

ENERGY TECHNOLOGY XV

TK01-53
ES6.8
1988
V.15

TK01-53
ES6.14
1988
V.14

9062974

ENERGY TECHNOLOGY XV



E9062974

"Repowering America"



Proceedings of the

Energy Technology Conference

February 17-19, 1988

Washington, D.C.



**Government
Institutes, Inc.**

PUBLISHER'S NOTE

Government Institutes is indebted to many individuals and organizations for the preparation and publication of this most timely contribution to the field of energy technology. We would like to express our gratitude to all the authors who contributed to these proceedings and made the extra effort to meet our December deadline. Our appreciation for their efforts will be shared by the thousands who will read and use the information contained in these proceedings.

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February 1988

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966 Hungerford Drive, #24, Rockville, Maryland 20850
United States of America

Library of Congress Catalog Card Number 80-66431
ISBN: 0-86587-428-X
ISSN: 0161-6048

Printed and bound in the United States of America

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U.S. Department of Energy

STATE OF ENERGY

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BY WILLIAM W. BERRY
CHAIRMAN AND CHIEF EXECUTIVE OFFICER
DOMINION RESOURCES, INC.

The State of Energy Address by Mr. Berry will be presented at the Energy Technology Conference and Exposition.

Mr. Berry will review energy developments in 1967. Noting the strong continuing trends toward increased use of energy in the form of electricity, he will examine the problems and prospects of the U. S. electric power industry. The industry has already been heavily altered by economic, technological and regulatory changes that have made the addition of traditional types of electric generation capacity uneconomical and have left the traditional system for developing new capacity in difficulty. At the same time, the electric utility industry has become subject to increasing competition and pressure for competition, often on terms inconsistent with economic efficiency and reliable electric service.

The challenge for the United States is to adopt sound new policies that will permit the electric utility and related electric service industry to meet the growing demand for electricity, while maintaining the competitive, market-oriented system. Meeting this challenge will require wise and constructive action by regulators and legislators at both the Federal and state levels and by electric utilities. Mr. Berry will set forth his views of the policies which can and should be adopted to foster economically efficient competition in the supply of industrial generation capacity. He will review the proposed actions of the Federal Energy Regulatory Commission to provide increased opportunities for competition and the need for follow-up actions by State Congresses and legislatures. He will examine the impact of increased competition on the structure of the electric utility industry and a restructuring program.

ENERGY TECHNOLOGY CONFERENCE

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The challenge for the United States is to adopt sound new policies that will provide for adequate, efficient and reliable electric service in a more competitive, market-oriented era. Meeting this challenge will require wise and constructive action by regulators and legislators at both the Federal and state levels and by electric utilities. Mr. Berry will set forth his views of the policies which can and should be adopted to foster economically efficient competition in the supply of incremental generating capacity. He will review the proposed actions of the Federal Energy Regulatory Commission to provide increased opportunities for competition and the need for follow up actions by FERC, Congress and state authorities. He will examine the impacts of competition on the structure of the electric power industry and on electricity consumers.

ENERGY TECHNOLOGY CONFERENCE

TECHNOLOGY ISSUES AND CONSTRAINTS IN A TRANSITION TO COMPETITIVE BULK POWER MARKETS¹

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INTRODUCTION

A wide variety of proposals to increase competition in the electric power industry have been promoted by utilities, regulators, non-utility power producers, consumers and other interested parties. Initiatives by utilities and others to construct generating facilities outside the regulatory purview of local public utility commissions as well as the growing amount of non-utility self generation, cogeneration and small power generation, prompted in part by the Public Utilities Regulatory Policies Act (PURPA) of 1978, are examples of increasing competition in power generation. Many proposals seek to improve economic efficiency by providing increased access to a power transmission facilities by a wider range of electricity suppliers and consumers, including other utilities, non-utility power producers or, in some cases, retail customers.

Proponents of increased competition view mechanisms for increasing access to transmission service as essential to achieving a more economically efficient electric power supply system. Opponents to increased access argue that the present voluntary system of permitting access on a case-by-case basis has worked well, and that due to technological constraints, some proposals are unworkable or could reduce system reliability. Use of the existing transmission system has intensified in the last decade as utilities reduced operating costs through economy energy exchanges with other utilities. As a result, transmission capacity is constrained in some areas, and technological complexity in coordinating transactions has increased.

A current study at the Office of Technology Assessment focuses on the technological factors constraining as well as encouraging competition, particularly the technical ability to provide the increased transmission access and capacity desired by some utilities, non-utility power producers and consumers. These factors include the

1. This paper is drawn from past and on-going work at the Office of the Technology Assessment. The views expressed are those of the author's and not of OTA or the Technology Assessment Board.