

A Comparison Of Drilling Incentives In Louisiana, Mississippi, Oklahoma And Texas

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By

Alan A. Troy P.E.

Senior Energy Engineer

Technology Assessment Division T. Michael French, P.E.

Director

Louisiana Department Of Natural Resources

Jack McClanahan

Secretary of Natural Resources

Baton Rouge

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Louisiana Tax Incentives

Louisiana is no stranger to oil and gas tax incentives. The Louisiana Economic Acceleration Plan (LEAP) and the Severance Tax Exemption Plan (STEP) royalty and severance tax exemption programs, enacted in 1986 were two major pieces of legislation to stimulate drilling.

LEAP exempted severance tax on oil and gas produced from wildcat wells completed between July 1, 1986 and January 1, 1990. The exemption was to expire on January 1, 1990, or when the posted field price of West Texas Intermediate equalled or exceeded \$29.50/bbl.

Additionally, royalty payments for natural gas wells drilled on State leases were forgiven under the same qualifying requirements as the severance tax exemption. (ref. R.S.47:648 through 652)

STEP exempted severance tax on the first 50 barrels of oil produced per day, up to a maximum of 10,000 barrels a year, from wells drilled between July 15, 1986 and July 15, 1987, but did not apply to any taxable period during which the price of oil exceeded \$21.00/bbl. R.S. 47:648.11 was amended in 1987 to extend the qualifying drilling period to July 15, 1988. The STEP exemption expired on July 15, 1990, and was not extended. (ref. R.S.47:648.11)

An April, 1988, DNR assessment¹ of LEAP and STEP concluded that no meaningfully significant increase in drilling activity occurred beyond that which would have been expected without the incentives and supported the repeal of benefits to additional wells of either or both programs as a fiscally responsible move. In a six city tour of the State attended by operators and Legislators prior to the 1988 session, there was not a single operator who could or would say that LEAP was a deciding factor in whether or not they drilled a well.² In 1988 LEAP was effectively repealed when it was amended to change the latest qualifying completion date from January 1, 1990 to July 1, 1988.

Although LEAP and STEP are no longer in existence, there are still a significant number of tax exemptions and reduced rates for different classes of wells, recovery methods, and gas produced under special contracts. Some of these date back to 1935 and are questionable as incentives or tax policy considering today's circumstances. They are discussed below:

Gas Severance Tax Exemptions

In accordance with R.S. 47:633(9)(d), enacted in 1990, the full severance tax rate on gas was set at a base rate of 10 cents per MCF that is subject to an annual index adjustment. The adjustment is based on an index provided by the end of April, 1991, by the secretary of DNR and is based on the rise or fall in the average Louisiana spot market gas price over the previous 12 month period ending March 31. The current FY 91/92 indexed rate is 9 cents per MCF. On July 1, 1992, the base rate will change to 7 cents per MCF, and this base rate shall also be subject to an annual index adjustment. However, this tax rate shall never be less than 7 cents per MCF.³ Based on the current base rate and annual indexed adjustment, the actual rate will also be 7 cents per MCF on July 1, 1992.

Current statutes provide for severance tax exemptions on the following categories of production or end uses:

Injection:

The gas injected maintains reservoir pressure and enhances the recovery of oil and other hydrocarbons. This gas will eventually be reproduced and sold, and at that time the tax will be paid. This is really more of a deferred payment than an exemption.⁴ (ref. R.S. 47:633(9)(e)(i))

Produced Outside The State Of Louisiana:

This is gas produced in another state, transported into Louisiana, and injected.⁴ [ref. R.S.47:633(9)(e)(ii)]

Flared Or Vented:

This exemption is for gas flared or vented to the atmosphere. Gas is normally flared or vented when testing, waiting on sales line, or gas in noncommercial quantities.⁴ [ref. R.S.47:633(9)(e)(vi)]

Consumed In Field Operations:

This exemption for gas used or consumed in maintaining the operation of a field. This includes heating, separating, producing, dehydrating, compressing, and pumping of oil and gas in the field where produced.⁴ [ref. R.S. 47:633(9)(e)(iv)]

Consumed In The Production Of Natural Resources In The State Of Louisiana:

This exemption benefits only one large sulphur company. Producers selling gas to this company, to be used in the production of sulphur, are allowed the exemption. The exemption was enacted in 1974.⁴ [ref. R.S.47:633(9)(e)(vii)]

Used In The Manufacture Of Carbon Black:

This exemption affects six carbon black companies operating in Louisiana. The producers selling gas to the carbon black plants for fuel are allowed an exemption.⁴ [ref. R.S. 47:633(9)(e)(vii)]

Oil Severance Tax Exemptions

The current full severance tax rate on oil is 12.5% of value.³ Despite the demise of STEP and LEAP, there still remain numerous exemptions and reduced rates on certain classifications of oil and recovery methods. Exemptions that remain are:

Tertiary Recovery:

This exemption provides that no severance tax shall be due on incremental crude oil production from a qualified tertiary project approved by DNR until such project has reached payout. Payout is determined at a public hearing held before the assistant secretary of Conservation. Although the statute was enacted in 1984, there were no projects approved until 1986. The first exemption was not claimed until December, 1988. To date, only three projects have been approved.⁴ (ref.R.S. 47:633.4)

Trucking, Barging, And Pipeline Fees:

Oil and condensate are taxable at 12.5% of gross value or posted field price, less charges for trucking, barging , and pipeline fees. The deduction for oil is by statute and for condensate regulation. A flat twenty-five cents per barrel deduction was given in 1974, when the Severance Tax Rules and Regulations were promulgated.⁴ [ref. R.S. 47.633(7)(a)]

Severance Tax Exemptions Appplying To Both Oil And Gas

Discovery Well, New Field:

This exemption, enacted in 1977, provides that the working-interest owner in an oil or gas well who discovers a new field is exempt from 50% of all severance taxes on oil or gas from that well for a period of twenty-four months from the date regular production begins. The exemption applies only to the first one hundred barrels of oil per day or the first two million cubic feet per day of gas during the twenty-four month period. It applies only to the discovery well, not to any other wells completed and produced from the discovery reservoir.⁴ (ref. R.S. 47:633.1)

Natural Resources Owned And Served By Political Subdivisions:

This 100% exemption, enacted in 1988, applies to any political subdivision that owns and severs a natural resource for its own use.⁴ [(ref. R.S. 47:632(B))].

Gas Severance Tax Special Rates

Incapable Oil-Well Gas:

Gas produced from oil wells determined to have fifty pounds or less wellhead pressure per square inch, or producing by artificial methods, gaslift, or pumping, are eligible for a reduced tax rate of three cents per MCF.⁴ [(ref. R.S.47:633(9)(b))]

Incapable Gas-Well Gas:

Gas produced from gas wells determined to be incapable of producing an average of 250,000 cubic feet per day is eligible for a reduced tax rate of one and three-tenths cents per MCF.⁴ [(ref.R.S.47:633(9)(c))]

Gas With No Tax Reimbursement And Sold At A Price Less Than The Area Ceiling Rate:

Enacted in 1974, gas sold under a contract approved by the Department of Revenue and Taxation as receiving less than 50% tax reimbursement of increased taxes and at a price less than the area ceiling rate is eligible for a reduced tax rate of four cents per MCF. The contracts are in a phase-out stage, and there are few remaining.⁴ [ref. R.S. 47:633.1 (A)]

Gas With Less Than Fifty Percent Tax Reimbursement Of Increased Taxes And At A Price Less Than The Area Ceiling Rate:

Enacted in 1974, gas sold under a contract approved by the Department of Revenue and Taxation as receiving less than 50% tax reimbursement of increased taxes and at a price less than the area ceiling rate is eligible for a reduced rate of four cents per MCF. The contracts are in a phase out stage and there are few remaining.⁴ [ref. R.S.47:633.1(B)]

Contract Gas At Less Than 52 Cents/MCF:

Effective July 1, 1990, when the indexing method of taxing natural gas went into effect, the tax on gas sold at a rate less than 52 cents/MCF under a written agreement in existence prior to July 1, 1970, shall not exceed seven cents per MCF.⁴ [ref. R.S. 47:633.1(C)]

Oil Severance Tax Special Rates

Incapable Oil:

When enacted in 1974, the purpose of this reduced rate was to provide an incentive to produce a marginal well. An oil well incapable of producing an average more than twenty-five barrels of oil per producing day and producing at least 50% salt water, and having no other capable well on the lease, is eligible for a reduced tax rate of 50% of the full rate of gross value provided that such well has been certified as incapable to the Secretary of Revenue and Taxation on or before the last day of the month following the month of production. The current reduced rate is 6.25%. The terminology "an average of more than twenty-five (25) barrels of oil per producing day" was added by Act 755 of 1987. Prior to July 1, 1987, the volume restriction read "more than twenty-five (25) barrels of oil per day." Under the 1987 amendment a well is eligible for the reduced rate even if it does produce more than twenty-five barrels of oil any given day(s), as long as the daily average for the month does not exceed twenty-five barrels.⁴ [ref. R.S. 47:633(7)(b)]

Stripper Oil:

In 1974, when enacted, the purpose of this reduced rate was to provide an incentive to produce a marginal well. An oil well incapable of producing an average more than ten barrels of oil per producing day is eligible for a reduced tax rate of 25% of the full rate of gross value provided that such well has been certified as a stripper well to the Secretary of Revenue and Taxation on or before the last day of the month following the month of production. The current reduced rate is 3.125%. The terminology "an average of more than ten barrels of oil per producing day" was added by Act 755 of 1987. Prior to July 1, 1987, the volume restriction read "more than ten barrels of oil per day." Under the 1987 amendment a well is eligible for the reduced rate even if it does produce more than ten barrels of oil on any given day(s), as long as the daily average for the month does not exceed ten barrels.⁴ [ref. R.S. 47:633(7)(c)(i)]

