

Energy Policy: Keeping Supply, Demand, and Time in Perspective

In his Op Ed article in the May 5th issue of the New York Times, former Energy Secretary Bill Richardson criticized the emerging Bush Administration energy policy for "focusing too much on the wrong fuels and too firmly on supply." By wrong fuels, he meant coal, oil and nuclear. He favors natural gas for power generation and measures such as higher CAFÉ standards to promote efficiency. As PIRINC has stated elsewhere, balance and diversity should be the cornerstone of energy policy. There is no single policy direction alone, or any single fuel, that can resolve all US energy concerns. A balanced mix of policies impacting both supply and demand must be considered. Equally important is a proper perspective on the time required for policy measures operating on both supply and demand to produce significant results.

A case in point is Secretary Richardson's observation that increasing the efficiency of our vehicle fleet by just three miles a gallon would save one million barrels of oil per day. While true in terms of the arithmetic, he gives no sense of the time required to achieve such a change and the real-world conditions which limit the effects of any such change on actual fuel use. The first CAFÉ standard for passenger cars was set at 18 miles a gallon and applied to new cars sold in the 1978 model year. The threshold was raised over subsequent years, and has been set at 27.5 miles per gallon since 1990. But average miles per gallon of the passenger car fleet did not reach the 18-level until 1987 and is still only at about 22. It takes many years for the US vehicle fleet to turn over. In any given year, new vehicles amount to only about 7% of the total fleet. Of course there is also the time required for auto manufacturers to retool to meet the new requirements. This doesn't mean that efficiency measures should not be part of any energy policy reassessment, although it should be noted that while he was Secretary, Mr. Richardson never publicly supported an increase in the CAFÉ standard.

PIRINC has supported, for some time, one particular change, namely an end to the lower standard currently applicable to SUVs. These vehicles are fulfilling the same functions as passenger cars and should be treated in the same manner. The anomaly in treatment is being phased out for emissions standards and the same should be done for CAFÉ standards -- even though its impact on fuel use will be felt only gradually. Interestingly, the time required before large savings become visible is at least as long as most new oil and gas projects.

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Former Secretary Richardson is very clear that gas is the preferred fuel for power generation, not coal or nuclear and dismisses the role of oil. But coal currently supplies over half of US power generation and more than three times the power generated by gas. Rising demand for natural gas for power generation has already put dramatic pressure on natural gas prices since supply has not kept pace. Near exclusive reliance on gas for future growth could push prices up far more. Prices paid by electric utilities are more than double, while coal prices are up modestly. As for oil, its role in power generation is indeed usually minor, only about 3% of total power generation last year, but at times, its role is critical. This past winter, when gas prices soared and fears of outright shortage were acute, oil use in power generation more than doubled. From November to December of last year, oil use in power generation went up from about 400 to 950 thousand barrels a day (and up 750 thousand barrels a day versus December 1999). Between the two months, total US power generation rose by about 14% or 39 billion kilowatt-hours. About half the increase came from coal, 25% from oil and 21% from nuclear. Only 2% came from gas. In January, power generated from coal and oil went up 7% and 120% respectively, (relative to a year ago) while nuclear power was flat and power generated from high priced gas fell 4%. These figures are cited only to point out the folly of assuming the country could or should rely on only one fuel, however desirable, for power generation.

The extremely high natural gas prices of the past winter and the related surge in the use of oil for electricity generation have contributed to the current high prices for gasoline. Consumption of distillate for power generation rose to extraordinary levels. In December, distillate used for power generation rose from its November level of 37 thousand barrels/day (and December 1999 level of 37) to 275. While details are not available, it is clear that unprecedented use of distillate for power generation continued through the winter. Total apparent distillate consumption in the January through March period was up 12% versus the year earlier. In response to this exceptional demand refiners delayed the shift towards higher gasoline production. High natural gas prices discouraged production of methanol, the feedstock for MTBE, the main oxygenate used in reformulated gasoline and an octane booster. Losses in MTBE supplies in December through February amounted to about 6 to 8 million barrels, or about 1% of gasoline production over the period, with the impact on gasoline supplies concentrated on reformulated gasoline. Both factors, the extraordinary requirements for distillate and the loss of MTBE supply, led to the exceptionally low levels of gasoline inventories as we entered the Spring -- and the run-up in gasoline prices, especially prices of reformulated gasoline.

We can all agree with former Secretary Richardson that, "It is important to the nation's future that we take a bipartisan and balanced approach to energy policy." We should all also recognize that any options, whether related to supply or demand, will take time to show significant effects, and that most will be incremental in nature.