

STATE OF NEW YORK
BOARD ON
ELECTRIC GENERATION SITING AND THE ENVIRONMENT

CASE 97-F-1563 - Application by Athens Generating Company, L.P.
for a Certificate of Environmental
Compatibility and Public Need to Construct and
Operate a 1,080 Megawatt Natural Gas-fired
Combined Cycle Combustion Turbine Generating
Facility, in the Town of Athens, Greene County.

OPINION AND ORDER GRANTING
CERTIFICATE OF ENVIRONMENTAL COMPATIBILITY
AND PUBLIC NEED

CASE 97-F-1563

Issued and Effective: June 15, 2000

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I. INTRODUCTION

Article X of the Public Service Law (PSL) provides for a comprehensive review of issues pertaining to the siting of major electric generating facilities,¹ and invests in the Board on Electric Generating Facility Siting and the Environment (the Board) the authority to grant or deny applications for certificates of environmental compatibility and public need for such facilities.² This is the first application to come before a Siting Board under the provisions of Article X.³ As provided by the statute, we review here exceptions to the recommended decision of Presiding Examiner J. Michael Harrison and Associate Examiner Daniel P. O'Connell, issued on September 3, 1999, along with information obtained in a subsequent remand, and reach our final decision on all issues.

A. Procedural Summary

This proceeding commenced with the filing of a pre-application report by Athens Generating Company, L.P. ("AGC") on September 9, 1997. Following the required public involvement process⁴ and a formal pre-application environmental study stipulation process,⁵ on August 28, 1998, AGC filed its application for a certificate to construct and operate a 1,080 MW natural gas-fired combined cycle combustion turbine generating facility in the Town of Athens, Greene County, New York. By letter of October 22, 1998 to AGC, Board Chairman Maureen O.

¹ A "major electric generating facility" is an electric generating facility with a capacity of 80,000 kilowatts (kW) or more. PSL §160(2).

² PSL §162.

³ PSL §§160-172, eff. July 24, 1992, as amended in L. 1999, ch. 636, effective Dec. 1, 1999.

⁴ 16 NYCRR §1000.3.

⁵ 16 NYCRR §1000.4. For a summary of the public involvement and pre-application processes in this proceeding, see recommended decision ("R.D."), App. B.

Helmer determined the application to be in compliance with the filing requirements of PSL §164, and fixed November 9, 1998 as the date for the commencement of public hearings.¹

The Examiners conducted a pre-hearing conference and public statement hearings in the Town of Athens ("Athens," or "the Town") on November 9 and 10, 1998.² At the prehearing conference and shortly thereafter, the Presiding Examiner made intervenor funding awards pursuant to PSL §164(6).

Following an initial discovery process, parties other than AGC filed direct testimony and evidence on or before February 12, 1999, and all parties filed rebuttal testimony on March 5, 1999. Hearings began on March 15, 1999. To consider certain new matters relating to cooling technology and emission stack height, supplemental testimony was received and additional hearings were held on April 13-15 and June 15, 1999. Following the submission of briefs and reply briefs to the Examiners the recommended decision, as noted, was issued on September 3, 1999.

Briefs on exceptions, in which the parties are required to identify all of their points of disagreement with the recommended decision,³ were filed on September 27 by several active parties, including AGC, the Department of Public Service ("DPS" or "DPS Staff"), the Department of Environmental Conservation ("DEC" or "DEC Staff"), Central Hudson Gas & Electric Corporation ("CHG&E"), Scenic Hudson and Friends of Olana ("SH&FO"), Citizens for the Hudson Valley ("CHV"), Riverkeeper, Inc. ("Riverkeeper"), and Dr. Ian A. Nitschke

¹ As provided in PSL §165(4), the date of that letter established October 21, 1999 as the initial deadline for Board action on AGC's application.

² A summary of public statements made at these hearings and of correspondence from the public received throughout the proceeding can be found at R.D., App. C. Similar additional correspondence has been received since the recommended decision.

³ 16 NYCRR §4.10(c)(2), (3).

(appearing pro se). A new party, the Association of Property Owners of Sleepy Hollow Lake, Inc. ("APO"), which was granted permission to intervene as a party in a ruling issued September 10, 1999, has also filed a brief on exceptions. Athens filed a letter in lieu of a brief on exceptions, announcing that it would take no further action in opposition to the application. The Natural Resources Defense Council ("NRDC"), which filed for party status but was not an active participant in this proceeding, also filed a letter in lieu of a brief.

Briefs opposing exceptions were filed on October 12, 1999 by AGC, DPS, the Department of Health (DOH), SH&FO, APO, and Dr. Nitschke. DEC, CHV, and Riverkeeper filed letters in lieu of briefs opposing exceptions.

As a consequence of material and substantial amendments to the application that delayed the hearing process, we extended the deadline for final decision until January 14, 2000.¹ In a letter to all parties dated November 30, 1999, Chairman Helmer requested supplemental information on specific, limited areas. A prehearing conference was held on December 6, 1999. In a letter dated December 22, 1999, AGC agreed to extend the deadline for final decision to March 20, 2000.

Pursuant to a schedule set at the prehearing conference, AGC filed supplemental testimony on December 21, 1999, and on January 14, 2000, responsive testimony was filed by DEC Staff and Riverkeeper. On January 21, rebuttal testimony was filed by AGC, DEC, and Riverkeeper. Hearings were held on January 26 and 27, at which additional transcript pages 6,016-6,560 were recorded, and Exhibits 352-360 and 362-376 were taken into evidence.

Supplemental initial briefs were received from AGC, DEC, DPS, Riverkeeper, and SH&FO, on February 10; and supplemental reply briefs were submitted by AGC, DEC, and DPS;

¹ Case 97-F-1563, Order Extending Deadline (issued October 20, 1999).

and letters in lieu of reply briefs were submitted by SH&FO and Dr. Ian Nitschke, on February 16. In a letter dated February 15, APO withdrew all objections to the proposed facility. In a letter dated March 13, AGC agreed to a further extension of the deadline for final decision to April 30, 2000.

AGC's application for a PSL Article X certificate also included a request for a State Pollutant Discharge Elimination System (SPDES) permit. The proposed facility would withdraw process water from the Hudson River for cooling purposes. A portion of the cooling water would evaporate into the atmosphere. The balance of the process water would be returned to the river. DEC Staff reviewed AGC's SPDES permit application, and subsequently developed a draft SPDES permit and two fact sheets.

DEC's "Announcement of Public Comment Period, and Combined Notice of Complete Application, Public Hearing and Issues Conference" (the Announcement and Notice), dated January 19, 2000, appeared as a legal notice in newspapers serving the project area on January 24, 2000, and in DEC's Environmental Notice Bulletin on January 26, 2000. In addition, copies of the Announcement and Notice were sent to the parties to this proceeding, as well as to the required governmental officials and to many individuals who had expressed an interest in the proposed facility.

The Announcement and Notice provided for a 30-day comment period, and the schedule for legislative hearing sessions and an issues conference. Afternoon and evening legislative hearing sessions were held before Associate Examiner O'Connell (in his capacity as a DEC administrative law judge) on February 28, 2000 in Catskill. On February 29, 2000, the Associate Examiner convened an issues conference in Catskill. Participants at the issues conference included SH&FO, Riverkeeper, Everett Nack, Robert H. Boyle, and a local community-based group called Stand Together Oppose Power Plants (STOPP), DEC Staff and AGC.

The stenographic record of the legislative hearing and the issues conference was received on March 15, 2000, and conference participants were permitted to file additional arguments in writing. All submissions were filed by April 14, 2000, whereupon the record of the Issues Conference closed.

In a letter dated April 25, 2000, AGC agreed to a further extension of the deadline for a final Board decision to May 31, 2000. AGC later agreed to an additional extension, to June 16.

On April 26, 2000, Associate Examiner O'Connell (again in his capacity as a DEC administrative law judge) issued a "Ruling on Proposed Issues for Adjudication and Petitions for Party Status" regarding AGC's SPDES permit application.¹ In that ruling, an average daily water intake of 4.2 million gallons (4.2 mgd) and a peak daily intake of 7.5 mgd were authorized. The ruling stated that none of the issues proposed by the participants required additional adjudication.

Appeals of the ruling were filed on May 4, 2000, and replies were filed on May 10. In an interim decision dated June 2, 2000, DEC Commissioner Cahill determined that the average water intake at the proposed facility should be limited to 0.18 mgd. A SPDES permit reflecting that limitation was issued on June 12, 2000.

AGC also applied to DEC for pre-construction air emission permits. On February 2, 2000, DEC issued a final determination that new source review and prevention of significant deterioration (PSD) permits should be issued. A final new source review and PSD permit was issued on June 12, 2000.

B. The Proposed Facility

The proposed facility would be located on a site of about 150 acres, located west of the Village of Athens and

¹ DEC No. 4-1922-00055/00001, SPDES No. NY-0261009.

locally zoned for light industrial use. The site is generally bounded by Route 74 to the south, U.S. Route 9W to the west, Route 28 to the north, and Conrail tracks to the east.

The proposed facility would connect to the Iroquois Gas Transmission System (Iroquois) pipeline located about 2,000 feet to the north for access to natural gas, its primary fuel. AGC would route the gas from a new Iroquois gas metering station to the combustion turbines.

Located east of the electric transmission grid's east-west transmission constraint, the proposed facility would interconnect with the grid just outside of the nearby Leeds substation, which is located on an adjacent parcel of land, about 2,000 feet southeast of the proposed facility. A 345 kV five-breaker ring bus switchyard would be constructed at the facility site, and the proposed facility would tap into one of two existing 345 kV Leeds-to-Pleasant Valley transmission lines at the Leeds substation, via a new 345 kV double circuit.

Cooling water would be drawn from the Hudson River to the south southeast through an underground piping facility about two miles long. An intake/discharge facility (pumphouse) would be located on the western shore of the Hudson River at about river mile (RM) 115.5, one mile north of the Rip Van Winkle Bridge. The pumphouse would be about 40 feet long, 25 feet wide, and 20 feet high. Two intake pipes would extend from the pumphouse into the Hudson River to about 580 feet from the western shoreline, where the screened intake pipe heads would be located about 18 feet below the river's surface at mean low water, and about six feet from the bottom. A single 12-inch discharge pipe would extend from the west shore about 480 feet into the river, where it would be located about 2.5 feet from the bottom. At the discharge point, the pipe would narrow to eight inches in diameter, and would be pointed downstream at a 45° vertical angle. Water would be carried between the pumphouse and the generating facility through one underground pipe.

There would be several structures at the generating site. The building housing the three combustion turbines would be about 650 feet long, 150 feet wide, and 65 feet tall, and each of three heat recovery steam generators would be housed in adjacent structures about 90 feet tall. There would be three 180-foot tall emission stacks. AGC's proposed wet/dry (hybrid) cooling system would consist of three groups of six hybrid cooling cells, each housed in a structure measuring 288 feet long, 48 feet wide, and 72 feet tall. These structures would be situated essentially perpendicular to the turbine building, and would be separated from each other by at least 216 feet. Were a dry cooling system installed, there would be three cooling structures measuring 276 feet long, 124 feet wide, and 90 feet high, separated by 85 feet.¹

Other structures on the facility site would include a one-story warehouse and administration building measuring 60 by 225 feet, a cylindrical tank for storing demineralized water 60 feet in diameter and 40 feet tall, a cylindrical tank for storing fuel oil 120 feet in diameter and 50 feet tall, and various structures on the three-acre switch yard, up to 95 feet tall. A 1,750 foot access road would extend to the facility from Route 9W on the west.

C. The Recommended Decision

The Examiners concluded that the Board can make all of the findings required by PSL §168, and recommended that it grant AGC the requested certificate of environmental compatibility and public need. Under PSL §168, as summarized by the Examiners,² the Board is required to find:

1. That the facility is reasonably consistent with the policies and long-range planning objectives and strategies of the most recent state energy

¹ Exh. 359.

² R.D., pp. 9-10.

plan, or that the facility was selected pursuant to an approved procurement process.
(§168(2)(a))

2. The nature of the probable environmental impacts, specifying predictable adverse and beneficial effects on (a) the normal environment and ecology, (b) public health and safety, (c) aesthetics, scenic, historic, and recreational values, (d) forest and parks, (e) air and water quality, and (f) fish and other marine life and wildlife.
(§168(2)(b))
3. That the facility minimizes adverse environmental impacts, considering (a) the state of available technology, (b) the nature and economics of reasonable alternatives required to be considered under PSL §164(1)(b), and (c) the interest of the state respecting aesthetics, preservation of historic sites, forest and parks, fish and wildlife, viable agricultural lands, and other pertinent considerations.
(§168(2)(c)(i))
4. That the facility is compatible with public health and safety. (§168(2)(c)(ii))
5. That the facility will not discharge any effluent in contravention of DEC standards or, where no classification has been made of the receiving waters, that it will not discharge effluent unduly injurious to fish and wildlife, the industrial development of the state, and the public health and public enjoyment of the receiving waters.
(§168(2)(c)(iii))
6. That the facility will not emit any air pollutants in contravention of applicable air emission control requirements or air quality standards.
(§168(2)(c)(iv))
7. That the facility will control the runoff and leachate from any solid waste disposal facility.
(§168(2)(c)(v))
8. That the facility will control the disposal of any hazardous waste. (§168(2)(c)(vi))
9. That the facility will operate in compliance with all applicable state and local laws and associated regulations, except that the Board may refuse to apply specific local laws, ordinances,

regulations, or requirements it regards as unduly restrictive. (§168(2)(d))

10. That the construction and operation of the facility is in the public interest, considering its environmental impact and reasonable alternatives considered under §164(1)(b). (§168(2)(e))

As the Examiners explained, the public interest finding is a separate, overall assessment, taking into account all of the environmental and other considerations bearing on the question whether AGC should be permitted to construct and operate the proposed facility. In this regard, AGC listed in its application ten reasons for concluding that the proposed facility would be in the public interest, among them that the facility would contribute to effective competition in electric power markets and would provide a net overall environmental benefit.¹ The Examiners noted that not all of the asserted benefits have been controversial.² AGC's assertions that the facility would generally contribute to the public interest and would not have material negative environmental impacts were, however, challenged throughout the proceeding.

¹ R.D., pp. 6-7.

² Among the noncontroversial attributes of the proposed facility listed by the applicant are: (1) the proximity of the site to natural gas supply, the electric transmission system, and cooling water, obviating the construction of extensive electric, gas, or water transmission facilities; (2) the introduction of innovative turbine technology, with state-of-the-art fuel efficiency and reduced emissions; (3) a contribution to an overall reduction in air pollution, through the provision of required emission reduction credits (ERCs) at a 1.15:1 ratio; (4) relief from transmission constraints on the heavily stressed west-to-east transmission lines between Utica and Albany and other specified lines; and (5) increased transmission system reliability, resulting from increased flexibility during emergencies, a reduction in the system's calculated loss-of-load probability, and a reduction in the risk of voltage collapse in eastern New York.

The Examiners addressed a number of other public interest considerations raised by the parties, including the proposed facility's anticipated contribution to competition, effects on nearby electric transmission lines, and local and regional socioeconomic matters such as the impact of the facility on employment, economic activity, taxes, property values, and tourism. They also considered whether other sites elsewhere in New York would be superior locations for such a facility, and whether the Board should deny this application for that reason.

The Examiners thoroughly addressed the proposed facility's environmental impacts, including impacts of facility construction and operation on surface and ground waters and on aquatic organisms and fish, air quality impacts associated with combustion and cooling system emissions, impacts of facility construction and operation on terrestrial organisms and regulated wetlands, geologic and seismic considerations, chemical storage and waste management considerations, and impacts on agricultural lands. They also addressed other direct environmental impacts on people, including visual impacts of the facility's structures and cooling tower¹ and stack plumes, noise impacts, traffic and road management issues, the consistency of the facility with local ordinances and land use requirements, and decommissioning and site restoration considerations.

Parties other than AGC recommended a wide variety of design changes and other mitigation measures to minimize the proposed facility's environmental impacts. In most instances, AGC accepted proposed mitigation measures, and where it did not the Examiners considered the additional measures proposed by the parties. The Examiners included their recommended list of

¹ Cooling tower steam plumes would occur under some conditions, were the proposed facility to rely in whole or in part on an evaporative cooling process. A dry cooling process emits no steam plumes.

proposed certificate conditions as an appendix to the recommended decision.¹

Following their review and findings on all of these issues, the Examiners concluded that the record supports all of the environmental and other findings required by PSL §168, and that certification of the proposed facility, with the mitigation measures they recommended, would be in the public interest.

D. The Exceptions and the Remand

The Examiners' decision indicated that many of the matters about which the Board is required to make findings--for example, terrestrial biology, geologic and seismic issues, impacts on agricultural land, and noise impacts--did not generate significant controversy during the proceeding. For most of these matters, the parties are now in agreement on pertinent certificate conditions. Moreover, within areas that have been controversial the focus has narrowed somewhat, with some areas of disagreement no longer at issue.

On exceptions, we will consider: (1) whether the Examiners erred in concluding that the Board has jurisdiction to grant a certificate absent certain federal delegations of permitting authority, that we may issue permits to private developers, and that we may waive the application of local laws to a private developer's facility; (2) whether the dry cooling technology minimizes aquatic impacts; (3) whether, assuming dry cooling is installed, the facility's visual impacts require additional mitigation; (4) whether other impacts have been minimized; and (5) whether certification of the facility would be in the public interest.

Several specific questions also have been raised about permitting procedures, and the parties have proposed a number of modifications to certificate conditions, some of which relate the certificate's conditions to permits granted by other agencies.

¹ R.D., App. N.

In addition, parties have alleged various technical errors in the recommended decision, and suggest corrections to them.

Some of these issues have been further developed in the remand hearings and subsequently filed supplemental briefs and in DEC's SPDES permit proceeding. We turn now to a discussion of the exceptions and the evidence and arguments presented in the remand and the DEC proceeding.

II. ISSUES PRESENTED

In determining whether a proposed power project should be built and operated, the Board must ask, assuming the project was selected pursuant to an approved procurement process, whether it will provide a competitive benefit to New York State. Other issues for consideration include: the probable environmental impact of the project; whether the facility minimizes adverse environmental impacts; whether it complies with local regulations that are not unreasonably restrictive; whether the proposed facility complies with water quality standards or applicable regulations of the Department of Environmental Conservation; and whether the benefits of the project outweigh its environmental impacts and, therefore, it serves the public interest.

Article X has instructed the Board not to decide whether a proposed project should be issued a certificate until it first receives permits issued by the Department of Environmental Conservation pursuant to federally delegated or approved authority under the federal Clean Water Act, the federal Clean Air Act and the federal Resource Conservation and Recovery Act. Further, as indicated, a certificate cannot be issued unless the Board first finds that the proposed facility will not violate applicable Department of Environmental Conservation regulations and water quality standards. Therefore, the Board must give deference to the findings and conclusions of the DEC Commissioner regarding environmental permitting, and our consideration of various environmental issues must assume that the proposed facility conforms to DEC's permits and minimizes adverse environmental impacts.

The Board is then required to balance environmental impacts against the benefits of the proposed project and conclude whether construction and operation of the proposed facility would be in the public interest. Needless to say, if additional permits are necessary from authorities other than the Department of Environmental Conservation, we should condition certification

on the applicant's acquisition of required permits, even if we find that a facility would be in the public interest.

A. Legal Issues

1. The Board's Jurisdiction
to Issue a Certificate

On exceptions, Riverkeeper argues, as a matter of law, that this Board lacks jurisdiction to grant a certificate under Article X because we lack delegated authority to grant a permit under the Federal Water Pollution Control Act (more commonly known as the Clean Water Act, or "CWA"). Accordingly, Riverkeeper suggests the pending application must be dismissed.

This issue arose earlier in the case, on February 25, 1999, when Riverkeeper, NRDC, Friends of Olana, CHV, and Scenic Hudson petitioned the Examiners to dismiss AGC's application. The issue arose again in a March 5, 1999 motion to dismiss filed with us by the same parties. In a March 10, 1999 ruling, with the concurrence of the Associate Examiner, the Presiding Examiner denied the February 25, 1999 motion and recommended that we deny the March 5, 1999 motion.

The Examiner's findings and recommendations were based on, among others, the following conclusions:

1. As a matter of law, language in three sections of Article X, relied on for the proposition that certain things "shall" be done by the Board with respect to several federal permits, is not mandatory, but is instead conditional upon the Board's having authorization to do so, given other language in the statute.
2. It would be bad policy to conclude there can be no Article X proceedings if the Board is not delegated federal environmental permitting authority, because one possible result would be that federal permits can be obtained by AGC directly from the EPA or otherwise, but no Article X certificate could be issued, effectively prohibiting all power plant construction in New York. Article X serves a valid public purpose, even if the Board lacks federal delegations, because all issues relating to state permits and requirements can still be resolved,

along with those involving local zoning or other ordinances.

3. The factual question of whether the Board will receive a timely delegation of federal environmental permitting authority for the purposes of this case is irrelevant because we may issue an Article X certificate even if necessary environmental permits will be obtained from DEC or another agency.

An interlocutory appeal was filed on March 25, 1999.¹

Responding to arguments advanced in briefs, the Examiners touched on the jurisdictional issue again in the recommended decision, concluding that the Legislature did not intend that we not accept and consider certificate applications unless we received all delegations of permitting authority referenced in PSL §168(3); that issuing certificates and permits are separate acts and that both need not be done by the Board; and that, with the passage of then-pending legislation amending Article X, the motion to dismiss should be denied.²

On exceptions, Riverkeeper renews the jurisdictional argument, although some of the earlier arguments have been dropped, some have been modified, some have been retained, and a few new ones are added.³

Riverkeeper's core argument remains that various sections of Article X state that the Board "shall" issue federal permits, the language sets forth directives and should not be considered conditional, and, therefore, unless we are authorized to issue such federal permits we lack jurisdiction to issue a certificate. Riverkeeper asserts that the Legislature never envisioned our issuing a certificate, thereby allowing

¹ NRDC and Friends of Olana did not join in the appeal. Subsequently, Scenic Hudson and Friends of Olana joined forces as a single party (SH&FO).

² See, R.D., pp. 15, 16, 17, and 130.

³ No other party joins Riverkeeper's exception.

construction, without also providing all of the necessary permits. Riverkeeper suggests as well that its view of Article X is consistent with the interest in "one-stop" permitting in New York.¹

Riverkeeper also suggests that the Board did not deal with this jurisdictional issue previously--in connection with its prior motion and interlocutory appeal--because "it was apparent that consensus among the members of the Board was lacking."² Riverkeeper complains Board members are unable to review, comment, or dissent on the issue raised in the earlier motion and interlocutory appeal, because of a September 10, 1999 letter to EPA officials from Commissioner Cahill and Chairman Helmer--a letter discussed at greater length in the next section of this opinion--which states that DEC currently has authority necessary to issue federal water permits. The asserted procedural unfairness of not having all of its arguments reviewed by the entire Board, Riverkeeper goes on, is compounded by what it calls the "inequitable notification" of only some parties--such as AGC and DEC--about the September 10, 1999 letter. Riverkeeper states it is difficult to overstate the prejudice to it, in preparing its brief on exceptions, or the "resulting appearance of bias on

¹ In other arguments, Riverkeeper disputes specific conclusions in the recommended decision. For example, it asserts the Examiners' conclusions about legislative intent are "self-contradictory, unsupported, and wholly insufficient for rejecting the basic legislative mandate for state exercise of federally delegated authority." (Riverkeeper's Brief on Exceptions, p. 12.) Riverkeeper disputes the distinction the Examiners saw between making required findings under PSL §168(2) and granting federal permits only where authority to do so exists under PSL §168(3) (*Ibid.*, p. 14). Riverkeeper suggests as well that the pendency of Article X legislation is not a basis for granting a certificate (this argument is now moot, as Governor Pataki signed the legislation on November 22, 1999), and DEC assertedly will have to seek permitting authority from EPA even if the legislation ultimately becomes law. (Riverkeeper's Brief on Exceptions, p. 15.)

² Riverkeeper's Brief Opposing Exceptions, pp. 6-7.

the part of the state agencies. . . ." ¹ Riverkeeper sums up, describing the September 10, 1999 letter as a demonstration of the two agencies' inability to comply with the legal requirements for water permitting and a bias toward permitting the proposed facility. ²

In reply, AGC claims that Article X makes clear that the Board may issue a certificate even if we lack delegated federal permitting authority. AGC argues that Article X authorizes, not requires, us to seek delegated federal permitting authority (PSL §161); authorizes joint permitting procedures where federal agencies have concurrent jurisdiction (PSL §167(3)); and requires us to issue federal permits only if we receive "federal recognition" of our authority to issue such permits (PSL §164(1)(f) and §168(3)).

AGC contends as well that the Legislature could not have intended to empower EPA to frustrate or nullify the benefits of Article X concerning compliance with state and local laws and regulations, or to establish a "full-stop" rather than a one-stop siting process. AGC asserts that Riverkeeper's argument--that our issuance of permits is central to Article X--is at odds with the Governor's Program Bill Memorandum in support of Article X, which nowhere mentions federal permitting. ³

We are denying Riverkeeper's exception. Taking first the procedural concerns raised, consideration of the earlier motion and interlocutory appeal was not deferred last April because of a lack of consensus on the issues presented; we did not address the motion at that time. Moreover, efforts by Chairman Helmer and Commissioner Cahill to ensure that a process exists to review on the merits all Article X and related permit

¹ Ibid., p. 7.

² Id. SH&FO, while not excepting, also expresses concern about the letter creating an "appearance of bias" (SH&FO's Brief on Exceptions, p. 1, n. 1).

³ AGC's Brief Opposing Exceptions, pp. 45-50.

applications were proper, and lack of knowledge of their September 10, 1999 letter did not prejudice Riverkeeper on exceptions, as the issue of DEC's authorization to issue water permits is irrelevant to its core argument that we lack jurisdiction to issue a certificate if we cannot issue water permits.¹

Turning to the substantive points raised, we agree with the Examiners that our authority to issue a certificate under Article X does not depend upon receipt of delegated federal environmental permitting authority, and we are denying the appeal and separate motion by Riverkeeper. Riverkeeper reads several provisions of Article X too narrowly, according no weight to other statutory language providing that we are expected to issue federal permits only if and to the extent that we are the recognized permitting agency and authority to issue permits has been delegated to us. PSL §161 states that we are authorized to seek delegations of federal authority, not that we must do so. Similarly, PSL §167(3) authorizes the Chairman to enter into agreements with federal agencies having concurrent jurisdiction for joint procedures and hearings on common issues. Riverkeeper's contrary views are not persuasive.

Riverkeeper's argument that it is inconceivable the Legislature would authorize a process where electric generation plants would be built without receiving clean water permits is irrelevant, because construction without all required permits is not envisioned by any party or by this Board. Even if record evidence demonstrates that AGC has fully satisfied the requirements set forth in Article X, and it receives a certificate, construction may not commence until all necessary permits are obtained.

As the Examiners observed, Riverkeeper's approach unreasonably implies that the Legislature intended to require the

¹ The letter to EPA from Chairman Helmer and Commissioner Cahill was not served on AGC, nor on any other party, by us or our staff.

Board to obtain from EPA authority to issue permits, notwithstanding provisions throughout Article X that (a) empower, but do not require, the Board to seek federal delegation; (b) authorize joint Board and federal agency actions; and (c) condition any requirement for the Board to issue federal permits on our obtaining federal delegation. Moreover, were Riverkeeper's approach followed at any separate permitting proceeding, DEC could not resolve permitting issues finally because there would be no resolution of state and local issues. In sum, no facility could ever be built in New York, and the siting process in New York would be aptly called "full-stop."

