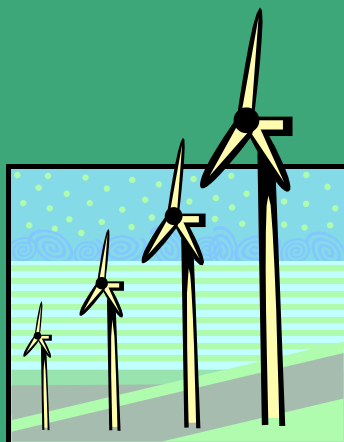


BRIDGING THE GAP:



Green Tax Options for Funding Texas Schools

March 2006, 2nd edition



Center for Public Policy Priorities

Environment Texas

*Lone Star Chapter,
Sierra Club*

Public Citizen, Texas Office

S.M.A.R.T

Texas Clean Water Action

*Texas Public Interest Research
Group*

*Texas Campaign for the
Environment*

Texas Center for Policy Studies

Texas Impact

*Texas League of Conservation
Voters*

Bridging the Gap:

The Texas Legislature is considering a wide variety of options for increasing funding for school financing, while also cutting local property taxes. Over the last three years, there have been two regular sessions and three special sessions in which the Senate and House have considered separate proposals which would increase state sales tax on goods, expand the tax on business, franchises and partnerships, increase sales taxes on motor vehicles and boats and institute additional “sin” taxes on cigarette and alcohol. They are about to start yet another special session on the subject, with a Texas Supreme Court imposed deadline looming. Noticeably absent from this discussion has been any consideration of reform of energy, transportation, excise and pollution taxes.

The report considers tax options that help both the environment and our public schools. It is based on the premise that taxing public bads – high sulfur content in fuels, or emissions of nitrogen oxides and toxics – is preferable to increasing taxes on business profits or labor payrolls. These recommendations could also be used to help “bridge the gap” between various versions of the tax plan being debated or even add additional funds to public schools to pay for programs like special education.

We look forward to discussing these issues in upcoming special or regular sessions and request the participation of the public and our state’s leaders in spearheading this long-over-due reform.

Green Tax Options for Funding Texas Schools

Acknowledgements

The Green Tax Options report was made possible by the generous support of the Educational Foundation of America, the Magnolia Charitable Trust and the Prentice Foundation.

In addition, in-kind support and editorial assistance was offered by the Lone Star Chapter of the Sierra Club, TEXPIRG and Public Citizen.

The report was written by Cyrus Reed, Texas Center for Policy Studies director, with assistance from Scott McClain, also of TCPS, and from Travis Brown with Public Citizen’s Texas Office. The authors alone bear responsibility for any factual errors.

The organizations support the principles of the *Bridging the Gap* report to help create tax policies for Texas that are fiscally responsible and environmentally sound. They do not necessarily endorse or have expertise on every option discussed in the report.

Texas Center for Policy Studies
512-474-0811 or 512-740-4086 (cell)
www.texascenter.org
© 2005 & 2006

Printed on 100% postconsumer recycled chlorine-free paper

Please contact Texas Center for Policy Studies at 512-474-0811 for additional copies.

Shipping charges may apply.

Available on the web at

www.texascenter.org/feeproject

INTRODUCTION

Over the past three years – in two regular legislative sessions and five special sessions -- the Texas Legislature has considered a variety of options to reduce local property taxes and raise state revenues for Texas' school kids. Options on the table in recent tax plans have included raising the sales tax, revamping and expanding business taxes on gross receipts, income and/or payroll, raising the motor vehicle and motor boat taxes and expanding tax revenue from so-called "sin" taxes, including cigarette taxes, new video slot machines or even authorizing the full-scale development of casino gambling in Texas. Although a few members of the House of Representatives have called for a state income tax, most politicians have publicly stated their opposition and even its most ardent supporters doubt Texas will consider a state income tax in the coming years.

In November of 2005, after all of these legislative efforts had failed – and after the Supreme Court of Texas had give notice that the state had to come up with a new public school finance plan by June 1, 2006 – Texas Governor Rick Perry appointed a 24-member Texas Tax Reform Commission. This Commission – led by former Texas Comptroller of Public Accounts head John Sharp – held several public meetings in Texas in January, February and March of 2006 and is expected to release a report with recommendations soon. All indications are that the TTRC will offer such familiar options as raising the sales tax and instituting a broad-based business tax on gross receipts. Sharp and other members have already announced that they will not recommend changes needing a constitutional amendment such as a state income tax or casino or video gaming.

