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The Property Tax Firm



Popp Hutcheson Announces

Popp Hutcheson's David Hugin, Darlene Sullivan, and Missy Ramirez will present at the upcoming A&M Legal Seminar on Ad Valorem Taxation, August 28th - August 30th, in San Antonio, TX. David will present on the Annual Case Law Update Panel, for the sixth consecutive year. Darlene will discuss current issues in property tax exemption on her panel, "To Be (Taxable) Or Not To Be (Taxable): That IS the Question!" Missy will present on this year's Legislative Update Panel and will discuss pertinent property tax issues from the 2013 Texas Legislative Session.

Expert Opinion

U.S. Petrochemical Industry Resurgence

by Sebastian Rodrigano - Presented at IPT's Annual Conference, June 25, 2013

Background

From children's toys to pharmaceuticals, oil and gas based materials make up the building blocks of modern life. The modern petrochemical industry in the US is rooted in the need for synthetic rubber and synthetic chemicals for explosives

during World War II. The industry continued to expand after the war to provide materials for the economic expansion during the decades following the war. The industry continued to mature through the 1960s and 70s with substantial infrastructure additions and development of new materials and processes.

The US Gulf Coast was central to the initial development of the industry given its close proximity to oil and gas production and its abundant sources of river water and sea ports as sources of process water, cooling and transportation of raw materials and products. For these same reasons, the oil refining industry also developed strongly in the region providing an abundance of intermediate

materials that insured continued growth of the petrochemical industry in the gulf coast.

As the 70s unfolded several headwinds stalled new development and threatened the stability of the industry. Awareness of issues surrounding air, water and soil contamination produced by chemical manufacturing spurred new regulations that resulted in the need to drastically overhaul industry practices and development of infrastructure to protect the environment and manage waste more efficiently. Permitting of new infrastructure became more cumbersome and the industry economics more complex.

New infrastructure development slowed down to a crawl during the 80's and only slightly recovered during the early 90's. By the end of the century, the industry was in serious decline with only a few new plants being constructed in the late 90s and multiple plants built during the 1950-1970 time period ceasing production. The decline was contrasted by the emergence of overseas production in the Middle East and Asia to take advantage of oil and gas in the Middle East and proximity to the world's new manufacturing hub in the Far East

Changes in the energy markets during the early 2000's further eroded the industry's profitability and lead to further idling and shuttering of infrastructure. Competition with newer more efficient infrastructure located in feedstock advantaged regions became increasingly difficult.

US Natural Gas Market

The recent advent of production technology has dramatically shifted the outlook for U.S. Natural gas market. Shale plays previously believed to hold unrecoverable reserves are being successfully exploited and increasing oil and natural gas production output.

While shale oil production has had an impact on domestic on shore (WTI) crude prices it has had a much more pronounced impact in the natural gas and NGL markets substantially lowering natural gas and natural gas liquids (NGL) prices. The energy information administration (EIA) projects the US will become a net exporter of natural gas by the end of this decade in contrast to requiring 8% of its supply in 2011. The EIA also projects the price of natural gas stabilizing in the medium term around \$4/mmbtu.

Direct Effect to Petrochemical Industry

Olefins and Aromatics are the building blocks of petrochemical manufacturing. Aromatics such as benzene, toluene, and xylene can be extracted from oil or natural gas liquids. Basic olefins such as ethylene and propylene are most commonly produced by cracking hydrocarbon

molecules from liquid hydrocarbon or fractions of natural gas such as ethane and propane.

The outlook for plentiful cheap natural gas has spurred a wave of development of new ethylene production facilities both through brownfield development and greenfield construction of new units. Since 2011 eight greenfield projects and over a dozen significant de-bottlenecks which will increase existing US ethylene capacity by over 35%. The majority of the growth will come from the greenfield developments which are currently in the design and permitting phase with construction beginning towards 2014 and completion expected between 2016 and 2018. The aggregate cost of the new infrastructure is in excess of \$30 billion and will create over 10,000 jobs once the plants are complete. During the construction phase over 50,000 temporary construction jobs will need to be filled. The ongoing economic impact of these projects will be in excess of \$40 billion per year.

Development of upstream infrastructure is also forthcoming. A substantial portion of the newly available ethylene will be converted to plastic polymers for export. This will require the development of substantial new poly olefin capacity. Upstream monetization will continue with the development of numerous specialty chemical complexes.

Effects on Industrial Property Valuation

This new era for the petrochemical industry will present a number of challenges and opportunities when valuing industrial properties. The main challenges will be related to projecting the remaining life and utility of current infrastructure. Historically, expansion periods have been followed by industry rationalization the specifics and extent of which are not foreseeable. In addition to that, the temporary supply side shortage and distorted economics resulting from anticipation of the new projects will make judging the medium to long term economic viability of existing infrastructure a difficult task.

Opportunities to extract data from the expansion are plentiful and will allow appraisers to have a current set of benchmarks and new tools that have not been available for a long time. Current replacement cost data will be plentiful as will be typical construction times to quantify costs during construction. Comparisons between domestic and overseas regulatory required infrastructure will also be readily available for the first time.

Lastly, once the new infrastructure is operational and production cost data becomes available the extent of the functional obsolescence in the more dated infrastructure will be directly observable and much more easily quantifiable.

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