC/SGC Tables. Division of Air Resources, Bureau of Stationary Sources, December 22, 2003.

For assessing fine particulate matter ($PM_{2.5}$) emissions:

- NYSDEC Policy, CP-33/Assessing and Mitigating Impacts of Fine Particulate Matter Emissions, December 29, 2003.

CRITERIA POLLUTANTS

This study will include:

- An assessment of meteorological data sets from the Long Island MacArthur Airport and the Farmingdale Republic Airport to determine the availability and data quality of meteorological data for modeling purposes. The project shall obtain NYSDEC and USEPA approval for the meteorological data to be used in the Part 201 and Prevention of Significant Deterioration (PSD) applications.
- An assessment of existing air quality levels and air quality trends for criteria pollutants in the region surrounding the project, including air quality levels and trends taken from regional air quality summaries and air quality trend reports. Monitors in Suffolk County and other nearby counties will be used to determine background ambient air pollutant levels.
- An assessment of the impacts from quantifiable criteria pollutant emissions, including those generated during construction of the project.
- A control technology assessment for pollutants subject to Non-attainment New Source Review (NNSR) promulgated under 6 NYCRR 231 to determine the lowest achievable

emission rate (LAER) for the applicable pollutants. New stationary combustion turbines , which are major air toxic sources, are subject to 40 CFR Part 63 Subpart B–Requirements for the Control Technology Determinations for Major Sources in Accordance with Clean Air Act Sections 112(g) and 112(j).

- If the project's hazardous air pollutant (HAP) emissions exceed the regulatory thresholds, a case-by case determination of the Maximum Achievable Control Technology (MACT) for major sources will be conducted to determine an emission limit or control technology.
- The requirements of New Source Performance Standards at 40 CFR Part 60 will be addressed.
- Pursuant to Air Guide 26, an assessment of an optimal stack height taking into consideration Good Engineering Practice (GEP) stack height for the project and air-quality-related values, visual impacts, and other considerations. The USEPA Building Profile Input Program (BPIP) will be used to determine directionally dependent-building dimensions for use in air quality modeling.
- An assessment of stack emissions of criteria pollutants, stack emissions being provided in hourly and annual estimates based on manufacturer's data, available emission factors, design control efficiencies, and other data or regulatory specifications related to the design of the project.
- A calculation of the number of NO_x and volatile organic compounds (VOCs) emission offsets if required to be obtained at a 1.3 to 1.0 ratio and how those offsets will be obtained in accordance with 6 NYCRR 231. The project's compliance with the NO_x Reasonable Available Control Technology (RACT) provisions of 6 NYCRR Part 227-2 will be addressed. In addition, a discussion of the NO_x Budget Program requirements pursuant to 6 NYCRR Part 204 will be provided. The discussion will include allowance allocations, new source set-asides, banking, trading, account reconciliation, NO_x monitoring and reporting, and regulatory time lines. An acid rain permit application will be submitted to NYSDEC. The project's compliance with the Acid Deposition Reduction Program (ADRP) pursuant to 6 NYCRR Parts 237 and 238 will be discussed.
- Criteria pollutant modeling will be done in accordance with the NYSDEC's Air Guide series and USEPA Guideline on Air Quality Models (Revised). Computer input (including meteorological data) and output files of the dispersion modeling results will be provided to NYSDEC and USEPA. The maximum criteria pollutant specific impacts of the project will be displayed in graphical format on a map of the surrounding community. A wind rose of the meteorological data will be provided.
- A comparison of the predicted air quality impacts from the dispersion modeling analysis to the Significant Impact Levels (SILs) and to the New York Ambient Air Quality Standards (NYAAQS) and National Ambient Air Quality Standards (NAAQS).
- In accordance with the State Acid Deposition Control Act, an assessment of the project's contribution to the New York State total deposition of sulfates and nitrates at 18 NYSDEC-defined sensitive receptors in New York State, New England, and Canada.
- The DEIS will include a cumulative impact analysis including the Caithness Bellport Energy Center and all LIPA-sponsored and -constructed power generation projects recently constructed, under construction, or proposed. The modeled cumulative source impacts plus a representative background will be compared to and ensure compliance with the applicable NAAQS and/or NYAAQS.

