comparable, pipelines were permitted to implement a GIC.<sup>19</sup>

In applying these standards in *El Paso*, for example, the Commission found that the relevant product market was delivered firm gas. El Paso maintained that the product market was not simply natural gas, but energy generally (*i.e.* fuel oil, coal, propane, hydroelectric power, and purchased power). However, El Paso did not provide sufficient evidence to make such a case. Thus, the Commission excluded alternative fuels from the product market.

The Commission established that "firm" gas was a dimension of the product market since El Paso was proposing to sell firm gas under its GIC. The Commission also found that "delivered" gas was a second dimension of the relevant product market because firm gas supplies that could not be transported to the city-gate were not substitutes for supplies under the GIC.

substitutes for supplies under the GIC. In defining El Paso's geographic market, the Commission acknowledged that it could consist of the entire United States or North America. The Commission stated, however, that the relevant geographic market was the geographic area containing those suppliers that can affect any attempt by El Paso to exercise market power. The Commission decided to take a cautious approach and considered three areas of gas supplies in order of the most narrowly defined: (1) The counties in the three basins where El Paso purchases gas that are already connected to El Paso's system, (2) all counties in the three basins, and (3) all counties from which El Paso purchased gas in 1987, including counties outside the three basins. The Commission reasoned that if El Paso lacked market power in the most narrowly defined market, then it would also lack market power in a more broadly defined market. Alternatively, even if El Paso could exercise market power in a narrowly defined market, it might be demonstrated that El Paso nonetheless lacked market power when the definition was expanded.

The Commission found that 1.07 Bcf/d was the minimum measure of the amount of divertible, or alternative, gas supplies needed to prevent El Paso from exercising market power. The 1.07 Bcf/day represented the gas dedicated to El Paso under long-term contracts, together with its affiliates' volumes. The Commission determined that sufficient

divertible supplies existed in each of the defined geographic markets, at competitive prices, such that El Paso would be precluded from exercising market power. The Commission defined divertible supplies as those that were uncommitted, or committed under contract to a buyer for no longer than some short period such as one year.

The Commission then measured each seller's share of the market. To compute El Paso's market share the Commission used its sales to each customer at the time of peak usage. These market shares were then used to compute the level of concentration in the market using the Hirschman-Herfindahl Index (HHI).20 The Commission used an initial screen of .18 to determine if the market concentration was low enough to indicate that the competitors in the market could not exercise market power.<sup>21</sup> The Commission found that the market concentration was low, i.e., below .18.

The Commission also found that the transportation service to be provided by El Paso for the transportation of third party supplies was comparable, with certain modifications, to the transportation provided under the GIC.

Therefore, based on this analysis, the Commission found that El Paso lacked market power and permitted the implementation of a market-based GIC.

## 2. The Subsequent History of the GIC Cases

On May 11, 1988, the Commission found that Transwestern lacked market power with respect to the gas commodity. Southern California Gas Company (SoCal), the only company directly affected, had sufficient alternative gas supply sources that Transwestern's prices would be constrained. Therefore, the Commission approved, with some modifications, Transwestern's proposed market-based Gas Inventory Charge (GIC).<sup>22</sup>

When Transwestern attempted to put its GIC charges into effect, SoCal nominated zero volumes of Transwestern's gas.<sup>23</sup> This is an extreme example of a lack of market power; an attempt to get a premium above the available spot price led to virtually a 100 percent reduction in Transwestern's sales.

In July, 1990, in *Tejas Power Corp.* v. FERC,24 the court of appeals emphasized the importance of a market power determination in the approval of a GIC mechanism, even in the context of a settlement. In Tejas, the court found the Commission's reliance on the agreement of the LDCs, in approving a GIC settlement proposed by Texas Eastern Transmission Corp., was misplaced because there was no finding, supported by substantial evidence, that the pipeline lacked significant market power. All of the Commission's subsequent market-based GIC cases examined the market power of the pipeline applicant.

The series of pipeline-by-pipeline GIC cases allowing market-based pricing for the gas commodity was broadened to a generic finding in Order No. 636. The Commission allowed pipelines to have market-based pricing for unbundled gas sales upon full compliance with the final rule.<sup>25</sup>

In conclusion, the Commission's experience with deregulation of the gas commodity has shown that competition can restrain prices. In fact, the statutory wellhead deregulation and the Commission's open access policies have led to a current price for the gas commodity that is well below the regulated prices that prevailed several years ago.

## B. The Storage Cases

## 1. The Analysis Used

Starting with the the Commission's order in *Richfield Gas Storage System* (Richfield) <sup>26</sup> in June 1992, the Commission has permitted companies to institute market-based storage rates subject to light-handed regulation when the applicants have shown that they lack significant market power. In making these market determinations, the Commission primarily looked at the defined markets, the availability of good alternatives, and measures of market power. However, the Commission also considered other factors, such as the fact that the applicants were generally new entrants, the applications were generally unopposed, and the possibility of other

<sup>&</sup>lt;sup>19</sup> See Transwestern Pipeline Company, 43 FERC ¶61,240 (1988); El Paso Natural Gas Company, 49 FERC ¶61,262 (1989 and 54 FERC ¶61,316 (1991); and Transcontinental Gas Pipe Line Corporation, 55 FERC ¶61,446 (1991) aff d Elizabethtown, supra.

<sup>&</sup>lt;sup>20</sup> An HHI is calculated by summing the squares of each seller's market share. For example, if there are two sellers of a product having shares of total sales of 75 percent and 25 percent, respectively, then the HHI will equal

 $<sup>(.75)^2 + (.25)^2 = .5625 + .0625 = .625</sup>$ . Rounding to two significant digits, the HHI is .63.

<sup>&</sup>lt;sup>21</sup> An HHI of .18 is equivalent to having 5–6 equal sized competitors in the market. In *El Paso*, the Commission indicated that it would use a case-by-case approach to determine the lack of market power. The HHI was used as an initial screening tool only. *El Paso*, 49 FERC at 61,920. *See also* Petal Gas Storage Co., 64 FERC ¶ 61,190 at 62,573 (1993) (market power determined on a case-by-case basis).

<sup>&</sup>lt;sup>22</sup> Transwestern Pipeline Co., 43 FERC ¶ 61,240 (1988).

 $<sup>^{23}</sup>$  Foster Natural Gas Report, No. 1741, for the week ended September 21, 1989, pp. 2–3.

<sup>24 908</sup> F.2d 998 (D.C. Cir. 1990) (Tejas).

 $<sup>^{25}\,\</sup>text{FERC}$  Regulations Preambles, § 30,939 at 30,439.

 $<sup>^{26}</sup>$  Richfield Gas Storage System, 59 FERC ¶ 61,316 (1992).