Noticeably absent from any of the plans has been consideration of taxes related to transportation and energy such as those which target emissions, pollution or resource

exploitation. Yet taxing these economic, environmental and health "sins" could be a viable and important part of a Texas tax reform. Such taxes could also help "bridge the gap" among different tax plans which have not allowed political leaders to approve a tax plan which reduces property taxes while also raising additional resources for our schools. They could also increase revenue for specific educational programs such as those helping children with autism and developmental disorders. Additionally, if implemented carefully, the taxes could be designed to make the tax plan more equitable by reducing the tax burden on Texas' least well-off residents.¹

This report outlines six environmentally responsible options that together could generate up to an estimated \$1.5 billion in new state revenues over the next biennium. These options also have the potential to promote environmental responsibility in Texas by encouraging lower industrial emissions, prompting more careful use of natural resources, promoting cleaner consumer choices, deterring environmental crimes and offering a better mix of fuels in the energy and transportation sectors. A seventh option – raising the Renewable Portfolio Standard – was approved in the 2005 1st Special Session when Governor Perry signed SB 20. SB 20 rose the percentage of the state's electricity demand which must be obtained from renewable energy to five percent – 5,880 megawatts – by 2015. Because alternative energy generates sales and property taxes in rural school districts, the increase in the RPS standard should provide a revenue benefit to some Texas school districts. Still, increasing the RPS in future years would assure higher tax revenues for some rural counties and is a seventh option discussed briefly in the report.

In recent years, economists, environmentalists and decision-makers have called for a shift away from taxation on productivity, including both labor and

business inputs, toward resource extraction and pollution. Essentially, just as we tax cigarettes, alcohol and other “sins”, in part to influence behavior and pay for the impacts of that behavior, many economists believe we should tax pollution and natural resource exploitation. Concepts such as the “polluter pays principle” are part and parcel of this belief.

Other nations have embraced the concept of pollution taxes in part as a response to the need to reduce the carbon emissions which contribute to global warming. Thus, taxation policy based on either carbon content or carbon dioxide emissions can spur both revenues and encourage industry and consumers to conserve energy and reduce emissions. Still another “tax” related policy has been the creation of carbon emissions trading, whereby different industries are given allowances to pollute to a certain level, above which they must either purchase credits or reduce emissions. This approach is a market mechanism which is not designed to raise revenues but use the power of the market to allocate resources.

Carbon taxes, and all environmental taxes, are “priced-based” policy instruments. Taxes increase the prices of certain goods and services, thereby decreasing the quantity demanded. This is called the “price effect.” Tradable permits, or emissions trading, is considered a “quantity-based” environmental policy instrument. Although both policy approaches are “market-based,” they operate differently - carbon taxes fix the marginal cost for carbon emissions and allow quantities emitted to adjust, while tradable permits fix the total amount of carbon emitted and allow price levels to fluctuate according to market forces.

Ireland taxes its dirtier fuels at a higher rate, while Germany taxes power plant emissions. Denmark is implementing an extra tax on mopeds. New Zealand recently announced it would become the first nation to implement a broad-based carbon tax of approximately

\$20 per ton of carbon emitted, although that country has since reconsidered and is exploring a mix of tax and trading policies to reduce carbon.ⁱⁱ The entire European Union is implementing a far-reaching auctioned and tradable emissions scheme to reduce global gas warming emissions, while individual countries like England and Germany have reduced payroll and income taxes as part of a large tax shift away from economic goods and toward economic bads like carbon emissions.ⁱⁱⁱ

Even some states have begun to explore different policies designed to reduce Green House Gas (GHG) emissions. For example, in 2005, California Governor Arnold Schwarzenegger signed an executive order to set in motion a commission and studies to explore different policies – including tax policies – that could help California reduce emissions.^{iv} In addition, California’s recent enactment of vehicle emission reductions makes it first state to regulate exhaust global warming gas emissions.