Salvage Oil:

Effective July 1, 1986, a tax of 3.125% of value applies to salvage oil which is reclaimed by salvage crude reclamation facilities which are permitted by the Office of Conservation.⁴ (ref. R.S. 47:648.21)

Mining And Horizontal Drilling Projects:

This provision became effective August 1, 1990. The working interest portion of mining and horizontal drilling projects in a "stripper field" approved by the Office of Conservation are taxed at one quarter of the full rate until the cumulative value of hydrocarbon production from the project equals two and one-third times the total private investment. The current reduced rate is 3.125%. No projects have been approved at this time. It is expected to be at least two years before any such projects go into production.⁴ [ref. R.S.47:633(7)(c)(ii)]

Special Severance Tax Rates Applying To Both Oil And Gas

Produced Water Injection:

Act 625 was enacted in 1991 and provides a 20% reduction in the severance tax that would otherwise be due on incremental production resulting from injecting produced water into an oil or gas reservoir. The purpose of the Act was to help ease the financial burden placed upon the oil and gas industry to comply with Louisiana Department of Environmental Quality (DEQ) regulations prohibiting the discharge of produced water into the surface waters of the State by rules which became effective on March 20, 1991. The effect of this incentive on production is not yet known.(ref. R.S. 47:633.5)

Ad Valorem Tax Exemption

The Louisiana Constitution exempts the oil and gas contained in the earth from ad valorem taxes. However, producing equipment such as the well, derricks, pumps, connections and other accessories are not exempt.⁵

According to the Department of Revenue and Taxation the total one-year fiscal effect of all of the above tax preferences for FY 90/91, including the last vestiges of LEAP and STEP, is estimated to be \$42,832,500.³

Mississippi Tax Incentives

Mississippi's severance tax is called a "privilege" tax. The full rate on both gas and oil is 6% of value at the point production.⁷ Current exemptions and special rates are described below.

Severance Tax Exemptions And Special Rates

Enhanced Oil Recovery(EOR):

The tax is reduced to 3% on oil produced by an enhanced oil recovery method in which carbon dioxide transported by pipeline is used.^{6,p7-H}

Coal Seam Gas:

Effective March 20, 1990, any well that begins production of natural gas from coal seams through July 1, 1993, is taxed at a rate of 3.5% of value after such well begins production.^{6,p22-H}

Injection:

Gas lawfully injected into the earth for cycling, repressuring, lifting or enhancing the recovery, of oil, or vented or area in connection with the production of oil.^{6,p21-H}

Gas / Condensate Drilling Incentive:

Natural gas and condensate produced from any wells for which drilling is commenced after March 15, 1987 and before July 1, 1990, is exempt for two years beginning on the date of first sale of production.^{6,p22-H}

Oil Drilling Incentive:

Oil produced from a well for which drilling is commenced after March 15, 1987 and before July 1, 1990, is exempt if the average value of oil for the month, as determined by the State Tax Commission, does not exceed \$25.00 per barrel. This exemption applies to the first 50 barrels of oil produced each day from a depth of 12,000 feet or less and to the first 100 barrels of oil produced each day from a depth greater than 12,000 feet below the surface. This exemption was repealed to exclude production from and after June 30, 1991.^{6,p7-H}

It should be noted that this exemption, as well as the previous one for gas, appear to be Mississippi's version of Louisiana's LEAP and STEP incentive program . Both states elected to discontinue the programs.

Ad Valorem Tax Exemption

All oil and gas produced or under the ground on producing properties within the State of Mississippi and all producing oil equipment, including wells, connections, pumps, derricks and other appurtenances actually owned by and belonging to the producer, and all leases in production, including mineral in producing properties, are exempt from all ad valorem taxes now levied hereafter levied by the State of Mississippi, or any county, municipality, levee district, road, school or and other taxing district within the State. Drilling and gathering equipment do not qualify for this exemption.^{6,p15-H}

Oklahoma Tax Incentives

Oklahoma levies two taxes on oil production and three on gas production. A severance tax, called a "gross production tax", and a production excise tax are levied on both oil and gas. The full production tax rate for both oil and gas is 7%, and the excise tax rate is 0.095% of value at the point of production. The excise tax is collected on the same classes of production as the gross production tax.⁷

The third tax on gas is a gas conservation excise tax. It is designed to discourage the wasteful use of gas if the price declines precipitously. The tax is seven cents (\$0.07) per MCF, less 7% of the gross value of each MCF of natural gas and/or casinghead gas; provided that the tax shall not exceed one-third (1/3) of the gross value of each such MCF so produced and shall never be less than zero.⁷

The gas conservation excise tax is not triggered until the price of gas is below \$1.00 per MCF.

