

## Position Statement #56

A photograph of several high-voltage power transmission towers and lines stretching across a landscape. The scene is set against a dramatic sunset sky with orange and yellow hues, and the sun is visible as a bright orb on the horizon. The towers are silhouetted against the bright sky.

# The Need for Near-Term Deployment of New Nuclear Power Plants

The American Nuclear Society (ANS) supports and encourages the near-term deployment of new nuclear power plants. Nuclear energy, the second-largest power source, contributes 20% of the electricity production in the United States.<sup>1</sup> Nuclear power can be competitive with gas and coal plants. Like solar, wind, and hydropower, nuclear energy has near-zero emissions of greenhouse gases and air pollutants. The more than one hundred nuclear power plants currently operating in the United States have an excellent safety record and are proven reliable sources of power.

The latest projections by the Energy Information Administration<sup>1</sup> anticipate that the United States will need about 281 gigawatts of new electricity generating capacity by 2025. This estimate is based on a modest average annual growth in demand for electricity of 1.9% accompanied by increased generating efficiency and power ratings and corresponds to a 42% increase in generation from about 3.8 trillion kilowatt-hours in 2000 to 5.4 trillion kilowatt-hours in 2025. We believe that it is in the nation's interest that nuclear should at least maintain its current share of the electricity generation mix. This represents 40 to 50 large new nuclear power plants to start operation in the next 20 years. Furthermore, we believe that energy policy issues such as energy security and global climate changes will require an increase in the share of nuclear above the current 20%.

If we are to achieve any degree of control over the ever-increasing emissions of greenhouse gases and harmful particulates, we must

increase the share of our electricity mix from renewable fuels such as nuclear, hydropower, solar, wind, and others. A major and necessary component of this policy will continue to be nuclear power even with expected increases from other renewables.

Failure to build new nuclear power plants could result in an inordinate increase in the emission of greenhouse gases and harmful particulates, more rapid depletion of finite fossil fuels, decreased diversification of fuels, and growing reliance on foreign suppliers. Maintaining an active nuclear power industry is necessary if we are to have diversified fuel sources and diminish the current high dependence on fossil fuels, which are subject to wide price variability and supply interruptions.

Moving forward vigorously now on new nuclear plants will help the country maintain a technically knowledgeable workforce and a supply and manufacturing infrastructure. It will also allow the United States to maintain a leadership role in nuclear development and non proliferation issues worldwide. It should be clear that a prompt and aggressive effort toward the deployment of new nuclear stations in the near future should be of primary importance to the country.

For this reason, the ANS supports the U.S. Department of Energy's (DOE's) "Nuclear Power2010" program including the recent financial awards to nuclear utility-led projects to obtain early site permits (ESP) and Construction and Operating Licenses (COL) at different sites.

## References

1. "Annual Energy Outlook 2005 with Projections to 2025," issued by the DOE Energy Information Administration, DOE/EIA-0383 (2005), February 2005



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