2005 Energy Act: Impacts on the Development of Petroleum Resources

As one of a series of papers, this brief issue paper summarizes the key provisions, impacts and implications that ICF International sees in the Energy Policy Act of 2005 for the development of petroleum resources.

The Energy Policy Act of 2005 requires a national assessment of oil and gas resources and reserves.

Key Provisions

- Provides financial incentives for expanding and developing refineries (expensing of 50 percent of the cost for investments which increase capacity at least 5 percent or that increase throughput of oil from shale and tar sands by at least 25 percent).
- Provides royalty relief for production from marginal offshore, outer continental shelf (OCS) and onshore wells, federal leases offshore Alaska, and deep water developments in the Gulf of Mexico.
- Provides royalty incentives to promote enhanced oil production through injection of carbon dioxide; establishes a demonstration program to increase sequestration of carbon dioxide in enhanced oil recovery projects.
- Provides financial and technical assistance to remediate and reclaim orphaned and abandoned oil and gas well sites.
- Requires a comprehensive inventory of offshore OCS oil and natural gas resources and mapping of existing offshore facilities.
- Requires a comprehensive review of leasing, permitting, and management practices of federal oil and gas leasing programs on public land.
- Requires a national assessment of oil and gas resources and reserves.
- Promotes the strategic development of unconventional petroleum resources including oil shale, tar sands, and heavy oil.
- Promotes research for oil and gas exploration and production, transportation and distribution infrastructure, ultra-clean fuels, and development of ultra-deep water petroleum resources (water depth greater than 1,500 meters).

Anticipated Impacts

- Encourage upgrades to existing refineries and development of new ones (though it is questionable whether such investments will come to fruition—see Industry Implications, below).
- Provide the starting point for future offshore oil and gas leasing, exploration, and production in areas currently off limits to leasing and drilling.
- Enhance the ability to site new offshore pipelines in the Gulf region.
- Increase access to Federal lands for leasing, streamline the permitting process, and remove unneeded stipulations on exploration and production operations on Federal leases.
- Extend the productive life of declining oil fields through financial incentives, technical assistance, and incentives for enhanced oil recovery to prevent the early abandonment of producible reserves.
- Increased investment in unconventional oil resources—particularly oil shale.
- Comprehensive and broad-based support of the domestic petroleum industry, especially small to medium-size independent oil producers from production incentives, technology demonstration, improved supply data, and improved access to Federal lands.

Industry Implications

- Refiners are already upgrading to meet environmental requirements, and to utilize more sour crude oil. It is not clear that the Act will increase those investments, given low refining margins and the wide spread between sweet and sour crude prices.
- ICF Consulting and others (e.g., the Energy Information Administration (EIA)) project that the United States will become substantially more dependent on the import of petroleum products in the coming decades, with imports more than doubling to 7 mb/d by 2025 and few if any new U.S. refineries.
- New siting approvals will be required for numerous energy facilities—in light of the Energy Act—now may be a good time to seek such approvals. However, firms seeking to explore additional offshore petroleum resources in the moratorium areas should be realistic about long lead times as siting will remain controversial.
- Those with pending onshore domestic oil and gas investments should maximize production of resources that qualify for the investment incentives.
- While non-traditional resources will receive incentives under the Energy Act, investors must consider alternative scenarios to assess whether such projects are robust under a range of industry outcomes, including the possibility of lower prices, environmental restrictions, and constraints and cost of other resources (such as water and energy) needed for large scale development.
- In general, 'run the numbers' considering the Energy Act's incentives to assess whether they make a difference, especially for marginal projects. Pursue financing as appropriate.

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