Gross Production And Tax Exemptions

Full exemptions are granted, to gas that is injected for the purpose of recycling, repressuring or pressure maintenance or for any other purpose which enhances recovery; lawfully vented or flared; used in a gas lift operation or field operations; used in the operation of compression facilities or of gasoline or recycling plants; or attributable to the shrinkage volume for the extraction of liquid hydrocarbons.^{7,p28}

In addition, Oklahoma has two other exemptions, both of which are clearly intended as incentives to encourage the use of enhanced recovery techniques and advanced drilling technology. They are as follows:

Tertiary Oil Recovery Projects:

Effective July 1, 1988, any incremental production of crude oil or other liquid hydrocarbons which results from an enhanced recovery project is exempt starting from the project beginning date until project payback is achieved but not to exceed a payback period of 36 months. Waterflooding does not qualify. Project payback shall be determined by appropriate payback indicators as established by the Oklahoma Corporation Commission and approved by the Oklahoma Tax Commission.^{7,p5}

Incremental production means the amount of crude oil or other liquid hydrocarbons which is produced during an enhanced recovery project and which is in excess of the base production amount of crude oil or other hydrocarbons. The base production amount shall be the average monthly amount of production for the twelve-month period immediately prior to the project beginning date minus the monthly rate of production decline for the project for each month beginning 180 days prior to the project beginning date. The monthly rate of production decline shall be equal to the average extrapolated monthly decline rate for the twelve-month period immediately prior to the project beginning date as determined by the Corporation Commission based on the production history of the field, its current status, and sound reservoir engineering principles.^{7,p5}

Horizontally Drilled Well:

Effective July 1, 1990, the production of oil and gas from a horizontally drilled well producing prior to July 1, 1994, is exempt starting from the project beginning date until project payback is achieved, but not to exceed a payback period of 24 months commencing with the month of initial production. Also, any incremental production from a previously drilled well that is recompleted horizontally is also exempt until project payback is achieved under the same terms as a new well. Project payback shall be determined as of the date of the completion of the well and shall not include any expenses beyond the completion date of the well, and subject to the approval of the Oklahoma Tax Commission.^{7,p5A}

Costs allowed in computing a horizontally drilled well payout includes only the costs of drilling and completing the well and does not include any cost incurred after the

completion date. Neither does it include lease acquisition costs, tank batteries, meters, pipelines or other external equipment.^{7,p68}

Ad Valorem Tax Exemption

All equipment, machinery, tools, material or property as is actually necessary and being used in the production of oil and gas is exempt.^{7,p6}

Texas Tax Incentives

In the State of Texas the full rate severance tax for casinghead and natural gas is 7.5% of value,^{8,p2} and for oil and condensate it is 4.6% of value.^{8,p14}

Severance Tax Exemptions And Special Rates

The severance tax does not apply to gas that is injected; produced from oil wells with oil and lawfully vented or flared; or used for lifting oil. While these exemptions are not considered drilling incentives, recently enacted legislation is clearly designed to spur drilling and production in areas that might not otherwise be economically feasible at the present time. These are as follows:

High-Cost Gas:

Effective September 1, 1989, high-cost gas produced from a well that is spudded or completed between the date of enactment (May 24, 1989) and September 1, 1996 , is exempt during the period beginning September 1, 1991 and ending August 31, 2001. "High-Cost Gas" means high-cost natural gas as described by Section 107, Natural Gas Policy Act of 1978 (15 U.S.C. Section 3317), as that section exists on January 1, 1989, without regard to whether that section is in effect or whether a determination has been made that the gas is high-cost natural gas for purposes of that Act."⁸ Such gas is:

- (1) produced from any well the surface drilling of which began on or after February 19, 1977, if such production is from a completion location which is located at a depth of more than 15,000 feet;
- (2) produced from geopressured brine;
- (3) gas produced from coal seams and tight sands formations.
- (4) from Devonian shale;
- (5) produced under such other conditions as the Federal Energy Regulatory Commission (FERC) determines to present extraordinary risks or costs.

A unique aspect of this program is that all production from May 24, 1989, when it was enacted, through August 31, 1991, was *fully taxed*. Only subsequent production gets the exemption. All other tax incentive programs investigated provide that the benefits begin when production begins. Texas tax officials estimate the State will lose \$13 million it had already been receiving from those wells the first year the exemption goes into effects.¹⁵ The Texas high-cost gas program was in place *before* the 1990 Revenue Reconciliation Act qualified tight gas for the Section 29 credit. Since its inception in 1989 through December 9, 1991, there have been 1304 tight sands wells drilled under the program.¹⁵ However, most of them were drilled *after* the federal Section 29 high-cost gas tax credit was expanded to include gas produced from tight sands suggesting that the real incentive for increased drilling activity is the federal tax credit, not the State tax exemption.

