

**Position Statement of the NY Metro Chapter of the American Planning Association on:
Nuclear Power in the NYC Metropolitan Region**

During the past five years, a number of factors have converged to raise the visibility of the debate regarding the expanded use of nuclear power within the New York City Metropolitan Region to generate electricity. They include:

- ***The Terrorist Attacks of September 11, 2001*** - which immediately raised concerns about the safety of existing nuclear power plants in a major metropolitan region. The perceived probability of future terrorist attacks against New York City, the use on 9/11 of hijacked commercial airliners as guided missiles to damage or destroy buildings and the fact that one of the planes hijacked on 9/11 passed over the Indian Point Nuclear Generating Station on its way to its intended target led to calls for the closing of the Indian Point reactors.
- ***US Dependence on Foreign Oil*** - the 9/11 attacks also reinvigorated the debate over the issue of the United States' dependence on foreign oil. The chaotic political situation in the Middle East is intertwined with that region's role as a major producer of the world's oil. The recent rapid escalation in the price of oil is a direct result of increased demand from the West and developing countries such as China, as well as questionable supplies. Various analyses show that the peak production of oil from all the world's likely reserves will be surpassed within at least the next fifty years and possibly sooner. All of these factors have highlighted the long-term need to reduce dependence on foreign oil as well as to begin exploring alternative sources of energy in light of the inevitable exhaustion of a finite resource.
- ***Climate Change and Global Warming*** - there is a growing perception that the escalation of extreme weather events in recent years, epitomized by the flooding of New Orleans as a result of Hurricane Katrina, may be a symptom of the rise in average global air temperatures beyond that which may be attributed to natural climate cycles. This perception has been buttressed by scientific data that suggest the warming trend is a result of the continuing introduction of carbon dioxide and other "greenhouse gases" into the atmosphere, primarily through the combustion of fossil fuels. As the human population continues to grow, the detrimental impacts of fossil fuel combustion on the climate will continue unless alternative energy sources can be developed to reduce these impacts.
- ***Expanding Energy Demand as a Result of Technology and Changing Lifestyles*** - unreliability in electrical power generation during times of peak demand is an ever-growing concern, particularly as lifestyle changes result in increased demand over and above what can be attributed to simple population increases. The last five years have contained forewarnings such as the statewide power crisis in California and the largest failure of electrical power generation in the country's history in the Northeast and Midwest. As yesterday's "luxury" appliances and amenities morph into today's "standard", and the numbers and types of electronic gadgets grows, the demand for electricity by individual households has increased. Power demand in established neighborhoods may escalate as older homes are remodeled to include central air conditioning, in-ground pools, hot tubs, entertainment centers, multiple televisions and computers, etc. Power grids that had been built to service these neighborhoods may be inadequate to meet the increased demand. Pricing plans that have been crafted to

encourage energy use when excess capacity is available may have encouraged a level of use that can no longer be sustained by the existing power grid during climate extremes.

The confluence of these diverse but interrelated factors means new sources of power generation will be needed in order to meet short- and long-term future demand. It is for this reason that the possible expanded use of nuclear power is being given serious consideration for the first time in decades.

In light of this, the NY Metro Chapter of the American Planning Association has identified the following key considerations for the future of nuclear power within the New York metropolitan region:

- ***Nuclear power is a significant contributor*** to New York State's electrical grid, producing approximately 20% of the electrical energy generated within the State.
- ***Nuclear power is a very efficient form of energy generation***, even when the costs of producing fuel, constructing new facilities and storage of spent fuel rods are considered.
- ***Electrical generation by nuclear power actually reduces emissions*** of greenhouse gases per unit of energy produced, even when the emissions of fuel production and plant construction are factored in.
- ***Nuclear power poses a security risk*** that has not been quantified. There is insufficient data on the ability of containment structures to resist various methods of attack by terrorists. The actual vulnerabilities of the plants themselves are not known. Additionally, since spent fuel rods must be kept on site, the spent fuel itself is vulnerable to attack or theft. There is also insufficient data on the effectiveness of existing security systems or in other components of nuclear power plant infrastructure with which to reasonably estimate the overall level of risk to the surrounding population should a plant be successfully attacked.
- ***Nuclear power is not environmentally clean***. It produces dangerously radioactive waste products (the spent fuel and eventually the reactors and containment buildings themselves) and there is no proven system of safe disposal of these materials for the long periods of time they remain dangerous. The catastrophic meltdown at Chernobyl and the horrific loss and degradation of the human and ecologic communities surrounding that plant have been visually and scientifically documented. In the United States, the Three Mile Island incident in Pennsylvania was a cautionary tale about the responsibilities that accompany the use of nuclear technology.

