

# TEXAS ALTERNATIVE ENERGY RESOURCES

Charles G. Groat, Chairman  
Department of Geological Sciences  
University of Texas at El Paso

Texas has the distinction of both producing and consuming more energy resources than any other state. Texas has benefitted not only from the income it has derived from exploitation of its vast oil and gas resources, but also from the jobs, income and taxes generated by the industry attracted to Texas by the presence of cheap and abundant oil and gas. As these traditional energy sources have dwindled in quantity and increased in cost, there has been an intensive search for other fuels to feed our huge appetite for energy. Texas is very fortunate in having alternatives available in quantities, locations and geologic settings that are favorable for development.

The most important alternative energy resource in Texas for the next 20-30 years will be lignite which is presently being leased and developed at an accelerating pace. The primary use is fueling mine-mouth electric power plants. Production has increased from 4 million tons per

year in 1970 to 12 million tons in 1975. By 1985 levels could reach 60-75 million tons per year, placing Texas among the leading coal producing states.

Texas currently ranks third in U.S. uranium output with mining centered in Karnes and Live Oak Counties in South Texas. In situ leaching processes are being developed and utilized to increase production from the district. Exploration activity in East Texas, the southern High Plains, and in the Trans-Pecos area may result in additions to proven reserves.

Geothermal resources are present in the Gulf Coastal Plain and in the Trans-Pecos area; however, their quantity and quality are not known. Programs are underway to assess their potential and the role they could play in Texas' energy future should be better understood in 2-3 years.