Enhanced Oil Recovery Project:

As originally enacted in 1989, Section 202.054 of the Texas oil production tax code Provided for a reduced "recovered oil tax rate" of 2.3% for an approved new EOR project that began active operation on or after September 1, 1989; and for which an application for approval was filed with the Texas Railroad Commission between September 1, 1989 and January 1, 1994. "Enhanced recovery" is defined as the use of any process for the displacement of oil from the earth other than primary recovery and includes the use of an immiscible, miscible, chemical, thermal, or biological process.⁸

Effective September 1, 1991, Texas Senate Bill #1105 amended this section to include expanded EOR projects as well. It allows incremental oil production from EOR projects that were in operation prior to September 1, 1989, to be considered at the Railroad Commissioner's discretion, for the recovered oil tax rate. In order to qualify the application must be filed on or after September 1, 1991 and before January 1, 1994, for an expansion of an existing EOR project. An "expanded" EOR project means the addition of injection and producing wells, the change of injection pattern, or other operating changes to an existing EOR project that will result in the recovery of oil that would not otherwise be recovered.

The recovered oil tax rate applies only to oil produced from a new EOR project where a positive production response has occurred or the incremental production caused by the expansion of an existing EOR project from the area the Commission certifies to be affected by the project. A "positive production response" means that the rate of oil production from the wells affected by a new EOR project is greater than would have occurred without the project. "Incremental production" means the volume of oil produced by an expanded EOR project in excess of the production decline rate established under conditions before expansion for an existing EOR project.

The recovered oil tax rate applies for ten years beginning the first day of the month following the date the Commission certifies that, in the case of a new EOR project, a positive production response has occurred or, in the case of an expansion, incremental production has occurred. Such certification depends on the operator meeting certain deadlines relative to his application for certification.

It should be noted that once a positive production response has been certified for a *new* EOR project, the reduced tax rate applies to *all* production from the well. Since the inception of the program September 1, 1989, forty new projects have been certified. No *expanded* projects have been certified yet; however, this is not surprising since the effective date was September 1, 1991.

The administrative rules of this very new program are quite elaborate and are still evolving. If such a program is to be successfully implemented, detailed records must be kept and the operation monitored closely by State tax officials.

Ad Valorem Tax Exemption

Oil and gas reservoirs that are capable of being economically produced from existing wells drilled for that purpose are not exempt and are taxed at the local level. Taxing authorities have wide latitude in determining if production is economically feasible. On-site production equipment is not exempt either.⁹

Federal Tax Incentives

While each state included in this report has adopted tax incentives to promote drilling within its borders, the federal government also influences where drilling will occur by offering large tax credits to encourage drilling for natural gas produced from certain unconventional, high-cost formations that inherently favor those states where those formations exist. This could adversely affect drilling activity in Louisiana by making it more attractive to drill in other states geological formations favored by the incentive are more easily exploited than those found in Louisiana.

While these credits can only be used to directly offset regular income taxes and are subject to certain restrictions, they are so large they overshadow any of the state incentive programs and appear to be having a profound influence nationwide on where drilling occurs.

Specifically, reference is made to Section 29 of the Internal Revenue Code, which provides for liberal tax credits to drill for natural gas produced from certain unconventional, high-cost formations. The rate of credit is presently \$5.00 (adjusted annually for inflation) for every barrel-of-oil equivalent of qualified fuel. The inflation

adjustment, however, does not apply to natural gas produced from a tight sands formation. The 1990 value of this credit for coalbed methane production was a generous 86.53 cents per million British Thermal Units (MMBTU), and for tight sands gas it was 52 cents per MMBTU. With such a large subsidy it is no surprise that some analysts say drilling for unconventional nonassociated gas accounted for as much as one third of all U.S. gas wells drilled in 1990 and is providing the biggest share of net gas reserves growth in the U.S. And, there is no sign of a letup in the unconventional gas boom.¹⁰ The latest Qualifying date for new wells was to have been December 31, 1990, but the 1990 Revenue Reconciliation Act extended the credit to wells drilled or placed in service by January 1, 1993, and expanded the credit to include natural gas from tight sands. The Act limits qualification for the tight sands credit to gas produced after December 31, 1990, from wells drilled after date of enactment, or which were dedicated to interstate commerce as of April 20, 1977. The "production" sunset date for the credit was also extended to January 1, 2003.¹¹

There is much controversy concerning this subsidized gas in that it is adding to an already oversupplied market without an increase in demand. Because of the subsidy it is being sold for less than market value and displacing conventional gas, which then has to be shut in because the market cannot absorb the additional supply.¹⁰

Even some of the coal gas is shut in for lack of enough pipeline capacity to transport it. For instance, so much of Colorado's and New Mexico's San Juan basin coal gas is shut in that Transwestern Pipeline Co. received nominations of more than 1 bcfd of gas for its 520 MMcfd line scheduled for completion by spring 1992. Moreover, projects are being implemented closer to Louisiana in Midwestern and South Atlantic coal-rich states.¹⁰ This gas could very well displace Louisiana gas in its traditional markets when it comes on line. The implications for Louisiana are not good in that in addition to possibly losing some traditional markets, the credit, large as it may be, is not enough to offset the high development cost of producing natural gas from Louisiana's own lignite reserves.