Finally, the recent amendments to ECL and Article X make it very clear that DEC may exercise federally delegated permitting authority consistent with our exercising Article X certification jurisdiction. Thus, we find, as a matter of law, that we continue to have jurisdiction to consider the pending application for a certificate.¹

2. DEC's Authority to Issue a State SPDES
Permit Generally and a Permit for Storm
Water Runoff During Construction Specifically

The Examiners recommended that a certificate be issued under Article X while noting EPA's assertion, in correspondence dated February 11, 1999, that neither this Board nor DEC has federal permitting authority under CWA.² The Examiners concluded

¹ Riverkeeper raised two other arguments in its interlocutory appeal. One argument, attacking our delegation of air permitting authority to DEC, is an untimely petition for reconsideration of our December 24, 1998 order. That order fully set forth the reasons why the delegation was proper. The other argument, that AGC's application should have been dismissed because we could not issue all required permits, is unfounded. It is reasonable for Article X proceedings to continue, so that state and local issues can be resolved, even if federal permitting issues are resolved elsewhere.

² R.D., p. 134.

that there is "no issue" about whether DEC may issue AGC a permit for storm water runoff from construction.¹ Riverkeeper concurs

¹ R.D., p. 137, n. 2. On exceptions, Riverkeeper (p. 16) clarifies that the precise permit reference is to AGC's SPDES General Permit for Storm Water Discharges From Construction Activities, DEC Permit No. GP-93-06.

in EPA's position,¹ while AGC, DEC, and DPS Staff disagree. Riverkeeper excepts to the Examiners' conclusions about a storm water discharge permit and AGC opposes that exception.

Riverkeeper, SH&FO, and CHV all deny that DEC has CWA permitting authority for the proposed facility. These parties' common, central argument is that any delegation of authority to DEC under a 1975 agreement with EPA ended when Article X became effective and, accordingly, DEC must seek a program change from EPA, which change will be possible only after notice and comment by interested parties or after hearings.

CHV contends in addition that although DEC will issue permits under the arrangement described in the September 10, 1999 letter (discussed earlier), the Board "will" control DEC's decision. CHV bases this claim on DEC's statement--in its brief on exceptions--that it will defer to the Board on an air quality issue involving particulates--and suggests such deference will lead EPA to doubt DEC's ability to exercise properly any federally delegated water permitting authority. At the same time, however, CHV suggests that "if" we attempt to make any particular permitting outcome binding on DEC, this would be hostile to EPA's delegation and beyond our authority.

CHV further contends that any water permit issued by DEC based on the Article X process in this case will be infirm. It contends that the process employed must match exactly the process EPA would follow, and that EPA would be required to consider siting alternatives, under the National Environmental Policy Act (NEPA) and regulations promulgated by EPA, and to protect historic sites under EPA rules (citing generally 40 CFR Parts 6 and 152.) CHV contends that alternatives are explicitly excluded from any meaningful consideration under Article X and that historic sites have a lower priority under Article X than required in a federal review process (citing 40 CFR §6.100, 40 CFR §6.203, 40 CFR §6.301(b), and 36 CFR §800.9.) Accordingly,

¹ Riverkeeper's Brief on Exceptions, p. 7.

CHV asserts that even if DEC has federal water permitting authority, the process followed in this case is not adequate for issuing a permit to AGC.

Arguing that DEC has federally delegated CWA permitting authority, AGC and DEC both assert, as discussed in a September 10, 1999 letter to EPA from DEC Commissioner Cahill and Siting Board Chairman Helmer, that: (1) CWA permitting authority for power plants automatically reverted to DEC upon the expiration of Article VIII; (2) under a 1975 agreement between EPA and DEC, such authority was exercised subsequently by DEC without objection from EPA; (3) DEC's authority in this area is buttressed by the permanent Siting Board's December 24, 1998 delegation of authority to DEC to issue federal permits under Article X; and (4) that (then pending) amendments to Article X clarify that DEC, as a matter of state law, may issue federal environmental permits necessary for the construction or operation of an Article X facility.¹ In its brief opposing exceptions, DPS Staff concurs, stating that the DEC SPDES permitting process and the Article X certification process may both proceed given the letter to EPA, and it advises that findings must (and, as discussed in the preceding section, may) still be made under PSL §168(2), even though permits will not be issued by this Board under PSL §168(3).²

AGC also asserts that EPA's February 1999 letter did not expressly address the extent of DEC's water permitting authority. To the extent EPA's earlier letter implies DEC lacks requisite permitting authority, AGC asserts this is refuted by the September 10, 1999 letter which logically, in its view, concludes that DEC retains such permitting authority in all cases except any conducted under Article VIII. AGC adds there is no

¹ A copy of the letter is attached to AGC's and DEC's briefs on exceptions. Arguments are offered in AGC's Brief on Exceptions, pp. 7-9 and DEC's Brief on Exceptions, pp. 3-4.

² DPS's Brief Opposing Exceptions, pp. 24-25.

doubt about DEC's permitting authority under state law, in view of the permanent Board's December 24, 1998 delegation to DEC and the recent passage of bills to amend Article X¹ (which then awaited transmittal to the Governor).

Although our review of the 1975 Memorandum of Understanding suggests that DEC does, indeed, have authority to issue water permits under the Clean Water Act,² this issue is DEC's to decide, not ours.³ In any event, a SPDES permit has been issued to AGC.⁴

With respect to CHV's arguments, it is DEC's responsibility as the permitting authority to comply with EPA regulations. Moreover, CHV has not established that the NEPA review standards would apply, nor that they could not have been met.

Turning to the arguments about DEC's ability to issue a permit for storm water runoff during construction, Riverkeeper strenuously denies that any state agency, including this Board or DEC, currently has authority to issue such a permit.⁵

AGC disagrees, arguing it will take advantage of an already approved New York State General Permit for storm water discharges associated with construction, which permit has been approved by EPA. AGC asserts that no approvals, consents, permits, certificates, or other conditions are required from DEC

¹ A. 9039/S. 6143.

² A communication from EPA Region 2, dated November 10, 1999, confirms this interpretation.

³ Our view is consistent with the position the DEC Commissioner articulated in a letter to EPA dated February 25, 2000, and with the determination by the Office of the Attorney General dated May 31, 2000, that Article X procedures are consistent with DEC's SPDES permit program.

⁴ Our certificate conditions and order reflect appropriate recognition of independent permit requirements to underscore our finding that the facility will minimize adverse environmental impacts on aquatic and other resources.

⁵ Riverkeeper's Brief on Exceptions, pp. 16-17.

at this time, and it is authorized to discharge storm water during construction simply by filing a required notice and meeting the requirements of the federally-preapproved general permit. AGC adds that the (then pending) amendments to Article X have mooted this Riverkeeper argument.

Given that a general permit exists and will apply to the proposed facility, a discussion of DEC's authority to issue a general permit for storm water discharges during construction would be academic. Moreover, AGC has agreed to obtain and comply with DEC's general storm water permit for construction activities to assure that storm water impacts will be minimal. We note that the general permit for storm water discharges, developed by DEC, applies to the proposed facility and has been approved by EPA. Certification of the proposed facility is conditioned on complying with these general storm water permits. We find, therefore, that the proposed facility, as so conditioned, will not discharge effluent from storm water in contravention of state laws.

3. Article X and Private Developers

Article X requires an applicant to demonstrate,¹ and the Board to find,² that a proposed facility either (1) is reasonably consistent with the policies and long-range energy planning objectives and strategies of the most recent state energy plan (SEP), or (2) was "selected pursuant to an approved procurement process." In either case, capacity or electric system "need" does not have to be established because the SEP describes competition as being in the public interest.³

In an earlier order, we affirmed a bench ruling by the Presiding Examiner, on appeal by CHG&E, that this proposed

¹ PSL §164(1)(e).

² PSL §168(2)(a).

³ See New York State Energy Plan and Final Environmental Impact Statement (November 1998), p. 1-5.

facility is selected pursuant to an approved procurement policy.¹ That decision was based on the determination of the Public Service Commission (PSC) that competition in electric generation supply is an approved procurement process.²

In briefs to the Examiners, CHG&E renewed its claim that the proposed facility is not selected pursuant to an approved procurement process, and that the Board therefore cannot grant a certificate to AGC absent an individualized finding of need for the proposed facility. The Examiners rejected that position, noting that the PSC and the last two SEPs have found a network of competing, privately-owned generating facilities to be in the public interest, and, in any event, that the PSC had determined that participation in such a network constitutes selection pursuant to an approved procurement process. The Examiners also concluded that the public interest finding the Board is required to make, which takes into account the competitive contribution of the proposed facility, is adequate protection of the public interest in a competitive marketplace, in lieu of a capacity need finding.

On exceptions, CHG&E argues that because AGC is a private developer, and its proposed facility is not a "public project," it cannot be granted a certificate.³

CHG&E next argues that Article X envisions more than a generalized finding by the PSC that competition is an approved procurement process, because the PSC's determination effectively allows any proposed facility to be automatically considered as selected pursuant to an approved procurement process. CHG&E argues that this conflicts with the legislative intent, when Article X was passed in 1992 and Article 6 of the Energy Law and

¹ January 28, 1999 Order, p. 7.

² Case 98-E-0096, Petition of Athens Generating Company, Declaratory Ruling Concerning approved Procurement Process (issued April 16, 1998).

³ CHG&E's Brief on Exceptions, p. 6.

PSL §66-i were contemporaneously amended, which envisioned a "procurement process" in which public utilities would obtain new energy sources as needed, taking into account alternative supply options and demand-reducing measures, with new non-utility supply sources likely procured through auctions. Assuming a proposed facility was selected in an auction, CHG&E asserts, an individualized finding of need would not be required in the siting proceeding for that facility because "the need would have been determined by the Commission as a result of its review of the utility's procurement process."¹

Under the PSC's competitive initiatives, CHG&E continues, traditional vertically-integrated utilities have been selling their existing generating facilities pursuant to restructuring settlements, and all new facilities will be merchant plants owned by lightly regulated entities. If all new facilities are considered to be selected pursuant to an approved procurement process, CHG&E argues, all consideration of demand-side alternatives to new generation is lost in the procurement process.

In response, AGC cites the Examiners' findings, first, that the PSC's determination that competition is an approved procurement policy basically means that an applicant is "not required to make the traditional showing under rate of return regulation that the plant is needed and will not be too expensive,"² and, second, that because a public interest finding is still required under Article X, "the process fully protects the public interests CHG&E suggests that it ignores."³

Moreover, AGC asserts, Article X does not establish auctions to be the only permissible procurement process, but contemplates "any electric capacity procurement process approved

¹ Ibid., p. 13.

² R.D., p. 22.

³ R.D., p. 24.

by the [PSC] . . . as reasonably consistent with the most recent state energy plan" ¹ Circumstances have changed since the passage of Article X, AGC continues, and a network of competing, privately owned facilities has been found to serve the public interest. "There is nothing wrong," AGC states, "with a market-based, self-selection process among competitors." ²

DPS supports AGC's position, pointing out that the PSC has since affirmed its Case 98-E-0096 determination. ³ Although competitive bidding was in use in 1992 when Article X was passed, DPS argues, "the Legislature wisely gave the Commission discretion to approve other electric capacity procurement processes as reasonably consistent with the most recent SEP." ⁴

In our earlier order on this issue, we concluded that "in addition to noting that PSL §160(7) empowers the [PSC] to approve procurement processes, we agree with the [PSC's] conclusion that competition is an approved procurement process." ⁵ We stand by our conclusions. The statute leaves to the PSC the determination of what constitutes an "approved procurement process." Taking the PSC's definition as it stands, it is clear that this individual facility is selected pursuant to an approved procurement process. ⁶

In any event, we find CHG&E's position unpersuasive, and we will deny its exception. Specifically, CHG&E's new contention that only a "public project" can qualify for a

¹ PSL §160(7).

² AGC's Brief Opposing Exceptions, p. 77.

³ Cases 99-E-0084, Sithe Energies, Inc. and 99-E-0089, Ramapo Energy Limited Partnership, Declaratory Ruling Concerning Approved Procurement Process (issued August 26, 1999).

⁴ DPS's Brief Opposing Exceptions, p. 4.

⁵ January 28, 1999 Order, p. 7.

⁶ CHG&E improperly seeks collateral review of the PSC's determination here. Its arguments would have been more properly made to the PSC.

certificate under Article X is rejected. There is no such language in Article X, and the statute necessarily anticipates that energy will be supplied from sources other than utility-owned generating facilities, even if the procurement process were still competitive bidding among independent producers participating in auctions conducted by franchised utilities.¹

With the divestiture of many of their generating facilities, the utilities themselves produce a decreasing amount of the electricity used to meet the customer load in their service territories. This fundamental change in the industry means, among other things, that utility-specific load no longer drives the "need" issue for new power generation capacity.

During the last five years, there has been a fundamental shift away from electric generation as a monopoly function of local electric utilities and toward the understanding that the public interest in increased choice and just and reasonable electric rates is best met when power plants compete with each other to supply power to customers across an open transmission system. Meanwhile, competitive markets for energy and capacity have been developed, and continue to develop, as a result of evolution in the technologies that schedule the production and movement of power and support bidding systems for day-ahead and hour-ahead sales of generators' output.²

The state and federal governments have actively promoted the transition to competition. The Federal Energy Regulatory Commission (FERC) has required transmission-owning

¹ The presence on the electric generation grid of qualifying independent power producers (IPPs) has been a reality since passage of the federal Public Utility Regulatory Policies Act of 1978 (PURPA). It would be illogical to construe an "approved procurement process" as a process in which public utilities would purchase generation capacity, but only from other utilities or public authorities.

² See P.S.C. Case No. 94-E-0952, Opinion and Order Regarding Competitive Opportunities For Electric Service, Opinion No. 96-12 (May 20, 1996), mimeo pp. 29-30.

utilities to open access to their transmission facilities and to move electricity across their wires on a non-discriminatory basis.¹ The Public Service Commission has adopted a policy that electric generation prices eventually should be set by the market and that wholesale and retail customers should have access to power sold by generators and by power marketers and energy service companies.² Parts of that objective were realized in a series of Public Service Commission orders that changed the rates and rate structures of each electric utility in New York State that provides choice to retail electric customers, and has resulted in the sale of power plants by formerly monopolistic electricity providers to merchant power plant owners.³

Open access to transmission is also crossing utility boundaries. Control of utility transmission systems in New York State has been turned over to an Independent System Operator that provides open access to move power statewide and that operates

¹ See, Promoting Wholesale Competition Through Open Access Non-Discriminatory Transmission Services By Public Utilities, Final Rule, FERC Order No. 888, 1991-1996 FERC Regulations and Preambles ¶31,036, 61 Fed. Reg. 21539 (May 10, 1996).

² P.S.C. Case 94-E-0952, Opinion and Order Regarding Competitive Opportunities For Electric Service, Opinion No. 96-12 (May 20, 1996). The PSC's electric competition order was confirmed by Supreme Court Albany County. Energy Association of the State of New York v. Public Serv. Comm'n, 169 Misc. 2d 924 (Albany Cty. 1997).

³ See, P.S.C. Opinion Nos. 97-16, 97-20, 98-1, 98-6, 98-8, and 98-14.

internet-based markets for capacity and day-ahead and hour-ahead energy markets for every hour of every day.¹ Moreover, a movement is building toward even broader, regional electricity markets, such as a single market for the northeastern United States. In that regard, FERC has required New York's utilities, by January 15, 2001, to file plans for forming a Regional Transmission Organization (RTO).²

In the face of this sea-change in the electric industry, the PSC's determination that competition is an approved procurement process is appropriate, for the utility-specific capacity need findings of the past are no longer relevant. Similarly, under the developing competitive market the demand-side options are not lost, but may be competitively marketed, as well as energy supplies.³ Because the public interest is served by the maturing markets for electric generation, we reject the arguments on exceptions to the effect that competition is not an appropriate process to procure electricity.

CHG&E also seems to imply that if all merchant plants automatically qualify as "selected pursuant to an approved procurement process," somehow more plants will be certificated than will be in the public interest. In a competitive market, such an outcome would be unlikely. As newer, more efficient producers enter the market, less efficient incumbent producers will find it more difficult, and perhaps ultimately impossible,

¹ See Order Conditionally Accepting Tariff and Market Rules, Approving Market-Based Rates, and Establishing Hearing and Settlement Judge Procedures, 86 FERC ¶61,062 (January 27, 1999); Order Denying in Part and Granting in Part Rehearing and Clarification and Conditionally Accepting Compliance Filing, 88 FERC ¶61,138 (July 29, 1999); Order Approving Agreement on Governance and Denying Requests for Rehearing, 88 FERC ¶61,229 (September 15, 1999).

² See Regional Transmission Organizations, FERC Docket No. RM99-2-000, Final Rule, 89 FERC ¶61,285 (December 20, 1999).

³ Case 94-E-0952, In the Matter of Competitive Opportunities Regarding Electric Service, Opinion No. 96-12 (issued May 20, 1996), mimeo pp. 67-69.

to compete profitably with new entrants to serve market demands and reserve requirements. At a given level of demand within a market, allegedly "excessive" new entry would be offset by the departure of previously-certificated incumbents (or the incumbents might find other markets to serve). Meanwhile, no facility would be certificated without a demonstration that adverse environmental impacts have been minimized.

In these circumstances, an important public interest issue before us is the extent to which this particular facility is actually expected to contribute to competition. That issue is addressed later in this opinion.

In a related argument, CHV contends that a facility cannot be considered to be selected pursuant to an approved procurement policy "as a matter of law" unless it is shown to actually contribute to competition.¹ CHV's argument proceeds from a misinterpretation of the Public Service Law. The process by which a facility is selected does not depend upon specific findings about a plant's performance. In fact, Article X implies that whether a plant is selected pursuant to an approved procurement process is known before an application is made or hearings begin, as that factor determines the information an applicant must provide and the issues that are to be decided.² As just noted, we will consider the degree of expected competitive benefit to be provided by the proposed plant as part of the public interest assessment required by PSL §168(2)(e).

4. Waiver of Local Laws

Before the Examiners, CHG&E argued that the Board may not waive the application of local zoning requirements it finds to be unreasonably restrictive, as provided in PSL §168(2)(d), if the applicant is a private developer. In the absence of a legitimate public need for a proposal, CHG&E argues, the State

¹ CHV's Brief on Exceptions, p. 5.

² PSL §§164(1) and 168(2).

Constitution¹ preserves local governments' "home rule" authority. The Examiners rejected CHG&E's argument, agreeing with AGC and DPS that Article X is a law of general applicability validly overriding local laws,² and that there is no basis in Article X itself for a selective application of PSL §168(2)(d). On exceptions, CHG&E reargues its position that the Board may not properly intervene "into the governmental affairs of a locality" where a proposed facility is "undertaken on behalf of a private developer proposing a project having a private purpose and serving a private objective."³ CHG&E asserts that the Examiners' conclusion that Article X is a law of general applicability, is not "germane to the issue at hand" since, in addition to Article IX, §2(b)(2) of the NY Constitution, a state law pertaining to local concerns must also meet the requirements of Article IX, §2(b)(1).⁴

In response, AGC argues that the authority of the Legislature to enact a law of general applicability does not depend upon Article IX, §2(b)(1), which relates to the obligation of the Legislature to provide for the creation and organization of local governments. Because PSL Article X provides no distinction between private and public projects for purposes of override authority, AGC continues, there is no basis for CHG&E's interpretation of that authority.

CHG&E's arguments embody its theme that Article X's terms somehow do not apply except to a "public project," but no language of that nature is cited in the statute, and none in fact exists. Article X, and in particular §168(2)(d), is a law of general applicability, its terms applying generally with respect to any and all local laws or regulations. CHG&E does not deny

¹ NY Constitution, Article IX, §1.

² NY Constitution, Article IX, §2(b)(2).

³ CHG&E's Brief on Exceptions, pp. 16-17.

⁴ Ibid., p. 20.

that Article X is a law of general applicability, but instead cites Article IX, §2(b)(1) of the N.Y. Constitution. But CHG&E does not attempt to explain how the terms of that provision bear on the issue.

Moreover, an examination of case law suggests CHG&E's arguments are incorrect. Relevant decisions hold that any

enactment by general law, as is the case for Article X, may override local law.¹ CHG&E's exception is, accordingly, denied.

B. Environmental Issues

1. Aquatic Impacts

a. Hudson River

The proposed facility would not adversely affect groundwater or surface waters through deposition or through discharges to the Hudson River (both chemical and thermal).² The aquatic impact to which parties have paid most attention in this proceeding has been the biotic impact associated with the intake of Hudson River water to be used for the cooling system.

Closed cycle cooling systems (wet, hybrid, or dry) use much less water than the once through cooling systems employed at some existing plants located along the Hudson River. The hybrid system now proposed by AGC would include a pumphouse located on the west shore of the Hudson River at about river mile (RM) 115.5.³ The site selected for the intake and discharge facilities is approximately 36.5 RM south of the Troy Dam, about 39.5 RM upriver from the Hudson River estuarine salt wedge, under average flow, and about one mile north of the Rip Van Winkle Bridge.

The site was selected to avoid two nearby areas designated in the CMP as "Significant Coastal Habitats." These

¹ See Wombat Realty Corp. v State of New York, 41 N.Y. 2d 490(1977)(power of the Adirondack Park Agency); Matter of Town of Islip v. Cuomo, 64 N.Y. 2d 60 (1984)(the regulation of solid waste disposal); Skyview Acres Cooperative, Inc. v. Public Service Commission of the State of New York, 163 AD 2d 600, 604 (2d Dep't. 1990)(waiver of local zoning ordinances under Art. VII); and Consolidated Edison Company of New York, Inc. v. Town of Red Hook, 60 N.Y. 2d 99, 107 (1983)(local authority cannot be exercised inconsistent with state law).

² R.D., pp. 141-166.

³ The pumphouse would be a building about 45 feet long, 25 feet wide and 20 feet high.

are the Vosburgh Swamp/Middle Ground Flats, which is approximately two miles upriver from the proposed intake/discharge site, and Rogers Island, which is about 0.5 miles downriver. The width of the River at the intake/discharge facility site is about 3,450 feet, and the depth ranges from a few feet in the shallow flats along the western shoreline to about 32 feet below mean lower low water (MLLW)¹ in the federal navigation channel.

The process water would be withdrawn from the Hudson River through two screened intake pipes extending 580 feet from the western shoreline and located about 24 feet below the mean low water mark. The heads of the intake pipes would be six feet above the river bottom to avoid impacts to sediments and bottom associated fauna. The openings of the intake pipes would be covered with 2mm wedge-wire mesh screens. Process water withdrawn from the Hudson River would be pumped from the intake facility to the proposed energy facility through a single pipe.²

The proposed facility would also discharge treated waste water into the Hudson River. The discharge from the proposed facility would consist primarily of water used in the cooling system. The amount of water that would be discharged from the proposed facility would depend on the type of fuel being used. Treated waste water would be routed from the proposed energy facility to the pumphouse through a single 12-inch diameter pipeline. The discharge pipe would extend about 480 feet into the river from the pumphouse on the west shore of the Hudson River. The diameter of the discharge pipe would be reduced gradually to 8 inches and would be located 2.5 feet from

¹ Mean Lower Low Water (MLLW) is a tidal datum used in North America. It is the arithmetic mean of the lower low water heights of a mixed tide observed over a specific 19-year Metonic cycle. Only the lowest water of a tidal day is included in the mean.

² Exh. 19, §2.4.3 and Fig. 2-11.

the river bottom. The discharge point would be oriented at a 45° vertical angle pointing downstream.¹

AGC analyzed and reviewed the probable impacts of the proposed facility on aquatic resources, including impacts on aquatic vegetation, benthic (bottom dwelling) resources, and fisheries resources. It is uncontroverted that the proposed intake and discharge facilities would not adversely affect benthic resources or aquatic vegetation in the Hudson River, and that the discharge facility would not adversely affect any biotic resources. However, issues have been raised concerning the impacts of the intake facility on fisheries resources.

AGC's proposal to use a 2mm wedge-wire screen was fully litigated. DEC and DPS experts testified the facility would have very small biotic impacts. Riverkeeper and SH&FO sponsored witnesses arguing that aquatic impacts would be unacceptably high. Riverkeeper and SH&FO argued that the proposed facility would have excessive impacts on protected fish habitat areas and would kill too many fish--especially American shad, the Hudson River population of which, they contend, is in a state of crisis. The Examiners found that: (1) fish mortality at the intake structure would be low, and the evidence does not demonstrate that fish population levels of any species (including American shad, which spawns nearby in significant numbers) would be materially affected; and (2) the operation of the Athens plant would have a substantial overall positive impact on the Hudson River by displacing the operation of other generating plants that kill substantially greater numbers of fish.

Riverkeeper and SH&FO also argued that, were a certificate granted, AGC should be required to use dry cooling. Because dry cooling would involve lower intake of water, fish mortality would be reduced. Therefore, Riverkeeper and SH&FO argued, CWA requires dry cooling as the "best technology

¹ Exh. 19, App. D-6.

available" (BTA).¹ AGC and DPS disagreed, while DEC argued for an interpretation of the BTA requirement that would require dry cooling. The Examiners concluded that BTA for the proposed facility would be hybrid cooling.

In the remand hearings, several alternative approaches to reducing fish mortality, which had been identified earlier by DEC's witness, were considered in greater detail. The record was also augmented by cost information pertaining to dry cooling and to the alternatives. AGC proposed the installation of a "Gunderboom Marine/Aquatic Life Exclusion System" (Gunderboom), a device, AGC and DEC witnesses agreed, that would likely eliminate nearly all fish mortality at the proposed facility.

Following the hearings on remand, AGC, DPS, and DEC agreed that "BTA" is a 2mm wedgewire screen with a Gunderboom overlay. Riverkeeper and SH&FO continued to argue that the Gunderboom has yet to be proven effective, and that dry cooling should still be considered BTA.

In the June 2, 2000 decision regarding whether a SPDES permit should be issued in this proceeding, the DEC Commissioner concluded that "the capacity of the cooling water intake structures at the proposed facility should be reduced to minimize environmental impacts," and decided that "the conditions of the draft SPDES permit shall be revised to limit the [intake] capacity to 0.18 mgd."² The DEC Commissioner reasoned that "[t]he type of cooling water intake structure employed at a power plant has enormous environmental implications, particularly insofar as fish mortality is concerned," and found that "application of dry cooling would use markedly less water and reduce the adverse

¹ CWA §316(b).

² In the Matter of an Application for a State Pollutant Discharge Elimination System (SPDES) permit pursuant to Environmental Conservation Law (ECL) Article 17 and Title 6 of the Official Compilation of Codes, Rules and Regulations of the State of New York (6 NYCRR) Parts 750 et seq. by Athens Generating Company, LP, DEC No. 4-1922-00055/00001, SPDES No. NY-0261009, Interim Decision (issued June 2, 2000), pp. 16-17.

effects of entrainment, thereby minimizing adverse environmental impacts to a greater degree than a hybrid cooling system."¹

In the SPDES permit proceeding, Riverkeeper and Scenic Hudson (intervening without Friends of Olana) argued that a permit should be denied because the location of the proposed facility's intake structure would be near to or in the vicinity of significant fish habitat areas. The DEC Commissioner rejected their argument, concluding that such an outcome would render meaningless the Department of State's specific designations of significant habitat areas. The DEC Commissioner concluded, moreover, that "because of the reduced water withdrawal associated with the application of dry cooling, there would be minimal impact on nearby aquatic organisms."²

The record on fisheries impacts in this proceeding, which was specifically incorporated by reference into the SPDES permit proceeding, is extensive and supports our making the findings required by PSL §168(2). We conclude that operation of the proposed facility in accordance with the SPDES permit and the DEC Commissioner's decision would reduce fish mortality at the Athens site and would displace the operation of other, less efficient power plants located on the Hudson River, to an extent that fish mortality at those other plants would be reduced by a significant, albeit undetermined, amount, creating a net positive cumulative aquatic impact on the Hudson River fisheries.

