The National Commission on Energy Policy (NCEP) commissioned this report to review and identify critical “upstream” fuel cycle issues that need to be addressed to ensure that the domestic coal industry can continue meeting the nation’s energy demands while delivering the social benefits and environmental performance demanded by the public.

The central focus of the study was to address matters important to ensuring a coal production system consistent with the nation’s long-term energy and environmental goals and objectives through 2030.

The Virginia Center of Coal and Energy Research (VCCER) of Virginia Tech was contracted to conduct this study by establishing a committee of experts (the Report Committee) to research the topic and complete this comprehensive report. The Report Committee met over the course of 18 months, receiving input from various interested parties and stakeholders.

The final report reviews upstream issues, identifies problems, discusses progress and strengths, and recommends areas of improvement. The volume comprises eight chapters, written by experts in the particular chapter area. By focusing on what have come to be known as “upstream” issues of coal production, rather than “downstream” issues of coal utilization, it fills a void in the body of existing literature. An additional objective distinguishes this report from other recent reports. Each chapter was written to be not only a reference guide to basic information on the area in question, but also a comprehensive account of the state of knowledge in the area. As such, the report should be valuable to policymakers, interested and concerned citizens, and academics for use as a reference guide to the basic issues and as a textbook in the classroom.

This study was concluded in the fall of 2008, as the United States and the world entered an unprecedented period of economic crisis and uncertainty. The short-term impact of current economic conditions on pricing and global demand for coal is far from clear. Many observers believe, however, that the impact on price from a decline in demand for coal is likely, in the long term, to be offset by the continuing challenges of coal production
globally. “The long-term global demand for coal is very strong and developing countries will continue to grow at rates that will stretch global supplies of coal,” noted Consol Energy’s CEO Brett Harvey (Consol Energy, 3rd Quarter Report, 2008). “While there is uncertainty in today’s economy, any easing of demand growth is likely to be offset by diminished global coal supply,” according to Peabody President and Chief Commercial Officer Richard A. Navarre (Peabody Energy, 3rd Quarter Report, 2008). The basic conclusions and the upstream topics examined in this study are fundamental to coal production. The current economic crisis heightens the timeliness and importance of this report.

I am indebted to each of the authors comprising the Report Committee for their dedication, diligence, perseverance, and patience in developing, drafting, and finalizing the report. John Craynon, who provided research and other valuable support to the Report Committee, and Willis Gainer, who provided his knowledge and experience during the preparation of this report, are also recognized for their contributions.

I would like to acknowledge the support of the National Commission on Energy Policy and the Joyce Foundation. Particularly, the discussions, suggestions, and questions of Sasha Mackler and Nate Gorence were invaluable to the progress of this study.

Ellen Kappel of Geosciences Professional Services and Brad Kelley of the Virginia Center for Coal and Energy Research provided important editorial assistance. The task of taking drafts from different authors and compiling a comprehensive, seamless report was substantial, and their dedication was essential to the completion of this document.

The report would not be as comprehensive without the input of many experts, either as reviewers, participants in two kick-off meetings, or as sources of data and information. I am indebted to their time and efforts on behalf of the Report Committee. Finally, on a personal note, everyone I mention here carried out their tasks with wit, patience, and a sense of camaraderie, truly making this project a pleasure to carry out.

Michael Karmis
Chair, Report Committee