Today, such ideas may be more important than ever, given the financial constraints facing the State of Texas. A combination of declining sales tax revenue, higher Medicaid and other health costs, a growing school-age population, and loopholes in the tax structure have conspired to make meeting Texas’ basic needs and services even more challenging. When one considers the enormous health care costs – including sick kids and lost school days -- that Texans and their government incur because of illnesses related to air pollution, making consumers and businesses that pollute pay a portion of the cost of our public schools is fair and is just good economics. A recent study found a strong correlation between air pollution – measured in particulate matter – and the use of inpatient and outpatient care among older Medicaid and Medicare users in 183 U.S. metropolitan areas.^v A 1999 study commissioned by the City of Houston estimated that if the Houston region were to meet clean air standards for ozone and

particulate matter in 2007, about \$2.9 billion to \$3.1 billion would be saved in health care costs.^{vi}

Putting incentives in the tax code to help clean our air would also help Texas meet its clean air obligations faster. Four of Texas major metropolitan areas – including Dallas-Ft. Worth, Beaumont-Pt. Arthur, El Paso and Houston-Galveston-Brazoria – have been out of compliance with ozone health-based standards for decades, while several others – including Austin, San Antonio, Tyler-Longview, Corpus Christi and Victoria – have violated ozone standards and are or have the potential to fall out of compliance with new eight-hour standards. Beyond the health-based impacts affecting asthmatics, sports enthusiasts, children and the elderly and the public in general, also compelling is consideration of the costs of NOT meeting clean air standards in Texas. Estimated losses in state revenues as a result of non-compliance related medical expenses and lost work time and productivity range from \$157.4 million to \$345.7 million, according to a November 2002 report prepared by The Perryman Group for the Texas Clean Air Working Group. Simply put, air pollution costs money both to the individual and the state. Thus, any new taxes that helped reduce air pollution would pay a “double dividend”—reducing costs to the state, while raising revenue.^{vii}

Texas, of course, already funds some of its environmental protection programs through polluter taxes and fees and also raises money through oil and gas severance taxes and gasoline and diesel taxes. Nevertheless, these fees are relatively small fees or taxes rather than a broad-based pollution tax system designed to raise significant amounts of revenues while promoting environmental responsible behavior. Could so-called “green taxes” be one part of the solution to raising state revenues for Texas’s public schools, in the process lowering property taxes? This report argues they could and

provides some options which we believe would be good places to start.

What would a full pollution or green tax system look like and how much money would it raise? As mentioned, many European countries have begun to institute carbon taxes. A carbon tax is an energy tax placed on the carbon content of fuels, usually measured in dollars per ton of carbon contained in each fuel or dollars per ton of carbon dioxide emissions. The principle behind a carbon tax is to tax fossil fuel use and the resulting emissions that can lead to global climate change and hopefully encourage the use of alternative fuels. Carbon dioxide is released from cars, trucks and other vehicles, as well as furnaces, boilers, water heaters, stoves, dryers and manufacturing equipment as well as electric generating plants.

Whether imposed as a carbon content tax or emissions tax, carbon taxes can be imposed on all potential sources, or a specific source. The most efficient way to impose such a tax is wherever the carbon first enters the state’s economy. For example, a carbon tax could be assessed on any fuel sold (or transferred) in the state. Because a carbon tax on industrial fuel use could limit industry’s competitiveness compared to other states or nations, manufacturing plants could be exempted from the tax. Farmers and other important sectors could also be exempted. Thus, New Zealand’s implementation of a broad-based carbon emissions tax has exempted some of the largest energy producers, who instead will be required to reduce their emissions through more traditional means than tax policy.^{viii}

Another way would be for the state to require a carbon dioxide emissions inventory, with a carbon tax based upon the amount of emissions. Industries and electric generating stations would be expected to oppose such a carbon dioxide emissions tax. Because residents already pay the motor fuels tax and the motor vehicles tax, heavy

resistance can also be expected from the wider public.

Instead of a full-scale carbon tax, leaders could explore a more limited piece-meal approach to taxing carbon. For example, a limited carbon tax or nitrogen oxide tax on emissions from power plants, along with a feebate motor vehicle tax – where vehicles with higher emissions pay more in motor vehicles tax or registration fees than those with lower emissions -- and a motor fuels tax differentiated by differing grades of fuels, based for example on sulfur content, might ultimately prove easier and have the same effect as a broad-based carbon tax.

Moreover, coal production could pay its fair share of revenues to the state through a severance or use tax, just as oil and gas production has. Levying a small tax on emissions of toxics could provide monies for special education programs while providing a disincentive toward their production. The Texas Commission on Environmental Quality could reform its penalty policy to recover the economic benefit of non-compliance, revenues that would flow to the General Revenue Fund and available for schools. Finally, increasing the RPS – Renewable Portfolio Standard – to 10,880 megawatts would increase local property tax revenues in rural areas.

Environmental responsibility is of course just one measure of a fair and adequate tax system. Raising motor fuels tax is environmentally responsible because it directly taxes an activity – driving – with profound environmental and health impacts. Yet since the motor fuels tax is regressive, any rise in the motor fuels tax impacts those least able to pay the most. Consideration of these tax approaches must take into account their impact on different sectors of the population as well as industrial productivity.