On the basis of the DEC Commissioner's June 2, 2000 decision and the extensive record in this proceeding, we conclude that the environmental impacts at the proposed facility would be minimized, that the facility would comply with all environmental

¹ Ibid., pp. 12-13. The DEC Commissioner concluded that "application of Gunderboom technology at this site is a bit premature," because a variety of technical information about its deployment was not submitted for the record in this proceeding. Ibid., p. 11. The record in this proceeding was specifically incorporated by reference into the SPDES permit proceeding. Ibid., p. 7.

² Ibid., p. 16.

laws and regulations respecting aquatic impacts, and that a certificate should not be denied on the basis of aquatic impacts.

b. Sleepy Hollow Lake

i. Background

Sleepy Hollow Lake is a reservoir whose southern end is about two miles northeast of the proposed facility. The reservoir has a distant, indirect connection to a portion of the project site via Murderer's Creek, which flows through state regulated freshwater wetland HN-108 and then into the reservoir.¹

In its initial and reply briefs,² the Town of Athens expressed concerns about how construction and operation of the proposed facility might affect the water quality of Sleepy Hollow Lake and proposed certificate conditions to address those concerns. The conditions Athens continues to support have been accepted by AGC and are incorporated in the attached certificate conditions.

APO, who intervened after the conclusion of the hearings, raised concerns in its posthearing briefs about the adverse impacts the proposed facility might have on the water quality and aquatic biology of Sleepy Hollow Lake.³ Since then, APO has reached an agreement with AGC providing for the production of a "Lake Management Plan" that appears to address its concerns. In a statement filed after it settled with AGC, APO states that it has decided to "withdraw our prior comments and positions."⁴ The following is a summary of the concerns raised by APO.

¹ R.D., pp. 162-165.

² Athens' Initial Brief, pp. 13-14, and Reply Brief, pp. 1-6.

³ APO's Brief on Exceptions, pp. 3-6; APO's Brief Opposing Exceptions, pp. 2-12.

⁴ Letter to Siting Board, dated February 15, 2000.

ii. Erosion Control and Storm Water Management

In response to APO's concerns, the New York State Department of Health (DOH) argued that the potential impacts of the proposed facility on the Sleepy Hollow Lake watershed were properly addressed. DOH cited several portions of the application materials, including the erosion and sedimentation control and storm water management plan in Appendix B-3 to the application.¹ DOH pointed to the testimony of its own witness and to the testimony of other witnesses who addressed erosion control and storm water management plans.²

DEC explained that it reviewed the erosion and sedimentation plans proposed by AGC as well as the spill prevention, control and countermeasure plan, and determined that those measures would be protective of water quality.³ In addition, DEC explained that the size of the watershed for Sleepy Hollow Lake is 8,512 acres,⁴ and the portion of the proposed facility's site that would discharge to sediment/storm water management basins is about 0.2% of the area of the watershed.⁵

AGC reported that it had agreed to provide the Town with \$3,000 annually for 20 years to establish and maintain a water quality monitoring program for Sleepy Hollow Reservoir.⁶

¹ See DOH's Brief Opposing Exceptions, pp. 4-5.

² See testimony by DOH witness Grey (Tr. 3,278-3,288); DPS witnesses Ulrich and Morrisison (Tr. 5,067-5,090; 5,075, 5,079 and 5,082); and DEC Witness Kolakowski (Tr. 5,097).

³ DEC's Letter Brief Opposing Exceptions, pp. 3-4.

⁴ DEC's Brief on Exceptions, p. 5; DEC's Letter Brief Opposing Exceptions, pp. 3-4.

⁵ DEC's Reply Brief, pp. 2-3; DEC's Brief on Exceptions, p. 5, and DEC's Letter Brief Opposing Exceptions, pp. 3-4. See Exh. 19, Appendix B-3, Erosion and Sedimentation Control and Storm Water Management Plan, p. 1.

⁶ AGC's Brief Opposing Exceptions, p. 64, and Appendix D - Correspondence dated October 5, 1999 from the Applicant's counsel to the Town's counsel.

In addition, AGC stated that it will submit final versions of the spill prevention control and countermeasure plan, as well as the erosion control plans as part of a compliance filing, consistent with the procedures outlined in 16 NYCRR §1003.3. According to AGC, the plans will incorporate information that was specified for inclusion during the hearing and in the recommended decision.¹

We conclude that the subjects of erosion control and storm water management were properly addressed in this proceeding. AGC provided an erosion and sedimentation control and storm water management plan, as part of the application materials,² that provides considerable detail about controlling erosion and the management of the runoff from storm events. AGC will be required to supplement this plan as well as other required erosion control, spill prevention, and storm water management plans as part of a compliance filing.³ In addition, storm water will be regulated pursuant to a general SPDES permit during construction,⁴ and storm water will continue to be regulated as part of the SPDES permit for the proposed facility after operations commence.⁵ These matters were addressed in the uncontroverted testimony of DOH's witness as well as the testimony offered by other competent experts.

We find that there is no risk that contaminants would readily travel from the proposed facility's site to the Sleepy Hollow Lake reservoir via state regulated freshwater wetland HN-108 or Murderer's Creek, because the footprint of the proposed facility would completely avoid the wetland, its 100-foot

¹ AGC's Brief Opposing Exceptions, p. 65.

² Exh. 19, Appendix B-3.

³ Certificate Condition IV(P).

⁴ General SPDES permit for storm water discharges associated with construction activities (GP-93-06). R.D., p. 136.

⁵ Exh. 288.

adjacent area, and the creek.¹ Although the construction of the transmission interconnection to the Leeds substation and the pipelines from the pumphouse would disturb portions of wetland HN-108, the Examiners found that the proposed regulated activities in the wetland would comply with the criteria in 6 NYCRR §663.5.² Accordingly, we conclude that runoff from the proposed facility would not adversely affect the water quality of the Sleepy Hollow Lake reservoir.

iii. Deposition of Pollutants

Citing the hearing record,³ DOH is satisfied with the air dispersion modeling showing that the concentrations of all criteria and non-criteria pollutants from the emission stacks and cooling towers would be substantially less than either the established ambient air quality standards or the agreed upon health-based benchmarks.⁴ And AGC has taken the position that no additional analyses to evaluate potential impacts from cooling tower emissions on the Sleepy Hollow Lake reservoir are necessary.⁵ AGC's consultants developed a protocol with input from DEC and EPA for a comprehensive air dispersion modeling analysis, and the results of the analysis were reviewed and checked by the staff from various state agencies.⁶ The air dispersion modeling is a required element of the PSD review,⁷ and

¹ R.D., p. 241.

² R.D., p. 245.

³ See, e.g., Exh. 337; Tr. 5,164; Tr. 5,795-5,807; and Tr. 5,864-5,865.

⁴ DOH's Brief Opposing Exceptions, pp. 3-4.

⁵ AGC's Brief Opposing Exceptions, pp. 64-65.

⁶ Id.

⁷ DEC Air Guide 26 (December 1996) Guidelines on Modeling Procedures for Source Impact Analyses; USEPA Document No. EPA-450/2-78-027R, Guidelines on Air Quality Models, and 40 CFR Part 51 - Appendix W.

it was expanded for AGC's application to include non-criteria pollutants.

The results of AGC's dispersion modeling for stack emissions, and DEC witness Sedefian's review of the resulting data, are uncontroverted. We conclude from the depositional analyses that stack emissions will not have an unacceptable adverse impact on the Sleepy Hollow Lake reservoir. With the installation of dry cooling, there will be no cooling tower emissions.

iv. Blasting

The Examiners determined that a ground water and well protection plan would be desirable, because AGC had not addressed how blasting controls would assure that ground water would not be affected.¹ As a result, the Examiners have recommended the addition of language to Condition VII(D) [now IV(Y)]² requiring AGC to submit a ground water and well protection plan as part of a licensing package pursuant to 16 NYCRR §1003.3.

APO had wanted the recommended plan to include potential impacts to the Sleepy Hollow Lake dam and related infrastructure. AGC pointed out that the Conrail railroad line, existing natural gas pipelines, and the Leeds Substation are closer to the proposed site than the Sleepy Hollow Lake dam, and that the potential effects of blasting on those facilities have been thoroughly evaluated.³

Certificate Condition IV(Y) addresses APO's concern. We conclude that no additional mitigation is required at this point. APO, however, will have an opportunity to comment on AGC's compliance filing (16 NYCRR §1003.3).

¹ R.D., p. 254.

² R.D., Appendix N, p. 8.

³ AGC's Brief Opposing Exceptions, p. 66.

2. Visual Impacts

a. Visibility Assessment

In order to grant a certificate for a proposed electric generation facility, the Board must, first, determine "[t]he nature of the probable environmental impact" of an applicant's proposed electric generation facility, including "specification of the predictable adverse and beneficial effects on . . . aesthetics, scenic, historic and recreational value, forest and parks,"¹ and, second, find that "the facility minimizes adverse environmental impacts, considering . . . the interest of the state with respect to aesthetics, preservation of historic sites, forest and parks . . . and other pertinent considerations."²

An application for a certificate must include studies of "visual resources," namely, "local, regional, state or federally designated scenic resources, areas or features," on which a proposed facility is expected to have an impact. In pertinent part, these include:

1. Landmark landscapes.
2. Scenic districts and scenic roads designated by the Commissioner of Environmental Conservation pursuant to Environmental Conservation Law Article 49.
3. Scenic Areas of Statewide Significance.
4. State parks or historic sites.
5. Sites listed on National or State Registers of Historic Places.
6. Scenic overlooks.³

¹ PSL §168(2)(b).

² PSL §168(2)(c)(i).

³ 16 NYCRR §1001.3(b)(1)(iii).

An application must also include studies of existing and approved land uses;¹ "cultural resources," which are "identified historic, community and archeological resources listed, or eligible to be listed, in the National or State Registers of Historic Places";² and meteorology.³

The Board's regulations require an application to include "a statement and evaluation of the potential significant adverse impacts on the environment . . . at a level of detail that reflects the severity of the impacts" ⁴ There must be an evaluation of the identified resources "in relation to . . . any adverse impact on the environment that cannot be avoided should the proposed facility be constructed" and the "mitigation measures proposed to minimize impact on the environment." ⁵

AGC's visual assessment was conducted pursuant to a pre-application stipulation that provides for an analysis conducted according to the procedures set forth in the United States Army Corps of Engineers (COE) Visual Resources Assessment Procedure. That procedure includes the identification of viewer groups, definition of landscape similarity zones, selection of representative viewpoints, preparation of computer-assisted simulations of the completed facility, and development of comparative ratings of visual impact quality.

AGC identified visually sensitive resources and performed visual assessment field work, viewshed analyses, visual simulations, and visual impact analyses. AGC considered whether visual impact mitigation measures were needed. Among the issues addressed were the character and visual quality of the landscape

¹ 16 NYCRR §1001.3(b)(1)(i).

² 16 NYCRR §1001.3(b)(1)(iv).

³ 16 NYCRR §1001.3(b)(1)(v).

⁴ 16 NYCRR §1001.3(b)(1).

⁵ 16 NYCRR §1001.3(b)(2)(ii), (iv).

setting, the places from which the plant would be visible, what would be the significant and representative views of it, and how the facility would appear and tend either to change the nature of or to integrate with its landscape setting.

In particular, AGC (with the assistance of a consultant) conducted the following process:

1. Viewshed maps presented in the application showed the locations from which 225-foot exhaust stacks could be visible, based on topography, within a five-mile radius of the site. (The maps were later revised to reflect the current 180-foot stack height proposal.)
2. A preliminary investigation of recognized scenic, historic and recreational resources identified a list of 31 sites involving visually sensitive resources with potential visual impacts, including properties listed on the National Register of Historic Places and several designated scenic roads and overlooks.
3. AGC's consultant launched tethered balloons at the proposed project site that extended 225 feet in the air (to represent the height of the initially proposed stacks) and 650 feet in the air (to represent the height of a cooling tower plume resulting from wet evaporative cooling towers, the initially proposed cooling process), then noted viewpoints from which they could be seen. AGC's consultant's field work resulted in photographic documentation of 223 viewpoints within a five-mile radius study area. Among those sites, the photographs showed that the facility and the assumed plume would be completely screened from view at 112 locations, and that either the plume alone or both the plume and exhaust stacks would be visible from 111 locations.
4. From the 111 representative viewpoints at which either the assumed plume or both the stack and plume would be visible, 13 viewpoints were selected for a visibility simulation analysis. The simulations were developed with computer software that superimposes three-dimensional artist renderings of the proposed facility and wet evaporative cooling system steam plumes on digital photographs of the existing landscapes.

5. AGC's consultant made a preliminary identification of landscape similarity zones, based on landform, vegetation, water, land use, and user activity. Two focus groups of randomly selected local residents rated the landscape similarity zones. None of the zones was rated in the highest ("preservation") class, that is, areas to be protected by government policy. Some zones were rated as scenic to a degree ("retention" class). Many of the zones, particularly those involving transportation corridors, were rated as average. A different focus group reviewed AGC's simulations. Most members of that group expressed greater concern about views of the assumed large plumes than about views of the facility structure, and about views where either the plume or the structure would be partly visible against the sky.
6. Pursuant to the COE procedure, a four-person panel of registered landscape architects employed by AGC's consultant rated the simulations and concluded that none had a rating exceeding the threshold of allowable visual impact for the landscape similarity zone in which the view was located. The panel found that most of the simulations indicated no significant decrease in visual quality.

According to AGC, the low level of visual impact is attributable to the screening effect of topography and vegetation; the wooded north-south ridges on the east and west sides of Athens Flats; the presence of strong visual elements (e.g., rivers or mountains) to draw attention away from the facility; the lower elevation of the facility relative to most viewpoints; the horizontal orientation of the assumed cooling tower plume; the natural color of the facility; the presence in the area of other utility-related features; and the impact-reducing effects of distance.

To assess visual impacts on historic sites, AGC and OPRHP developed an inventory of 174 properties that are located within five miles of the proposed energy facility and that are more than 50 years old. Assuming 225-foot stacks, AGC determined that the facility would be visible from 136 of the 174 inventoried sites. AGC then incorporated in its assessment an

assumption that vegetative screening would be 40 feet tall, and it determined that the number of sites with potential visual impacts would be reduced from 136 to 89. Of the 89 sites, 34 were listed, or eligible to be listed, on the State and National Registers of Historic Places. AGC studied those sites, and seven additional sites it considered potentially eligible for listing.

AGC concluded that the visibility of the proposed facility at the studied sites would not have significant impacts on the historic integrity of those sites. At most of the properties, at least some screening would be present, so that at all but two of the sites visibility would be either limited or completely obstructed.

The Examiners found that with exhaust stacks of either 213 feet (initial proposal) or 180 feet (final revised proposal with hybrid cooling, and, as confirmed on remand, with dry cooling), the facility would be at least partly visible from many locations up to one mile to the east and one mile to the west of the proposed site, as well as at locations up to five miles to the north and three miles to the south. To the east and west, the Examiners found, ridges would screen views of the facility, so that the facility would not be visible from the Village of Athens and from other points along the western shore of the Hudson River, nor immediately to the west of the western shore of Sleepy Hollow Reservoir, nor, except at higher elevations, beyond the hills rising to the west of Route 9W. The Examiners found that "[s]ome more distant views of the facility would exist, from three to five miles away or beyond, east of the Hudson River at elevated locations both south or east (such as at Olana and Mt. Merino) and north of the [City] of Hudson, and to the west, at higher elevations beyond intervening topographic structure, such as locations near the New York Thruway and beyond."¹

The Examiners noted that AGC's revised proposal to install exhaust stacks 180 feet high substantially reduced the

¹ R.D., p. 76.

extent to which the facility would be seen. Excluding the effects of vegetative screening, the stack height reduction would result in a 10%-15% reduction in the potential visibility of the stacks throughout the viewshed area. The Examiners added that "topography-only viewshed analyses are conservative in that they do not account for the existing presence of forested areas or stands of trees and other vegetation that would block the view of the facility in locations where it would otherwise be visible," and that "[v]iewshed analysis introducing 40-foot vegetation in areas of known forestation shows a significant decline in visibility. . . ." ¹

b. Visual Impact Analysis

The Examiners observed that in the absence of other applicable provisions of law, the visual assessment of a proposed facility would entail a generally subjective evaluation of the degree to which adverse visual impacts could be mitigated sufficiently. They noted, however, that other provisions of law applicable to AGC's application provide somewhat more detailed criteria for assessing the significance of visual impacts.

Because the proposed facility would be visible from areas that are in the state's coastal zone and from areas with "Scenic Area of Statewide Significance" (SASS) designations (and some ancillary facilities would be installed in the coastal zone), the Examiners concluded that regulations and policies promulgated under the Waterfront Revitalization of Coastal Areas and Inland Waterways Law² provide a legal framework within which to evaluate the visual and aesthetic impacts of the proposed facility.

¹ R.D., p. 77-78.

² Executive Law, Article 42; 19 NYCRR Part 600; State of New York Coastal Management Program and Final Environmental Impact Statement, Section 6 (issued August 1982).

The Examiners noted that regulations of the Department of State establish two "scenic quality policies" for coastal areas: (1) "[p]revent impairment of scenic resources of statewide significance, as identified on the coastal area map"; and (2) "[p]rotect, restore and enhance natural and man-made resources which are not identified as being of statewide significance, but which contribute to the scenic quality of an identified resource." "Impairment" is defined to include, in pertinent part, "the addition of structures which because of siting or scale will reduce identified views or which because of scale, form or materials will diminish the scenic quality of an identified resource."¹

The Examiners then noted that, pursuant to the Department of State's Coastal Management Program (CMP) Recreational Policy 24, a SASS designation is based on consideration of four general criteria:

"(1) an area's scenic landscape quality will exhibit both variety and unity in form, texture, and color, without being chaotic or monotonous;

"(2) such high quality landscapes exhibit uniqueness, as determined by the frequency of occurrence in a region of the State or beyond;

"(3) a scenic resource of significance is visually and, where appropriate, physically accessible to the public; and

"(4) widespread recognition of a scenic resource, while not intrinsic to the resource, serves to reinforce analytic conclusions about the significance of the resource."²

¹ 19 NYCRR §600.5(d).

² R.D., p. 42.

The facility proposed in this proceeding could affect three areas with SASS designations: Olana mansion and grounds, Catskill-Olana, and Columbia-Greene.¹

For areas with SASS designations, Policy 24 sets forth siting- and facility-related guidelines to protect scenic qualities. As listed in the R.D., those guidelines are as follows:

1. siting structures and other developments such as highways, power lines, and signs, back from shorelines or in other inconspicuous locations to maintain the attractive quality of the shoreline and to retain views to and from the shore;
2. clustering or orienting structures to retain views, save open space and provide visual organization to a development;
3. incorporating sound, existing structures (especially historic buildings) into the overall development scheme;
4. removing deteriorating and/or degrading elements;
5. maintaining or restoring the original land form, except when changes screen unattractive elements and/or add appropriate interest;
6. maintaining or adding vegetation to provide interest, encourage the presence of wildlife, blend structures into the site, and obscure unattractive elements, except when selective clearing removes unsightly diseased or hazardous vegetation and when selective clearing creates views of coastal waters;

¹ The boundaries of these area are shown on Exh. 300.

7. using appropriate materials, in addition to vegetation, to screen unattractive elements; and
8. using appropriate scales, forms and materials to ensure that buildings and other structures are compatible with and add interest to the landscape."¹

The Examiners observed that CMP Policy 25, pertaining to visual impacts in non-SASS coastal areas, nevertheless encourages consideration of CMP Policy 24 guidelines.

The Examiners observed that some parties to this proceeding cited CMP Policies 24 and 25 as supporting the proposition that any visibility constitutes "impairment," and that any impairment would disqualify a proposal to locate a generating facility within coastal areas or near to the Hudson River. The Examiners rejected that view, pointing out that "CMP policies by their terms are intended to harmonize preservation of natural and scenic resources with human population growth and economic development," because "Policy 24 itself includes siting guidelines which necessarily contemplate development with mitigation." Moreover, the Examiners continued, "[t]he scenic policies also emphasize that the character and public accessibility of views of the natural landscape must be evaluated in determining the extent of protection they are to be afforded." Thus, they concluded, "a balancing is called for between aesthetic and developmental interests."²

Turning to the subject of impacts on sites with historic significance, the Examiners determined that the criteria for eligibility for listing a site in the State Register of Historic Places "illuminate the nature of the values protected by these provisions."³ Those criteria are as follows:

¹ R.D., pp. 42-43.

² R.D., pp. 44-45.

³ R.D., p. 46.

(a) The quality of significance in American history, architecture and culture is present in districts, sites, buildings, structures, and objects that possess integrity of locations, design, setting, materials, workmanship, feeling and association, and:

(1) that are associated with events that have made a significant contribution to the broad patterns of our history; or

(2) that are associated with the lives of persons significant in our past; or

(3) that embody the distinctive characteristics of a type, period or method of construction, or that represent the work of a master, or that possess high artistic values, or that represent a significant and distinguishable entity whose components may lack individual distinction; or

(4) that have yielded or may be likely to yield, information important in prehistory or history.¹

The Examiners then referred to Parks, Recreation and Historic Preservation Law (PRHPL) §14.09, which pertains to the approval of a private project by a state agency "if it appears that any aspect of the project may or will cause any change, beneficial or adverse, in the quality of any historic, architectural, archeological, or cultural property that is listed on the national register of historic places or property listed on the state register or is determined to be eligible to be listed on the state register by [OPRHP]." The statute provides that adverse impacts occur under conditions including, but not limited to:

- (a) destruction or alteration of all or part of a property;
- (b) isolation or alteration of its surrounding environment;
- (c) introduction of visual, audible, or atmospheric elements that are out of character with the property or alter its setting;

¹ 9 NYCRR §427.3.

- (d) neglect of property resulting in its deterioration or destruction.

State agencies are required to "fully explore all feasible and prudent alternatives and give due consideration to feasible and prudent plans which avoid or mitigate adverse impacts on such property."¹

The Examiners concluded that "in evaluating the proposed facility's impacts on an historic site, both the values protected at the historic site and the nature of the impact of the facility on the historic site must be examined." The Examiners concluded further that the "setting" should be regarded as significant if it relates to the historic values being protected. If the significant values are architectural values, for example, the view of the property, but not generally the view from it, may require protection from the encroachment of new, adverse elements. The Examiners reasoned that "the law intends to protect listed historic, architectural, archeological or cultural properties against undue changes in their 'quality.'"²

The Examiners found that the visibility of the proposed facility, in general terms, would not constitute a significant adverse impact, because (i) "the facility in general would not compromise significant scenic qualities or create unmitigable visual conflicts with its surroundings"; (ii) "the facility is basically not a visual factor beyond the studied five-mile radius"; (iii) "from the distant locations within that [five-mile] radius, with a few exceptions, it either cannot be seen at all, or only the tops of the stacks would be visible"; and (iv) "[f]rom nearby locations, more complete views of the plant buildings would be most visible in the open areas directly to the north," especially to travelers on Route 9W.³

¹ PRHPL §14.09.

² R.D., p. 50, footnotes omitted.

³ R.D., p. 78, footnote omitted.

With respect to the "near-field" impact, the Examiners observed that when the trees along Route 9W are not foliated, the plant would be somewhat visible to nearby traffic, although there is substantial vegetative screening along Route 9W. The Examiners found that "[t]he quality of the scenery along Route 9W is unremarkable," "light industrial and commercial activity is plentiful," and that the near field "is not in a SASS, and does not meet the essential ingredients for SASS consideration set forth in Policy 24, as the views are fairly monotonous and do not include high quality landscapes exhibiting uniqueness."¹

The Examiners evaluated 11 historic sites (other than the Olana National Historic Landmark and State Historic Site) identified by OPRHP, found minimal impacts at some, and concluded that the impacts at others, though greater, were not significant. The Examiners determined that many of those sites fell within the category where it would "not be appropriate to consider the setting of a listed site beyond its own property boundaries, or adjacent properties."² The Examiners also found that "visual concerns do not exist for archeological sites in the area," because "the significance of these sites rests with the information about prehistoric human life that is buried in the ground"; "the quality of the scenery as viewed from such sites is not high"; and "these sites are privately owned, are not structurally developed, and are not identified for public observation."³

The Examiners determined that Olana is a site where "visual and aesthetic aspects of the property and surrounding area relate to the protected values underlying [its] listing" as

¹ R.D., pp. 78-79, footnote omitted.

² R.D., p. 50.

³ R.D., pp. 92-93. The Examiners added that "[i]n fact, their locations may be kept confidential in some instances to prevent looting," and that "[t]here is no evidence that development of archeological sites in the region for public visitation is under consideration" (R.D., p. 93).

an historic site, and concluded that "[w]here such views are an important value . . . it would appear reasonable and consistent with Historic Preservation Law to apply the criteria of Coastal Management Policy 24, which are designed to apply to areas of significant scenic quality."¹

The Examiners concluded that, with respect to the Olana site, the Policy 24 siting and facility-related guidelines were "comfortably met."² The Examiners found as follows:³

1. "AGC's consultant's rating panel of landscape architects, which originally found a modest detrimental impact on views from Viewpoint 160 [near the north end of the Olana site], essentially found the facility's impact to be negligible with the introduction of camouflaging paint colors, hybrid cooling and plume mitigation, and reduced stack height."
2. "For the most part, the facility site cannot now, and need not, be seen by the public from Olana. To be sure, there is a somewhat open view from Olana at viewpoint 160, but outward viewing to the northwest at that location has been developed only since the commencement of this proceeding, and views of the facility can be avoided there. Although restoration might open up some additional views to the northwest from Ridge Road, such views are not the prime scenic views from Olana, are not pristine, and would suffer only to a minor degree from the presence of a generating facility about

¹ R.D., p. 51.

² R.D., p. 118.

³ R.D., pp. 118-120.

3.9 miles distant, especially since the facility site is removed from the shoreline and is in a relatively inconspicuous setting."¹

3. The northwest viewshed "is not a prime scenic view from Olana, especially compared to the southwest views of the Catskills, nor does the view from that direction significantly impact areas of SASS designation."
4. "We conclude that the plant would not appear 'massive' from Olana. At about four miles distant, simulations demonstrate that it becomes a relatively minor element of the broader viewshed, and in the absence of plumes and stack lighting, will not be especially likely to attract attention. Warning lights and plumes would have been more obvious, contrasting elements, but they are avoided here. At either 213 feet or 180 feet, the tops of the stacks would not break the horizon as viewed from Olana, and would blend into the background. Moreover, steps recommended by DEC, OPRHP, and DPS can be taken to further screen the plant and blend it into the background."

