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LOUISIANA'S GROWING INDUSTRIAL NATURAL GAS MARKET by Wumi Iledare and Allan Pulsipher

Louisiana's industrial natural gas market is large, it is growing, it is competitive and it is likely to become more so.

Unlike residential and commercial gas markets, industrial markets are generally unregulated. The Louisiana Public Service Commission does not review rates charged industrial customers. Local government-owned or -regulated systems may set or regulate industrial rates, but, with the exception of New Orleans Public Service, these systems are small participants in the industrial market.

In 1992, seventy-three gas companies delivered 990 Billion cubic feet (Bcf) of natural gas to industrial customers in Louisiana. Over the ten year period from 1982 to 1992 sales of natural gas to residential and commercial customers in Louisiana have declined by about 21 percent. Although in part this is a statistical aberration caused by warmer-thannormal winters in the 1990s, residential and commercial growth, at best, has been sedate. In contrast, as shown in Figure 1, the volume of gas purchased by industrial customers has increased steadily--by a healthy 45 percent over the same period.

Figure 1 currently not available.

Industrial customers acquire gas in two ways. They either buy gas from natural gas companies (pipelines as well as the more familiar local distribution companies) or they buy gas from producers and have it sent to them through pipelines usually owned by someone else. Gas sold under the first arrangement is classified as "on-system sales" and gas sold under the second "transportation gas on the account of others," for simplicity we will refer to the first as "on-system gas" and the second as "transportation gas."

About 45 percent of the gas consumed by industrial users in 1991 was on-system gas and 55 percent was transportation gas. As illustrated in Figure 1, however, between 1991 and 1992 both the share and the volume of transportation gas jumped by about 10 percent, taking over almost 70 percent of the industrial gas market. Increased reliance on transportation gas is a trend that began in 1987 (interrupted briefly in 1990 as a result of the supply uncertainty associated with the Persian Gulf War). The trend is primarily the result of changes in federal regulations.

Will the trend toward transportation gas continue? The Congress and federal regulators have continued to push for changes that promote flexibility and encourage competition in the natural gas industry, which suggests that it will. However, should the "gas bubble" finally deflate and fears of shortages be reawakened, industrial customers may return to onsystem gas contracts to reduce uncertainty about supplies.

In terms of total volume, the on-system and the transportation gas markets are dominated by large companies--both as sellers (or transporters) and as buyers. On the sellers' side, the largest 20 companies accounted for 99.5 percent of on-system sales. The four largest sellers, each a large pipeline company and none serving more than 50 customers, alone, were responsible for 80 percent of on-system sales.

The largest 20 companies also accounted for nearly 75 percent of the transportation gas with the largest four responsible for 21 percent. We do not have data on the prices charged for transporting gas but for large users we expect the market is as competitive, if not more so, as it is for on-system sales.

On the buyers' side, the data available does

not identify individual buyers. However, we know that the largest four sellers in the on-system market had only 8.5 percent of the total number of customers in that market. The largest company, Louisiana Gas Pipeline Company, was responsible for 25 percent of total on-system sales, but had fewer than 20 industrial customers.

Table One gives the name, type, total deliveries of on-system and transportation gas, number of customers, share of transportation gas in their total supply, average price charged for on-system sales and the average acquisition cost of gas for the forty largest suppliers, arranged in descending order by total deliveries; for 1991, the latest year for which we have detailed data.

The data are imperfect in that prices and acquisition costs are available only for on-system gas, one customer may buy transportation gas from a number of different producers, and the acquisition cost applies to gas sold in residential and commercial markets as well as industrial markets.

Clearly there are a wide variety of companies and arrangements in the industrial market. A number of companies serve only one customer, some entirely with on-system gas and others solely with transportation gas. Some are independent companies, many are subsidiaries of or managerially related to gas producing or using firms. Thus, pricing policies may reflect corporate financial and accounting objectives as well as traditional cost and market conditions.

Louisiana Gas Pipeline, Bridgeline, Monterey, Louisiana Gas System and Louisiana Intrastate Gas largely serve the industrial market; selling to a relatively small number of large industrial customers, with the first four charging nearly identical prices and acquiring gas at closely comparable costs.

NOPSI, Arkla, Trans Louisiana Gas and Gulf States are more traditional distribution companies with a larger number of industrial customers and a sizeable residential and commercial base. They charge significantly higher prices and pay more for their gas than the previous group. A major reason for their higher acquisition costs is that they include capacity and storage charges levied because of the seasonal variation of their residential and commercial load. Such charges are not required of systems that have only seasonally steady industrial loads. Three companies in this group; Arkla, NOPSI, and Trans Louisiana Gas had average industrial prices that were lower in absolute terms than the average cost of the gas that they sold. The probable explanation for this apparent anomaly is that these companies allocated their additional capacity and storage charges more fully to residential and commercial customers than did

Gulf States.

