

US Energy Policy Act of 2005

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In the aftermath of the destruction wrought on the US energy patch, especially oil and gas production and refining, by Hurricanes Katrina and Rita, the failure of the long awaited Energy Policy Act of 2005 (EPACT 2005 or Act) to address the country's energy challenges is all too apparent. Even before the storm, the energy bill was characterised more as a grab bag for special interests than as the kind of 'comprehensive' energy strategy needed to address long-term core American economic, environmental and security interests. At the signing ceremony in early August, President George W. Bush noted, 'because we didn't have a national energy strategy over time, with each passing year, we are more dependent on foreign sources of oil.' This observation is true enough. But the Act, which is not expected to stimulate major increases in domestic oil and gas production or to stem in any significant fashion the growing energy demand, will do little to shift the trend line referred to by the American president. By September, the folly of the energy bill hit home with voters. In the wake of hurricane induced fuel outages, gasoline lines, and a huge spike in residential natural gas prices, the new legislation inside the energy bill seemed ludicrously inadequate. As a result, politicians, rather than pointing to the bill's achievements, implicitly admitted failure by rapidly introducing additional measures in Congress as if to immunise themselves from the bill's clear inability to address the gasoline and diesel fuel crisis at hand, let alone the coming winter heating cost crisis.

Some of the more high profile issues during recent years of energy debate were not included in the final 2005 legislation. Opening the Arctic National Wildlife Refuge (ANWR) in Alaska to oil and gas development remained too controversial to survive as a major prong of Congressional action in spite of steadfast support from the White House and Congressional

leadership. Nevertheless, ANWR may yet become open to oil and gas drilling as part of a renewed debate on US energy policy if attempts to lodge it in a much larger budget bill survive the legislative process.

The demand control side of the oil equation, most popularly expressed in the search for higher fuel economy standards for cars, sport utility vehicles and light trucks, fell under equally vociferous but more complex opposition politics. Organised labour and its Democratic supporters from manufacturing states led the opposition with the full support of Republicans and industry opposed to mandates of any kind. New York representatives Edward Markey and Sherwood Boehlert have repropounded legislation to raise fuel efficiency standards (CAFÉ) in the USA from 25 miles per gallon to 33 mpg by 2015 but the effort is likely to fall prey to the same political forces that kept café standards out of the EPACT2005.

An increase in gasoline taxes, which has been so effective as a demand constraint energy policy tool in Europe and Japan, was never entertained and has long been considered highly unlikely to find traction inside American political discourse. Instead, under the Act a complex array of token tax credits will be available for a few years to support purchases of fuel cell, hybrid, and advanced lean-burn technology vehicles. But tax credits to consumers remain a symbolic gesture until US industry and policy makers can forge a concrete plan to propel new technology autos into the market. Ford Motor Company's recent call for a national energy summit, post hurricanes, may represent a serious shift in positioning that might bode well for a serious debate of policy options. Detroit's problems – aggravated by dependence on sales of inefficient SUVs – are likely to get attention from Washington and might open up negotiations on more serious reforms for the transportation sector.

Still, while the new act does not address these key issues, some aspects of EPACT2005 have policy merit that will improve the US energy situation. The most significant aspects of the new law involve a clarification and expansion of federal regulatory authority over the interstate electric transmission grid and support for advanced power generation technologies. A dark horse at this point, incentives for new and expanded refining capacity and expanded federal authority on siting of Liquefied Natural Gas terminals could prove useful in future years.

Electricity Transmission and Generation

Changes to federal electricity authorities are the most significant and enduring outcome, and major impetus, of the new energy law. Despite increasing concerns with under-investment in transmission and the lack of regional coordination, as evidenced by the major blackout in the northeast in the summer of 2003, national grid reliability had been heretofore the domain of a voluntary organisation. Establishment of mandatory electric reliability rules for all market participants and creation of a self-regulating reliability organisation, subject to oversight by the Federal Energy Regulatory Commission (FERC), was absolutely essential.

Wholesale power and transmission markets had been undergoing significant restructuring since the early 1990s. The Act attempts to diffuse conflicts between state and federal jurisdictional authorities. On the one hand, the Act grants FERC the authority to site facilities along important national interest electric transmission corridors if the states cannot or will not act. Yet, the Act could have been even more effective, had legislators not stopped short of clarifying Federal authority to mandate utility participation in regional transmission organisations

– a stipulation which proved too controversial.