Exceptions to the Examiners' conclusions have been filed by SH&FO, Dr. Nitschke, APO, CHV, and (on one minor point) DPS. DEC and OPRHP, both of whom had raised concerns about the initially-proposed facility's visual impacts, have not filed

¹ The Examiners expressed some doubts about whether mature trees would be cleared from the vicinity of Viewpoint 160 and concluded that "restoration will not necessarily open up significant views of the facility along Ridge Road." The Examiners found, moreover, that from Ridge Road "views of the relatively low-lying cooling towers might also be partially screened by a ridge on the west side of the river; additional off-site vegetative screening, especially along that ridge, may be possible" (R.D., p. 119).

exceptions concerning the visual impacts of the facility recommended for certification.¹

The exceptions raised arguments that the Examiners improperly discounted the degree of visual impact of cooling tower steam plumes, and that the Examiners improperly discounted the adversity of the facility's visual impact from specific locations and viewpoints.

c. Plume Abatement

The proposed facility would use Hudson River water for cooling purposes. A cooling technology called "wet cooling" was initially proposed by AGC but abandoned in its rebuttal presentation. In a wet cooling system, hot water from a plant is passed along a metal surface that is sprayed with cooler water. Heat dissipates from the hot water through the metal surface and the cooler spray water heats up and evaporates. Water that is cooled in this manner is reused multiple times before being returned to the river, reducing the amount of water needed significantly in comparison to the once-through option employed at many existing power plants. However, this option produces a rather large, and relatively frequent, atmospheric plume.

In order to reduce the visual impact of the proposed facility, AGC shifted its support to a technology called "hybrid" or "wet-dry," because it combines wet cooling, as just described, with dry cooling sections. The evaporative sections of the hybrid cooling cells would operate to provide the bulk of the needed cooling. If steam plumes began to form because of meteorological conditions, plume abatement would occur by running

¹ The R.D. states that AGC has agreed to OPRHP's proposed off-site planting mitigation proposal, in Certificate Condition X(K) (Landscape Planting and Restoration Plan), and has accepted the Historic Preservation Benefit Fund proposal in Certificate Condition IX(G). We agree with the Examiners' conclusion that the proposed mitigation fund appears reasonable, because it would address visual mitigation issues, especially off-site planting, arising after the construction of the facility (R.D., p. 119).

the dry sections of the hybrid cells. The system effectively eliminates plumes, within the design parameters of the equipment.¹

The Examiners recommended certification of hybrid cooling with the condition that the dry sections should run from 9:00 a.m. until dusk from April through September.

Another option given consideration was a "dry" cooling system, which pipes steam from the generating units directly to an air-cooled condenser where fans would continuously blow air across the condenser coils. SH&FO supported dry cooling, from a visual perspective, because it would eliminate steam plumes entirely.²

The SPDES permit issued to AGC on June 12, 2000 limits water intakes at the proposed facility to 0.18 mgd, which requires the installation of dry cooling. The DEC Commissioner's Decision, dated June 2, 2000, necessarily rests on a consideration of aquatic impacts. There remains to be considered the expected visual impact resulting from the installation of dry cooling.

SH&FO argued on exceptions that the 104 hours' worth of steam plumes resulting from installation of hybrid cooling would, in and of themselves, constitute unacceptable visual impacts. SH&FO also noted that AGC's visual impact witnesses, who came around to the position that mitigated plumes would offer sufficient scenic protection, once opined that plumes from evaporative cooling towers would have only modest detrimental visual impacts. SH&FO argued that "nothing in the applicant's latest visual impact evaluation of this facility indicates that

¹ The amount of water used at power plants with hybrid cooling technology is generally about the same as at wet cooled plants, although there is evidence water use may be lower in some circumstances.

² Dry cooling also further reduces water usage, and SH&FO along with Riverkeeper supported dry cooling because of the reduction in aquatic impacts.

the bias that was obviously present in the applicant's first evaluation of impacts is now gone,"¹ and argues further that the Examiners should not have credited their testimony.

As to this last argument, we find it to be without merit. On the basis of a given set of facts, AGC's witnesses and the Examiners reached different conclusions about the visual acceptability of an evaporative tower plume. It does not follow that, absent "bias," they could not logically agree about the acceptability of a diminished hybrid tower plume. The recommended decision reflects consideration of a variety of presentations on this topic, and sets forth fully-explained conclusions.

All other exceptions addressing the visual impact of steam plumes are moot. The decision of the DEC Commissioner in the SPDES permit proceeding limits the daily water intake of the proposed facility to 0.18 mgd. That limitation can be met only if a dry cooling system is installed, and a dry cooling system would generate no steam plumes.

In the remand hearings, AGC stated that the height of the dry cooling structures would be 90 feet (instead of 100 feet, as initially believed), and that the towers would be spaced closer together than initially expected. Those changes reduce substantially any perceived structural visual disadvantage associated with dry cooling. Dry cooling towers would not be visible from the south, because they would be the same height as the steam generator buildings, and the combustion stacks would still be 180 feet tall. The dry towers would be a little more apparent than the hybrid towers would have been from vantage points to the north, east or west of the facility, but the structures would be partially screened and painted in dark tones set against a backdrop of similar color.

d. Olana

¹ SH&FO's Brief on Exceptions, p. 27.

i. North and Northwest Viewshed

SH&FO objects to the Examiners' conclusion that the viewshed from Olana to the north and northwest, which is not an area of SASS designation, would not be significantly and adversely affected by the proposed facility. SH&FO alleges that "in documenting Olana and its viewshed as a [SASS], the Department of State recognized that north and northwest views were originally available to Olana's visitors," and claims that "[a]s intended views, views to the North and Northwest fall within the ambit of existing State protection."¹ Dr. Nitschke, while failing to raise a proper exception to the R.D.'s visual impact analysis,² repeats the argument raised in his initial brief to the Examiners that the northwest viewshed from Olana was featured in a painting by Olana's original owner, the celebrated artist Frederic Church, and that a "massive power plant . . . would have a devastating adverse impact on these views."³

SH&FO also takes issue with the Examiners' expressed doubts about the extent to which mature trees would be removed

¹ SH&FO's Brief on Exceptions, pp. 8-9. This exception, and the others raised by SH&FO, appear to be based at least in part on the assertion in the introductory section of its brief on exceptions that the proposed facility would be located "about 2 miles west of the Hudson River, on a hill overlooking the Hudson River Valley and in the shadow of the Catskill Mountains" (SH&FO's Brief on Exceptions, p. 1), and its later assertion that the facility "would sit on top of a ridge" (*ibid.*, p. 6). AGC points out in response that "[t]o the contrary, the Hudson River Valley cannot be seen from the [site of] the Energy Facility (and vice versa) inasmuch as the Energy Facility and the river valley are separated by nearly two miles and intervening topography. Ex. 342. And the Catskill Mountains are ten miles distant from the Energy Facility. Ex. 19, Application, App. J-1, Figure 10" (AGC's Brief Opposing Exceptions, p. 7, n 5).

² The pertinent PSC rule applicable to this PSL Article X case provides that a brief on exceptions "should not simply reiterate the party's position, but should explain why the party believes the recommended decision to be in error" (16 NYCRR §4.10(c)(2)(iv)).

³ Dr. Nitschke's Brief on Exceptions, p. 42.

from the northern part of the Olana site to open up views to the north and northwest. SH&FO contends that its witnesses "described planned restoration to Ridge Road to recreate the 'open and park like setting that offered nearly panoramic views to the north, northwest, west, and southwest,'"¹ and that "Ridge Road restoration will undoubtedly open up views across the River, placing this facility directly in the line of sight of hundreds of thousands of Olana visitors each year."²

DPS and AGC oppose SH&FO's exceptions. DPS argues that there is no evidentiary basis for a finding that the limited visibility of the proposed facility would impair the scenic quality of any SASS. AGC argues, in the same vein, that SH&FO has advanced factually incorrect arguments, both (1) in denying AGC's witness's observation that, as one moved north from viewpoint 160, the facility would be increasingly screened by a west shore ridge, and (2) in asserting that a person walking along the incline in Ridge Road heading north would continue to keep the facility in full view. AGC contends in addition that there is no convincing evidence that plans to "restore" views at the Olana site would create enhanced views of the proposed facility that would be seen by numerous visitors.

The record shows that the proposed facility would be constructed in a viewshed from Olana that would not be degraded by the addition of the facility.³ At ground level on the Olana property, views of the project site area are nearly completely obscured by mature trees, and the evidence about the extent to which "restoration" plans would increase the number of viewpoints

¹ SH&FO's Brief on Exceptions, pp. 16-17.

² Ibid., pp. 12-13.

³ See, e.g., R.D., p. 111, and the transcript passages cited there. The visual simulations of the proposed facility in operation, prepared to illustrate cooling tower steam plumes under different conditions, show that the facility structure itself would not contribute a significant feature in the north and northwest viewshed. Exhs. 275-277, 279, 324.

from which the site would be visible from Olana is not conclusive.¹

We agree with, and adopt as our own, the following finding by the Examiners:

[T]he superlative descriptions offered of the renowned views to the southwest were not also intended to apply, and in fact would not apply, to the northwestern views. The view southwest from the mansion is more scenic than the northwest view, which we observed at viewpoint #160. The Rip Van Winkle Bridge effectively marks the dividing line between two viewsheds of contrasting scenic quality. The Catskill Mountain peaks rise to the southwest, creating the backdrop for the above-described renowned views from the mansion that also include the Village of Catskill and varied terrain in the foreground. In contrast, views to the northwest offer a basically flat horizon in the distance, and encompass a section of the Hudson River Valley in the foreground which includes topographic and land use features that are not unusual or extraordinary.²

Nor is there evidence showing that, assuming restoration work near Ridge Road occurs, large numbers of Olana visitors would walk to where the plant site would be visible. We conclude that the insubstantial change in the north and northwest viewshed resulting from construction of the proposed facility does not constitute a significant adverse impact that would justify denial of AGC's application.

ii. Studio Tower View

At the house on the Olana site is a five-story tower that is reachable only by ladder, and whose platform is surrounded by a one-foot-high railing. Public access to the tower is generally not available, although individual requests for access might be granted.

¹ R.D., pp. 97-102.

² R.D., pp. 106-107.

SH&FO contends that the proposed facility would be "clearly visible" from the studio tower, and asserts that "[f]urther restoration of the house may open it more often." In addition, SH&FO objects to the Examiners' reliance on the guideline, set forth in CMP Policy 24, stating that the protection available for a particular view may depend in part on its accessibility to, and the recognition of its value by, the general public. In SH&FO's words, "The Examiners reject OPRHP's argument that degree of public access is not an appropriate criteria [sic] upon which to evaluate impacts, by finding (incredibly) that, as Olana is a tourist attraction, views that cannot be seen by tourists can't be material."¹

In response, AGC argues that the proposed facility would not be "clearly visible" from the tower, because only the exhaust stacks would not be screened by existing vegetation. In addition, AGC argues that CMP Policy 24 properly emphasizes that public accessibility to views must be evaluated in determining the extent of protection they are to be afforded, and notes that the tower would be unsuitable for use by the general public.

SH&FO's exception is denied. As just described, the visual impact of the proposed project on north/northwest viewshed, whether seen from the studio tower or elsewhere on the grounds at Olana, would not be significantly adverse. Moreover, the probability that members of the general public would have access to the tower is low,² so, the public's ability even to observe the project site from the tower is also very unlikely.

iii. Regional Character

Responding to the Examiners' observation that the viewshed from Olana is "not pristine" and includes industrial and commercial facilities, SH&FO asks rhetorically: "If previous industrial use, no matter its age, size, or intrusive visibility

¹ SH&FO's Brief on Exceptions, p. 7.

² R.D., pp. 95-96.

in protected viewsheds[,] renders such designated areas 'fit' for further industrial intrusions, what is the State protecting?" SH&FO argues that its witness "testified that the region is not primarily celebrated for its industrial use but for its 'exceptional views' which are an 'essential part' of Frederic Church's artistic creation at Olana," and that "[t]he views from Olana, on their face, are primarily natural and bucolic rather than urban or industrial in setting."¹ SH&FO argues that such views "should be protected from incursions like the Athens facility."²

DPS opposes SH&FO's exception, especially the insinuation that no efforts were undertaken to mitigate the visual impact of the initially-proposed facility. DPS points out that its visual assessment is the foundation for plume controls, lighting controls, stack reductions, and landscape restoration requirements, and that the mitigation measures it has proposed "have the appropriate influence in removing the significant visual contrasts that the originally-proposed facility would have created: color and form contrasts due to substantial cooling-tower plume visibility have been eliminated by adoption of hybrid cooling structures; color contrasts of the facility structures have been eliminated by adoption of darker colored siding and roofing materials; glare from facility lighting has been eliminated by adoption of lighting controls and transmission line

¹ SH&FO's Brief on Exceptions, p. 25. SH&FO has also reacted to the Examiners' passing reference to the fact that "numerous landscapes were painted and sketched by Hudson River School artists, including Church himself, that included industrial elements," and that "[m]any of these paintings and sketches, even those by Mr. Church himself, show factories and plumes in both industrial and natural settings" (R.D., pp. 114, 115). (The R.D. noted as well that many of the paintings were shown in a 1983 exhibit of nineteenth century images of Hudson River valley industries.)

² Ibid., p. 26.

conductor treatment; and tree protection measures will assure preservation of on-site vegetation screening."¹

DPS argues that the mere fact that the facility would be visible from Olana and areas with SASS designations "is neither an identification of how the modified facility structures would diminish the scenic quality of the resource or contrast with the background setting, nor a description of the basis for finding that the modified facility, while visible, would be discordant because of scale, color, design, reflective quality, or architectural materials."² DPS notes that "SH&FO did not specifically demonstrate any substantive issues of scale, form or materials that would diminish the scenic quality of the SASS area or the coastal zone,"³ because the intervenor's testimony was to the effect that the most significant and sensitive viewing areas were within a one-and-one-half mile radius of the facility, an area which includes no SASS areas or sub-units and no coastal zone areas. In fact, DPS continues, "[n]o party has identified in a coherent or persuasive way the basis upon which the Catskill-Olana or Columbia-Greene North SASS areas could be found to have been impaired (as defined in the implementing regulations and policy statements) by siting of the modified facility."⁴

AGC has also replied to SH&FO's exception, pointing out as well that SH&FO's witness focused on visual impacts within a one-and-one-half-mile radius of the proposed facility's site, an area that is neither within a coastal zone nor designated as a SASS. AGC argues that the state's SASS designations recognize the difference in scenic quality between the southwest and northwest viewsheds from Olana, a difference the Examiners recognized from their first-hand observation.

¹ DPS's Brief Opposing Exceptions, pp. 12-13.

² Ibid., p.12.

³ Ibid., p. 13.

⁴ Id.

The record shows that several industrial facilities and uses are present in the views from and of designated SASS areas, including even the southwest viewshed from Olana. The northwest viewshed from Olana includes coastal areas that have not received SASS designations. The decision not to include the view over the Hudson River toward the proposed energy facility in a SASS reflects the ordinary nature of that view. The proposed facility, with the mitigation measures proposed by DPS and accepted by AGC, would blend into the surrounding environment, and therefore would not appear as an out-of-character intrusion in the northwest viewshed. SH&FO's exception is contrary to the weight of the evidence, and we reject it.

iv. Conclusion - Olana

After thoroughly taking into account the existing, suitably protective state coastal zone and historic preservation policies discussed earlier, the Examiners properly concluded that the proposed project would be a small element in the viewshed from Olana. The visibility of the structures would be obscured by vegetative and topographic screening and further reduced by a variety of mitigative measures. With the installation of dry cooling, even the inconsequential plumes resulting from hybrid cooling would be eliminated. We find that the probable visual impact of the proposed facility would be slight, and that such impact would not be significantly adverse to the interests and areas of concern identified in PSL §168(2).

e. Other Historic and Cultural Resources

i. Regional Setting

On exceptions, Dr. Nitschke continues to argue that "[t]he geographic location and setting of historic properties are of prime importance and if that location and setting are reasonably intact from the time of the significance of the

property, then the setting takes on added importance."¹ According to Dr. Nitschke, "it is not the views of current occupants of the historic house that are being protected, it is the intrinsic views and other values of the historic property that are being protected for future generations."²

Within a five-mile radius of the proposed facility, Dr. Nitschke asserts, there is an historic archeological site, four historic districts, and sixty-four individual buildings listed (or eligible for listing) in the National Register of Historic Places. Within the districts, he continues, there are over 1,500 individual properties listed, or eligible to be listed, on the national register. Thus, he concludes, the historic "setting" provides a sufficient basis for precluding additional development on the scale of the proposed facility, and he likens AGC's proposal to a proposal to build a plant on Plymouth Rock or at Mount Vernon.

The Examiners analyzed the historic sites that OPRHP identified as deserving consideration, and concluded that the historic values associated with those sites are site-specific and would not be significantly affected by the visibility of the proposed facility to a person situated at or near those sites. The Examiners concluded that Dr. Nitschke's argument implies that a new electric generation facility could be barred from any broad regional "setting" that contains historical sites, even if the facility could not be seen from those sites, and even if other commercial activities continue or are introduced. His argument implies further that PSL Article X provides for a more stringent standard for "historic preservation" than do the laws, regulations, and policies specifically addressing that subject.

PSL Article X requires the Board to consider whether a proposed electric generating facility would comply with the requirements outlined in the applicable historic preservation

¹ Dr. Nitschke's Brief on Exceptions, p. 20.

² Ibid., p. 26.

statutes and implementing regulations. There is no basis in law or policy for applying a more stringent standard as proposed by Dr. Nitschke. Accordingly, we are denying his exception.

ii. Specific Historic Sites

As discussed earlier, the Examiners evaluated 11 historic sites (other than Olana) identified by AGC and OPRHP, found minimal impacts at some, and concluded that the impacts at others were not significant. The Examiners determined that many of those sites fell within the category where it would "not be appropriate to consider the setting of a listed site beyond its own property boundaries, or adjacent properties."¹

OPRHP has not excepted to the Examiners' conclusion.² Dr. Nitschke's only properly-framed exceptions³ address the alleged visual impacts at two specific sites, the Black Horse Inn site along Route 9W and the Oliver Wiswell House on Mt. Merino near the City of Hudson.

The structure that housed the Black Horse Inn is no longer standing, but, according to Dr. Nitschke, "[t]he current setting, with a farm stand and nineteenth century barn, still conveys the original roadside panorama of an eighteenth century tavern." Dr. Nitschke reasons that because the proposed facility would be "clearly visible" from this site, there would be an adverse impact on "the visual background of the property."⁴

The Wiswell House would face the project site from high ground on the east side of the Hudson River. The Examiners

¹ R.D., p. 50.

² In its brief on exceptions, AGC points out that OPRHP had initially alleged that there would be adverse visual impacts at the Whitbeck House site, but then stated in its brief to the Examiners that the proposed reduction in stack height and installation of hybrid cooling would eliminate those impacts.

³ See 16 NYCRR §4.10(c)(2)(iv).

⁴ Dr. Nitschke's Brief on Exceptions, p. 24.

concluded that the proposed facility would be visually insignificant at this site, given that (i) the site is privately owned and inaccessible to the public; (ii) first-floor views of the proposed facility would be partly screened; and (iii) electric transmission lines appear in more immediate views from the property. The Examiners concluded as well that views from the house are not the principal historic values to be protected. On exceptions, Dr. Nitschke argues that the National Register nomination form for the Wiswell House cited "expansive views of the Hudson River and the Catskill Mountains to the west,"¹ and that those views remain even with power lines in the viewshed.

In its reply to Dr. Nitschke's exceptions, AGC notes that the intervenor's arguments equate visibility of the proposed facility with adverse visual impacts. The Black Horse Inn site is not in a SASS, and, as noted in the recommended decision, the "limited views" of the proposed facility would be "from the parking area on the property."² Although Dr. Nitschke asserted that private views of the Hudson River and the Catskill Mountains from the Wiswell House³ were considered to be significant, he provided no explanation about how the proposed facility would materially affect those views, especially given the far more discordant view of conspicuous transmission lines in the foreground. Dr. Nitschke's allegations of significant adverse visual impact are not well supported, and his exception is denied.

¹ Dr. Nitschke's Brief on Exceptions, p. 25.

² R.D., pp. 85-86.

³ The record is clear that views of the Wiswell House from the road are to the east, away from the Hudson River.

iii. Archeological Sites

The Examiners found that "visual concerns do not exist for archeological sites in the area," because "the significance of these sites rests with the information about prehistoric human life that is buried in the ground"; "the quality of the scenery as viewed from such sites is not high"; and "these sites are privately owned, are not structurally developed, and are not identified for public observation."¹

On exceptions, Dr. Nitschke repeats lengthy excerpts from his prepared direct testimony (i) pointing out that West Athens Hill is the "largest known Paleo-Indian site in New York State and one of only nine such sites listed in the northeastern United States"²; (ii) contending that constructing the proposed facility to the south of the site would be akin to building generation plants in or near national parks;³ and (iii) noting that a bill was introduced in the Legislature in 1923--but never enacted--creating a "Flint Mine Hill State Reservation." Dr. Nitschke considers the failure to enact that bill to be an "accident of history,"⁴ and contends (without citation to any authority) that "Environmental Bond Act monies have been considered for the purchase of Flint Mine Hill and West Athens

¹ R.D., pp. 92-93. The Examiners added that "[i]n fact, their locations may be kept confidential in some instances to prevent looting," and that "[t]here is no evidence that development of archeological sites in the region for public visitation is under consideration" (R.D., p. 93).

² Dr. Nitschke's Brief on Exceptions, p. 10.

³ According to Dr. Nitschke, "[t]he views from these sites to the surrounding areas and the views to the sites from the surrounding areas are a precious part of the visiting experience" because they are, allegedly, very similar to "the ancient fragile views originally seen by the Paleo-Indians ten thousand years ago" (Dr. Nitschke's Brief on Exceptions, p. 11).

⁴ Dr. Nitschke's Brief on Exceptions, p. 13.

Hill for public ownership."¹ According to Dr. Nitschke, "building the Athens plant would decrease the public value" of the sites and "make their purchase and protection less likely."²

AGC and DPS oppose Dr. Nitschke's exception. AGC endorses the Examiners' assessment of the visual significance of the archeological sites, and DPS observes in addition that Dr. Nitschke "would have the Board, in effect, impose a moratorium on development in an area that was nominated for public purchase some 76 years ago, but which nomination has not been enacted by the State Legislature in those intervening 76 years." DPS adds that "[n]either has the Town of Athens sought to protect the area by means of its zoning code (Ex. 19, Fig. 11-1)." DPS points out that OPRHP has accepted AGC's willingness to stipulate to the development of a cultural resource management plan, and "has not raised the concerns regarding the archeological resources Dr. Nitschke alone has deemed to be at risk due to siting of the proposed energy facility."³

The Examiners found that there would be no adverse visual impacts from the proposed facility on nearby archeological sites, because the historic values of archeological sites would not be affected by the proposed facility.⁴ Dr. Nitschke's exception provides no record basis for overturning the Examiners' conclusion, and it is denied.

iv. Conclusion - Other Historical and Cultural Resources

After thoroughly taking into account the existing, suitably protective historic preservation policies discussed earlier, the Examiners properly concluded that the proposed

¹ Ibid., pp. 13-14.

² Ibid., p. 15.

³ DPS's Brief Opposing Exceptions, p. 2.

⁴ R.D., pp. 91-93.

project would have no significant adverse impact on historical and cultural resources. We concur, and we find that the probable visual impact of the proposed facility would not be significantly adverse to the interests and areas of concern identified in PSL §168(2).

f. Other Viewpoints

i. Escarpment Trail

In his direct testimony, Dr. Nitschke alleged as follows:

The proposed generating facility is in direct view of some of the most important early tourist locations in the northeastern United States including the site of the Catskill Mountain House and the North Mountain segment of the Escarpment Trail (and celebrated viewpoints like Newman's Ledge and North Point). These are among the most famous tourist sites in nineteenth century America, were visited by well-known people of the time, and are of prime importance in American history.¹

Dr. Nitschke acknowledged that cement plants are in the viewshed he described, and he conceded that for much of the year, the proposed facility would not stand in as stark a contrast against its own background as do the white cement plants. But in winter, he claimed, the facility would be a dark mass contrasted against the snow cover with visible stack and cooling tower plumes.

Dr. Nitschke has excepted to the lack of discussion of this issue in the recommended decision. AGC opposes his exception, arguing in response that the exception fails to explain how the proposed facility, whose site would be 10 miles away from the Escarpment Trail, would result in a significant adverse visual impact. AGC argues that the facility would be nearly imperceptible on a clear day, and atmospheric conditions would at times limit views toward the facility. When there was no plume (which itself would be difficult to discern), AGC continues, color contrast with the background would be eliminated

¹ Dr. Nitschke's Brief on Exceptions, p. 34.

due to mitigation measures such as paint, siding, and shortened stacks without aviation warning lights.

The proposed facility would barely change the character of the existing viewshed from the Escarpment Trail, and a legitimate question can be raised as to whether, through much of the year, the facility would be perceptible to a person at that vantage point who was otherwise unaware of its existence. There is no basis for a finding that there would be a significant adverse visual impact at the trail. Therefore, Dr. Nitschke's exception is denied.

ii. Sleepy Hollow Lake

On exceptions, APO (who intervened after the conclusion of the hearings) raises a general allegation that AGC did not conduct adequate visual impact analyses at Sleepy Hollow Lake. In response, AGC points out the following:

1. During the balloon study, 18 viewpoints around the lake were studied, and a simulation was prepared for one of them. The studies showed that the plant would not be visible at the lake.
2. At viewpoints located one-half mile from the lake, AGC determined that the facility would be visible at five of 13 viewpoints; four are along Route 385. But that study assumed stacks 213 feet tall. With 180-foot stacks, visibility would be reduced to four viewpoints.
3. APO improperly alleged that the visual impact from a viewpoint one-half mile east-northeast from the facility would be the same as the impact at the lake, which would be 2½ to 3½ miles away.

AGC's study of the facility's visibility (or, more properly, the lack thereof) at Sleepy Hollow Lake was properly conducted, and we conclude from the record that there would not be significant adverse visual impacts at or near the lake.

iii. New York State Thruway

The R.D. stated that the proposed facility would not be visible from the Thruway.¹ DPS notes for the record that, in fact, there is a small break in the vegetative and topographic screening along the northbound side of the Thruway at which the tops of the stacks would be visible. DPS states that it does not regard this potential glimpse "as representative of significant or adverse visual impact."²

A simulation prepared from viewpoint 73, which lies above the road bed of the Thruway's northbound lanes, suggests that the tops of the proposed facility's exhaust stacks might be briefly visible from the Thruway.³ We find that such a view would not constitute a significant adverse impact on views from the Thruway.

g. Conclusions

We conclude that the proposed facility, with modifications accepted by AGC and with the elimination of cooling tower plumes would not cause a significant adverse visual impact at any site where visual resources require protection, as identified in PSL §168(2). We conclude, moreover, that the visual impact of the facility would be minimized to the extent practicable, were dry cooling technology installed, given the revised estimate for the height of dry cooling towers (90 ft. instead of 100 ft., as estimated earlier in the proceedings), the painting of the facility in non-contrasting colors, the complete elimination of steam plumes, and the verification on remand that the height of the exhaust stacks would be the same with dry cooling as with hybrid cooling.

¹ R.D., p. 76 n. 2.

² DPS's Brief on Exceptions, p. 2. Dr. Nitschke also disagreed with the R.D.'s statement.

³ R.D., p. 56.

3. Air Quality

To control emissions of nitrogen oxide (NOx) and volatile organic chemicals (VOCs), an Article X applicant must use technology that would result in the lowest achievable emission rate (LAER).¹ For NOx, AGC proposed to use an advanced Dry Low-NOx combustion system and a selective catalytic reduction (SCR) system during the combustion of natural gas. When fuel oil is burned, water injection and the SCR system would be used to control NOx emissions.² As explained in the recommended decision, the initial LAER emission rate proposed by AGC for NOx during combustion of natural gas was 3.5 parts per million vapor density (ppmvd), but AGC subsequently agreed during the hearing to an emission rate of 2.5 ppmvd.