As is the case in the residential and commercial markets the variation in prices among the smaller, municipal- or parish-owned systems is very wide. Prices for this group ranged from below the state average (\$1.72) to more than quadruple the state average (\$7.59/mcf).

In conclusion, the industrial natural gas market is important to Louisiana's economic future in several ways. It is a major outlet for the state's natural gas producers, and the good news is that it is growing. Equally important, on the consumption side, the large, natural-gas-consuming companies that are the principal customers in the market also are Louisiana's industrial backbone. Thus the growth in industrial gas consumption is a welcome sign of the vitality of this key component of the state's economy. Since natural gas is essential to the state's economic health; policies and trends at the state, federal and even local level need to be monitored and analyzed to insure that adequate supplies at competitive prices will be available to Louisiana industrial consumers in the future.

BAUMANN REAPPOINTED TO CLEER UNIVERSITY ADVISORY BOARD

Robert H. Baumann, Executive Director of CES has been reappointed to the Council for Legislative Energy and Environmental Research's (CLEER) University Advisory Board. Also serving will be John Athens, President of Arkansas Science and Technology Authority; Gerry Angevine, President of the Canadian Energy Research Institute; William Fisher, Director, Bureau of Economic Geology, UT Austin; W. J. Fulford, Director of Development, Univ. of S. Alabama; Direk Hodgson, Vice President of Research, Univ. of Wyoming; Luis Proenza, Vice Chancellor of Research, Univ. of Alaska; and Dave Warren, Professor of Environmental Engineering, New Mexico Engineering Research Institute.

CLEER is an organization that sponsors research in energy policy development and is a joint venture between some 50 energy companies and the legislative branch of some nine states and the province of Alberta. CLEER is chaired by Wyoming's state senator Barbara Cubin. Representative John Siracusa of Morgan City is Louisiana's legislative representative to CLEER's Board of Directors. Table 1 currently not available.

PULISPHER PUBLISHES ON NUCLEAR WASTE

Allan Pulsipher, Director, Policy Analysis, recently had two of his articles on nuclear waste policy published; "A <u>de facto</u> Repository for the U.S.? The Risk of Interim Storage of High-Level Nuclear Waste," was published in the July issue of <u>Energy Policy</u>, and "Compensation, Will It Produce a Waste Site," in the Spring issue <u>Forum for Applied Research and Public Policy</u>.

MARATHON ENDOWS PROFESSORSHIP

Marathon Oil Co. has endowed a professorship in energy policy in the Center for Energy Studies. The \$60,000 commitment will be eligible for \$40,000 of additional matching funds from the state's Louisiana Education Quality Support Fund administered by the State Board of Regents. Marathon, which has operated in Louisiana since 1921, maintains oil and gas production in north, south and offshore Louisiana, operates its flagship refinery in Garyville, is the major shareholder in LOOP, Inc., the nation's only deep water & oil importation facility and also operates pipelines and some marketing in the state.

Marathon's Gulf Coast Region manager, David Golder, said the donation is a part of Marathon's long-term commitment to Louisiana. "We have long been impressed with the objectives and the timely nature of energy policy studies at LSU's Center for Energy Studies. We want to do our share to help ensure such quality will be maintained in the future", Golder said.

Presentation ceremonies were held at LSU on September 21st. Joining Marathon and LSU representatives were Senators Tom Greene and Jay Dardenne and Representatives Carl Crane and Donald Ray Kennard.

HIGH SUMMER UTILITY BILLS!

CES received an unusually high number of inquiries this summer from consumers whose electric utility bills set record highs. The unusually high bills are the result of several factors. Summer bills are normally high due to cooling demand but the summer of 93 was extremely hot throughout the state. Cooling degrees were about eight percent above normal statewide during July with North Louisiana being approximately eleven percent higher. Some electric utilities broke all-time records for peak demand power levels.

In addition to the weather, utility-purchased natural gas prices have risen approximately 48 percent in comparison to corresponding months in 1992. This increase is reflected in the fuel adjustment charges for those electric utilities that use natural gas to generate power.

Finally, the sales tax on electricity and fuel was increased by the state by one percent effective July 1, 1993. Although a real increase, this represents a very minor portion of the 30 percent or so increase in utility bills as reported by consumers.