The credit is presently available for production of the following qualified fuels:¹¹

- oil produced from shale or tar sands;
- natural gas produced from geopressed brine, Devonian shale, coal seam or a tight formation;
- natural gas produced from biomass;
- liquid, gaseous, or solid synthetic fuels produced from coal (including lignite), including such fuels when used as feedstocks;
- qualifying processed wood fuels;
- steam produced from solid agricultural by-products (not including timber by-products).

The Act also establishes a new 15% credit for EOR costs as a component of the general business credit. The nine tertiary recovery methods listed in the June, 1979 Department of Energy (DOE) regulations are considered as qualifying for a the credit, as is the use of immiscible non-hydrocarbon gas displacement. However, the Act requires a reduction in the Section 29 credit to the extent that an enhanced oil recovery credit is claimed on the project. Regulations are anticipated to examine and add to the list of tertiary recovery methods that qualify for the credit.¹²

Since there is no domestic oil "bubble", if this tax incentive increases oil production in Louisiana, the State will benefit without losing any tax revenues.

Comparisons

Compared below are the full rate severance tax rates for gas and oil, exemptions common to all four states, and drilling and production tax incentive programs designed specifically to stimulate new production. A condensed version of this information in tabular form is presented in the "Executive Summary" section of this report.

Full Rate Severance Tax Rates

Full Rate Gas Severance Tax Rate:

Louisiana is the only one of the four states that levies its gas severance tax on a volume basis rather than a percent of value. The rate is presently 9 cents per MCF and is scheduled to decline to 7 cents per MCF on July 1, 1992. Assuming a \$1.40 per MCF average 1991 gas price, this translates to about 6.43% of value for 1991 and 5% beginning in FY 1992. The rate is indexed once a year for inflation, but can never below 7 cents per MCF.

While the present rate of 6.43% compares favorably with Mississippi at 6%, Oklahoma at 7.095%, and Texas at 7.5%; on July 1, 1992, Louisiana's 5% rate will be the lowest by a large margin.

Furthermore, in Louisiana marginal wells classified as incapable oil-well or gas-well gas producers are eligible for reduced rates of 3 cents and 1.3 cents per MCF respectively. Since the other states do not offer a reduced rate on marginal gas wells, Louisiana's rates are substantially lower. To the extent these low rates are a factor in selecting the marginal wells to be produced, Louisiana definitely has the competitive edge. However, less than 1% of total Louisiana gas production in 1990 can be attributed to these wells.^{13,p15}

Full Rate Oil Severance Tax Rate:

The oil severance tax is levied as a percent of value at the wellhead in all four states. Louisiana's full rate is 12.5%, Mississippi 6%, Oklahoma 7.095%, and Texas 4.6%. Considering that over 90% of Louisiana's production is taxed at the full rate, this rate compares quite unfavorably.

About half of the remaining 10% consists of incapable and stripper oil wells that are taxed at the reduced rates of 6.25% and 3.125% respectively. Since the other states do not offer a reduced rate on marginal oil wells, Louisiana's rates are comparable and, in the case of stripper wells, are much lower. As with marginal gas wells, Louisiana's competitive position on marginal oil well rates is quite good insofar as this factor influences which wells will be selected to produce. However, these wells, which

comprise 63% of the State's total number of wells, account for only about 5% of total oil production.¹⁴

Exemptions Common To All Four States

All four states exempt gas that is used or consumed in the production, operation or maintenance of a field. Some examples are gas that is injected for recycling, pressure maintenance that enhances recovery, lawfully vented or flared, used for lifting oil, and used in the operation of compression or pumping facilities.

Drilling And Production Tax Incentive Programs

All four states have in place major tax incentive program designed to increase production by stimulating new drilling for gas and oil from unconventional sources or by using advanced technology to recover additional supplies from existing sources. The one common, assumption of all these program is that the development they intend to encourage is not economically feasible on its own merit and would therefore not likely occur without the tax incentive. The following program are presently being administered in at least one of the four state. Specific details for each measure in each state are explained in preceding sections of this report.

Enhanced Oil Recovery (EOR) Project:

All four states have a version of this incentive. While there are some differences between program, Louisiana's overall program is quite competitive with the others. However, since enactment in 1984, only three projects have been approved.