The paper is divided into seven categories of potential revenue options: taxing coal production, levying a new electricity efficiency tax on nitrogen oxide emissions, adding a motor vehicles sales tax surcharge to high-polluting vehicles, increasing the gas and diesel tax by the Consumers Price Index while adding a nickel to high sulfur diesel fuels and increasing the Renewable Portfolio Standard, which will generate substantial local school taxes in West Texas through higher investment in wind energy, We have tried in this report to quantify the benefits of these options to the state. These options could help raise nearly \$1.5 billion for education and property tax reduction.^{ix}

Figure 1. NEW REVENUES FOR SCHOOLS FROM PROPOSED GREEN TAXES, BIENNIUM

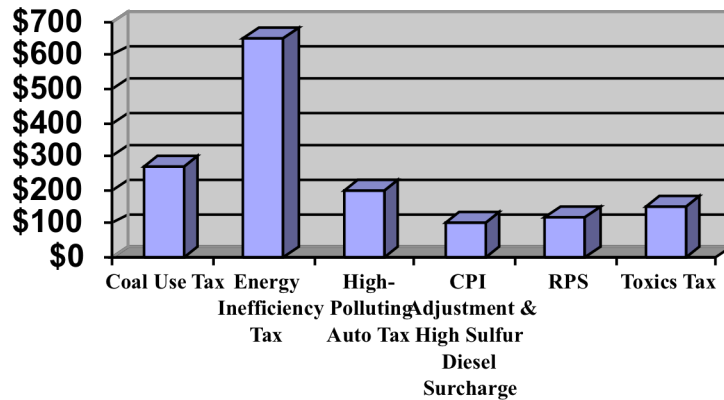


Table 1. Some Proposed Green Taxes

New Tax	Current Rate	Proposed Rate	Expected Biennial Revenue	Issues
Coal Use or Coal Severance Tax	None	7.5% -- same as natural gas	\$100 to \$275 million	Could be imposed on all coal used or only coal mined in Texas
Electricity Efficiency Tax on Power Plants	None	\$0.60 per pound of NOx per Megawatt Hour Times Megawatt Hours or BTUs/kilowatt	\$650 million	Could be imposed on generator or customer (average about \$1.30 cents per month)
Emissions Tax on Air Toxics	None – Regulatory Fee Only	\$1/lb of toxics reported to Toxics Emissions Inventory.	\$100 to \$160 million.	Could be assessed as straight \$1/lb or with varied rates depending on toxicity and effects.
High-Sulfur Diesel Tax and CPI Adjustment	\$0.20 gas and diesel motor fuels tax	Increase gas and diesel taxes by CPI inflation and charge additional fee of \$0.05 for high-sulfur diesel fuels	CPI -- \$45 million plus \$60 million for high-sulfur diesel tax	As fuel is cleaned up, total would decline -- part would go to highway fund.
Feebate on New Motor Vehicles Sold	Flat 6.25% sales tax on all vehicles; past tax plans advocated raising it to 7.35%	One or two percent surcharge on motor vehicles with Bin 9, 10, 11 or 12.	\$200 million	Differential sales tax already exists with larger diesel trucks having a surcharge to pay for TERP
Recover Economic Benefit for Non-Complying of Environmental Rules and Laws	Policy Penalty Being Reviewed at TCEQ to Consider Full Recovery of Penalty Policies	When assessing penalties for environmental crimes, economic benefit for non-compliance recovered	No estimate – but review of 80 cases found \$8 million in additional funds	Could be handled administratively or might require legislative action.
Increase Renewable Portfolio Standard	Increase RPS from 5,880 to 10,880 by 2015	Wind generators would continue to pay local property taxes	\$100 million additional by 2015-2016	Could include set-aside for solar/biomass
Total of 7 New Taxes			\$1,250 -- \$1,490 million	

CLOSE TAX LOOPHOLES: INSTITUTE COAL TAX

While producers of oil and natural gas in Texas are required to pay significant fees and taxes to the state, most other natural resource extraction industries pay only minimal fees and taxes. One way Texas could generate new revenues would be to increase fees and taxes on coal mining, uranium mining, and timber felling. Among these three industries, coal production would provide the largest source of additional revenue.