- The DEIS will include a local large combustion source cumulative impact analysis, including the Caithness Bellport Energy Center and any large combustion sources located in the vicinity (i.e., no more than 10 miles from the proposed project site) that have been approved or have actions pending. The cumulative source impacts plus a representative background will be compared to and ensure compliance with the applicable NAAQS and/or NYAAQS.
- A cumulative source impact analysis will be performed for any criteria pollutant for which the project has impacts above SILs. The additional sources to be analyzed to determine whether the project, in conjunction with existing and proposed major sources, will cause or contribute to exceedances of applicable NAAQS and/or NYAAQS, will include those identified as "nearby" existing sources, as defined in the USEPA Modeling Guidelines and NSR Workshop Manual, and by the Air Guide 26 procedures. The inventory of existing major sources will be developed using data obtained from the NYSDEC as well as New Jersey and Connecticut (if necessary). The inventory, if necessary, will be included as an appendix to the air permit application and verified by the source state or per Air Guide 36 requirements and the Air Modeling Protocol. The air permit application will be submitted only after the inventory is approved by the NYSDEC and USEPA. All information submitted in support of the inventory of nearby sources, including verification worksheets per Air Guide 36 requirements will become public information.
- Start-up and shut-down conditions will be addressed by the project's air quality modeling. Ancillary emission sources and aqueous ammonia accidental release scenarios will be included and specified in the air modeling analysis.

NON-CRITERIA POLLUTANTS

The Non-Criteria Pollutant Study will include:

- A review of pertinent available data provided in USEPA AP-42 on non-criteria pollutants that may be emitted by combustion sources at the project and identification of emission factors for those pollutants. The specific source, including publication date, of each emission factor will be clearly identified and referenced in the DEIS.
- An assessment of the emission rates for non-criteria pollutants that may be emitted from the combustion sources at the project. All emission rate calculation methodologies will be described in detail, with appropriate equations and examples provided. These descriptions either will accompany or specifically be cited in, any corresponding tabulated emissions data presented in the application.
- An estimation of the maximum potential ground level air concentrations (short-term and annual averages) of non-criteria pollutants due to the project, quantified using the models and approach as approved by the USEPA and NYSDEC.
- A comparison of the maximum predicted air concentrations of non-criteria pollutants to NYSDEC Short-term and Annual Guideline Concentrations (SGCs and AGCs).

OTHER ANALYSES

The DEIS will provide a general visibility impairment and analysis for scenic vistas using VISCREEN or other appropriate model and a stack plume visibility analysis to assess the extent and frequency of any visible condensed water vapor plumes created by the proposed project.

The DEIS will include an assessment based on publicly available information associated with the emission of greenhouse gases, including carbon dioxide CO_2. The assessment will include: (1) a summary of the emission reduction goals of the Kyoto Protocols; (2) an estimate of the proposed project's annual and life cycle emissions of carbon dioxide and/or other significant green house gases; (3) a comparison of projected project emissions with New York State, national and/or global emissions; and (4) a conclusion as to the probable importance of the proposed project's emissions relevant to parts 1 and 3, above. In addition, compliance with Suffolk County's CO_2 regulations and the pending Regional Greenhouse Gas Initiative will be discussed.

The DEIS will include a discussion regarding fine particulate matter, more commonly referred to as $PM_{2.5}$; the measured background in the study area; and the potential impact on the $PM_{2.5}$ standard by the project.

The DEIS will include an analysis of an accidental release scenario for aqueous ammonia for the project alone, following EPA's procedures for off-site consequence analyses, irrespective of applicability under section 112 (r) of the Clean Air Act.

NOISE

The DEIS will include a technical noise assessment of the potential noise impacts associated with the construction and operation of the project.