In its trial brief, DEC Staff proposed a NOx emission rate of 2.0 ppmvd.³ AGC objected, citing the definition of "LAER" provided at 6 NYCRR §200.1(ak), which limits emissions to levels that are achieved "in current practice" or could be reasonably expected to occur in practice.⁴ The Examiners determined that the appropriate LAER emission rate should be 2.5 ppmvd, because adoption of the more restrictive emission rate proposed by DEC Staff might require the redesign of the proposed facility, but such redesign was not considered during the hearing.⁵

¹ 6 NYCRR Subpart 231-2 (Requirements for Emission Sources Subject to §§172 and 173 of the Clean Air Act, 42 USC §§7502 and 7503 on or after November 15, 1992).

² R.D., pp. 215-216.

³ R.D., p. 216. DEC cited 6 NYCRR §231-2.7(c) in support of its proposal (DEC's Initial Brief, p. 16).

⁴ AGC's Reply Brief, p. 83; R.D. pp. 216-217.

⁵ R.D., pp. 217-218; see 6 NYCRR §231-2.7(c).

DEC excepted to the Examiners' determination,¹ arguing that LAER is based on the applicable emission limit, and not on the type, model or cost of equipment. In order to avoid the lower emission limit of 2.0 ppmvd for NOx emissions, DEC argued, AGC must demonstrate that the practical achievement of a lower emission rate is unreasonable even if similar turbines can meet a lower emission rate.² In response, AGC contended that the 2.0 ppmvd NOx emission rate proposed by DEC could not reasonably be expected to occur in practice, because the turbine manufacturer, Siemens Westinghouse, would not guarantee a NOx emission limit less than 2.5 ppmvd.³

Following the hearings on remand, AGC's and DEC's positions changed. AGC and DEC now agree on all issues pertaining to reducing NOx emissions from 2.5 ppmvd to 2.0 ppmvd. They agree that (1) the operation and, if necessary, the design of the SCR system could be refined during the first year of the facility's operations; (2) monitoring protocols for the lower NOx emission limit will have to be developed; and (3) compliance with the 2.0 ppmvd NOx emission limit is to be determined by recording emissions over a 3-hour averaging period. This agreement is embodied in the pre-construction permit conditions for the proposed facility. With this agreement, all issues related to NOx emissions from the proposed facility have been resolved, and the proposed facility will comply with all environmental laws concerning air quality.⁴ The federal Clean Air Act and ECL Article 19 identify criteria air pollutants: oxides of nitrogen,

¹ DEC's Brief on Exceptions, pp. 14-15. See, also CHV's Brief on Exceptions, pp. 11-12.

² DEC's Brief on Exceptions, p. 14.

³ AGC's Brief Opposing Exceptions, p. 54.

⁴ See R.D., pp. 195-231. DEC has determined that AGC has met all of its obligations under the PSD rules and all associated requirements (DEC Environmental Notice Bulletin, January 26, 2000). There were no appeals of that determination to EPA or the Environmental Appeals Board.

or NO_x, just discussed; volatile organic compounds (VOCs); carbon monoxide (CO); sulfur dioxide (SO₂); and particulates. Health-based ambient air quality standards exist for each of the criteria pollutants. There is also a federal ambient air quality standard for ground level ozone, which is created through the interaction of oxides of nitrogen and volatile organic compounds in the presence of sunlight and warm temperatures. Based on DEC's independent review of AGC's air analysis and the June 12, 2000 final permit, we conclude that the proposed facility will be in compliance with all applicable state and federal ambient air quality standards.

At the request of DOH, AGC assessed the potential impacts of certain non-criteria pollutants that might be emitted from the emission stacks at the proposed facility. The predicted concentrations were then compared with health-based risk criteria. Based on DOH's review of AGC's analysis, we conclude that the predicted concentrations of the non-criteria pollutants in emissions from the stacks would be substantially lower than the corresponding benchmark concentrations, which consider special populations such as children and older individuals.

The potential environmental impacts of water vapor emissions from the cooling towers were fully examined, although they are not regulated pursuant to specific federal or state statutes, because the Board must make findings about the impact of construction and operation of the facility on air resources (PSL §168(2)(b), §168(2)(c)(ii), and §168(2)(c)(iv)). AGC evaluated the potential emissions from its initially-proposed evaporative cooling towers, to determine the potential for cooling tower-induced fogging and to simulate the dimensions of visible plumes. In addition, the potential impacts caused by salt deposition from dissolved solids in the water droplets were evaluated. At the request of DOH, AGC also applied the air modeling analysis to the potential emissions of non-criteria pollutants that might have been dissolved in the water droplets emitted from the cooling towers.

When AGC later proposed to change its proposed cooling technology, from evaporative to hybrid cooling, to abate plume formation, DEC and DOH concluded that all predicted concentrations of the non-criteria pollutants that might be emitted from the hybrid cooling towers would be substantially less than the health-risk-based benchmarks. With the installation of dry cooling, there will be no cooling tower plumes.

Given the extensive review of AGC's air quality analyses by DEC and DOH, we conclude that the proposed facility would comply with all applicable air emission control requirements and air quality standards. Accordingly, we find that air emissions from the proposed facility would pose no material health risk, and would be compatible with public health.

4. Terrestrial Biology

The record includes a survey and assessment of the wildlife and vegetation at the various locations that would be affected by the proposed facility and its ancillary structures.¹ All indications and observations of wildlife species in the project area were documented; all observed plant species were documented and their relative occurrences estimated; and two state-regulated wetlands were surveyed. Wetland HN-108 is located to the east and west of the proposed site, and wetland HN-115 is a freshwater tidal wetland located about two miles southeast of the site of the proposed generating facility, at the site of the proposed pumphouse. The other wetlands on the site are federally regulated.

Construction on the site of the proposed facility would result in the permanent loss of about 11 acres of mature oak-hickory forest habitat. The construction of the interconnections would result in the temporary disturbance of wildlife habitat. The footprint of the proposed facility would avoid wetland HN-108

¹ See R.D., pp. 232-247.

and its adjacent area. The transmission interconnection between the proposed facility and the Leeds Substation would cross this wetland and result in the temporary disturbance of 4.6 acres of the wetland and a permanent loss of 0.01 acres. In addition, the construction of the water pipeline between the pumphouse and the proposed facility would temporarily disturb 1.8 acres of wetland HN-108 where the pipeline would cross the Corlaer Kill. About 0.26 acres of HN-115 would be temporarily disturbed during the construction of the pumphouse and the installation of the water pipelines in the Hudson River.

We conclude that the proposed activities would meet the compatibility standards for state-regulated freshwater wetland approvals. Therefore, we shall authorize AGC to conduct the proposed activities in freshwater wetlands HN-108 and HN-115, subject to the conditions attached to this opinion and order.

CMP Policy 44 pertains to the preservation and protection of freshwater wetlands and the benefits derived from them. Wetland HN-115 is located along the western shore of the Hudson River. As noted, the proposed installation of the water pipelines in the Hudson River would temporarily disturb a portion of HN-115. Because the proposed activity would meet both the stream protection criteria discussed in the recommended decision¹ and the compatibility tests for a freshwater wetland approval,² the proposed activity would also be consistent with CMP Policy 44.

With respect to the federally regulated freshwater wetlands, AGC has proposed four wetland mitigation areas outside the footprint of the proposed facility to compensate for the expected losses due to construction activities. The mitigation ratio is 2:1, which means that twice as much wetland would be

¹ R.D., pp. 159-161.

² R.D., pp. 242-243.

created for every portion that is filled.¹ COE is responsible for this permit review under CWA §404 and Rivers and Harbors Act §10.

Changes in cooling technology resulted in increased projected impacts on federally regulated wetlands at the facility site. Encroachment on an additional 0.29 acre of federal wetlands would have resulted from changing from wet cooling towers to the hybrid cooling towers.² To compensate for this additional loss, AGC proposed to expand the size of "Area 1" in the federal wetland mitigation plan.³ With the installation of dry cooling, to comply with the intake limitation in the SPDES permit, the overall footprint for the cooling towers would encroach on an additional 0.41 acre of federal wetlands.⁴ But because the mitigation ratio would remain at 2:1, the encroachment on the wetland would be mitigated to the extent possible, and there would be no adverse impact on wetland ecology at the site.

In view of the foregoing, and taking into account the extensive analysis in the recommended decision, we find that construction and operation of the proposed facility will have a minimal adverse impact on the environment, ecology and wildlife (PSL §168(2)(b) and §168(2)(c)(i)). We conclude that the proposed facility will comply with applicable state and federal laws and regulations pertaining to the protection of threatened or endangered wildlife and plant species, freshwater wetlands, and coastal resources.

5. Chemical Storage and Waste Management

¹ Tr. 2,019.

² Tr. 2,019.

³ Tr. 2,045-2,046.

⁴ R.D., p. 190; Exh. 274.

A number of chemicals that would be used for treating processed water, controlling NOx emissions, and other purposes would be stored at the proposed facility.¹ AGC will submit, in its compliance filing, its federal Spill Prevention Control and Countermeasures (SPCC) Plan as well as the Spill Prevention Report required by state regulations. The submission of those filings would demonstrate compliance with applicable federal and state statutes and regulations

The intake/discharge facility is within the coastal zone. CMP Policy 8, which relates to the protection of fish and wildlife from exposure to hazardous substances, refers to state and federal regulations regarding storage of hazardous substances. Therefore, compliance with the state and federal regulations constitutes compliance with CMP Policy 8.

The proposed facility would not include a solid waste management facility or a hazardous waste disposal facility, but it would generate solid wastes. AGC states that sludge from clarifier and filter backwash and all other solid wastes would be disposed of by licensed contractors, and has agreed to verify that these contractors have obtained all necessary licenses and permits.

In view of the foregoing considerations, and taking into account the analysis in the recommended decision,² we conclude, pursuant to PSL §168(2)(c), that the proposed facility's chemical storage and waste management, if undertaken in compliance with state and federal regulations, would minimize environmental impacts, be compatible with the public health and

¹ Aqueous ammonia would be used as a chemical reagent in the SCR system. Federal regulations require AGC to develop a "Risk Management Plan." The application included a risk management analysis that DEC reviewed and determined to be satisfactory. In addition, AGC has agreed to allow the Town to participate in the subsequent development of the federally required plan, and to provide local officials with periodic training tours of the proposed facility.

² R.D., pp. 248-251.

safety, and meet all applicable water quality and air quality standards.

6. Agricultural Lands

The proposed facility site is abutted by two fields that are or have been used for agricultural purposes and are located in agricultural zones. With the acceptance by AGC of conditions proposed by the state Department of Agriculture and Markets for topsoil removal and replacement and subsoil decompaction during the construction of the water pipelines, all issues pertaining to agricultural lands have been resolved.¹

We conclude that the proposed facility would minimize environmental impacts with regard to viable agricultural lands (PSL §168(2)(c)(i)).

7. Noise

Existing noise levels in the vicinity of the proposed facility were studied and addressed in the application, and AGC further addressed the probable sources of construction, operation and maintenance noise. Acoustic design goals for the facility were set in the preapplication process, when AGC proposed to incorporate substantial noise mitigation measures into the proposed facility's design. Such measures would reduce noise from, among other sources, the cooling towers, the turbine generator building, the heat recovery steam generators, the exhaust stacks, the water intake point, and the ventilation system.

As discussed in the recommended decision,² the record shows that AGC's operational noise design criteria are conservative and, if met, would result in the avoidance of any significant noise impacts. Compliance with the acoustic goals could be met with dry cooling, even though that technology would

¹ See R.D., pp. 254-255.

² R.D., pp. 255-258.

entail the use of fans. We conclude, therefore, that operating noise from the proposed facility would not constitute a significant adverse impact on the environment.

8. Traffic and Road Management

The main focus of the transportation analysis was on roadway impacts, because the facility would almost exclusively use roadway transportation resources. The record establishes that the construction and operation of the proposed facility would not have any significant adverse transportation-related impacts on public health or safety, or on the environment.¹ Moreover, the certificate conditions obligate the applicant to follow detailed requirements for traffic management both during and after construction.

The transportation-related issue of greatest concern was whether the proposed facility's cooling tower steam plumes would increase the incidence of ground level fogging and potential icing of local roads. The evidence shows that even with evaporative cooling--and assuming the frequent production of substantial plumes--the potential for plume downdraft and associated icing along Route 9W would have been minimal; the likelihood of icing on other roads would be even less; and such icing would occur in climate conditions in which driving conditions would be poor in any event. The installation of dry cooling would eliminate this concern.

C. Land Use and Local Ordinances

1. Background

The proposed facility site, which is bordered by Route 9W on the west and Conrail tracks on the east, is zoned Light Industrial (LI). Across Route 9W is a narrow strip zoned for Rural Residential (RU) use, and along Route 9W north and south of the site, on both sides of the roadway, the land is

¹ R.D., pp. 258-262.

zoned Highway/Commercial (H/C). A large agricultural district borders the LI district to the east.

Both the proposed generation facility and its intake/discharge would be compatible with both existing and planned land uses in their respective vicinities. The application identifies the fire protection, public health, emergency service, and primary and secondary educational institutions in the area, and the record shows that the proposed facility would not significantly affect the provision of police, fire, and emergency services, and would thus be consistent with public health and safety in these respects. Because emissions from the plant would be consistent with air quality requirements and public health standards, the facility would have no adverse environmental impact on nearby schools.¹

2. Light Industrial Zoning

A basic question is whether the proposed generation plant is either a permitted use or a use authorized by special permit under the zoning classification applicable to its intended location. The proposed location is zoned "Light Industrial" (LI). According to the Town's zoning ordinance (ZO):

This area is designed to concentrate any further industrial growth in Athens. The location was picked because of its flat terrain, nearness to Route 9W, the airport, and the railroad line; and it is the site of existing industry.²

A determination of whether the proposed facility would be a permitted use depends on whether the facility would comply with the criteria outlined in ZO's definition of the term "light industrial":

¹ R.D., pp. 333-334.

² ZO, Article III, §305 (District Objectives and Land Use Controls), Table.

Any industry or warehouse operation that: meets the performance standards of this ordinance, which is totally contained inside an enclosure or whose operation or storage is totally screened from view, and presents a neat landscaped appearance.¹

Two categories of performance standards are identified in ZO §404: Waste Controls (§404.1) and Air Pollution, Noise and Fire Controls (§404.2). Waste controls must be in accordance with the town sewer ordinance, and the waste control standard provides a list of materials that may not be discharged into any drainage channel.

The Examiners found that the proposed electric generating facility would comply with the criteria provided in the definition of the light industrial zoning classification, and they concluded that we need not consider whether the light industrial designation for this district is unreasonably restrictive and should be waived pursuant to PSL §168(2)(d). Before reaching that conclusion, however, the Examiners recommended that the pH range proposed in the draft SPDES permit for cooling water and treated waste water discharges into the Hudson River should be conformed with the standard provided in ZO §404.1(f). While the draft SPDES permit would have limited the pH of waste water discharges from the cooling water discharge and treated plant waste water (Outfall 001) to a range of 6.0-9.0,² ZO §404.1(f) would limit the pH of wastes to a range of 6.5-8.5.³

AGC excepts to the Examiners' recommendation, arguing that no party, including the Town, contended that any of the requirements outlined in ZO §404.1 (Waste Controls) should apply

¹ ZO, Article II (Definitions)- Light Industrial.

² R.D., p. 275; Exh. 288.

³ R.D., pp. 274-275.

to discharges from the proposed facility. According to AGC, ZO §404.1(f) applies to the Town's storm and sanitary sewers, to which the proposed facility would not be connected. AGC argues that the Hudson River, which will receive the waste water discharges from the proposed facility's Outfall 001, is not a "drainage channel" as that term is used in the Town's zoning ordinance, pointing out that the local law includes terms like "waterways," "streams," and "natural water courses" that more accurately reflect the characteristics of the Hudson River.

We conclude that the pH limits in ZO §404.1(f) do not apply to the cooling water and treated waste water discharges from the proposed facility into the Hudson River via Outfall 001. The Town's zoning ordinance properly controls the chemical composition of discharges into sewage systems the Town maintains, but it may not extend the reach of that zoning ordinance by applying it to a receiving system it neither operates nor regulates. Accordingly, we find that the proposed facility would comply with specific requirements of the Town's zoning ordinance's light industrial classification.

3. Requested Waivers

AGC has requested waivers of the Town's ordinances (1) to permit the proposed pumphouse to be located in a RU district; (2) to disregard the 50-foot setback requirement for a RU district, so that the pumphouse could be located closer to the Hudson River; and (3) to permit facility structures to exceed the height restriction of 35 feet that applies in all zoning districts.

AGC argued that RU zoning is unreasonably restrictive because the pumphouse must be located along the Hudson River for the proposed facility to operate. The only districts in the Town along the Hudson River are Rural Residential, Recreation Residential, and Open Space/Conservation.¹ The Examiners

¹ Exh. 19, §11.3.2.2; Tr. 1,685.

concluded properly that the current land use requirement is unreasonably restrictive given the existing technology, and we shall adopt their recommendation that we grant the requested waiver.

AGC also argued that the 50-foot setback requirement cannot be met because the pumphouse must be located close to the Hudson River.¹ To meet this zoning requirement, the pumphouse would need to be moved back 40 feet from its proposed location. Such a relocation would increase the depth of excavation for the pump forebay and water pipelines from the river from 25 feet to 40 feet. The slope of the access road would increase from about 10% to 15%. The turning radius for the access road to the pumphouse would decrease, and as a result become unreasonably restrictive for the large vehicles required for construction of the pumphouse and subsequent major maintenance activities. Adherence to the setback requirement would also affect an existing tree line that otherwise would provide screening on the western side of the pumphouse.²

The Examiners concluded that, given the available technology, the setback requirement would be unreasonably restrictive. We agree with their conclusion, and we shall grant the requested waiver.

Due to the nature and magnitude of the structures and equipment necessary to operate the proposed facility, the turbine building, common warehouse and administration building, enclosed generators, stacks, cooling towers, tanks, as well as the switch yard and electric transmission towers cannot comply with the 35-foot height limit in ZO §403. Alternative project designs cannot bring those structures into compliance with the height limit. We agree with the Examiners that the height limit is unreasonably restrictive, and therefore should not be applied.

¹ Exh. 19, §11.3.2.2; Tr. 1,684.

² Exh. 220 (Applicant's responses to DPS Interrogatories Nos. 12 and 46).

4. Other Waivers

We agree with the Examiners' conclusion that additional waivers of land use requirements are needed for the proposed facility's natural gas and transmission interconnections and its water supply lines. Those installations are not uses permitted as of right in the zoning districts where they would be located, but would be essential to the proposed facility's operation.

5. Conclusions

The proposed generating facility would comply with the requirements of the LI zoning classification applicable to the facility's site. The zoning ordinance's criteria for light industrial uses would be met, while the ordinance's restriction on the pH content of discharges to drainage channels would not apply to discharges of cooling water and treated waste water into the Hudson River.

The pumphouse would be a non-conforming use in a RU district. In addition, the interconnects, which would cross various land use districts, would not be permitted uses or uses authorized by a special permit. The pumphouse and the interconnects, however, are essential elements of the proposed facility. Therefore, the local requirements barring those installations are unreasonably restrictive given the existing technology.¹

Because the pumphouse could not comply with the established setback requirement in the RU district, we conclude that the requirement is unreasonably restrictive given the existing technology. In addition, many of the proposed facility's structures would not comply with the 35-foot height limit established in ZO §403. Those structures, which include

¹ We agree with the Examiners' recommendation that AGC supply to the Town certain additional information required by the local zoning ordinance relating to exterior lighting and on-site sewage disposal, and provide additional measures for erosion control in the construction of the pumphouse.

the turbine enclosures and the transmission towers, cannot be redesigned to conform to the requirement. Therefore, we conclude that the height limit is unreasonably restrictive given the existing technology.

D. Public Interest Considerations

1. Enhancement of Competition

The Examiners extensively discussed the various issues raised concerning the extent to which the proposed facility will likely enhance competition in electricity markets.¹ Noting that the proposed facility would be an efficient producer of low-cost electricity, they concluded that the facility's participation in the power exchange operated by the new New York Independent System Operator (NYISO) would lower wholesale prices on the New York system and "make a material contribution to competition."² In reaching this conclusion, the Examiners rejected assertions that transmission constraints or large amounts of off-system sales would seriously hamper the facility's competitiveness, and that the projected price reductions and cost savings would be too modest to be considered significant.

CHV and SH&FO argue on exceptions that the proposed facility will not be in the public interest. CHV attacks the conclusion that the facility will enhance competition in New York electricity markets, challenging the validity of the Multi-Area Production Cost Simulation (MAPS) model results submitted by AGC and DPS. According to CHV, the conclusion that any of the plant's output will be sold in New York, rather than New England, is based on unwarranted speculation. Customers in New England might be able to pay higher prices than the NYISO indefinitely, CHV asserts, and the location of the facility in Athens would be

¹ R.D., pp. 24-33.

² R.D., p. 29.

"uniquely favorable" to serving the New England market.¹ The lack of a firm commitment to serve only customers in New York, CHV reasons, means that AGC does not intend to serve New York customers "to any meaningful extent."²

SH&FO argues similarly that "[t]here is no compelling state need or public purpose for this facility," and asks us to conclude that any public benefits from the facility are inadequate to outweigh its allegedly adverse visual and aquatic impacts.³ SH&FO argues that the MAPS output provides an inadequate showing of benefits, because its projections are only for one year, and thereafter "circumstances could change completely,"⁴ such that the plant's production could be sold to New England markets. Moreover, SH&FO contends, projections of savings are based on the assumption that AGC will bid its output to the NYISO at its marginal cost, whereas AGC might benefit from bidding its output at higher prices.

The exceptions of CHV and SH&FO are opposed by DPS and AGC. According to DPS, the evidence shows that AGC will have a financial incentive to offer its output for sale at marginal cost. DPS argues that the MAPS model, which assumes that all electricity would be sold at prices determined by the NYISO power exchange, realistically shows substantial reductions in average annual energy prices. The possibility that AGC or other New York suppliers might sell energy in New England (or that New England sources might sell energy in New York), DPS maintains, "simply reflects the fact that New York is part of a larger regional market for electricity,"⁵ and it does not mean that the output of other less efficient and less environmentally acceptable plants

¹ CHV's Brief on Exceptions, pp. 8-9.

² Ibid., p. 10.

³ SH&FO's Brief on Exceptions, pp. 32-33.

⁴ Id.

⁵ DPS Brief Opposing Exceptions, p. 8.

in New York would not be displaced by AGC's production. Moreover, DPS argues, there would be no significant bias toward selling to New England even if prices were initially higher there, because in the absence of transmission constraints prices would tend to equalize throughout the region. If transmission is constrained, under NYISO rules AGC would be responsible for congestion costs reflecting the difference between prices at the point of its interconnection with the transmission system and the higher prices in New England.

In responding to SH&FO, AGC argues that the Examiners relied not only on the MAPS model results in concluding that the proposed facility will be in the public interest, but also on expert testimony about how the market is expected to operate and why the facility would promote competition and cost savings. Moreover, AGC continues, the record shows that production cost savings projected by MAPS for the first year of the facility's operation are expected to continue in future years, and that AGC could lose potential operability and profits if it bid the facility's output at a price higher than its marginal cost.

Responding to CHV, AGC asserts that CHV ignores several aspects of the public interest addressed by the Examiners by focusing entirely on sales by the proposed facility to New England. AGC acknowledges that it "may sell some of its output from time to time to New England,"¹ but says that it does not anticipate selling all of its output all of the time to New England. AGC characterizes as "absurd" the possibility that it might operate in that fashion,² asserting that its parent, PG&E Generating Company, has bought and is proposing to build thousands of MWs of capacity within the PJM Interconnection and the New England ISO to serve load in those regions. AGC also cites public documents showing that about 30,000 MW of new capacity is currently proposed for New England. Moreover, AGC

¹ AGC's Brief Opposing Exceptions, p. 73.

² Id.

continues, although MAPS did not include a detailed model of the entire New England system comparable to the New York model, it did include a forecast of sales to New England that is not substantial.

AGC contends further that the Examiners also properly relied on evidence indicating that the proposed facility would operate efficiently and exert downward pressure on prices throughout the region even if it sells to out-of-state purchasers. And, CHV's conception of New York's interest is too narrow, AGC continues, for if New York market participants are not permitted to buy from and sell to markets in neighboring regions, the state will lose benefits from both increased competition and greater energy supply reliability.

SH&FO's and CHV's assertions, that the proposed facility will not significantly benefit New York or contribute to competition, are unfounded. CHV relies heavily on its contention that the facility's power will not likely ever be sold and consumed in New York, and that when it is sold in New England instead there is no benefit in New York. Those claims, however, are unsupported by the record and actually are wrong, as DPS and AGC demonstrate.

Any price differential between New York and New England that would enable AGC to profit by selling in New England rather than in New York would be the direct result of transmission constraints between the two areas.¹ But these transmission constraints mean, by definition, that additional energy production cannot be located in one area (e.g., New York) and transmitted to another (e.g., New England) because of the

¹ As DPS points out, if there were no transmission constraints (so that all providers could potentially provide electricity to all consumers within a defined region) electricity prices would be equal throughout the region at the market-clearing price. Prices would be different between two areas or regions only when transmission capacity is inadequate to enable lower-cost electricity from one area to fully displace higher-cost electricity produced in another area.

inadequate transmission capacity between the regions that gave rise to the price differential to begin with. Thus, although AGC would have an incentive to make a profit by selling more power to New England, under conditions of constraint it could not physically transmit more power to New England than was already being sent there. The power actually provided to the New England customers would have to be generated in New England.

As DPS's testimony explains,¹ when transmission is constrained, AGC will not be allowed to profit from a sale to a New England customer at the expense of the New England generator that actually provides the electricity. That is because the effect of the transmission constraint, termed "congestion cost," would be charged to AGC by the NYISO as a component of a transmission usage charge (TUC). The amount of the congestion cost is the difference between the location based marginal price (LBMP) at AGC's interconnection and the LBMP at the New England interconnection. During periods of congestion, the amount of the congestion cost corresponds to the extra profit (the price differential) AGC would have hoped to capture by selling electricity in New England. Thus, AGC has no special bias or incentive to sell its power to New England, even if prices are higher there. Because the TUC prevents generators from capturing congestion-related profits, AGC and other New York generators are likely to sell their generation through the NYISO's power exchange.

The Examiners correctly concluded that when transmission is constrained AGC's production would displace the production of other less efficient plants in New York regardless of whether AGC has contracts to sell in New England or elsewhere. Commercial transactions do not govern the flow of electricity. AGC's electricity production will physically remain in New York, requiring the NYISO to ramp down less efficient generators. Thus, even if there were a constraint-caused price differential

¹ Tr. 1,594-1,599.

prompting AGC to enter into out-of-state transactions, the net result for New York from operating the proposed facility would be similar to the outcome when AGC sells its output through the NYISO. In these circumstances, sellers of electricity that hope to benefit from competing against high-cost power producers in New England will have to rely on electric production there. It is not surprising that a substantial number of new generation projects have been announced for New England, and some will likely be completed.

Regionalization of the power market benefits all states by increasing the extent to which they can draw on other states' resources to maintain reliability, and by enhancing competition. Competitive benefits within the northeast can be increased by increasing transmission capacity between New York and other regions, in which case New York suppliers might well sell more electricity to out-of-state purchasers and vice-versa. To the extent this happens, the increased competition will benefit consumers throughout the entire multi-state region. As noted earlier, the development of multi-state regional markets is at the core of federal energy policy. CHV's argument that the SEP requires a new facility's generation to be marketed entirely within New York is insupportable, and we reject it.