It is principally for the latter reason that nuclear power is a significant security risk. There are serious questions about the ability of existing containment structures and security systems to resist various methods of attack. The actual vulnerabilities of the plants themselves are not fully known, thus the feasibility of designing and constructing more secure plants is an over-riding concern. Additionally, safe transportation of spent fuel rods is another grave concern, particularly as significant portions of the metropolitan area's transportation network approaches near-gridlock conditions on a regular basis. The alternative, keeping spent fuel on site at the plants, only increases their potential danger to the surrounding community should the storage system be attacked. And community opposition can play and has played a significant role in the siting of nuclear facilities. For example, anti-nuclear sentiment in eastern Long Island was

responsible for the literal dismantling of a built nuclear power plant in Wading River in the 1980s. This demonstrates the formidable power of fear in the shaping of public energy policy.

Given the unanswered questions about how to improve plant security and ensure operating safety; and about how to guarantee secure transportation and storage of wastes, ***the NY Metro Chapter of the American Planning Association advises that it is premature at this time to consider any expansion of nuclear generating capabilities in the New York City metropolitan region.*** Expansion of the existing fleet of nuclear power plants should not be considered until the associated risks can be better defined. Toward this end, for reasons of public health, safety and welfare, ***the Metro Chapter strongly urges an immediate and comprehensive review and upgrading of design and security at existing nuclear plants*** in order to minimize any risks from engineering flaws, operating failures and terrorist attacks.

However, ***the Metro Chapter acknowledges that existing nuclear facilities in and around the New York City metropolitan region should not be decommissioned given their significant contribution towards meeting existing and projected power needs.*** Decommissioning existing plants will not be possible unless (and until) additional generating capacity is built. But, the construction of new fossil fuel plants within the metropolitan area is likely to take a long time because of public opposition to the detrimental impacts such plants may have on the local environment, not to mention the cumulative impact such plants will have on global levels of greenhouse gases and the overall depletion of oil reserves.

In light of this, ***the Metro Chapter calls for a multi-tiered approach to short- and long-term energy policy.*** First, public policy at the state and federal levels should provide for significant financial and regulatory incentives for the research, development and use of alternative energy sources. The construction of green buildings should be expanded to encourage the rehabilitation of existing buildings to incorporate green infrastructure. Pricing structures should be revised to reward conservation of electrical energy and use of alternative energy sources by residents and businesses alike. Additionally, the power providers should be required to integrate small scale power-generation from alternative sources (such as solar, wind, fuel cells and methane) into the power grid. The self-sufficiency of farm homesteads, as symbolized by windmills, needs to be revisited as the energy model of the future: dispersed local generating sources all plugged into an interactive regional network.

Successful pursuit of this model will require real commitment and focus at all levels of government. Entrepreneurship should be encouraged, and public education will be essential, because the demand is being driven by a collective consumer response.

In conclusion, ***the Metro Chapter proposes the development of a system of distributed energy generation using a combination of renewable sources and hydrogen as first a supplement to existing capacity and ultimately a replacement for the current electrical generation system.*** To do this, as a region and ultimately as a nation, we need to set our eyes firmly on the goal and focus our intellectual, entrepreneurial and financial resources in a concerted effort over the next decade in order to definitively change the current course of energy policy and reality. Our children's future and that of the nation demands this attention and resolve.