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# NUCLEAR POWER GENERATION AND FUEL CYCLE REPORT 1996





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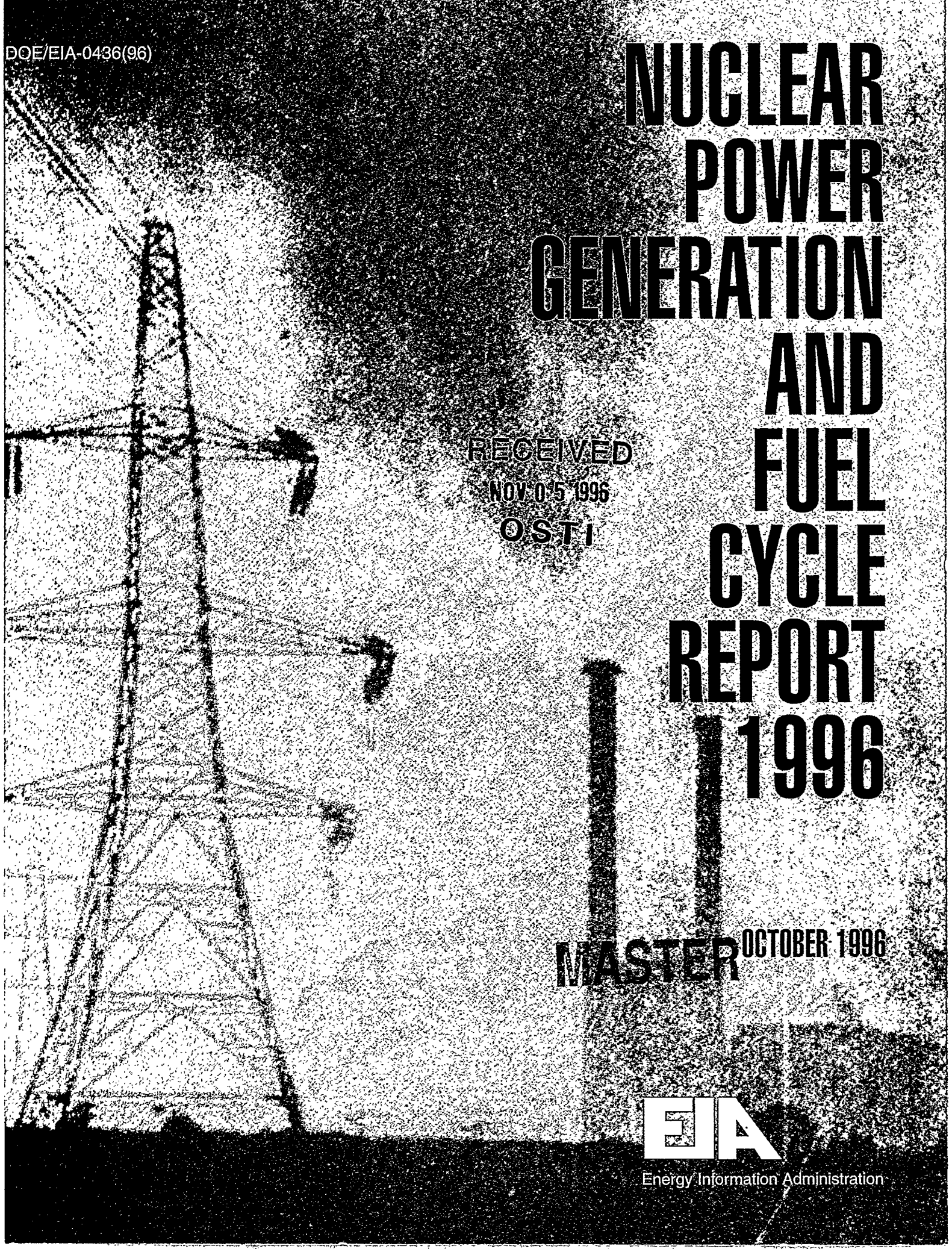

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# Nuclear Power Generation and Fuel Cycle Report 1996

## October 1996

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Office of Coal, Nuclear, Electric and Alternate Fuels
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Washington, DC 20585



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# Preface

Section 205(a)(2) of the Department of Energy Organization Act of 1977 (Public Law 95-91) requires the Administrator of the Energy Information Administration (EIA) to carry out a central, comprehensive, and unified energy data information program that will collect, evaluate, assemble, analyze, and disseminate data and information relevant to energy resources, reserves, production, demand, technology, and related economic and statistical information.

As part of the EIA program to provide energy information, this analysis report presents the current status and projections through 2015 of nuclear capacity, generation, and fuel cycle requirements for all countries using nuclear power to generate electricity for commercial use. It also contains information and forecasts of developments in the worldwide nuclear fuel market. Long-term projections of U.S. nuclear capacity, generation, and spent fuel discharges for two different scenarios through 2040 are developed. A discussion on the decommissioning of U.S. nuclear power plants is presented. This report provides information to a wide audience, including the Congress, Federal and State agencies, the Organization for Economic Cooperation and Development, and the general public.

Some long-term nuclear capacity projections that required modeling of macroeconomic parameters were obtained from the Office of Integrated Analysis and Forecasting, Energy Information Administration. These projections were developed using the World Integrated Nuclear Evaluation System (WINES) model. WINES is documented in *Model Documentation of the World Integrated Nuclear Evaluation System*, Volumes I, II, and III (DOE/EIM049). The International Nuclear Model PC version (PCINM) used for calculating the electricity generation values and fuel cycle requirements in this report, is documented in the *International Nuclear Model Personal Computer Model Documentation*. The Uranium Market Model (UMM) was used to project uranium prices, production, imports and inventories. Its documentation can be found in *Model Documentation of the Uranium Market Model* (prepared by the Oak Ridge National Laboratory).

The legislation that created the EIA vested the organization with an element of statutory independence. The EIA does not take positions on policy questions. Its responsibility is to provide timely, high-quality information and to perform objective, credible analyses in support of deliberations by both public and private decisionmakers. Accordingly, this report does not purport to represent the policy positions of the U.S. Department of Energy or the Administration.

This report was formerly published as "World Nuclear Outlook."

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