The Examiners recognized that the MAPS model does not fully model New England, but they correctly concluded that "reliance on the MAPS estimates for a general indication of [the] benefits [to New York] is not unreasonable."¹ Indeed, by including expected sales to New England as an input, the MAPS model provides a reasonable indication of the proposed facility's effect on the New York market under conditions of constrained transmission between New York and New England.

We find unpersuasive SH&FO's argument that the MAPS output might overestimate the amount of production cost savings attributable to the proposed facility, which rests on the

¹ R.D., p. 31.

supposition that AGC might bid its output at a price above its marginal cost. Since AGC would be paid the LBMP at its point of interconnection with the grid, bidding its output at a higher price would artificially limit the amount of its production that is dispatched and, thus, its earnings.

The Examiners concluded, and SH&FO seems to agree, that the Board must undertake a fundamental balancing between this proposed facility's social and environmental benefits and detriments.¹ With the completion of the remand hearings, it is now clear that the environmental impacts of the proposed facility will be slight and substantially mitigated, and that the facility would provide net air and water quality benefits for the region. Moreover, the facility would contribute to the reliability of the electric system in New York by adding supply at a time of projected capacity shortages, and by enhancing the reliability of the electric transmission system by relieving transmission constraints.² SH&FO's contention that construction and operation of the proposed facility will result in adverse impacts that outweigh its benefits lacks both evidentiary and logical support, and we reject it. We find that construction and operation of the proposed facility is in the public interest, when considering the environmental impacts of the facility.

2. Alternative Sites

Early in this proceeding the Presiding Examiner ruled³ that, although AGC has no obligation to present site alternatives under Article X regulations,⁴ intervenors may submit evidence concerning reasonable and available alternative locations for the

¹ R.D., pp. 12-13.

² See p. 9, n. 2, supra.

³ Bench ruling dated November 10, 1998, Tr. 374 and 379; Letter to active parties dated November 13, 1998.

⁴ 16 NYCRR §1001.2.

proposed plant. He suggested that any such evidence should show that a specific alternative site would be preferable and available, and that it would resolve a significant problem with the applicant's primary site. On appeal by AGC, we agreed with AGC that the Examiners are not required to entertain evidence about alternative sites.¹ We upheld the ruling, however, on the limited basis that such information may be received as a discretionary matter, under the "other considerations" and "public interest" language of PSL §168, subject to the understanding that the evidence, to be of decisional consequence, must show that the alternative site is both preferable and available, and would resolve a significant problem with the proposed site.²

CHV presented site information on five alternative sites that was extensively discussed in the recommended decision.³ Following that discussion, the Examiners stated that "we find in the information that was presented about [CHV's preferred] alternative sites no reason to conclude that another site might be more reasonable than the proposed Athens site."⁴ The Examiners found lacking CHV's exploration of environmental considerations at the other sites, and found as well that no other site has been shown to provide reasonable access to needed fuel and water, or actually to be available for a generating facility. They concluded:

It is informative to consider whether other sites would likely be better. The evaluation presented here, however, contains no showing that the Athens site is not among the most

¹ January 28 Order, p. 13.

² Id., p. 14.

³ R.D., pp. 299-313.

⁴ R.D., p. 311.

reasonable locations within the State for such a facility.¹

CHV excepts, maintaining that in finding the certificate should not be denied on the basis of alternative site considerations, the Examiners are "arbitrarily rejecting mitigation by change in location."² Arguing that "the ultimate minimization [of environmental impacts] is to deny the certificate," CHV asserts that the benefits of the proposed facility are achievable "essentially no matter where it is built," and that "there are other sites at which the benefits could be derived without unminimizable impacts to resources of transcendent value."³ CHV points to the developing Article X docket as evidence that other investors are willing to build facilities elsewhere in the state.

CHV asserts the record shows there are other sites available that would be "less environmentally problematic" than the proposed Athens site.⁴ CHV alleges that the selection of the proposed site by U.S. Generating Company (Athens' parent) improperly started by seeking a location with proximity to water, natural gas, and the electric transmission grid, whereas its witness properly started from the standpoint of finding sites with benefits to New York and environmental compatibility.

CHV alleges the Examiners did not take seriously the efforts of its witness, apparently because he did not prove that certificates could be issued for facilities at the alternative sites and "didn't do all of the engineering and secure purchase options."⁵ The Examiners, CHV continues, placed an undue burden of proof on it to show that reasonable alternatives exist to the

¹ R.D., p. 312.

² CHV's Brief on Exceptions, p. 11.

³ Ibid., p. 13.

⁴ Ibid., p. 14.

⁵ Ibid., p. 15.

proposed site, given the short time frame and limited budget within which it was required to undertake a study and prepare evidence. Regardless, CHV contends, there was no showing by AGC that there were any insurmountable problems with any of the alternative sites it proposed; indeed, one of its proposed sites, Arthur Kill, is actually proposed for use by another developer for a new facility.

In response, AGC disagrees that CHV was required by the Examiners to prove that alternative sites were certifiable, arguing that CHV's position was rejected because it did not show that its proposed sites are available, or would resolve a significant problem with the Athens site. CHV's analysis was far too cursory for such a showing, AGC continues, because it failed to consider such issues as wetlands and visual impacts, feasibility and access to fuel, water and the transmission grid, and site availability. Moreover, according to AGC, the Examiners found that there were unique conditions that would hinder or prohibit site development for an energy facility at those alternative sites, and that CHV failed to demonstrate any significant problems with the proposed facility that would be resolved at an alternative site. As to CHV's argument that the proposed facility's benefits could be achieved no matter where the facility is sited, AGC points to the Examiners' conclusion that the Board need not "find that no other site could be equally suitable" before granting a certificate.¹

With respect to the alleged financial and time constraints under which CHV was working, AGC observes that CHV was awarded the exact amount from the intervenor fund that it requested for doing an alternative site analysis, and that CHV was tardy in making the request.²

¹ R.D., p. 311.

² Case 97-F-1563, Ruling on Requests for Intervenor Funding (issued November 17, 1998).

We find that the Examiners took CHV's presentation seriously, beginning with their decision that CHV should be permitted to submit such evidence for the record. Moreover, their analysis of the CHV presentation is extensive and detailed. Indeed, CHV scarcely takes exception to findings the Examiners made about their individual sites, choosing instead to challenge their conclusions at a more general level.

Information comparing the proposed site with alternatives might be useful to a consideration of whether it would be a mistake to locate a facility at the proposed site, in view of other realistic options for expanding the generating facility base in New York in the interest of competition. Rejecting the proposed facility would imply our contemplation of ultimate approval of another project, sited elsewhere, to provide the proposed facility's benefits. A decision rejecting the proposed site on such grounds would require, at a minimum, evidentiary support showing that unresolved problems have been identified with the proposed site that would be remedied at one or more alternative sites.

We have determined that, with mitigation, adverse environmental impacts at the proposed Athens site are not significant and have been minimized, so no reason exists to reject the application in this proceeding. In these circumstances, where the applicant does not have alternative sites for its facility under consideration, we would require evidence that some greatly superior site is available that should (and may) be used instead for such a generating plant, before we would consider "alternative sites" to be a material issue.¹ In fact, the Examiners correctly found that the alternatives offered

¹ As noted above, CHV asserts there are sites available "without unminimizable impacts to resources of transcendent value" (CHV's Brief on Exceptions, p. 13). However, the record does not show with any certainty that there would not be adverse unacceptable environmental impacts at any of CHV's alternative sites (see, e.g., R.D., pp. 303-307 and the references cited there).

by CHV had problems of their own, such as the inaccessibility to natural gas or water supplies, that would have to be overcome before they could be used for generating facilities. CHV has not challenged those particular findings.¹ Moreover, the Examiners found, none of these sites has been shown to be available.² There has been no showing that there is an available, preferable site that should be developed instead of the site proposed by AGC, such as a showing that development of the alternate site would resolve a significant problem with the proposed site.³

3. Electric Interconnection

AGC proposes to connect its facility to the transmission system through a new 345 kV double circuit, about 2,000 feet in length, that would loop into Niagara Mohawk Power Corporation (NMPC) Line 91 just outside NMPC's Leeds substation. Although no party raised environmental objections to the proposed interconnection, CHG&E argued before the Examiners that it had concerns about the line crossing over one of its nearby 69 kV lines. CHG&E proposed that AGC interconnect, instead, to the

¹ CHV's argument, that alternative site selection can proceed while these considerations of paramount concern are not addressed, is untenable. If the needed interconnections are not available, a site is plainly unacceptable for a generating facility. If such resources are available but only at great environmental or economic cost, the site would seem unlikely to prove to be a feasible and economic alternative.

² It may well be difficult to make an adequate case for rejecting a proposed facility on grounds that potentially superior sites are available, given the constraints under which intervenors are required to prepare their cases in Article X proceedings. Nonetheless, we have no basis to presume that a superior site exists somewhere that CHV failed to find only because of resource constraints.

³ If problems are so severe at any particular site that they outweigh the benefits, an application should be rejected wholly apart from consideration of alternative sites. It is where an application would be marginally acceptable, in the absence of clearly superior alternatives, that alternative sites become germane.

north with either of NMPC Line 93 or NMPC Line 94. The Examiners rejected CHG&E's alternative proposal, noting that the applicable clearance criteria would be met in that crossing, that DPS and NMPC supported AGC's proposal, and that AGC argued that placing additional load on the New Scotland-Leeds lines (Line 93 or Line 94) should be avoided.

On exceptions, CHG&E argues that its alternative proposal would entail fewer environmental impacts, and asserts that AGC should have evaluated the alternative more extensively for the record. Environmental advantages, according to CHG&E, include a shorter interconnection and avoidance of wetland impacts entailed by AGC's proposed interconnection. CHG&E also argues that there are visual impacts associated with the AGC proposal that would be avoided with its alternative.

In response, AGC points to the Examiners' finding that CHG&E failed to present any information or analysis concerning the alleged environmental advantages of its proposed alternative, and observes that no party found fault with its proposed interconnection on environmental grounds. Moreover, AGC continues, NMPC had evaluated the proposed alternative and rejected it because of load flow implications. AGC asserts that, according to NMPC's analysis, the proposal would have a number of other problems.¹

CHG&E's exception is denied. AGC's arguments concerning the alleged unsuitability of CHG&E's alternative proposal are not based on record evidence, and we are not relying on them. The fact remains that CHG&E essentially does not challenge the conclusion that interconnection with Line 91 would not create a material risk of outage of CHG&E's 69 kV line. Moreover, CHG&E's assertion that its proposal would entail lower

¹ AGC contends that NMPC's analysis was provided to CHG&E. The analysis has not been included in the record in this proceeding.

environmental impacts has not been demonstrated.¹ Inasmuch as AGC's proposed interconnection is environmentally acceptable, no reason has been demonstrated to depart from NMPC's preference, which is to interconnect with Line 91.

4. Transmission Load

Operation of the proposed facility will increase power flows by about 8%-9% on Line 2, a 25-mile 115 kV circuit owned mainly by NMPC that runs between NMPC's Feura Bush substation and CHG&E's North Catskill substation. This line has experienced occasional thermal overloads since 1994, causing it to be opened (de-energized), and the operation of the proposed facility is expected to increase the frequency of such conditions.

The Examiners concluded that it is unclear how best to resolve the problem. AGC's witnesses testified that dispatch software adjustments by the NYISO, which would enable redispatch in order to avoid opening the lines, might be possible. CHG&E asserts that the NYISO's algorithms do not include Line 2 among the facilities considered in its dispatch decision, and that reactors and breakers at a cost of approximately \$1.4 million must be installed to ensure that the line can remain closed.

The Examiners recommended adoption of a certificate condition proposed by AGC that would require development by AGC and CHG&E of recommendations to the NYISO for actions that would ensure that redispatch would avoid overloading Line 2 under normal conditions, and would also call for a PSC directive requiring AGC to compensate CHG&E for AGC's proportional share of the cost of any series reactor CHG&E might be required to install. The Examiners supported this solution based on their conclusion that it would be unfair to assess AGC for the entire cost, given that AGC would only account for about 8%-9% of the load on the line, and that it would be unfair for CHG&E to have

¹ See R.D., pp. 244-245, and the references cited there.

to shoulder the entire cost as well, given that it only owns only a small fraction of the line.¹

On exceptions, DPS and CHG&E object to permitting AGC to attempt to work out a solution through the NYISO. Like CHG&E, DPS asserts that the NYISO dispatch software cannot obviate local problems such as this. Beyond that objection, DPS supports the proportional compensation scheme in the recommended certificate condition, under which the Bethlehem Energy Project (now the Albany Steam Station) and AGC would compensate CHG&E on the basis of each facility's expected contribution to overloads. CHG&E, however, argues that the overload conditions are caused by the Selkirk Station today, and would be jointly caused by AGC and Selkirk, so that those two facilities should jointly shoulder the cost of putting a series reactor on the line.

AGC responds that there is no evidence supporting the argument that the problem cannot be resolved at the NYISO level, and argues that there is no harm in trying to work out a solution at that level in the first instance. If that does not work, AGC points out that it has agreed to pay its share of the cost of a series reactor. AGC asserts that CHG&E has conceded that the Albany Steam Station has been partially responsible for overloads in the past, since it concedes that NMPC has redispatched that station to avoid overloads.

AGC's assertion that the NYISO might be able to affect redispatch of the bulk power system for this 115 kV line is unfounded, because the line is not under the NYISO's control.² Accordingly, the condition proposed by AGC will not be adopted. It is necessary, therefore, that the loading problem be resolved by the parties (with the PSC's oversight). We agree with DPS Staff that, if a series reactor is needed, as determined by the

¹ The R.D. does not discuss how proportionate responsibility might be allocated between CHG&E and NMPC.

² NYISO Transmission and Dispatching Operations Manual, Appendix A-1 (September 1, 1999).

PSC, AGC must pay its proportional share of the costs, based on the amount of expected overload it is expected to cause; CHG&E can also seek reimbursement from the owners of Albany Steam Station and the Selkirk plant.

5. Local Taxes

The Examiners rejected a proposal by CHG&E that the Board mandate payments in lieu of taxes (PILOT), as negotiated between AGC and Greene County, that are no lower than the taxation level provided in Real Property Tax Law (RPTL) §485(b). That section provides for scaled partial tax exemptions for new facilities. The Examiners concluded that the Board has no authority to influence property tax levels, and also concluded that such a mandate would be counterproductive with respect to New York's policy of attracting business and employment into the state, in part through reducing taxes and energy costs. The Examiners perceived competition for favorable PILOT agreements to be part of the process of providing competitive, lower-cost energy in New York.

On exceptions, CHG&E reasserts its points, made to the Examiners, that property taxes remain a significant cost for utility-owned nuclear facilities that must attempt to compete with merchant plants, and that merchant plants with low PILOT burdens have an unfair advantage in that competition. CHG&E asks us to "seek consistency among generators and consistency with existing state policy," and that "[w]hatever policy is applied concerning a private generator such as the present applicant . . . be consistently applied across all unregulated generators, including such nuclear plants as may become unregulated."¹

In reply, AGC argues that CHG&E has not challenged or refuted the Examiners' conclusion that we lack jurisdiction to control the amounts negotiated in PILOT agreements.

¹ CHG&E's Brief on Exceptions, pp. 29-30.

CHG&E has failed to articulate how our refusal to attempt to influence PILOT amounts would constitute an "inconsistent policy." Accordingly, CHG&E's exception is denied.

E. Permitting

1. §401 Water Quality Certification

As explained in the recommended decision, the Water Quality Certification is required because the applicant would need federal permits from the U.S. Army Corps of Engineers pursuant to CWA §404 and §10 of the federal Rivers and Harbors Act.¹ The federal permits are required for construction activities related to the installation of the intake and discharge pipes in the Hudson River, as well as the placement of fill in portions of some federally regulated freshwater wetlands that are present on the site of the proposed electric generating facility.

According to AGC, the recommended decision implies that the Water Quality Certification would be included in the certificate, were the proposed facility approved. AGC takes exception because the recommended decision did not recommend issuance of the Water Quality Certification on a schedule that does not delay issuance of the federal approvals identified above.² Citing 16 NYCRR §1000.7(b), AGC argues that we must act upon a request for a Water Quality Certification within 60 days of the filing of the application or other document in which the request is made, unless the federal agency requires or authorizes a different period.

AGC provides the following chronology.³ AGC requested a Water Quality Certification in the application materials for the proposed facility that were filed with the Siting Board. On

¹ R.D., pp. 139-140.

² AGC's Brief on Exceptions, p. 5.

³ Ibid., pp. 6-7.

February 24, 1999, AGC filed its federal permit application with the U.S. Army Corps of Engineers (COE). By letter dated May 3, 1999, AGC asked the Board to decide whether to issue the requested Water Quality Certification within 60 days unless the COE authorized a different period. AGC's request was also the subject of a duly published public notice. AGC provided the Board with proof of publication with a cover letter dated May 19, 1999.¹

According to AGC, COE determined that AGC's federal permit application was complete on August 4, 1999, and informed the applicant that a hearing concerning the federal permit application would be scheduled during the first week of November 1999.²

AGC asserts that the 60-day review period prescribed in §16 NYCRR §1000.7(b) commenced on May 3, 1999 and has expired. Since the recommended decision thoroughly addresses the basis for granting the Water Quality Certification,³ AGC requests that we issue the certificate on a schedule that does not delay issuance of the federal permits by COE.

DPS and SH&FO have responded to AGC's request. Pursuant to PSL §168(2)(d) and §172(1), DPS argues, the Board is required to provide a certification that state water quality standards associated with construction and operation of the proposed facility would be met. DPS states that staff from COE determined that the Water Quality Certification does not have to be issued within 60 days after the applicant's request.⁴ In any event, DPS does not believe that issuance of the Water Quality

¹ Exh. 332.

² AGC's Brief on Exceptions, pp. 6-7.

³ R.D., pp. 161-162.

⁴ DPS's Brief Opposing Exceptions, p. 25.

Certification as part of the PSL Article X certificate would delay issuance of the federal permits by the COE.¹

According to SH&FO, the CWA §401 Water Quality Certification should be issued with the PSL Article X certificate. SH&FO argues that bifurcating the balancing issues required by PSL Article X would not have been justified by the possibility that the COE might have been ready to issue the pending federal approvals by December 1999.²

For facilities subject to PSL Article X, the procedures for requesting and obtaining a Water Quality Certification from the Board are outlined in 16 NYCRR §1000.7. After an applicant has filed its request for a Water Quality Certification and provides due notice of its request, we may act upon the request within 60 days, unless the federal agency reviewing the federal permit application has either advised us that the certification must be issued or denied within a shorter period, or determined that the certification may be issued or denied within a longer period, up to one year.³ Alternatively, we may deny the certification without prejudice if it appears that our review cannot be completed within 60 days, or the period set by the federal agency issuing the requested federal license or permit.⁴

As explained in the recommended decision, AGC's request for a Water Quality Certification was addressed at the hearing,⁵ and the recommended decision concluded that AGC would comply with the criteria for a certification, which are outlined in 6 NYCRR §608.9.⁶ Although the 60-day and one-year review periods prescribed in 16 NYCRR §1000.7(b) have expired, we are required

¹ Id.

² SH&FO's Brief Opposing Exceptions, p. 6.

³ 16 NYCRR §1000.7(b); CWA §401.

⁴ 16 NYCRR §1000.7(c).

⁵ R.D., pp. 161-162.

⁶ Id.

to make findings outlined in PSL §168(2) that would include those related to the requested Water Quality Certification, before we decide whether to issue a certificate for the proposed facility.

The record supports issuance of the certification required by CWA §401 in compliance with the criteria outlined in 6 NYCRR §608.9. The SPDES permit that has been issued by DEC for the proposed facility and the certificate conditions attached to this opinion and order will assure that the facility will comply with state water quality standards and with the CWA. Accordingly, we will issue a CWA §401 water quality certification for the proposed facility.

2. Air Permits

As discussed earlier in this opinion, Article X requires that we not decide whether a proposed facility should be issued a certificate until we first receive permits issued by the Department of Environmental Conservation pursuant to federally delegated or approved authority, including authority under the federal Clean Air Act. As also discussed, a certificate cannot be issued unless we first find that the proposed facility will not violate applicable Department of Environmental Conservation regulations. Therefore, we must give deference to the findings and conclusions of the DEC Commissioner regarding environmental permitting, and our consideration of various environmental issues must assume that the proposed facility conforms to DEC's permits and minimizes adverse environmental impacts.

a. Emission Reduction Credits

With respect to air emissions, the new source review¹ requires emission reduction credits² of the criteria pollutants that exceed ambient air quality standards.³ With respect to the proposed facility, emission reduction credits for NOx and VOCs, as ozone precursors, are necessary.⁴

The requirements for identifying emission offsets, and obtaining emissions reduction credits, are outlined in 6 NYCRR Subpart 231-2. Subsection 231-2.8 explains what offsets are, when they are necessary, and how they are used to offset proposed emissions.

Emission offsets must be certified before they can become emission reduction credits. Subsection 231-2.12 explains how offsets from emission sources are certified. According to §231-2.12(a)(2), emission offsets must be certified and established as emission reduction credits before permit issuance.⁵

The certification of emission reduction credits requires notice, which provides an opportunity for public review

¹ 6 NYCRR Subpart 231-2 (Requirements for Emission Sources subject to §§172 and 173 of the Clean Air Act, 42 USC §§7502 and 7503 on or after November 15, 1992).

² Emission reduction credits are commonly referred to as offsets or emission reductions. However, emission offsets (or emission reductions) must be certified before they can be referred to as emission reduction credits.

³ Emission offsets are not a necessary part of LAER. Rather, offsets and LAER are separate essential components of the new source review as outlined in 6 NYCRR Subpart 231-2.

⁴ R.D., p. 200. Although the recommended decision reported that the applicable offset ratio for NOx and VOCs is 1 to 1.5, the correct ratio is 1.15 to 1 (R.D., pp. 6, 200; See 6 NYCRR §231-2.15, Table 2).

⁵ The information needed for certification is listed in §231-2.12(a)(5)(i-viii).

and comment.¹ The public comment period is 30 days. Additional provisions outlined in §231-2.10(c) apply to emission reduction credits of NOx and VOCs. These regulations require a "supplemental public notice and a 30-day comment period upon submittal by the applicant of specific information on the emission offset" ²

The public comment period closed on November 12, 1999, and DEC has evaluated the public comments and determined whether to certify the emission offsets as emission reduction credits.³ A letter to AGC from DEC Staff dated February 2, 2000 (with attachments) states that AGC has obtained the required emission reduction credits and that the DEC Staff has certified them.

b. DEC's Proposed Conditions
Related to New Source Review

The recommended decision distinguishes between the findings that the Board must make pursuant to PSL §168(2), and the Board's decision about whether to certificate the proposed facility.⁴ The recommended decision concluded that, in the absence of EPA authorization, the Board cannot issue the federal Prevention of Significant Deterioration (PSD) permit, but may

¹ 6 NYCRR §231-2.10(b). Publication of the Notice of Use of Emission Reduction Credits fulfills the public participation requirements in 6 NYCRR §231-2.10, which is a critical step in the certification of emission reductions.

² 6 NYCRR §231-2.10(c)(1). Prior to permit issuance, §231-2.4(a)(2) requires applicants to "identify each emission source from which an emission reduction credit of VOC or NOx will be obtained." Other requirements are identified in §231-2.4.

³ Attachment 5 to the DEC Staff's letter dated February 2, 2000 is a Response to Comments on the Emission Reduction Credits (ERC) Certification and Use. The response states that AGC "has obtained the requisite [NOx] and VOC offsets . . . [and] all ERCs have been properly obtained and identified."

⁴ R.D., pp. 15-17.

issue a certificate, pursuant to PSL Article X, conditioned upon AGC obtaining all other necessary approvals, such as the federal PSD permit.¹ Based on that conclusion, the Examiners recommended that the certificate not include any PSD conditions.²

The PSD and new source review permits are pre-construction permits required by CWA and related state and federal regulations. We conclude that AGC's adherence to the terms of those permits will assure that the proposed facility will minimize adverse health and environmental impacts from air emissions. To assure that the requirements of the permits are observed, we shall condition the effectiveness AGC's certificate on its obtaining PSD and new source review permits from DEC.³

c. PSD Permit and Construction
Commencement

Although the Examiners recommended that the PSL Article X certificate not include any PSD conditions,⁴ Condition IV(D) [now III(G)] in Appendix N of the recommended decision requires AGC to "obtain a prevention of significant deterioration permit from DEC." In addition, Condition XVIII [now II(B)] requires AGC to obtain any other necessary permits or approvals.⁵

DEC argues that there must be a certificate condition that would require AGC to have the PSD permit in hand before construction of the proposed facility commences.⁶ AGC contends,

¹ R.D., p. 16.

² R.D., pp. 213; 314-315.

³ A permit encompassing PSD and new source review requirements was issued to AGC on June 12, 2000 and will remain in effect until June 12, 2005.

⁴ R.D., p. 213.

⁵ R.D., App. N, p. 19.

⁶ DEC's Brief on Exceptions, p. 20 (first presented in DEC's Initial Brief, p. 19 and App. A, p. 52, as Condition 2). DEC asserts that federal PSD regulations and EPA policy prohibit construction until issuance of the PSD permit. In addition,

however, that such a condition is redundant and should be kept out of the certificate in order to avoid conflicts that might arise between the proposed certificate condition and a pre-existing requirement that already applies to the proposed facility.¹ Consequently, AGC dropped what was previously identified as Condition IV(G) from its latest list of acceptable certificate conditions.²

As just discussed, the PSD and new source review permits are pre-construction permits required by federal and state statutes and regulations governing air quality. A combined permit was issued to the applicant by DEC on June 12, 2000.

d. Title IV Permit

Title IV of the federal Clean Air Act³ establishes a national permit program to reduce the adverse effects of acid deposition. The federal acid rain program is implemented in New York by DEC through the Title V operating permit program.⁴

The recommended decision identified a dispute between DEC and AGC about whether AGC needs to file an acid rain permit application with EPA.⁵ DEC argued that the PSL Article X certificate should require AGC to file an application with EPA pursuant to 40 CFR Part 72.⁶ According to AGC, filing an application with EPA is not necessary because DEC administers the

DEC contends that EPA considers it a major violation to commence construction before obtaining the PSD permit.

¹ AGC's Brief Opposing Exceptions, p. 55.

² Ibid., App. E., p. 3.

³ 42 USC §§7651-7651o.

⁴ 6 NYCRR §201-6.3(d)(11); §201-6.6(b).

⁵ R.D., pp. 202-203.

⁶ R.D., p. 203.

federal program in New York.¹ The Examiners recommended that the Board not require AGC to file a Title IV permit application with EPA as a certificate condition. Since the requirements in the federal Title IV permit program are implemented as part of New York's Title V program, the Examiners reasoned that a certificate condition requiring AGC to file a Title IV permit application with EPA is not necessary because it would be redundant with an already existing regulation.²

DEC acknowledges that, in New York, the federal Title IV review is implemented through the Title V permit program. DEC argues, however, that a certificate condition requiring AGC to comply with the federal regulation is dictated by the Board's obligation to find that the proposed facility will comply with state and local laws, as provided by PSL §168(2)(d).³

AGC replies that the recommended decision misinterpreted DEC's position about filing a Title IV permit application with EPA.⁴ According to DEC, however, AGC must submit a Title IV permit application to DEC and to EPA. DEC explains that DEC would process the Title IV application and incorporate the Title IV permit into the Title V permit.⁵

AGC argues that DEC has authorization from EPA to issue the Title IV permit, and that AGC only needs to file a copy of the Title IV permit application with EPA when AGC files a Title IV permit application with DEC.⁶ Finally, AGC argues that

¹ R.D., p. 203. See Tr. 4,368.