Horizontally Drilled Well:

Only Oklahoma and Louisiana utilize this drilling incentive. Both oil and gas production can qualify in Oklahoma while only oil from a stripper field employing gravity drainage

into a downhole shaft is eligible in Louisiana. Enacted in 1990 in both states, apparently neither program is attractive to developers as no projects have been approved in either State as of December, 1991.

High-Cost Wells:

These wells are defined in Section 29 of the Internal Revenue Code and are listed in this report under the subtopic "Federal Tax Incentives". Of the four states studied only Mississippi and Texas have tax incentive programs to stimulate new natural gas production from high development cost sources. Mississippi's program targets coal seam gas only.

Discovery Well New Field:

This program is unique to Louisiana. As explained earlier in detail, it provides for a 50% tax exemption for the initial oil and gas well in a new field for a period of 24 months. This exemption was not used during the STEP and LEAP period. It is projected the State will forego \$10,000 in revenues in each of FY90/91 and FY91/92 due to this exemption.⁴

Produced Water Injection:

Also unique to Louisiana, the 20% reduction in the severance tax provided by this program was not intended as a production incentive but rather to mitigate the financial cost of complying with DEQ regulations prohibiting the discharge of produced water into the waters of the State. Applying to incremental production of oil or gas recovered by injecting produced water into a reservoir, the program became effective March 20, 1991, and is too new to evaluate.

Ad Valorem Taxes:

The oil and gas statutes of Mississippi and Oklahoma specifically exempt reserves and production equipment. While Louisiana and Texas' statutes do not mention this tax in their respective oil and gas sections, both states levy this tax on oil and gas properties.

Texas taxes both on-site production equipment and reservoirs that are capable of production as determined by the Texas Railroad Commission. Louisiana taxes only the production equipment, not the reservoirs.

Ad valorem taxes are levied and administered by local tax districts. Consequently, tax rates and policies vary widely and are beyond the scope of this report. To the extent the ad valorem tax exemption is a factor in influencing where drilling will take place, Mississippi and Oklahoma may have a competitive edge over Louisiana and Texas.

The Industry Perspective

To get the industry view of incentives and other measures the State could take to help the industry, four industry representatives¹⁹ were contacted. None claimed to have a magic solution, but all were very concerned with the condition of the industry and were willing to share their ideas and comments.

While their viewpoints were not unanimous on every subject, their top priority was clear. Topics discussed included the following:

1. The top priority of the State should be to overhaul the permitting process. Permit applications should be sent to one place, and the review process should be streamlined so an application is processed within 30 days. Application procedures and environmental mitigation guidelines should be specific and written. Subjective, verbal requirements should be minimal. The "one-stop" permit location should coordinate distribution of the application to the correct regulatory agencies and follow up on them to be sure they are handled expeditiously. Time is money and the present system is so complicated and arbitrary that by the time an application is approved the economics of some projects have become obsolete.

2. Since gas is already in oversupply, any Louisiana incentive program to produce more gas is counterproductive if it merely displaces existing gas production. Incentives should

be to produce oil, which can readily be sold profitably in the marketplace. The benefits of any new incentive program should be limited to production that would not have otherwise occurred, possibly even to some workovers.

3. High ad valorem taxes on marginal wells are a disincentive to keeping them in production. However, local tax assessors would probably not be receptive to a lower tax on marginal wells unless the loss in revenue could be made up elsewhere.

4. A new formula for proration of allowables to decrease it for high volume wells.

5. A State investment tax credit could be a good idea to reduce up-front development costs if designed properly, but since State income taxes are not extremely high, it may have limited application.

6. The idea of a refinery or processing tax to replace the severance tax on oil drew a mixed response and reflected the interests of the segment of the industry they represented. It is generally liked by independents and disliked by major oil companies.

7. A long term increase in the demand for gas that results in a substantial increase in the price at the wellhead would go a long way toward solving the industry's problems. The State should encourage increased demand by supporting the use of gas in applications where it is not used at all, or very sparingly.

Conclusions And Recommendations

In sheer numbers Louisiana already has more incentive programs and other tax preferences than the other three states. Additionally, Louisiana's past LEAP and STEP programs were the two most ambitious incentives tried by any of the states. Present incentives provided in the Louisiana programs that are similar to the other states are quite competitive. In addition, Louisiana has more well classifications that are exempt or qualify for reduced severance tax rates than the other states. Nevertheless, there are three areas where Louisiana could be considered lacking. These are:

1. At 12.5%, the full rate oil severance tax is much higher than the other states.

Although 63% of the wells are marginal and qualify for a lower rate or an exemption, the

production from these wells is less than 10% of total production. Reducing this rate would shorten the project payout period thereby creating an incentive for producers to drill more wells. However, if applied to existing production, it would result in a huge revenue loss to the State that would have to be made up somewhere else.