The bill repealed a 1930s era statute, the Public Utility Holding Company Act (PUHCA), that had severely limited who could own utility facilities without becoming subject to sweeping regulatory oversight. This change is expected to open up a new era of mergers and acquisitions in the utility sector which may either hinder or enhance promotion of market competitiveness in the future. At the same time, traditional fuel utility efforts to undermine competitive access by renewable and cogeneration plants were rejected, but a clear framework for new technologies was denied.

Despite publicity in its favour, the Congress failed to endorse a federal policy to ensure national deployment of renewable power technologies. The Senate had repeatedly passed a renewable portfolio standard (RPS), a federal requirement that utilities purchase a certain percentage of electricity from renewable sources. The Bush administration opposed a federal RPS, in spite of the fact that as many as 21 states have such standards on the books including Texas where President Bush had signed such a provision into law when he was Governor. In a gesture to signal that renewable energy was not forgotten altogether, legislators voted to require the federal government to purchase an increasing portion of its power needs from renewable sources. This provision could be a catalyst for the federal government to establish a standardised credit trading regime to facilitate a national renewable market in conjunction with state RPS programmes.

Unlike Japan and various EU countries, which have demonstrated the importance of implementing long-term policies as a framework for transforming the market for renewable generation, the US federal government persists in authorising only short-term extensions of the otherwise very effective incentives. As has become the pattern, tax incentives for investments in renewable generation were only authorised for two years. The renewable sector in the USA remains heavily dependent on the sustained

commitments of a few states.

Coal, the fuel for half of all power generation in the United States, received considerable support in the Act. In conjunction with an extended programme on carbon sequestration, a \$2 billion, ten-year R&D programme for coal gasification or other technologies that produce a concentrated sequesterable stream of carbon dioxide was authorised. Significant tax incentives were also provided for construction of a few ultra clean coal facilities, including gasification plans, to commercialise some advanced technologies.

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Large-scale hydroelectric dams provide between 7 and 10 percent of US electricity generation, depending on drought conditions. In an effort to maintain and possibly increase that production, the bill contains a major reform of the federal licensing procedure for hydroelectric dams and incentives for improving the efficiency of existing facilities and for modifying existing dams to produce electricity. This was important because recreational and environmental groups have been encroaching upon the renewal process of important existing hydroelectric facilities.

The politics around nuclear energy evolved appreciably over the course of debate on energy policy. Initially, the Administration had been focused on solving the long-term nuclear waste disposal programme and extending the useful life of the current fleet of reactors. The Act extended the federal insurance programme, Price Anderson, limiting liability for nuclear power-plant accidents and included a number of measures aimed at enhancing the security of commercial nuclear reactors. A combination of factors,

including recognition of the role nuclear power could play in mitigating greenhouse gas emissions, led to increased support for a programme to promote a new generation of civilian reactors. Risk insurance to cover unexpected cost overruns caused by regulatory delays was authorised as well as a production tax credit of 1.8 cents per kwh for the first 6000 MW built before 2021. While no applications for new plants have yet been filed, three petitions for site permits and two for new reactor designs are currently pending and under review at the Nuclear Regulatory Commission.

The Act included energy efficiency standards for fifteen new products, including commercial refrigerators, commercial heaters, ceiling fans, traffic signals, and other home and business products. Effective in 2007, DST will begin the second Sunday in March (instead of the first Sunday in April) continuing through the first Sunday in November (instead of the last Sunday in October). This had been opposed over concern with children going to school in the dark and the lack of synchronisation with foreign airlines. Whether it will actually save any energy remains to be seen. It is interesting to note that fifteen US states have sued the federal government over policies related to energy efficiency appliances, demonstrating that any stipulation, no matter how useful, will find pro-active political opponents.

Fuels and Refining

US fuels policy has been heavily influenced for the past fifteen years by farm state interests seeking a guaranteed market for corn ethanol. With this round, the ethanol lobby succeeded in ensuring a national renewable fuel standard (RFS) as a quid pro quo for eliminating the previously favoured fuel additive methyl tertiary butyl ether (MTBE), which had already been banned in several states because of ground water contamination from leaking underground storage tanks. Under the RFS, the annual volume of renewable fuels would increase from 4.0 billion gallons per year in 2006 to 7.5 billion

gallons in 2012, which represents 4–5 percent of US gasoline demand. The volume will be allocated to all refiners, marketers and importers on a pro rata basis with a credit trading scheme to reduce cost. The full economic and environmental implications will only be revealed in time as evaluations of the net energy benefits of corn ethanol and the emissions and effluent impacts are more fully assessed but some analysts are sceptical that the programme will yield any significant gain in positive net energy supplies.