The noise assessment to be conducted will incorporate the following:

- A map showing the location of the nearest sensitive noise receptors (e.g., residences) in relation to the project site.
- Determination of existing ambient noise levels at the noise-sensitive areas identified near the site. The ambient noise monitoring program will consist of short-term (20-minute) measurements conducted during the day and late at night (e.g., 12 to 5 AM) using a Type 1 precision sound level meter (SLM). Additionally, continuous measurements will be made at the nearest identified residential receptor over a 24-hour period. The meter and calibrator will have been calibrated by a certified laboratory within 1 year of the measurement program.

The meters will be set to slow response speed and the microphones mounted at a height of approximately 5 feet above grade. Field calibration of the SLM will be conducted periodically during the noise monitoring program. Monitoring will be conducted during meteorological conditions that include no precipitation and light winds (e.g., generally 5 miles per hour or less at night).

The DEIS will present different parameters to assess noise impacts associated with the project. The L_{eq}, which is a single value of sound that includes all of the varying sound energy in a given duration, is the equivalent noise level over a specified period of time (i.e., 1-hour). Statistical sound levels provide A-weighted sound levels exceeded a specific percentage of the time. Thus, the L_{90}, which is often considered the background or residual noise level, is the sound level exceeded 90 percent of the time. The L_{10}, which considers a measurement of intrusive sounds such as aircraft overflight, is the sound level exceeded 10 percent of the time. All three parameters, L_{90}, L_{10}, and L_{eq}, will be measured and recorded at each location for both the short-term and 24-hour monitoring.

A description of the noise standards and guidelines applicable to the project will be provided. There are no state or federal noise standards directly applicable to the project. However, the Town of Brookhaven has a noise ordinance which limits allowable noise levels based on the land use category where the receptor is located. The most restrictive levels are for residential land uses, for which there are different daytime and nighttime limits. The ordinance limits project-generated noise to no greater than 65 and 50 dBA at any residential location during the daytime (7 AM to 10 PM) and nighttime hours (10 PM to 7 AM), and 75 dBA at the project property line adjoining other industrially zoned properties during both day and night times.

For purposes of determining potential significant noise impacts, potential project-related noise impacts will be assessed in accordance with the NYSDEC noise policy. NYSDEC issued a program guidance document entitled "Assessing and Mitigating Noise Impacts" in October 2000. The NYSDEC guidance recommends that for non-industrial (e.g., residential) settings, the addition of any noise source should probably not exceed ambient noise levels by more than 6 dBA at any given receptor. Therefore, for purposes of evaluating noise impacts for the project, an increase in the L_{eq} noise levels of 6 dBA or more will be considered a significant impact.

Project noise levels during operation will be calculated through use of CadnaA, a noise prediction model. Noise level data for all major noise producing sources associated with the project will either be obtained from vendors or, if not readily available, the data will be developed following accepted industry procedures found in Edison Electric Institute's "Electric Power Plant Environmental Noise Guide."

The CadnaA model will be configured to accept hemispherical spreading and atmospheric absorption for this analysis. Standard conditions of 500 F and 70 percent relative humidity will be assumed. Directivity effects for noise from the stack and air cooled condensers will also be considered. Modeling receptors will be chosen in the same locations as where background monitoring was performed in order that direct comparison of existing to projected future noise levels can be made. Additionally, a noise contour map of the entire area will be prepared such that project noise levels at any location can be determined. The model will account for the noise emissions from each project source that propagates to each point on a specified receptor grid.

The noise modeling will be used as a design tool in order to determine the degree of silencing required on individual noise sources within the facility, if needed to meet applicable noise guidelines and standards.

A listing of noise control measures will be provided.

The results of the noise assessment will be detailed in the DEIS. A complete technical noise report will be included as an Appendix to the DEIS.

GEOLOGY, SEISMOLOGY, AND SOILS

The DEIS will include a study of the probable geology, seismology, and soils impacts of the project. The components of the study will include identification and mapping of existing conditions, impact analysis, and proposed mitigation, where applicable.

GEOLOGY

Regarding potential geologic impacts, the assessment will include the following:

- A map based on the most recent 1:24000 scale USGS quadrangle maps showing topographic contours, the project site, and interconnection routes.