Unlike oil and gas production, there is no severance tax on the market value of coal. The absence of such a severance tax encourages its use as a basic fuel in Texas, despite its high environmental costs. Texas uses more coal than any other state – about 100 million short tons per year, mining more than half of it right here in Texas.^x Virtually all of the coal mined in Texas is high-sulfur, low-quality lignite. Texas coal is among the nation's dirtiest in terms of its sulfur content and the emissions that result from its combustion. (Texas imports about 45 percent of its coal, mostly from Wyoming.) Coal mined in Texas and used to generate electricity has an average sulfur content of 0.97 percent. However, the average sulfur content for all coal -- both imported and Texas-mined -- has an average sulfur content of 0.65 percent.^{xi}

The use of coal in Texas has serious environmental and public health consequences. The top nine air polluters in Texas are all power plants or industrial facilities that burn coal or lignite.^{xii} The top 16 emitters of air pollution all burn coal or lignite and between them released over 1.1 million tons of criteria air pollutants, or about 55% of all pollutants, directly contributing to the smog (ozone) problems in cities such as Dallas, Houston and Longview.^{xiii} In addition, 18 coal-fired power plants in Texas reported releasing more than 9,300 pounds of highly toxic

mercury air emissions in 2000, or about 10 percent of all mercury emitted by power plants throughout the U.S. Along with producing criteria air pollutants and mercury, coal-fired power plants in Texas are leading producers of particulate matter that causes respiratory problems when ingested into the lungs. These power plants also contribute to regional haze, which affects both health and visibility. A 2002 medical study found that long-term exposure to combustion-related fine particulate matter air pollution – such as that emitted by coal-fired power plants – is an important environmental risk factor for both cardiopulmonary and lung cancer mortality.^{xiv} Another 2002 study found that more than 1.5 million children in Texas live within 30 miles of a coal-fired power plant, and more than 90,000 of these children suffer from asthma.^{xv} These power plants also emit large amounts of carbon dioxide, one of the leading contributors to global climate change.

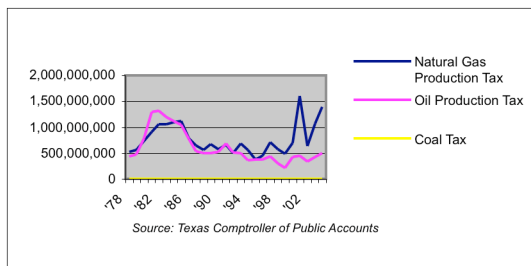
Despite these “costs,” coal production and the use of coal at power plants is expected to increase in Texas. There are currently six new coal power plants that are seeking permits from the Texas Commission on Environmental Quality. The proposed coal-burning power plants would all be located east of I-35; one in Riesel, near Waco; one for Rockdale at Alcoa's location; two plants (3 units, including 2 for TXU's Oak Grove) in Robertson County near Franklin; and two in Port Comfort, south of Victoria. Governor Perry recently issued an executive order to speed up permitting of these plants.^{xvi} Yet provided these plants are permitted, the increased use of coal will not generate revenues for the State of Texas even as increased emissions from these plants have the potential to affect the health and environment of Texas.

Coal producers do pay some minimal fees to the state. Texas charges a permit fee for coal mining sites of at least \$5,000 for a new permit, \$3,000 for a renewal, and \$500 for

revising a permit. In addition, the Railroad Commission, which regulates the coal industry in Texas, assesses an annual fee for each acre of land from which coal is extracted. That fee has been raised from \$120 per acre to some \$390 per acre over the last few years, largely in response to the need to replace General Revenue with fees at most state agencies.

Still, comparatively, coal pays nothing. Natural gas producers in Texas pay 7.5 percent of the market value of gas produced in the state. Oil producers in state pay 4.6 percent of the market value of the oil they produce, or 4.6 cents on every 42 standard barrel of oil, whichever is more. Taken together, these two “severance” taxes raise between \$1 and \$2 billion dollars a year for the state depending upon prices. In FY 2004, oil and gas provided over \$1.8 billion to the Great State of Texas (Figure 2).

Figure 2. Texas State Revenues Generated by Natural Gas, Oil and Coal Production Tax, FY 78-05



In addition, oil and natural gas producers also pay regulatory fees and taxes. Oil producers must pay an oilfield cleanup fee and regulatory tax, which together have ranged from ½ to 13/16 of 1 cent on each barrel of 42 standard gallons produced, while natural gas producers pay a similar, though lower, oilfield clean-up fee. To help clean up oil spills and leaking underground storage tanks, additional fees are imposed upon transfer of crude oil to or from marine vessels and upon the import or withdrawal of petroleum products from bulk storage facilities. These fees have generated hundreds of millions of dollars and spurred

abandoned oil well plugging and spill response.