The dramatic reduction in the use of the fuel additive MTBE will exacerbate the tight refining situation. In response, the Act included a significant financial incentive for refinery expansions of at least 5 percent of capacity to refine oil shale or tar sands. Refiners may expense 50 percent of the investment in the first year for expanding capacity, even building a new refinery. The industry, in frustration over the handling of the MTBE phase-out and new RFS requirement, has underestimated the potential of the tax change. Given current refining margins, we expect some shrewd players will soon capitalise on the tax savings. On the other hand, the Act hit refiners and marketers with implementation of the RFS at the same time as the switch to low sulphur rules at the beginning of the summer driving season in 2006. The rules for the RFS will not be known until shortly before the deadline.

In the weeks since the hurricane damage to major refining capacity along the Gulf Coast, Congress has rushed forward with new legislation offering former military bases as sites, financial risk insurance, and waiving certain environmental laws to encourage expansion of refining capacity. One proposal even has the U.S. Department of Defense building a refinery to supply the military. In reality, any expansion of US refining capacity will be the decision of the private sector. After a few press conferences, most of these proposals will likely fade into the legislative abyss. Saudi Arabia has offered to add up to 800,000 b/d of new export refining capacity in the kingdom and to expand signifi-

cantly its part-owned US facilities. Kuwait has made similar offers of new refining investment. However, such potentially useful (and probably profitable) largesse will leave the USA more dependent on the Middle East, not less, as is a stated goal of energy legislation.

Oil and Gas Production

While not extending oil and gas development access to ANWR or offshore areas currently under moratoria, the Act included some tax incentives for domestic exploration and clarified some regulatory requirements on federal lands. The Bush administration has been encouraging development on federal lands in the west. The clarifications in the Act coupled with record natural gas prices will likely lead to greater production in those areas. A geological inventory of potential resources in areas currently subject to moratoria or access limitations was also required over bipartisan Congressional objections. The current moratoria on offshore drilling date from the first Bush administration in 1990. Efforts in the weeks since the hurricane damage to open areas off Florida and the east and west coasts can only be described as Quixotic at best. While industry access can be proposed at the federal level, objections from local authorities can be expected by most coastal states to stop any reversal of drilling prohibitions. Eastern Gulf of Mexico is a key target for reopening, and Florida Governor Jeb Bush has made some politically supportive statements to new drilling. But Florida's legislature may still not be cooperative in allowing the U.S. Mineral and Mines Service to restart acreage programmes suspended in 2001.

Depending on whether the USA opens more lands for drilling, the country faces the growing prospects of an increasing shortfall of natural gas supply that will have to be made up by large imports of liquefied natural gas (LNG). This issue was highlighted by the White House and Congress obliged by clarifying the authority of the Federal Energy Regulatory Commission (FERC) to approve the

construction, expansion or operation of any facility that imports or processes liquefied natural gas in an effort to get more import terminals off the ground. (Sec. 311) The measure directs the FERC to consult with state governments about the safety of sites for liquefaction or gasification facilities.

The tax incentives and statutory changes affecting the power sector will begin to impact the energy sector very quickly. However, a good portion of the 1700 plus pages of the Act set forth an energy research and development (R&D) agenda, including billions of dollars of authorisations for federal funding support. The U.S. Department of Energy already had unlimited authority to carry out R&D. Yet, given the current budget deficit, Congressional intent aside, full funding is not guaranteed nor is it very likely.

Whether the fallout from the hurricanes has truly sparked the first serious consideration of the where, how and what of energy supply and demand in the USA in decades remains to be seen. Higher gasoline prices had already led to a freefall in sales of sport utility vehicles, seriously shaking the domestic auto manufacturers to their foundations. Comments by Vice President Cheney in 2001, that 'conservation may be a sign of personal virtue, but it cannot be the basis of a sound energy policy' have been replaced by President Bush encouraging people to conserve gasoline by driving less, carpooling and turning off equipment when not in use. High gasoline prices are only the leading indicator. Natural gas and heating oil costs over a long cold winter will bring back memories for some of the 1970s and create a whole new experience for those too young to remember the crisis of 1973. As revellers ring in the New Year in 2006, energy may get so high on the political radar screen that the national policy stasis could be shaken, but it appears it will take more than two momentous hurricanes downing 25 percent of US refining and substantial volumes of national oil and gas production to convince voters to press for a more serious effort at energy policy legislation.