- A proposed site plan showing existing and proposed contours for the project site, at a scale sufficient to show all proposed buildings, structures, paved and vegetative areas, and construction areas.
- A preliminary calculation of the quantity of cut and fill necessary to construct the project.
- A description and preliminary calculation of the amount of fill material to be brought in to the project site, if any.
- A description and preliminary calculation of the amount of cut material or spoil to be removed from the project site, if any. Regulatory requirements pertaining to offsite disposal will be identified, and the procedures that will be implemented to assure proper disposal of any such materials will be described.
- A delineation of temporary cut or fill storage areas to be employed.
- A description of and results of a geotechnical investigation of subsurface units at the site.
- A description of excavation techniques to be employed.

SEISMOLOGY

The assessment of seismic conditions at the project site will include the following:

- A description of the regional geology, tectonic setting, and seismology of the project vicinity.
- An analysis of the expected impacts of construction and operation of the project with respect to regional geology.
- An analysis of the impacts of typical seismic activity experienced in the project area on the operation of the project.

SOILS

The assessment of seismic conditions at the project site will include a map delineating soil types on the project site and interconnections. The DEIS will further provide a description of the characteristics and suitability for construction purposes of each soil type identified.

FOUNDATION DESIGN

The DEIS will provide a summary of the evaluation conducted for the project to determine suitable building and equipment foundations.

INFRASTRUCTURE

The infrastructure section will include analyses of water supply, wastewater collection and treatment, stormwater runoff, solid waste collection and management, and energy supply, as described below.

WATER SUPPLY

The DEIS will provide the following information and assessments relative to the project's water demand:

- An estimate of the hourly and daily peak and the hourly and daily average water supply needs and consumptive water losses of the project, in gallons, broken down by power production and domestic uses.
- An estimate of the fire suppression peak and average flow rate needs of the project, in gallons per minute, and a demonstration that an adequate water supply is available (both quantity and pressure) for fire protection.
- A description of the methodology used (i.e., estimate, comparison, data, calculation) to prepare the water supply needs and minimum and maximum flow rate estimates stating all factors used.
- A description of the water chemistry requirements for water to be supplied to the project, indicating any requirements that are more stringent than NYS standards for potable water. A description of any additional water treatment that would be necessary to obtain the required chemical characteristics. An identification of the public water supply source or sources proposed to be used by the project, including an assessment of the available capacity of the water supply source and an analysis of the impacts, in terms of quantity, quality, and pressure, as a result of the project's water use on the water supply system. The assessment will also include an identification of all infrastructure improvements, if any, necessary to serve the project including treatment requirements.
- An identification and evaluation of other reasonable water supply alternatives and mitigation measures to avoid or minimize water supply impacts, if identified.

WASTEWATER

The DEIS will provide the following information and assessments relative to the project's wastewater discharge requirements and/or disposal methods:

- A water balance diagram for hourly and daily peak and hourly and daily average water use operating conditions for the project that shows in detail all water sources, plant water uses, water treatment facilities, wastewater treatment facilities, and wastewater discharges; and explains which effluents would be discharged, and where. The DEIS will provide information on the characteristics (e.g., volume, temperature, constituent concentrations) of water use and discharge under all operating conditions.
- An identification and description of all reasonable discharge or disposal methods for wastewater generated from the project. The option could include discharging to municipal sewer systems and in-ground discharges. The analysis will include the impacts on water quality and quantity in affected groundwater and surface water resources.
- For each proposed discharge and/or disposal method, an identification and description of any project wastewater treatment facilities and discharge structures, including a demonstration that each facility and/or effluent discharge is capable of meeting all applicable effluent limitations or pretreatment standards.
- A completed application for a SPDES permit for proposed discharges, if applicable, and a demonstration that the discharge complies with all applicable technology-based and water-quality-based effluent limits will be included as an appendix.

STORMWATER RUNOFF

The DEIS will provide the following information relative to the project's operational stormwater plan:

- A description of all techniques that would be used to prevent stormwater and spill contamination, and a conceptual site plan showing all intended structures and improvements to prevent stormwater contamination, including chemicals or other contaminants from storage facilities, product delivery, plant operation, plant maintenance, waste handling activities, and vehicles in parking lots or other areas.
- A completed application for a SPDES permit for operational stormwater discharges, if applicable.