² R.D. pp. 203-204.

³ DEC's Brief on Exceptions, pp. 18-19.

⁴ AGC's Brief on Exceptions, p. 11.

⁵ DEC's Letter Brief Opposing Exceptions, p. 3.

⁶ AGC's Brief Opposing Exceptions, pp. 55-56, n. 53.

PSL §172(1) preempts DEC's authority to issue the Title IV permit unless expressly authorized by the Board.¹

There are two distinct issues related to compliance with the Title IV requirements. The first is whether AGC needs to file a Title IV permit application with EPA, and, if so, when. The second issue is whether the Board should condition the effectiveness of AGC's certificate on AGC's obtaining a Title IV permit.

With respect to the first issue, there no longer appears to be any dispute about whether AGC must file a Title IV permit application with EPA. As explained above, AGC concedes that it will file a copy of the application with EPA when AGC files its Title IV permit application with DEC.² The issue now becomes one of when the Title IV application must be filed.

The answer lies in the federal regulations. The federal acid rain regulations require an affected source to submit a Phase II (i.e., Title IV) application at least 24 months before the later of January 1, 2000 or the date on which the unit is to commence operations.³ There is a significant distinction between this federal requirement and the state requirement for Title V permit applications, which sets the filing date for Title V permits at one year after operations commence.⁴ Thus, the federal regulations suggest that the Title IV permit application should be submitted in advance of the Title V permit application deadline.

Although DEC did not expressly argue this point, the different filing requirements for the Title IV permit application and the Title V permit application imply that DEC should have

¹ Ibid., p. 55. This argument is based on the original version of PSL Article X prior to the November 1999 amendments.

² Id.

³ 40 CFR §72.30(b)(2)(ii).

⁴ 6 NYCRR §201-6.3(a)(2).

issued a Title IV permit by the time a Title V permit application is filed by AGC. Since the Title V permit would be the last air quality permit obtained for the proposed facility, the terms and conditions of the Title V permit would incorporate the various terms and conditions developed during the pre-construction review,¹ as well as the Title IV permit conditions.²

With respect to the second issue, concerning the certificate condition: AGC is required by CWA Title IV to obtain an acid rain permit. To assure that the proposed facility will minimize environmental impacts, will not emit any pollutants into the air in contravention of applicable air emission control requirements, and will comply with applicable laws and regulations (PSL §168(2)(c),(d)), we will include a condition in AGC's certificate setting forth its responsibility for obtaining a Title IV permit from DEC.³

e. Title V Permit

The recommended decision⁴ explains that the 1990 Amendments to the federal Clean Air Act include Title V.⁵ The permit program outlined in Title V is in addition to the previously established pre-construction permit requirements.⁶ A Title V permit from DEC is required to operate a major stationary emission source, such as the proposed facility.⁷ Subpart 201-6

¹ PSD and New Source Review.

² DEC's Letter brief Opposing Exceptions, p. 3.

³ The R.D.'s Condition XVIII [now II(B)] also sets forth AGC's responsibility, as a certificate holder, to obtain any emission permits that cannot be provided by the Board.

⁴ R.D., pp. 201-202.

⁵ 42 USC §7661-7661f.

⁶ These include the federal PSD review (40 CFR Part 52.21) and the state new source review (6 NYCRR Subpart 231-2).

⁷ 6 NYCRR §201-6.1(a).

of 6 NYCRR requires owners and/or operators to submit complete Title V applications to DEC within one year after commencing operations at new facilities.¹

AGC had proposed a certificate condition that would require it to submit a Title V permit application to DEC within one year after the proposed energy facility commenced operations, as required by state regulation.² The Examiners, however, recommended that we not adopt this condition because 6 NYCRR Subpart 201-6 already requires any owner or operator of any major stationary emission source to file a permit application a year after operations commence.³

DEC excepts, arguing that PSL §168(2)(d), which requires compliance with all applicable state and local laws and regulations, necessitates such a condition regardless of the timing of the requirements. DEC recommends that we include AGC's proposed condition in the certificate.⁴

AGC argues that the certificate should not impose requirements that are already applicable to the proposed facility. Given the Board's broad preemptive authority pursuant to PSL §172(1), however, AGC argued that we must delegate authority to DEC to issue the Title V permit.⁵ AGC contends that PSL §172(1) prohibits DEC from issuing Title V permits to facilities subject to PSL Article X unless expressly authorized by the Board. Otherwise, AGC asserts that it will have to file its Title V permit application with the Siting Board.⁶

¹ 6 NYCRR §201-6.3(a)(2).

² Initially proposed in AGC's Reply, App. A, p. 3, Condition IV(E).

³ R.D., p. 202.

⁴ DEC's Brief on Exceptions, pp. 17-18.

⁵ This argument is based on the original version of PSL §172(1).

⁶ AGC's Brief Opposing Exceptions, p. 55.

Although citing different provisions of PSL Article X, DEC and AGC both want it made clear that, if AGC receives an Article X certificate from the Board, the applicant should file a timely Title V permit application¹ with DEC, rather than with the Board.

There are two issues presented on exceptions: whether the Board must delegate Title V permitting authority to DEC, and whether the effectiveness of AGC's certificate should be conditioned upon its obtaining a Title V permit. Recent amendments to PSL §172(1) and ECL §19-0305 make it clear that DEC does not need a delegation from the Board in order to process and issue the Title V (major stationary source) permit AGC is required to obtain. To assure that the proposed facility will minimize environmental impacts, will not emit pollutants into the air in contravention of applicable air emission control requirements, and will comply with applicable laws and regulations (PSL §168(2)(c)), we will include a condition in AGC's certificate setting forth its responsibility for obtaining a CWA Title V permit from DEC, as described above.²

F. Certificate Conditions

The parties propose several miscellaneous amendments to certificate conditions contained in the recommended decision's Appendix N. They are discussed here, and revised certificate conditions are set forth in Appendix A to this opinion and order.

1. Service of Compliance Filings

DPS notes that 16 NYCRR §§1003.3(c) and 1003.5(a) require specified numbers of copies of compliance filings and reports to be served on DPS, DEC, and any other party specified

¹ 6 NYCRR Subpart 201-6.

² Condition XVIII [now II(B)] proposed by the Examiners also states that it is the certificate holder's responsibility to obtain needed permits that cannot be obtained from the Board.

in the certificate. DPS suggests amending condition I(C) [now III(c)] to require that one copy of any compliance filing or report be filed with any party that indicated in its brief on exceptions or brief opposing exceptions that it desires to receive copies of such documents.

The approach might be reasonable in future cases. However, we shall require AGC to serve its compliance reports and filings on all active parties that filed a brief on exceptions or a letter in lieu of a brief on exceptions, unless such parties communicate to AGC that they do not want to receive these filings.

2. Commencement of Construction

DPS observes that 16 NYCRR §1003.3(b) permits commencement of construction after an applicant accepts the terms of the certificate pursuant to 16 NYCRR §1000.14, although we may authorize earlier construction activities if needed to assure compliance with specific terms or conditions. DPS has suggested that AGC specify those construction activities that should be allowed to commence early for this reason, so that the certificate conditions can be appropriately amended.

In its brief opposing exceptions, AGC provides a list of activities it asserts should be authorized for early commencement. Certain activities, it argues, are "critical path" activities, and, in the case of erosion control and archaeological protective measures, early preparation during winter months will result in the minimum amount of disturbance. AGC proposes the following revised Certificate Condition I(D):

No construction, operation, or maintenance activity which is the subject of a licensing package that is part of the Compliance Filing may begin before the Board has approved that particular licensing package or submission, except for research, surveying, boring, installation of erosion controls, protective measures at archaeological sites, and the preparation and use of a temporary access road

from Route 74 to install the above controls and measures and to clear and grub on site until the Route 9W access road is completed.

This condition has been supplanted by condition III(D), which provides that AGC may not commence construction activities on the land, with the exception of preliminary site preparations listed therein, until we have approved required pre-construction licensing packages and submissions, and until AGC has received a variety of permits and approvals listed therein, including federal wetland approvals required by COE.

3. On-site Gas Pipelines

AGC proposes clarification of its responsibilities with respect to the natural gas pipeline that interconnects with the Iroquois line. For Conditions II(A) [now IV(D)] and VI(V) [now IX(A)], AGC proposes to insert the word "on-site" before the word "gas," to clarify that the certificate holder is not building, maintaining, or operating the off-site gas pipeline, and Iroquois is building, maintaining, and operating the off-site portion of the line under a certificate granted by FERC. This change is reasonable and is adopted.

4. Cooling Water Intake Monitoring

In its brief on exceptions, AGC asks that certificate condition V(N), concerning the monitoring of the effects of cooling water intake on fish, be expanded to include the details set forth in DEC's proposal on brief, rather than merely referring to them.

The SPDES permit issued by DEC includes detailed requirements for monitoring the effects of the cooling water intake structure on aquatic wildlife. To assure that the proposed facility will minimize environmental impacts, including impacts to fish, other marine life, and wildlife, and that the facility will comply with applicable laws and regulations (PSL §168(2)(c),(d)), we will condition the effectiveness of AGC's

certificate on its complying with the requirements set forth in the SPDES permit, which include cooling water intake structure and monitoring requirements.

5. Clearing Along Interconnect ROWs

DPS requests modification of Condition VI(G) [now VII(F)], which provides for narrowing the transmission interconnect right-of-way (ROW) cleared space within state-regulated wetlands from 75 feet to 50 feet, to permit greater than 50 feet cleared space "for the removal of danger trees."¹ DPS asserts that this change is needed to assure compliance with the PSC's electric and magnetic field standards. AGC agrees to this change, and the modified condition is adopted.

6. Trench Excavation

AGC requests modification of Condition VI(J) [now VI(E)], which relates to trench excavation in the Hudson River, to add the phrase "inter-tidal area of the" to modify "Hudson River." AGC argues that the requirements of that section apply only in inter-tidal areas. There has been no objection to this change, and it is adopted subject to the understanding that "inter-tidal" describes the area between the shorelines at maximum high and maximum low tides.

7. Soil Decompaction

Soil decompaction after water pipeline ROW construction is required by Condition VII(G) [now VII(K)]. AGC proposes that we clarify this condition to apply only to affected agricultural lands. This clarification is reasonable, inasmuch as this condition was proposed by the Department of Agriculture and Market's witness specifically for agricultural land. AGC's proposed change is reasonable and is adopted.

¹ DPS's Brief on Exceptions, p. 10.

8. The Unanticipated Discovery and Cultural Resources Management Plans

DPS proposes that we require AGC to submit, as part of its licensing packages, its Unanticipated Discovery and Cultural Resources Management Plans at least 30 days prior to the commencement of construction, and that it modify Conditions IX(E) [now IV(AA)] and IX(F) [now XI(C)] accordingly. AGC has no objection, and these changes are adopted.

9. Steam Plume Abatement

With our certification of a facility with dry cooling, the recommended conditions pertaining to cooling tower steam plume abatement are unnecessary, and the exceptions pertaining to them are moot. Condition VIII(C) requires the submission of a plan for monitoring and reporting visible stack plumes.

10. Stack Lighting

DPS points out that Federal Aviation Administration (FAA) regulations will not require AGC to install aviation warning lights on exhaust stacks that are 180 feet tall. DPS proposes, accordingly, that the certificate prohibit the installation of such lights. DPS's proposal is adopted.

11. Transmission

In its Brief on Exceptions, DPS recommends changes to recommended Conditions XVI(C), XVI(D), and XVI(E).¹ The change to Condition XVI(E) would be to remove the existing section, which is duplicative of Condition I(E) [now III(E)], and replace it with a condition assuring that the PSC Secretary is notified of the certificate holder's compliance with NYISO requirements for the reporting of transmission congestion contracts (TCCs). AGC indicates in its response that this change had previously been agreed to and was inadvertently omitted from the submission

¹ These conditions are now redesignated VII(A), XI(K), and III(E), respectively.

to the Examiners. No objection to this change has been raised, and it is adopted.

AGC opposes, however, changes proposed to Conditions XVI(C) [now XI(J)] and XVI(D) [now XI(K)]. These conditions relate to requirements for relay protection system equipment and appropriate communication capabilities on the Leeds-Pleasant Valley transmission lines. DPS Staff would modify those conditions to require use of high speed automatic reclosing (HSAR) equipment on the proposed facility's interconnection. The recommended conditions, which had been arrived at by agreement among DPS Staff, AGC, NMPC and Con Edison, would require compliance at AGC's expense with applicable reliability rules including the Northeast Power Coordinating Council's "Bulk Power System Protection Criteria," and submission in AGC's Compliance Filing of a study of the effect of HSAR equipment on the facility's turbine shafts, with an evaluation of synchro-check equipment as a means of avoiding shaft damage. DPS states that the proposed modifications are designed as a clarification, to recognize PSC requirements concerning the use of HSAR equipment.

AGC opposes the changes, arguing that use of HSAR equipment should not be mandatory unless required by the PSC. AGC contends that the parties agree that (1) the effect of HSAR on generator equipment should be studied, and (2) the PSC should ultimately decide how shaft damage can best be avoided. AGC alleges that DPS's proposed change would prejudice the issue and preclude changes needed to protect its equipment. Although the highest feasible levels of system reliability should be achieved, AGC argues, the record shows there are legitimate concerns about the possibility of shaft damage with the use of HSAR equipment. AGC avers that HSAR with high-speed synchro check should be feasible, and is amenable to studying the matter and having it ultimately decided by the PSC.

AGC views its generation equipment as the central focus of reliability concerns. The correct focus is the reliability of the New York State electric system, how to interconnect AGC

without degrading that reliability, and how to avoid damage to the new equipment that would be installed by AGC. AGC has agreed to study the effect of HSAR. The parties agree that they would consider those study results in designing what modifications, if any, should be made to HSAR to accommodate the generator design. Condition XVI(D) [now XI(K)] provides that the PSC will ultimately decide what changes in facilities could be accepted and still protect the integrity of the transmission system. AGC should be aware of the possibility that study results might dictate changes in the proposed project, were the PSC to determine that the reliability of the system would otherwise be significantly degraded.

12. Use of Mandatory Language

DPS argues that in several of the recommended conditions,¹ "should" and "will" ought be changed to "shall," and in one instance the word "would" ought be changed to "will." These changes are designed to clarify that the conditions are mandatory. AGC responds that it has no objections to the DPS proposals, and they are adopted.

III. STATUTORY DETERMINATIONS

We find and determine that:

1. On the basis of the findings and determinations in this decision and the declaratory ruling of the Public Service Commission in Case 98-E-0096, the proposed facility has been selected pursuant to an approved procurement policy [PSL §168(2)(a)(ii)].

2. Based upon the full record in this proceeding, the nature of the probable environmental impacts, including predictable adverse and beneficial impacts, of the proposed

¹ Certificate Conditions I.F.; VI.F., M., O., and V.; VII.I.; X.B.; XII.B., F. and H.; XIII.B. [These are now designated III(F), XI(G), IV(S), VII(E), IX(A), VII(M), II(E), V(D), VII(J), VII(BB), and VII(O), respectively.]

facility on the environment and ecology; public health and safety; aesthetics, scenic, historic, and recreational values; forest and parks; air and water quality; and fish and other marine life and wildlife, will be as described in this opinion and order and the Examiners' recommended decision [PSL §168(2)(b)].

3. For the reasons set forth in this decision and the Examiners' recommended decision, the proposed facility, if constructed and operated in accordance with all the certificate terms set forth in this decision and the terms of permits issued by other agencies, will minimize adverse environmental impacts, considering the state of available technology and the interest of the state respecting aesthetics, preservation of historic sites, forest and parks, fish and wildlife, viable agricultural lands, and other pertinent considerations [PSL §168(2)(c)(i)].

4. For the reasons set forth in this decision and the Examiners' recommended decision, the proposed facility, if constructed and operated in accordance with all the certificate terms set forth in this decision and the terms of permits issued by other agencies, will be compatible with public health and safety [PSL §168(2)(c)(ii)].

5. For the reasons set forth in this decision and the Examiners' recommended decision, the proposed facility, if constructed and operated in accordance with all the certificate terms set forth in this decision and the terms of permits issued by other agencies, will not discharge any effluent in contravention of DEC standards; and, where no classification has been made of the receiving waters, the proposed facility will not discharge effluent unduly injurious to fish and wildlife, the industrial development of the state, or the public health and public enjoyment of the receiving waters [PSL §168(2)(c)(iii)].

6. For the reasons set forth in this decision and the Examiners' recommended decision, the proposed facility, if constructed and operated in accordance with all the certificate terms set forth in this decision and the terms of permits issued

by other agencies, will not emit any air pollutants in contravention of applicable air emission control requirements or air quality standards [PSL §168(2)(c)(iv)].

7. Because the proposed facility will not include a solid waste disposal facility and will not generate hazardous waste, the adverse environmental impacts governed by PSL §168(2)(c)(v) and (vi) will not occur.

8. For the reasons set forth in this decision and the Examiners' recommended decision, the proposed facility, if constructed and operated in accordance with all the certificate terms set forth in this decision and the terms of permits issued by other agencies, will operate in compliance with all applicable state and local laws and associated regulations except specific local laws, ordinances, regulations, or requirements that are unduly restrictive in view of the existing technology or the needs of or costs to ratepayers located inside or outside the municipality that enacted such local laws, ordinances, regulations, or requirements [PSL §168(2)(d)].

9. For the reasons set forth in this decision and the Examiners' recommended decision, construction and operation of the proposed facility in accordance with all the certificate terms set forth in this decision and the terms of permits issued by other agencies will be in the public interest, considering its environmental impact [PSL §168(2)(e)].

We therefore grant to Athens Generating Company, L.P. a certificate of environmental compatibility and public need for the construction and operation of a 1,080 megawatt gas-fired electric generating facility at the Town of Athens site, subject to the terms, conditions, and limitations set forth in this opinion and order.

The New York State Board on
Electric Generation Siting and the
Environment for Case 97-F-1563 orders:

1. The recommended decision of Examiners J. Michael Harrison and Daniel P. O'Connell, to the extent consistent with this opinion and order, is adopted and, together with this opinion and order, constitutes the decision of this Board in this proceeding.

2. Subject to the conditions set forth in this opinion and order and appended to it, a certificate of environmental compatibility and public need is granted, pursuant to Article X of the Public Service Law, to Athens Generating Company, L.P. (the applicant) for the construction and operation of a 1,080 megawatt gas-fired electric generating facility on the Town of Athens site in Greene County, provided that the applicant files, within 30 days after the date of issuance of this opinion and order, a written acceptance of the certificate pursuant to 16 NYCRR §1000.14(a).

3. Upon acceptance of the certificate granted in this opinion and order or at any time thereafter, the applicant shall serve copies of its compliance filing in accordance with the requirements set forth in 16 NYCRR §1003.3(c) and Certificate Condition III(C). Pursuant to 16 NYCRR §1003.3(d), parties served with the compliance filing may file comments on the filing within 15 days of its service date.

4. Except as here granted, all exceptions to the Examiners' recommended decision are denied.

5. This proceeding is continued.

By the New York State Board on
Electric Generation Siting and the
Environment for Case 97-F-1563,

(SIGNED)

JANET HAND DEIXLER
Secretary to the Board

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Certificate ConditionsI. Introduction

The following are certificate conditions for the Athens Generating Project which are recommended by the Examiners. These conditions begin with the revised version of the certificate conditions which AGC attached as Appendix A to its Reply Brief, modified to incorporate the changes proposed by other parties which AGC accepted. We have added additional conditions, as indicated, to reflect the determinations made in the Recommended Decision. We have also reorganized the conditions to relate to the phases of construction activities and edited them to produce enforceable conditions in a logical and understandable order. At the end of each condition the bracketed and bold numbers and letters (e.g., [**XIV(B)**]) are referenced to the numbering used in Appendix N attached to the Recommended Decision. We will also require that certificate holder to reference each of the conditions in the Compliance Filing it will submit in order to ensure appropriate and complete compliance.

II. Project Authorization

A. The Certificate Holder is authorized to construct and operate the Energy Facility, Intake/Discharge Facility, and associated Interconnects within the Project Area described in Figure 2-1 of the Application, except as waived, modified or supplemented by this Certificate or other permits. [**III(A)**]

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B. The Certificate Holder is responsible for obtaining all necessary permits, including SPDES, COE approvals under CWA §404 and Rivers and Harbors Act §10, PSD, new source review, CWA Title IV (acid rain), CWA Title V (major stationary source), and any other approvals, land easements, and rights-of-way that may be required for this project and which the Board is not empowered to provide. **[XVIII]**

C. The facility shall be designed to operate and be operated in compliance with all applicable federal and state laws and regulations, and, except to the extent waived by the Board, with local laws and regulations as follows: **[I(B)]**

1. Energy Facility and Electrical Interconnect structures are authorized to exceed the 35-foot height restriction contained in the Town of Athens Zoning Ordinance. **[XI(B)]**
2. The Intake/Discharge Facility is authorized to be located within the 50-foot setback zone at the Hudson River. **[XI(C)]**
3. The Intake/Discharge Facility is authorized to be located in the Rural Residential district at the Hudson River. **[XI(D)]**

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4. The Interconnects are authorized to be constructed in the Open Space, Agricultural, Rural Residential and Light Industrial districts, as applicable. **[XI(E)]**

D. The Certificate Holder is authorized to construct and operate the Energy Facility comprised of the components described in Section 2.4 of the Application except that dry cooling towers shall be installed instead of wet evaporative cooling towers. **[III(B)]**

E. **[RESERVED]**

F. The Certificate Holder is authorized to connect to the lateral that is to be constructed and operated by Iroquois Gas Transmission System as described in Section 2.5 of the Application, and as shown on Figure 2.1. **[III(C)]**

G. The Certificate Holder is authorized to construct, or have constructed on its behalf, and to operate, or have operated on its behalf, the Electric Interconnects comprised of the components described in Sections 2.5 and 15.2 of the Application. **[III(D)]**

III. General Conditions

A. The plant and/or plant site shall be constructed, operated, maintained, restored and monitored as set forth in the Application and other submissions, and as indicated by the Certificate Holder in stipulations and agreements at the hearings, except as these may be waived, modified or supplemented by the Board. **[I(A)]**

B. The Certificate Holder shall submit a schedule of all plans, filings and other submissions to the Board required in the Certificate Conditions. **[I(C)]**

C. The Certificate Holder shall submit a Compliance Filing consistent with Part 1003 of the Article X regulations. A licensing package is defined herein as a component of the Compliance Filing and includes all plans or other submissions required by the certificate conditions. The Compliance Filing shall reference all certificate conditions. Licensing packages may be submitted individually or on a combined basis. All filings shall be served on all active parties that filed a brief on exceptions or letter in lieu of a brief on exceptions, unless such parties communicate to AGC that they do not wish to receive these filings. **[I(C)]**

D. No construction, operation, or maintenance activity which is the subject of a licensing package that is part

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of the Compliance Filing, or of a submission required by the SPDES permit or by PSD and/or new service review approvals, or of federal wetland approvals required by COE, may begin before the Board has approved that particular licensing package or submission, except for research, surveying, boring and the preparation and use of a temporary access road from Route 74 until the Route 9W access road is completed and related activities necessary to prepare final design plans. At a minimum, there shall be a licensing package submitted to the Board describing clearing, grading, and proposed layout of the Project Site for the early stage of construction. **[I(D)]**

E. Before the commencement of construction, the Certificate Holder shall file, with the Commission, a petition as to the regulatory regime that will apply to it as an electric corporation. **[I(E)] and [XVI(E)]**

F. The Certificate Holder will comply with the applicable requirements of the New York Independent System Operator (NYISO), New York State Reliability Council (NYSRC), Northeast Power Coordinating Council (NPCC), North American Electric Reliability Council (NERC), North American Electric Reliability Organization (NAERO), and successor organizations that develop and implement planning, operating, bidding and scheduling criteria and other criteria developed to assure the adequacy and security of the bulk power system. **[I(F)]**

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G. Construction and operation of the Facility shall not commence until the PSD and new source review permits are issued for the Facility. **[IV(D)]**

H. Construction and operation of the facility shall not commence until the SPDES permit is issued for the facility and until the COE issues necessary approvals related to federal wetlands at the facility site. **[V(H)]**

I. Plans and specifications for construction of the potable water well(s) shall be submitted as a licensing package. **[VIII]**

J. The Certificate Holder shall submit a pre-construction report by an acoustical engineer verifying that the final plant design meets the Acoustic Design Goals in Table 13-3 of the Application and the 35 dBA acoustic design goal for the Intake/Discharge Facility. The report should verify that the final plant design uses steam-vent silencing, and that the intake/discharge facility will meet the acoustic design goal even under inversion conditions. The report may be submitted in stages (by major component) if desired, but the report for a component must be approved before construction of that component can begin. The pre-construction report shall be submitted to both DPS and the Town of Athens. **[XIII(B)]**

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IV. Construction Conditions - General

A. These Certificate Conditions shall be made contract requirements for the construction contractors as applicable. **[XIII(H)]**

B. Appropriate construction personnel shall be trained in environmental compliance matters. **[II(B)]**

C. The Certificate Holder shall describe in a licensing package a community liaison program designed to maintain communication with the surrounding communities prior to and during construction. This plan shall include a dedicated phone line and the maintenance of a complaint log. The community liaison program shall continue once the Facility becomes operational to keep communication lines open between the certificate Holder and the community. **[XIV] and [XIII(I)]**

D. Environmental inspectors shall be assigned at the startup of each field operation to monitor the Energy Facility Site, on-site gas pipeline, water pipeline, electrical interconnect and Intake/Discharge Facility Site at all times during construction. At least one Environmental Inspector shall be assigned to each construction spread. No Environmental Inspector shall be assigned to more than two active construction spreads at any one time. If construction of the Intake/Discharge Facility occurs during initial clearing and grading activities at

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the Energy Facility Site, one inspector shall be assigned to each site until initial clearing and grading is complete. **[II(A)]**

E. The Certificate Holder shall submit a plan for periodic environmental audits during construction to assure implementation and maintenance of required environmental mitigation measures. Information shall be included about the independence of the auditor, the frequency of the audits and audit checklists, a procedure for correcting problems found, and a schedule for audit reports to DPS, DEC, and the Town of Athens Building Inspector. The audit checklists shall specify items to be inspected, how they will be inspected (visual, audible, sound measurements, etc.) and acceptability criteria. **[II(C)]**

F. Construction noise sources shall be mitigated by proper equipment maintenance and the use of appropriate mufflers. **[XIII(A)]**

G. Noise producing construction activities shall be limited to the daytime hours, 6:00 A.M. to 5:30 P.M., except for snow removal, which may commence no earlier than 4 A.M. If required by scheduling difficulties, work hours for noise producing construction activities may be extended to 10 P.M. for limited periods after board approval and notification to the affected community. Emergency extensions may be granted by the

on-site environmental inspector following community notification.

