

INVESTMENTS IN
**FOSSIL
ENERGY**
TECHNOLOGY



Secretary Peña

Why Government R&D?

"Research and development is critical if the U.S. is to maintain its technological edge. The question is: how should our national research and development investment be shared between the public and private sectors?"

U. S. private sector spending for energy research and development is down more than 30 percent since the early 1980s. One reason is that recent changes in domestic energy markets, particularly deregulation of the natural gas industry and the move toward greater competition in the electric power industry, have encouraged general corporate cost-cutting but discouraged research and development, especially if the payoff is beyond one to three years. At the same time, the makeup of the U.S. oil industry is shifting from large, multi-national producers to smaller companies (who drill 85 percent of all new wells) with limited research and development capability and access to advanced technologies. In addition, expectations of continued low oil prices may be discouraging private research and development that could lower the cost of new sources of fuels.

When the result will clearly benefit the public at large - for example through cleaner air, more affordable energy, or greater energy security - government involvement is justified and can make the significant difference. This is especially true when the R&D is beyond the private sector's economic capability or interest. Some R&D has no current "market driver." Some R&D may be vital in the 21st century, but holds no economic incentive today for the private sector. For example, few companies can today justify an aggressive research program aimed at preventing the generation of the greenhouse gas carbon dioxide, much less investing in a means of capturing and disposing of it. There is no immediate "bottom line" payoff. If the public benefits are important - but research is too fundamental to offer commercial potential, or the advanced technologies pose too great a technical risk or are outside the time frame that would justify industry's investment on its own - then federal support is justified, and sometimes critical to secure public goals and benefits."

*Federico Peña, Secretary of Energy
to the Subcommittee on the Interior and Related
Agencies, Senate Committee on Appropriations*