SPILL PREVENTION AND CONTROL PLAN

The DEIS will provide the following information relative to the management of ammonia, wastewater, and other chemical, petroleum, or hazardous substances at the project site:

- A description of the spill prevention and control measures to be in place for ammonia storage, wastewater storage, and other chemical, petroleum or hazardous substances stored on site, including an evaluation of alternatives and mitigation measures, if required.
- An identification of whether the storage of ammonia, wastewater, other chemicals, petroleum or hazardous substances on site is subject to regulation under the State of New York's chemical and petroleum bulk storage programs, and if so, a demonstration of compliance with such regulations.
- An identification of whether the storage of ammonia, wastewater, other chemicals, petroleum or hazardous substances on site is subject to regulation under Articles VII and XII of the Suffolk County Code, and if so, a demonstration of the degree of compliance with such local laws.

SOLID WASTE MANAGEMENT

The DEIS will provide an estimate of the amount of solid waste to be generated as a result of facility operations and associated potential increases in the demand for municipal solid waste and sanitation services. Measures will be assessed, as necessary, to mitigate identified significant adverse impacts.

ENERGY

The DEIS will include an assessment of the energy that would be consumed and produced during operation of the proposed project. Energy conservation measures will be described. The potential effects of the project's energy consumption ~~and production~~ *on the local energy supply system* will be described within the DEIS.

ELECTROMAGNETIC FIELDS (EMF)

The DEIS will contain a qualitative discussion of EMF that may be found at sensitive receptors near or adjacent to the electric transmission lines and substations.

WATER RESOURCES

This section of the DEIS will provide a description of the local water resources in the vicinity of the project site and the potential impacts the construction and operations of the proposed facility will have on the local water resources.

SURFACE WATERS

The paragraphs in this subsection of this scoping document apply only to the extent that any surface waters exist on or adjacent to the project site or areas to be disturbed for the project's interconnections. For any such waters, the DEIS will include the following:

- A description of the water quality, flow, and other characteristics of surface water features, including intermittent streams *and vernal ponds*.
- An identification of the extent of all Waters of the State of New York and the United States, within the project site or interconnections.
- An analysis of the impact of the construction and operation of the project and interconnections on the surface waters identified above.
- An identification and evaluation of reasonable mitigation measures regarding impacts on Waters of the State of New York and the United States and the other surface waters identified above.

GROUNDWATER

The DEIS will include the following with respect to groundwater resources:

- A site map showing estimated depths to high groundwater in increments appropriate for the project site.
- An analysis and evaluation of potential impacts from the operation of the project on drinking water supplies, groundwater quality, and quantity in the project area.

CONTAMINATED MATERIALS

A Phase I Environmental Site Assessment (ESA) will be conducted in accordance with the American Society for Testing Materials (ASTM E-1527 Standard Practice for Environmental Site Assessments) for the property comprising the proposed project site. The results of the Phase I ESA will be used to assess the potential for significant impacts and to identify locations where further investigation (e.g., a Phase II ESA or other appropriate investigation) or management may be required. The results of the Phase I ESA and Phase II ESA, if applicable, will be summarized in the DEIS. Where a Phase II ESA or other appropriate investigation is required, that investigation will be undertaken and the results and proposed measures to address any recognized conditions will also be identified in the DEIS, with consultation, as appropriate, with NYSDEC and SCDHS.

TERRESTRIAL ECOLOGY

The DEIS will provide a study of the probable terrestrial resource impacts of the construction and operation of the project. The assessment of terrestrial ecology impacts within the DEIS will address potential vegetation, wildlife, and wetland impacts.