Since the need for tax reform is generally recognized, perhaps the time has come to consider diversifying the oil and gas tax base by eliminating the severance tax on producers and replacing it with an oil and gas processing tax. Then the tax would apply to all oil and gas processed the State regardless of its origin. Such a tax was proposed by Rep. Odon Bacque in House Bill No. 1684 of the 1990 Regular Session. It died in Committee. Had the Committee acted on it favorably, a companion bill to reduce severance taxes would have been introduced.

The present emphasis on taxing oil and gas at its point of lowest value puts the entire burden of taxation on only one segment of the industry, the producer, and guarantees that State revenues from this tax base will continuously decline as production declines. A more equitable distribution might be to shift this tax burden onto other profit centers in the industry.

To ensure the long term development of its remaining reserves, the State could consider shifting some of the oil and gas tax burden away from those who are willing to continue exploring within the State, whether they are independents or majors, to the downstream profit centers that process the gas and oil into higher value products by way of a processing or value added tax. This should enable the State to eliminate the severance tax by taxing the processing of in-state, out-of- state, foreign and OCS oil and gas at a fraction of the present severance tax.

2. Louisiana has no high-cost development incentive program. The Texas program is clearly the most comprehensive . However, it is likely that the tight sands gas drilling boom going on there now is attributable to the generous Section 29 federal tax credit

rather than the severance tax exemption offered by the State. Consequently, the State of Texas is needlessly foregoing severance tax revenue.

It is not recommended that Louisiana consider any such program until the federal program expires at the end of 1992, if at all.

3. Louisiana does not exempt on-site off and gas production equipment from the ad valorem tax as do Mississippi and Oklahoma. It is important that Louisiana's ad valorem taxes be structured so they do not actually discourage drilling or the production of marginal wells. While ad valorem tax exemptions in themselves are not drilling incentives, they are a factor in the overall economics of production because they represent an ongoing cost of doing business.

In order to encourage marginal well production these taxes could be graduated so marginal wells pay a lesser tax on the same assessed property value than wells that are more prolific producers. This could enable the income from these low production wells to pay the tax and still earn a reasonable profit. Presumably, this lower tax would favorably alter the economics of production to provide an incentive to produce some wells that would not otherwise have been economically feasible and extend the life of some wells longer than would have otherwise been possible. This should result in higher revenues over the long term.

Adopting such a plan would be a drastic change from the way ad valorem taxes are presently levied by local taxing districts. Since the support of local assessors is essential if the proposal is to be considered at all, the State should study its implications and, if they are positive, should present the evidence to the assessors to convince them that it is in their best long term interest to consider changing the present system.

The purpose of all of the incentive programs compared here is to stimulate overall economic development by increasing drilling activity and production to levels that would

not have occurred without the incentive. The only program that clearly accomplishes that is the federal section 29 high-cost gas development program.

The more innovative programs of the four states compared have only been in effect two or three years. Consequently, they are either too new to have generated any conclusive feedback information or participation is minimal indicating that the incentives provided are secondary to other considerations deemed more important to potential developers. The only state program that appears to have drawn meaningful participation is the Texas EOR program. Through November, 220 project applications with a total potential of 500 million more barrels of oil have been received¹⁷ and 40 of them have been officially certified to get the benefit¹⁸. Since Louisiana received only three applications since the inception of its EOR program in 1984, one might conclude the Texas program is inherently better. However, the two programs appear to be competitive in their incentive provisions, and the greater participation in Texas is due to other reasons, possibly lower development costs where the projects are located and readily available carbon dioxide¹⁷.

Future Louisiana Supply Prospects

Supplies of gas and oil are plentiful and accessible right now, but this situation could change rapidly if an international political crisis should occur as it did in the Middle East in 1973 and 1979; or even a prolonged cold spell like the one during the winter of 1974/75, when Louisiana interstate gas was curtailed at the expense of Louisiana industries.

The same regulatory mechanism that initiated the curtailments, the Federal Energy Regulatory Commission (FERC), is still in place. But unlike then, pipelines are now primarily transporters and carry little of their own gas. Can the FERC curtail gas that is being transported by a pipeline company that does not own the gas? Can the State curtail such gas? Are more intrastate pipeline companies now considered "interstate", and

regulated by FERC, because they have interconnected with interstate pipelines? The answers to these questions need to be investigated now while there is no crisis of supply. Given the irreversible decline in Louisiana's oil and gas production and the fact that forces beyond the State's borders effectively control production and prices, the State should consider developing a strategic oil and gas policy to preserve this vital industry and ensure adequate supplies for its many energy-consuming industries. Such a policy could mitigate the sometimes conflicting mandates of State regulatory agencies as well as provide a framework for Louisiana's future role as a major energy producing and consuming state.

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