A Coal Tax?

Other states have adopted severance or other types of taxes on coal production to raise state monies and help offset some of the environmental degradation caused by coal mining. Taxes on coal mining and use in other states run the gamut in type and amount. Of the 15 top coal-producing states, 11 have some type of local, state or combination of taxes on the “severing” of coal from the ground. Several also tax the use of coal once it is processed for power plants and other industries. The three top coal producers – Wyoming, West Virginia, and Kentucky – all received more than \$140 million in revenues in FY 2004 from severance and coal use taxes. While neither Pennsylvania nor Texas have implemented taxes on coal, both Montana and Colorado continue to gain revenue from coal production. North Dakota not only implements a small coal severance tax, but also institutes a tax on power plants burning coal based upon kilowatt hours sold and capacity.

Tax rates vary widely from only 1% in Virginia as a local sales tax, to an average of 14% in Montana. (Rates in Montana actually range from 3 to 15% for severance taxes, but when all taxes are considered averaged 14%). While states with the highest rate of taxation on coal typically exported the majority of their coal out of state – and thus “exported” the tax – it is important to note that even these states also utilized homegrown coal for their own power plants. Thus, in West Virginia, a full 97.6 percent of electricity is generated by coal, all of which is taxed at the five percent production and use tax rate. In fact, all of the states which had high coal taxes also depended nearly exclusively on coal to produce their power, including Wyoming (97%), Kentucky (95.5%), Montana (58%), and North Dakota (93%). Texas, by contrast, generated 49.9% of its electricity from

power plants from coal, but only 36 % overall when co-generation and other industrial and commercial sources of electricity are included.^{xvii}

Particularly “onerous” from the coal-producer perspective are the taxes in Wyoming and Montana. While coal mining operations must pay a severance tax, coal processors must pay gross proceeds tax in Wyoming or ad valorem taxes in Montana.. In addition, there are other fees that coal producers and users must pay. Table 2 shows a brief comparison of the total tax burden on coal from these two states, indicating that between 13 and 20 percent of the value of coal is ultimately taxed.

Table 3 shows the total amount of coal produced, the type of tax implemented, the tax rate and revenues received in FY 2004 in all fifteen top-coal producing states.

Table 2. Comparison of Coal Tax in Wyoming and Montana

Category	Wyoming	Montana
Severance Tax for Surface Mining	7% of taxable value (surface)	15% of contract sales price for high energy coal; 10% for low energy coal
Severance Tax for Underground	3.75 % of taxable value (one mine only)	4% of contract sales price for high energy coal; 3% for low energy coal (one mine only)
Coal Ad-Valorem Tax	Gross proceeds tax levied on local basis, and averages about 6% of taxable value	5% of contract sales price
Other Taxes	Coal transportation tax earmarked to permanent minerals trust fund	Resource indemnity and groundweater assessment tax 0.4% of gross value
Total Coal Tax	Approximately 13.1% of taxable value	Approximately 20.2% of contract sales price

Source: Montana Department of Revenue, Tax Reform Study Committee, Comparison of Montana vs. Wyoming Coal Tax, May 3, 2004.

Table 3. Coal Production and Coal Tax Revenues by State, FY 2004

State	1994 Coal in Million Tons	2004 Coal in Million Tons	Percent Change 1994 to 2004	Does State Ta Coal?	Type	Basic Tax Rate	Revenues, FY '04
Wyoming	237,092	396,493	67.2%	Yes	Severance plus Ad Valorem	7%for Surface Mining; 3.75% for underground; local gross proceeds tax on users	\$142.70
West Virginia	161,776	147,871	-8.6%	Yes	Severance Tax and Value Added	5%	\$199
Kentucky	161,642	113,748	-29.6%	Yes	Severance Tax on Mining and Processing	4.50%	\$141.50
Pennsylvania	62,237	65,977	6.0%	No	None		\$0
Texas	52,346	45,863	-12.4%	No	None		\$0
Montana	41,640	39,989	-4.0%	Yes	Severance Tax + Gross Proceeds Tax	10% - 15% for Surface; 5% of sales price	\$34.23
Colorado	25,304	39,870	57.6%	Yes	Severance with first 300,000 tons exempt	0.60 per ton of coal severed; 1 st 300,000 tons exempt	\$20.00
Indiana	30,927	35,110	13.5%	No	None		\$0
Illinois	52,797	31,859	-39.7%	No	None		\$0
Virginia	37,129	31,403	-15.4%	Local	Local Gross Sales Tax	1%	not reported
North Dakota	32,286	29,943	-7.3%	Yes	Severance as well as Coal Conversion Tax on large coal-burning facilities	0.375 per ton, with some exemptions; kilowatt-hour tax at 0.00025 per kilowatt hours sold	\$11.60
New Mexico	28,041	27,250	-2.8%	Yes	Severance Tax	\$0.57 plus surtaxes; average of \$0.67 in '03	\$18.70
Ohio	29,897	23,159	-22.5%	Yes	Severance Tax	0.09 per ton	\$2
Alabama	23,266	22,317	-4.1%	Yes	Local County Severance Tax	0.13 to 0.2 cents per ton	\$7.3
Utah	24,422	21,818	-10.7%	Yes	Mineral Production Withholding	5%	\$17