VEGETATION

The on-site terrestrial ecology as well as the ecological characteristics of proposed interconnection routes will be reviewed as follows:

- The ecological communities will be described according to Reschke, *Ecological Communities of New York State* (1990).
- A characterization of the type of plant communities present, the structure of these communities and the species composition of each community, based on reconnaissance surveys.
- A delineation of the vegetative communities or cover type present on the basis of recent aerial photography and field observations, including the identification and delineation of any unusual habitats or natural communities*, such as vernal ponds,* which could support listed species or species of special concern.
- Documentation of the structure of these communities (canopy, understory, and ground cover) by visual observations of either representative sample plots or sampling transects, identifying the structure and composition of the plant communities identified based on dominant species, but all species observed being recorded for the purpose of site inventory.
- An analysis of the impact of the operation of the interconnections on the vegetation identified, including a delineation of the vegetation areas to be removed or disturbed, mapped at a scale of approximately 100 feet per inch (for the site) and 500 feet per inch (for interconnections).
- An identification and evaluation of reasonable mitigation measures, including the use of alternative technologies, regarding vegetation impacts identified. The project will work with the appropriate agencies to determine the most appropriate site conditions for the undisturbed portions of the project site.

WILDLIFE

The DEIS will provide the following information regarding wildlife and wildlife habitat for the project site as well as for the proposed interconnection routes:

- A characterization of the project site and proposed interconnection corridors as to the wildlife (including mammals, birds, amphibians, and reptiles) and wildlife habitats, that occur in, on, or in the vicinity of the project site and interconnections, based on spring and/or summer reconnaissance or systematic surveys, supplemented by available data from the New York State (NYS) Amphibian and Reptile Atlas project, the NYS Breeding Bird Atlas and range maps, and other similar reference sources, including an identification and delineation of any unusual habitats or natural communities which could support listed species or species of special concern.
- A list of the species of mammals, birds, amphibians, and reptiles reasonably likely to occur in, on, or in the vicinity of the project site based on site observations and supplemented by publicly available sources.
- An analysis of the impact of operation, including air emissions, of the project and interconnections on the wildlife (including listed rare species or species of special concern, such as the bald eagle, that have been identified by resource agencies as potentially occurring on the site), wildlife habitats, and wildlife travel corridors identified above.

- An identification and evaluation of reasonable mitigation measures, including the use of alternative technologies, regarding wildlife impacts identified.

WETLANDS

The presence of any on-site wetlands will be identified in the DEIS. Appropriate maps from NYSDEC and the U.S. Fish and Wildlife Service will be examined for mapped wetlands. The methodology for assessing the potential impacts to wetlands will follow the procedures and use the predictive data provided in the U.S. Army Corps of Engineers Wetlands Delineation Manual (1987). Should wetlands be identified, the DEIS will provide the following information regarding wetlands:

- An identification of the extent of all federal wetlands and state-regulated wetlands that may be impacted by the project or interconnections.
- A description of the characteristics of all federal wetlands and state wetlands identified, if any, including a description of the vegetation, soils, and hydrology data collected for each wetland site identified, based on actual on-site wetland observations.
- An on-site identification and delineation of all federal wetlands and state-regulated wetlands identified, if any.
- A survey or coordinate map of the location of all federal wetland and state-regulated wetland boundaries identified above.
- An identification and evaluation of reasonable mitigation measures, including the use of alternative technologies and control of potential phosphorus and nitrogen sources from the project, to avoid or minimize wetlands impacts, if any.

CONSTRUCTION IMPACTS

Construction impacts, while temporary in nature, will be described and their significance analyzed in the DEIS. The assessment of construction impacts will include:

- A description of the anticipated phasing for construction and the construction period for all components of the project, including the expected starting and ending dates. An estimate of the number of employees per shift for the major phase of construction will be provided.
- A narrative description of each phase of construction, including a description of the construction equipment to be used during each phase of construction, the hours during which it is planned that construction and component transportation vehicles would operate; and an identification of which roads would be utilized for transportation of construction equipment and project components.
- A description of planned site security measures during construction, as well as the measures planned to deal with solid and sanitary waste generated by construction activities.
- An assessment of potential traffic, air quality, noise, water quality, natural resources and hazardous material impacts that may be created by or encountered during project construction.
- The DEIS will provide a preliminary plan for the collection and treatment of stormwater runoff from the site during construction including a description of techniques that would be used to prevent or control soil erosion, runoff and subsequent sedimentation in areas that have been cleared and graded an analysis of related impacts.

