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## IX. Adverse Environmental Effects

## ***IX. ADVERSE ENVIRONMENTAL EFFECTS THAT CANNOT BE AVOIDED***

The potentially adverse environmental effects resulting from the Proposed Action, renewal of the State Pollutant Discharge Elimination System permits (SPDES) for Roseton 1 & 2, Bowline Point 1 & 2, and Indian Point 2 & 3, are those related to the withdrawal of cooling water and the discharge of heat and some chemicals to the Hudson River. The withdrawal of cooling water will result in the entrainment and impingement of some aquatic organisms. The discharge of heat may temporarily change the distribution of some organisms and somewhat increase evaporation beyond that which occurs naturally from the river's surface. If the permits are renewed consistent with the Proposed Action described in Section IV, these direct effects would not adversely affect species diversity or species abundance within the fish communities in the Hudson River.

X. Commitments of Resources

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## ***X. IRREVERSIBLE AND IRRETRIEVABLE COMMITMENTS OF RESOURCES***

This section describes the extent to which the proposed action will irreversibly or irretrievably commit natural and man-made resources. These commitments consume resources that may not be available for subsequent use and that cannot be returned to their original function at some later time.

### ***A. BIOLOGICAL RESOURCES***

As described in Section VI, the continued operations of these stations as proposed may temporarily reduce the size of some Hudson River fish populations directly affected by entrainment or impingement, but any reductions would not be irreversible. In addition, biomass lost to entrainment and impingement would not be irretrievable. The affected organisms would not be removed from the ecosystem and may pass through the food web differently. They would continue to be available as food sources for organisms dependent upon detritus rather than live prey.

### ***B. WATER RESOURCES***

Water used for once-through cooling is returned to the river with only minor evaporative losses and is not irreversible. The heat contribution to the discharged cooling water does not persist when the facilities are not operating.

### ***C. AIR RESOURCES***

No air resources will be irreversibly or irretrievably committed as a result of the proposed project. Continued operation of the units is in keeping with the New York State Energy Master Plan and complies with air quality standards.



### ***D. ENERGY***

The proposed action generally avoids significant, unnecessary use of energy resources. However, the Indian Point Station cooling-water use restrictions (including the flow credit system described in Appendix IV-1) are expected to cause some potential operating inefficiencies. Although the cooling-water flow rates proposed at Indian Point will occasionally be less than required for maximum efficiency, energy losses are far less than would occur with cooling towers.

### ***E. CONSTRUCTION MATERIALS***

The proposed action does not require the commitment of significant new resources to major construction projects.

### ***F. CULTURAL RESOURCES***

The proposed action does not require the commitment of significant new cultural (community, aesthetic, or cultural) resources.

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## XI. Effects On Energy Resources

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## ***XI. EFFECTS OF THE PROPOSED ACTION ON USE AND CONSERVATION OF ENERGY RESOURCES***

### ***A. EFFICIENCY***

As discussed in Section X, the proposed action will not generally affect the efficient use of energy resources by the subject generating stations.

### ***B. RELATIONSHIP TO THE NEW YORK STATE ENERGY PLAN***

The 1998 New York State Energy Plan ("SEP") states:

The 1998 SEP is a departure from past energy plans. It provides broad energy policy direction rather than dictating a host of specific government actions, in part because of the rapid changes occurring in energy markets and industries. The policy goals identified in this SEP are designed to support efficient and effective competition in energy industries and to ensure the benefits of competition and customer choice are available to all New Yorkers.

The establishment of new State policies favoring replacement of regulated utility-owned generation with independently owned generating units that compete in wholesale (and retail) markets is reflected in the 1998 SEP. One of the benefits of competition in the energy sector is reduction in costs of electricity to consumers through competition at the wholesale level and the expectation that cost reductions at the generation level will be passed along to end use consumers. A consequence of these policies is that generating units in competition with each other will seek to limit the level of cost imposed due to regulations to only that level required to meet statutory requirements.

The 1998 SEP specifically advances "strategies and policies" designed to "promote continued economic growth and the development of energy industries within the State that create and retain jobs." The continued operation of the Hudson River plants is consistent with the objectives and strategies developed in the Plan in that their operation will contribute to emergence of the competitive electricity markets. The sale of certain of the plants has already been conducted or announced and it is conceivable that the

*XI. Effects of Proposed Action on Use and Conservation of Energy Resources*

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remaining plants could also be sold to independent generating companies that compete in the electricity markets. Whether sold to independent generating companies or remaining with their current owners, these plants provide employment opportunities, support local economies and generally provide significant components of local tax bases.

The 1998 SEP further stated that “[i]ncreased competition in the energy markets will not have an undue adverse impact on the environment, as compared with traditional industry regulation, because environmental oversight will continue and mitigation will be implemented as necessary.” The proposed action is consistent with this standard in that it will continue implementation of an appropriate level of restrictions on generating units that will be competing in wholesale electricity markets.



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***SECTION XI***

New York State Energy Plan (SEP). 1999. 1998 State energy plan executive summary.

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