Options for adopting a coal tax include:

- **A Coal Use Tax.** All coal and lignite either purchased or used in Texas could be taxed at the rate of 7.5 percent of purchase price, like natural gas, or alternatively at a rate of 4.6 percent like oil. The Comptroller of Public Accounts estimates it would generate about \$135 million per fiscal year at the 7.5 % tax rate.
- **A Coal Production or Severance Tax.** Rather than taxing coal use at industries and utilities, only coal mined in Texas would be taxed. The disadvantage to such a tax is that it might make coal produced in the state more expensive than coal imported from other states. Still, at 7.5%, it would generate some \$65 million per year.

Recommendation: The Legislature should examine energy taxes in general and make sure that coal producers pay their fair share and consider a coal use tax. While 4.6 percent or 7.5 percent may or may not be the correct amount, it is fundamentally unfair and an inherent subsidy to leave taxing coal off the table. All energy taxes should be reexamined to promote the cleanest fuel mix in Texas as well as energy conservation and efficiency.

ENERGY INEFFICIENCY FEE/ENERGY CONSUMPTION TAX

Energy and water consumption are not – in themselves – taxed at the state level.^{xviii} A recent report by the Comptroller of Public Accounts, for example, found that if water had been subject to the current state sales tax, some \$257 million would have been generated in FY 2005, and \$263 million \$268 million would be generated in the years making up the next biennium. Similarly, while some energy sources are taxed – through severance taxes, regulatory fees and gross utility receipts among other taxes – the actual use of gas and electricity is not. Thus, that same Comptroller report found that if residential consumption of gas and electricity were subject to a state sales tax, then \$645 million would have been generated in FY 2005, and \$656 million in FY 2006 and \$670 million in FY 2007^{xix}. Taxing manufacturing, agricultural and mining electricity and gas use would generate some \$500 million per year.

The reasons for which electricity and water are exempt from state-level taxation in Texas as well as in most states is because gas, electricity and especially water are considered basic necessities. Taxing such basic necessities could be particularly regressive, since the very poorest tend to pay a greater share of their income in sales tax than the middle and upper income populations. Nonetheless, there are reasons for considering possible energy and water consumption fees or taxes as a way to raise revenues for specific programs and discourage wasteful use of electricity and water. While any water tax should probably be dedicated to water needs -- water infrastructure, water conservation strategies and new supply necessities -- energy consumption could be dedicated to our schools.

Some state, such as Ohio, have moved toward energy consumption taxes. As part of their deregulation of the energy market, Ohio eliminated gross receipts taxes and instead instituted a kilowatt per hour tax for electricity as well as a natural gas consumption tax. As already mentioned, the State of North Dakota taxes its coal-fired power plants with a kilowatt hour sold tax and a capacity tax also based on kilowatt hours.^{xx}

One issue, however, with taxing electricity based upon sales is that the amount of the tax will vary with the price, not just the amount of energy consumed. Instead, a tax could be placed on the volume and energy efficiency/inefficiency of the generated electricity. This would also help prevent price spikes on generators or consumers. One environmentally responsible way to measure inefficiency is through pollution. Electricity that produces more emissions of air pollution can be said to be less efficient than electricity that produces little or no air pollution.

This report has already highlighted how the lack of a tax on coal production or use creates a subsidy to polluting activities. Taxing the actual emissions – or better put the rate at which emissions are generated per megawatt-hour --- rather than the coal itself would tax a bad business output: pollution.