[XIII(D)]

H. During construction, steam blows (steam cleaning of boiler pipes) shall employ a silencer, and the public shall be notified of the dates of the activity. The Certificate Holder's on-site environmental manager (or equivalent position) shall routinely monitor proper equipment maintenance to avoid unnecessary noise. **[XIII(E)]**

I. Construction delivery trucks which arrive at night shall be immediately admitted to the site and not permitted to idle on public roads. **[XIII(F)]**

J. Trucks used for transporting soil or gravel during construction shall be covered to avoid loss of transported material, and truck speed on site shall be controlled to minimize dust. **[IV(A)]**

K. A dust control plan shall be submitted to the Board by the Certificate Holder. **[IV(B)]**

L. The Certificate Holder shall not dispose of land clearing waste or construction related waste by burning those waste materials on the site. The Certificate Holder shall be responsible for the actions of its contractors to prevent the

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burning of waste materials on the site. All land clearing and construction wastes must be disposed of at a Board-approved location. **[IV(C)]**

M. Before hiring contractors for solid waste haulage, the Certificate Holder shall identify the contractors proposed to be used and request evidence that such contractors are in possession of all required permits and licenses. During the period of operation, the Certificate Holder shall retain for inspection records showing that all waste hauling and disposal contractors have all required permits and licenses. Solid Waste shall be disposed of only at sites approved by the Board. **[XV]**

N. The Certificate Holder shall identify in the Compliance Filing the route to be used to convey excess fill from the facility site to the disposal location. Significant impacts on roadway conditions or safety along that route shall be identified and appropriate mitigation described. The Compliance Filing shall be amended if the disposal site for excess fill is changed during construction. **[XII(I)]**

O. The Certificate Holder shall submit a spill prevention control and countermeasures (SPCC) plan as a licensing package. **[V(J)]**

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P. The Certificate Holder shall submit, as licensing packages, (1) a wetland enhancement/mitigation plan that provides for the replacement of permanently impacted wetlands at the ratio of at least 2.0 to 1.0; (2) a Stormwater Pollution Prevention Plan; and (3) a plan for restoration of upland communities.

[VI(N)] and [VII(B)]

Q. All necessary precautions shall be taken to preclude contamination of any wetland or waterway by suspended solids, sediments, fuels, solvents, lubricants, epoxy coatings, paints, concrete, cement, leachate or any other environmentally deleterious materials associated with the Project. **[VI(P)]**

R. The Certificate Holder shall submit an erosion/sediment control plan. All necessary precautions shall be taken to prevent the discharge of sediment or turbid waters to the wetland. **[VI(R)] and [V(A)]**

S. All unused, excavated materials and/or construction debris shall be immediately removed upon completion of construction and placed at a Board-approved site. **[VI(Q)]**

T. All earth disturbed during Project construction shall be regraded and stabilized immediately after the completion of the disturbance. It shall be seeded and mulched with hay, straw or hydromulch during the first growing season following the

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grading and stabilization. If seeding/hydromulch is impracticable due to the time of year and cannot be accomplished, a temporary mulch shall be immediately applied, and final seeding shall be performed at the earliest opportunity during the following growing season. **[VI(S)] and [V(B)]**

U. Following construction, monthly inspections of disturbed areas shall be made, and corrective measures implemented as necessary, until stabilized by complete revegetation **[VII(E)]**

V. The methods for cut and fill and stabilization techniques during Project construction shall be as described in Appendix B-2 of the Application (Construction, Operation, and Maintenance Methodology) except as modified by these conditions. **[VII(A)]**

W. If required during construction, blasting shall be done using best practice techniques to minimize noise. **[XIII(G)]**

X. The final blasting techniques, pattern hole depths and materials to be used shall be determined by a certified blasting contractor, in accordance with applicable regulations. The blasting program shall be conducted under the supervision of a certified blasting contractor and all required notifications shall be provided. **[VII(D)]**

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Y. The Certificate Holder shall submit a Groundwater and Well Protection Plan, with particular emphasis on blasting effects, in a licensing package. **[VII(D)]**

Z. Final site plans and grading plans for the plant site, and final design plans for the waterline route and other utility line routes, shall be provided to OPRHP as part of the Compliance Filing. Any and all changes to those plans made subsequent to OPRHP's evaluation of February 9, 1999 shall be clearly identified. To the extent that approved plans differ from those previously evaluated by OPRHP, the Certificate Holder shall conduct any and all additional archeological investigations necessary to identify, evaluate and mitigate archeological and historic resources. **[IX(J)]**

AA. An Unanticipated Discovery Plan shall be prepared prior to the start of construction and submitted as part of a licensing package to provide protection in the event that cultural resources are encountered during construction. The plan shall include the retaining of a qualified archeologist during construction, in the event that cultural resources are encountered or adjacent cultural sites may be affected by Project activities. **[IX(E)] and [IX(H)]**

BB. Subject to the consent of the appropriate highway authorities, the Certificate Holder shall install caution signs

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and flashing lights on Route 385 for the duration of the construction of the Intake/Discharge Facility and Water Pipeline Interconnects in the vicinity of Route 385 to alert motorists of potential hazards at the intersection of Route 385 and Thorpe Road. Flaggers shall be posted if the delivery of oversized loads would cause temporary blockage of Route 385. **[VII(H)]**

V. Construction - Energy Facility

A. The vernal pool on the Energy Facility Site shall be separated from construction activities by plastic construction fencing at least 10 feet from the pool to protect it from disturbance during construction with the silt fence firmly secured at the bottom on the uphill side of the pool to prevent sedimentation during construction. **[VI(A)]**

B. Following construction, areas of temporarily disturbed upland adjacent to the vernal pool shall be regraded to restore surface runoff from these areas to the vernal pool. These areas shall then be stabilized and revegetated to original plant community as the season allows. When seasonal conditions prevent reseeding, areas shall be immediately protected with mulch and reseeded during the following growing season. The silt fence at the vernal pool shall be removed only after the graded areas have been stabilized by vegetation. **[VI(B)]**

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C. After consultation with the Office of Parks, Recreation and Historic Preservation (OPRHP), the Certificate Holder shall present Cultural Resources Management Plans (1) indicating protection and mitigation measures to be employed (a) to prevent adverse impacts to archeological and historic resources where feasible, and (b) to mitigate those impacts that cannot be avoided through design alternatives; and (2) incorporating plans for tree protection, landscape planting, restoration, lighting, and other related site protections.

[IX(F)]

D. The boundaries of cultural resource sites JMA-4, JMA-7, JMA-16, CA:P-3, and CA:P-8 shall be delineated on Project plans as "Environmentally Sensitive Areas" and clearly marked as avoidance areas during construction and operation of the Project. Temporary fencing shall be installed to protect these areas during construction. Disturbance other than tree cutting shall be precluded within these sites. **[IX(A)]**

E. As described in Section 9.0 of the Application, portions of JMA-1, JMA-2, JMA-6, JMA-10 and JMA-11 to be avoided shall also be clearly marked as avoidance areas and temporary fencing shall be installed to protect these areas during construction. **[IX(B)]**

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F. Siltation fencing shall be installed between archaeological sites and upgradient work areas during Project construction, to reduce the risk of site disturbance that could be caused by surface runoff, erosion, and sedimentation. **[IX(C)]**

G. Stormwater from the Energy Facility shall be directed away from sites CA:P-3 and CA:P-8 to detention basins located on the northwestern and southern areas of the Energy Facility. **[IX(D)]**

H. The Certificate Holder shall install entrance plantings/landscaping and a professionally designed sign along Route 9W. An entrance landscaping/sign plan shall be submitted to the Board. **[X(E)]**

I. **[RESERVED]**

J. As the FAA does not require aviation warning lighting, no such lighting is permitted. **[X(H)]**

K. The final site plan and compliance filings for the Energy Facility shall provide details to include measures to prevent off-site glare by using full-cutoff fixtures on all exterior area lights; provide for task-lighting of component areas as feasible; and demonstrate that design illumination

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conforms to applicable worker safety requirements for work area lighting while minimizing off-site lighting impacts. **[X(G)]**

L. A Tree Protection Plan shall be presented in a licensing package, based on a certified professional arborist's recommendations, for the Energy Facility, all access roads. Plan measures shall be included in final design and construction plans and shall include provisions for tree protections, including boring, root pruning, soil compaction prevention, and restoration measures appropriate for ensuring health and vigor of the trees important for visual mitigation at key locations. **[X(J)]**

1. The Certificate Holder shall preserve existing on-site trees to the extent practicable during construction of the Energy Facility. A wooded buffer along all sides of the Energy Facility shall be maintained during plant operations. Protected trees and buffers shall be tagged and/or fenced off prior to the start of construction.

[X(J)(1)]

2. Mature trees shall be preserved along the access road to the Energy Facility to the extent practicable. Protected trees shall be

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tagged and/or fenced off prior to the start of construction. **[X(J)(2)]**

3. Tree clearing for water pipeline construction within 50 feet of NY Route 385 shall be limited to a maximum width of 25 feet.

[X(J)(3)]

4. Tree clearing for water pipeline construction from the Leeds-Athens Road to the Niagara Mohawk Power Corporation access road shall be limited to a maximum width of 50 feet.

[X(J)(4)]

5. Tree clearing for water pipeline construction from the Hudson River pumphouse to the crest of the hill west of the pumphouse shall be limited to a maximum width of 50 feet.

[X(J)(5)]

M. The Energy Facility shall be constructed using low-glare, neutral-colored architectural materials. The Energy Facility shall be Terra Brown, with a Hunter Green roof. An architectural drawing and detail plan will be submitted to the Board. **[X(L)]**

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N. Heavy hauls requiring special highway permits during Project construction shall be scheduled to occur during non-peak traffic hours. The Certificate Holder shall monitor traffic conditions during the peak construction period at the intersection of the ramp leading from Route 9W southbound to Route 23 and shall work with appropriate authorities to develop and implement a mitigation plan if those authorities determine that significant traffic problems exist. **[XII(A)] and [XII(G)]**

O. Appropriate warning signs, as required by NYSDOT, will be placed on Route 9W in advance of the Energy Facility entrance during the period of Energy Facility construction. Warning signs shall be removed once the construction is completed. **[XII(B)]**

P. The Certificate Holder shall submit plans for an on-site septic system according to the requirements set forth in DEC's "Design Standards for Wastewater Treatment Works - 1988." **[V(I)]**

VI. Construction - Intake/Discharge Facility

A. The Certificate Holder shall submit a licensing package that presents final design plans for the Intake/Discharge Facility and access road. These plans shall address stormwater runoff from the access road and drainage ditch outlets; soil and bank stabilization design features; and include an engineer's

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certification that the design is in compliance with Flood Hazard Regulations in Town of Athens Zoning Ordinance §417.4. The final design shall include a detailed soils analysis based on soil core samples, and specify measures to address currently unstable areas adjacent to the intake/discharge facility. Bare soils shall be stabilized and restored to prevent erosion and sedimentation into the Hudson River and wetland HN-115. Topsoil shall be stripped prior to road grading for use as top-dressing on final graded slopes. Plantings shall be used to enhance the natural appearance of stabilization features where feasible. **[XI(H)]**

B. Riprap aprons shall be placed around the pipelines at the point where they exit the riverbed and in areas immediately adjacent to underwater structures. In addition, the intake heads shall be protected by an open crib structure. **[V(C)]**

C. The discharge point shall be sited where the average water depth is at least 20 feet MLLW and a minimum of 2 feet above the river bottom. **[V(E)]**

D. During construction of the Intake/Discharge Facility, disturbance from pipeline trench excavation shall be limited to a 50-foot width through the intertidal area. The intertidal area shall be delineated, staked and boundary

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inspected by the Environmental Inspector prior to the start of construction. **[VI(I)]**

E. Slopes of the trench excavation in the Hudson River intertidal area shall be protected during construction with rip-rap, gabion baskets, or sheet piling. **[VI(J)]**

F. The trench in the Hudson River shall be backfilled with granular backfill material and covered with approximately 8 to 12 inches of gravel to within a few inches of the original surface contour. **[VI(K)]**

G. Prior to the start of construction, the heartleaf plantain area located at the Hudson River Shoreline adjacent to the construction area will be delineated, fenced off and the boundary inspected by the Environmental Inspector. **[VI(L)]**

H. The Pumphouse shall be constructed using typical residential finish materials. The completed facility shall be landscaped with materials consistent with the local surroundings. An Architectural detail plan for the Pumphouse shall be submitted to the Board. **[X(D)]**

I. Prior to the commencement of in-water construction, the Certificate Holder shall issue a Notice to Mariners regarding the Intake/Discharge Facility structures and

in-water construction activities through the U.S. Coast Guard and in coordination with the Hudson River Pilots Association.

[XII(D)]

J. The elevation of the protection and support pilings for the Intake/Discharge Facility structures shall be at least 10 feet below the river surface at MLLW. **[XII(C)]**

K. The Certificate Holder shall issue a Notice to Mariners regarding the permanent Intake/Discharge structures through the U.S. Coast Guard and in coordination with the Hudson River Pilots Association. **[XII(J)]**

L. A Private Aid to Navigation shall be placed in the river as a warning to avoid the area of the Intake/Discharge structures or construction activity. **[XII(E)]**

VII. Construction - Gas Waterline and Electrical Interconnects

A. The Certificate Holder shall design, engineer and construct the 345 kV Athens to Leeds transmission line that will interconnect the Energy Facility with the Leeds to Pleasant Valley transmission line No. 91 in compliance with applicable National Electric Safety Code criteria, including those that address minimum clearances for crossing the Central Hudson Gas & Electric Corporation's existing 69 kV transmission line.

[XVI(A)]

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B. The Certificate Holder shall design, engineer and construct the transmission interconnection such that its operation will comply with the electric and magnetic field strength standards established by the Commission in Opinion No. 78-13 (issued June 19, 1978) and *Statement of Interim Policy on Magnetic Fields of Major Electric Transmission Facilities* (issued September 11, 1990), respectively. **[XVI(F)]**

C. Non-specular conductors shall be required for all electrical interconnects; Corten steel pole structures shall be used for all electrical interconnects. **[X(M)]**

D. Along the Transmission Line ROW, no more than 0.01 acres of permanent fill may be placed in the wetland for the construction of each of the four transmission line tower supports. **[VI(E)]**

E. The Certificate Holder shall comply with all COE federal wetland requirements. All wetland Interconnect areas crossed by pipelines, including temporary construction roadways under the powerline, will have preconstruction elevation surveys conducted on the crossing ROW. The wetland will be returned to its previous elevation [or lower] when construction is complete. **[VI(O)]**

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F. Clearing along Interconnect ROWs shall be kept to the minimum necessary (i.e., ROW shall be narrowed from 75 feet to 50 feet within wetlands), and no permanent fill (other than trench backfill) shall be placed in wetlands. Danger Trees outside of the 50 foot ROW shall be tagged by the Environmental Inspector prior to removal. Wetlands shall be delineated, staked and boundary inspected by the Environmental Inspector prior to the start of construction. **[VI(G)]**

G. The construction ROW for pipelines shall be of sufficient width (approximately 100 feet) in agricultural areas to allow topsoil to be completely stripped to a maximum depth of 12 inches over the construction area (travel lane, trench and spoils storage area) and stockpiled separately in a designated storage area on the ROW. Following construction, the topsoil shall be used to restore the construction area. **[VII(C)]**

H. The Pipeline ROW shall be limited to 50 feet in width in the area where Schreber's aster are located. The locations where this plant occurs shall be clearly marked and enclosed in fencing and inspected by the Environmental Inspector prior to the start of construction of the pipeline. **[VI(D)]**

I. Impacts to Corlaer Kill during facility and pipeline construction shall be limited through special crossing

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techniques described in Appendix B-2 of the Application (Construction, Operation and Maintenance Methodology). **[VI(H)]**

J. The water pipeline will be placed by boring or drilling under the Conrail tracks and approval shall be obtained from Conrail prior to construction of the crossing. **[XII(F)]**

K. Soil decompaction shall be conducted after backfilling across the entire pipeline ROW in agricultural areas. **[VII(G)]**

L. Stones four inches and larger shall be removed from the surface of the subsoil following decompaction and again from the surface of the topsoil of Pipeline ROWs in agricultural areas prior to its reseeding. **[VII(H)]**

M. Pipelines in agricultural fields will be covered by a minimum of 48 inches of soil. In areas where the depth to bedrock is less than 48 inches, the pipeline shall be placed below the top of the bedrock. **[VII(I)]**

N. Stones shall be removed from the surface of topsoil prior to vegetation reestablishment in yards and lawn areas of the waterline route. **[VII(J)]**

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O. Tree clearing for Water Pipeline construction within 50 feet of Route 385 shall be minimized (no more than 25 feet in width) to limit visual impacts. The area shall be delineated and staked prior to construction. **[X(F)]**

P. The Certificate Holder shall present final design plans for the waterline route as part of the Compliance Filing. Visual impact mitigation measures shall be specified, addressing: (a) routing changes north of County Route 74, and east of NYS Route 385, and (b) minimization of clearing width at the locations noted in (a). Construction plans shall indicate measures for minimizing clearing for the waterline route at the crest of the hill, 500 ft. west of the pumphouse. **[X(I)]**

VIII. Operation and Maintenance - Energy Facility

A. The Energy Facility Site will be maintained in accordance with a Site Stewardship Plan that shall be developed and submitted to OPRHP and the Board or its designee for approval prior to completion of construction of the Energy Facility.

[IX(I)]

B. The Certificate Holder shall install and use stack heater or alternate mitigation technology (such as the design of the heat recovery steam generators to raise stack temperatures) designed for daily operation between one half hour before sunrise and one half hour after sunset when a visible plume is expected

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to occur and distillate oil is burned in any unit. AGC shall provide a specification plan to the Board. **[X(N)]**

C. The Certificate Holder shall submit, as part of the compliance filing, a plan for monitoring and reporting visible plumes from the exhaust stacks.

D. The Certificate Holder shall submit a post-construction report by an acoustical engineer to demonstrate that, based on noise measurements and acoustic observations, the operating plant complies with the acoustic design goals contained in the Application and also produces no prominent pure tones. The report shall also demonstrate that the Intake/Discharge Facility complies with the 35 dBA design goal and produces no prominent pure tones. The acoustic design goals shall apply to the energy equivalent sound level produced by the facility during any one-hour period. The report must be submitted within six-months of the start of commercial operation. **[XIII(C)]**

IX. Operation and Maintenance - Gas Waterline and Electrical Interconnects

A. Maintenance of the on-site Gas Pipeline ROW shall allow periodic mechanical clearing. Saturated or inundated wetland areas within the ROW will be cleared of woody vegetation only. Additional disturbances of wetland areas for maintenance will require prior approval of the Board. Mowing of non-wetland

ROW areas shall not be undertaken prior to July 15 of each calendar year. [VI(V)]

B. Prior to commencing maintenance activities on the ROWs an annual and long range ROW maintenance plan will be developed and submitted to the Board. [VI(W)]

C. Pipeline ROWs shall be inspected annually to ensure proper ROW drainage, identify maintenance requirements and other environmental concerns. Inspection logs shall be made available on demand. [VII(F)]

X. Decommissioning

A. Before commencing any construction, other than research, surveying, boring or related activities necessary to prepare final design plans and permitting, the Certificate Holder shall make an appropriate showing of adequate financial security (such as an escrow, a restoration bond or an existing or supplemental insurance policy) to assure the restoration of any disturbed areas in the event the Project is not completed. The amount of the security shall be proposed by the Certificate Holder in the compliance filing and shall cover the following worst case scenario: the Project is built but never operated and all of the Project's above-ground structures must be removed from the landscape and all disturbed areas returned to a state that complies with the zoning law in effect at the time of such

restoration. The security shall include funds to replicate and restore unmitigated disturbed wetlands so there is no net loss to the State. Upon the commencement of commercial operation of the Project, the security shall include funds to cover the cost of decommissioning, dismantling, closing or reusing the plant when the Energy Facility has reached the end of its service life which shall be proposed in an amended compliance filing. The Certificate Holder shall propose in the Compliance Filing the amount to be included in the security to cover all restoration activities including the estimated cost of decommissioning, dismantling, closing or reusing the plant at the end of its service life and the rationale related to decommissioning, dismantling and site restoration and reuse. [XVII]

XI. Mitigation, Studies/Funding

A. The Certificate Holder shall work with Central Hudson to develop recommendations to assure that when the Energy Facility is operating under normal conditions, generation dispatch is carried out in a manner that avoids overload conditions on Central Hudson's "2" 115 kV transmission line. The Certificate Holder shall report the results of such efforts to the Public Service Commission. Based upon said report, the Public Service Commission may direct the Certificate Holder to submit a plan for appropriate compensation to Central Hudson for its installation of a series reactor on the "2" 115 kV line based upon the Energy Facility's expected contribution to possible

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overloads. In addition, the Certificate Holder shall submit to the Public Service Commission a plan for appropriate compensation of the affected utilities for the installation of relays on the Leeds to Pleasant Valley lines. **[XVI(B)]**

B. [RESERVED]

C. A Regional and Community Historic Preservation Benefit Plan shall be presented in the Compliance Filing for the enhancement of historic properties in the Town of Athens; Greene County; and the Mid-Hudson Region. The plan shall include a fund for Olana, and other current or prospective public-access historic sites for appropriate restoration, interpretation, and heritage tourism projects and programs. The plan shall also include a long-term commitment to the support of heritage resources in the region. **[IX(G)]**

D. A Landscape Planting and Restoration Plan shall be presented in the Compliance Filing for restoration planting locations identified in the Application and as further necessary to mitigate adverse visual impacts due to siting and construction of the Project through plantings and gradings. The plan shall include a fund for off-site plantings to screen views of the Energy Facility from private properties (eligible or registered properties), and establish an application process for accessing this fund. The plan shall include appropriate planting and

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maintenance specifications; indicate use of quality stock of native species and cultivars appropriate to the site; and include specifications for tree replacement due to construction damage or planting failure. **[X(K)]**

E. Natural re-establishment of spongy arrowhead at the Hudson River shoreline shall be monitored for two years following construction. Remedial measures shall be explored if natural recolonization does not occur. **[VI(T)]**

F. Development and enhancement of additional vernal pool breeding habitat on the Energy Facility site shall be implemented in adjacent areas of marginal wetland or intermittent stream channel adjacent to undisturbed upland habitat for the spotted salamander as described in Section 6.3.1.4 of the Application. A plan shall be submitted for the vernal pool enhancement. **[VI(C)]**

G. Permanent impacts within the Transmission Line ROW required for the tower bases shall be mitigated through the creation of wetlands adjacent to HN-108 on the west side of the Energy Facility Site. Temporary wetland disturbance or wetland alteration (e.g., conversion from forested wetlands to shrub wetlands) will be mitigated by enhancing the diversity/quality of approximately 3.3 acres of HN-108 on Athens Generating Company's property north of the Electric Transmission Line ROW and east of

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the Conrail tracks. A wetland enhancement plan must be submitted to the Board. **[VI(F)]**

H. Prior to completion of construction of the Project, the Certificate Holder shall meet with the Greene County Emergency Dispatch Center to plan how the Energy Facility Site staff will coordinate with the existing Greene County police services. **[XI(F)]**

I. The Certificate Holder shall actively engage Town of Athens officials, emergency response personnel, and the local fire departments when developing its Risk Management Plan pursuant to Section 112 (r) of the Clean Air Act, if applicable, for the storage of aqueous ammonia on the Energy Facility Site. Local fire companies shall be given periodic training tours of the Energy Facility, both during construction and operation. **[XI(G)]**

J. The Certificate Holder shall work with Consolidated Edison Company of New York, Inc. (Con Edison) and Niagara Mohawk Power Corporation (NMPC) to ensure that, with the addition of the Energy Facility, the Leeds to Pleasant Valley transmission lines will have relay protection system equipment and appropriate communication capabilities to ensure that operation of the transmission system is adequate under NPCC "Bulk Power System Protection Criteria." If Con Edison's relays and

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associated facilities need to be modified solely as a result of coordinating the operating characteristics and settings of the Energy Facility with Con Edison's equipment, the Certificate Holder shall be responsible for the costs, together with associated expenses incurred, to verify that the relay protection system is in compliance with applicable NPCC criteria. **[XVI(C)]**

K. The Certificate Holder shall submit a study in the Compliance Filing, and file a copy with the Public Service Commission, of the effect of high speed automatic reclosing equipment on the generating facility shaft and demonstrate that its generating equipment will be able to operate safely in conjunction with the high speed automatic reclosing that is used to protect the transmission system. Based on the study, the Public Service Commission shall determine which changes, if any, could be accepted and still protect the integrity of the Transmission system. **[XVI(D)]**

APPENDIX B

NEW YORK STATE BOARD
ON ELECTRIC GENERATION SITING
AND THE ENVIRONMENT

WATER QUALITY CERTIFICATION

Pursuant to: Section 401 of the Federal Clean Water Act;
Article X of the NYSPSL; and 6 NYCRR Section
608.9.

Certification Issued to: Athens Generating Company, L.P.
(PG&E Generating)
One Bowdoin Square
Boston, MA 02114-2090

Location of Project

Athens Generating Company, L.P. proposes to construct and operate the Athens Generating Station located in the Town of Athens, Greene County. The facilities include a 1,080 MW Energy Facility, Intake/Discharge Facility on the Hudson River, and associated Water, Gas, and Electric Interconnections.

Certification Conditions

A 401 Water Quality Certification is issued to Athens Generating Company, L.P. subject to the following conditions contained in the Article X Certificate. **(Reference to Appendix A, the Article X Certificate conditions, in bold.)**

1. All necessary precautions shall be taken to preclude contamination of any wetland or waterway by suspended solids, sediments, fuels, solvents, lubricants, epoxy coatings, paints, concrete, cement, leachate or any other environmentally deleterious materials associated with the Project. **(IV Q)**
2. The certificate holder shall submit an erosion/sediment control plan. All necessary precautions shall be taken to prevent the discharge of sediment or turbid waters to the wetland. **(IV R)**
3. Stormwater from the Energy Facility shall be directed away from sites CA:P-3 and CA:P-8 to detention basins located on the northwestern and southern areas of the Energy Facility. **(V G)**
4. The Certificate Holder shall submit a licensing package which presents final design plans for the Intake/Discharge Facility and access road. These plans shall address

stormwater runoff from the access road and drainage ditch outlets; soil and bank stabilization design features; and include an engineer's certification that the design is in compliance with Flood Hazard Regulations in Town of Athens § 417.4. The final design shall include a detailed soils analysis based on soil core samples, and specify measures to address currently unstable areas adjacent to the intake/discharge facility. Bare soils shall be stabilized and restored to prevent erosion and sedimentation into the Hudson River and wetland HN-115. Topsoil shall be stripped prior to road grading for use as top-dressing on final graded slopes. Plantings shall be used to enhance the natural appearance of stabilization features where feasible. **(VI A)**

5. Riprap aprons shall be placed around the pipelines at the point where they exit the riverbed and in areas immediately adjacent to underwater structures. In addition, the intake heads shall be protected by an open crib structure. **(VI B)**
6. The discharge point shall be sited where the average water depth is at least 20 feet MLLW and a minimum of 2 feet above the river bottom. **(VI C)**
7. During construction of the Intake/Discharge Facility, disturbance from pipeline trench excavation shall be limited to a 50-foot width through the intertidal area. The intertidal area shall be delineated, staked and the boundary inspected by the Environmental Inspector prior to the start of construction. **(VI D)**
8. Slopes of the trench excavation in the Hudson River intertidal area shall be protected during construction with rip-rap, gabion baskets, or sheet piling. **(VI E)**
9. The trench in the Hudson River shall be backfilled with granular backfill material and covered with approximately 8 to 12 inches of gravel to within a few inches of the original surface contour. **(VI F)**

Date: _____

Maureen O. Helmer, Chairman
New York State Board on
Electric Generation Siting
and the Environment