An evaluation of the impact of construction noise will be conducted. Typical construction noise levels by phase will be provided and compared to the measured daytime L_{eq} noise levels.

If necessary, an identification of mitigation measures designed to minimize any significant construction impacts will be performed.

CUMULATIVE IMPACTS

Cumulative impacts can result when the effects of an action are added to or interact with other effects in a particular place and within a particular time. The DEIS will include the following cumulative impact studies:

- An air quality cumulative impact analysis including the Caithness Bellport Energy Center and all LIPA-sponsored and -constructed power generation projects recently constructed, under construction, or proposed, will be conducted. The modeled cumulative source impacts plus a representative background will be compared to and ensure compliance with the applicable NAAQS and/or NYAAQS.
- A local cumulative impact analysis, including the Caithness Bellport Energy Center and any approved or pending large combustion sources located within 10 miles of the proposed site, will be conducted. The modeled cumulative source impacts plus a representative background will be compared to and ensure compliance with the applicable NAAQS and/or NYAAQS.
- Potential cumulative impacts on water supply associated with new and proposed power generation facilities will be evaluated and presented. This will include consideration of power generation facilities proposed or permitted under NYS Article X jurisdiction and recent power development projects for which power purchase agreements have been executed with LIPA.
- *Cumulative impact analyses on other technical areas, such as traffic, noise and land use, will be done for operations. In addition, if the construction of another project could overlap with construction of the Caithness Bellport Energy Center, a cumulative construction impact analysis will be done.*

OTHER ENVIRONMENTAL IMPACTS

The DEIS will also identify and discuss the following to the extent applicable and significant.

REASONABLY RELATED SHORT-TERM AND LONG-TERM IMPACTS, CUMULATIVE IMPACTS, AND OTHER ASSOCIATED IMPACTS

This section will address those short-term and long-term impacts, cumulative impacts, and other environmental impacts associated with the project as identified in the DEIS environmental analyses.

ADVERSE ENVIRONMENTAL EFFECTS WHICH CANNOT BE AVOIDED IF THE PROJECT IS IMPLEMENTED

This section of the DEIS will identify any adverse impacts associated with the project which cannot be avoided or fully mitigated if the proposed action is implemented.

IRREVERSIBLE AND IRRETRIEVABLE COMMITMENT OF RESOURCES

This section will include those natural and human resources identified in the DEIS environmental analyses that will be consumed, converted, or otherwise made unavailable for future use if the project is implemented.

GROWTH-INDUCING ASPECTS OF THE PROPOSED ACTION

This section will define any secondary impacts the project may have in inducing economic growth or development in the vicinity of the project site, in Suffolk County, and Long Island as a whole.

EFFECT OF THE PROPOSED ACTION ON THE USE AND CONSERVATION OF ENERGY

This section of the DEIS will discuss the effects of the project on the use and conservation of energy.

ALTERNATIVES

In accordance with 6NYCRR Part 617.9(b)(5)(v), the DEIS will include "a description and evaluation of the range of reasonable alternatives to the action." Among the alternatives that will be considered are the following:

- No action alternative.
- Alternative methods that LIPA could implement, such as demand side management and renewable sources:
  - Alternative project sites, limited to those which are owned by or under option by the project sponsor (required under SEQRA); and
  - Alternative projects considered by LIPA as part of its selection process.
- Alternative project technology, including different turbine and cooling technologies.
- Alternative project design*, site layout* and operational modes.
- Alternative scale or magnitude of the project.

APPENDICES TO ACCOMPANY DEIS

In accordance with the environmental scope discussed above, the project will prepare a number of studies, reports, and engineer drawings related to identifying and describing the potential environmental impacts of the proposed project. These reports, ~~to be attached~~ as appendices *or attachments* to the DEIS, will include the following:

- Agency Correspondence;
- Project Engineering Plans and Site Plan Drawings;
- Air Permit Modeling Protocol and Air Permit Application;
- Phase IA/IB Cultural Resource Report;
- Traffic Impact Analysis Report;
- Noise Impact Assessment Technical Report;
- ASTM Environmental Site Investigation Report(s);

- Geotechnical Site Investigation Report; and
- SPDES permit application. ✷