In 2001, the Public Utility Commission proposed the creation of a generator dispatch fee paid by the utility based upon the total megawatt hours and the NOx emissions generated per megawatt hour to fund fuel cell development and clean energy.^{xxi} In this way, electricity would be taxed according to its efficiency (and by extension cleanliness) and would be based on the unit of electricity used and its pollution, not upon the value or price of the electricity. Based upon the cleanliness and efficiency of the electrical generating process, the fee would have ranged between zero and \$0.55 cents per megawatt times

the rate at which pounds of NOx were generated per megawatt hour.

This past legislative session, legislation was introduced that would instead create an energy efficiency tax at a rate of \$0.60 cents per megawatt hour sold, although rather than funding fuel cell development the resulting revenues would be earmarked for public schools.^{xxiii} Such a tax might:

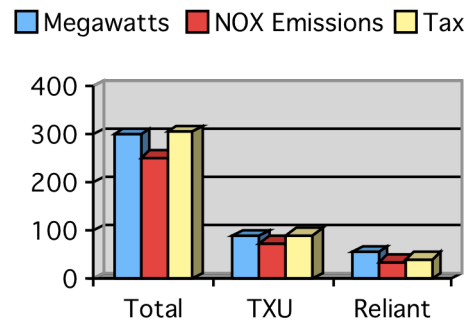
- Encourage existing plants to clean up their emissions by putting an added cost on emissions. This might actually encourage a move toward so-called “Clean Coal” plants:
- Encourage development of solar and wind power since they do not produce nitrogen oxide emissions and would not be subject to the tax; and
- Encourage consumers to pick cleaner energy options since the cost would be comparatively less.

Based upon generation data from 2002, this efficiency tax would generate about \$350 million per year (see Figure 3), or nearly \$700 million over the biennium and would be collected from utilities. Alternatively, the tax could be charged directly to the retail consumer, based upon the NOx emissions rate (lbs emitted/MWHs) times the number of megawatt hours utilized by the customer. This would give consumers an incentive to choose power from electric power generators that emit less pollution. Based on 2003 residential rates for an average use of 1,000 kilowatt hours per month, customers in Texas would pay an average of \$1.30 cents more per month if the tax were implemented.

According to the TCEQ Emissions Inventory Database, facilities with SIC Code 4911 – electric generating facilities – generated over 253,655 tons of nitrogen oxide for the latest year available (CY 2002). According to the Energy Information Administration, utilities in Texas produced 299,688,716 megawatt hours or electricity in 2002. Thus, the rate of pounds of nitrogen

oxide produced per megawatt hour would be 1.69 pounds of nitrogen oxide per megawatt hour. Multiplying this times 0.60 times the megawatt hours would have generated an estimated \$304 million in 2002. An analysis conducted by the Comptroller of Public Accounts, however, estimated the tax would generate about \$150 million per year. Interestingly, a separate report by the Legislative Budget Board found that the tax fell nearly equally on the very poor, the middle class and slightly higher on the very rich, due to higher electricity consumption rates (see table).

Figure 3. Net Utility Electricity Generation in (million MWHs), Nitrogen Oxide Emissions (Thousand Tons), and Estimated Electric Efficiency Tax (in annual millions) of Selected Utilities Based on 2002 rates



Source: TCEQ and EIA, DOE

This relatively modest increase in energy costs could also be more than offset by implementing policy changes on Texas’s electricity prices. Currently, for example, considerable controversy emerged when Texas allowed TXU to increase basic consumer rates by some 80 percent in the wake of the Katrina Hurricane, which sent natural gas rates skyrocketing. Because the “price” in Texas is set in part by natural gas prices, the Governor and P.U.C felt that these price hikes were reasonable. Nonetheless, electric retail sellers like TXU rely heavily on coal, which continues to have a much lower production cost. By implementing taxes on the mining and use

of coal, coupled with a different policy which would set the price based upon the particular fuel source and cost, Texas could raise revenues while keeping energy costs low for consumers.

Table 4. Final Tax Incidence of Proposed Energy Efficiency Tax

Selected Group by Income	Amount in Tax	Tax Incidence
Low (Less than \$10,000)	\$3.6 million	0.18 percent
Middle (\$40,000 to \$50,000)	\$8.4 million	0.21 percent
High (More than \$140,000)	\$29.4 million	0.21 percent

Source: Legislative Budget Board, Tax/Equity Note on HB 3108, April 19th, 2005.

Recommendation: Texas leaders should consider the implementation of an energy inefficiency or energy consumption tax to raise revenues for schools and encourage both energy conservation and emissions reductions. The tax would be based on the volume of electricity and the volume of air pollution, not on price, to prevent price spikes.

TOXICS EMISSIONS TAX

Greenhouse gas emissions impact the climate of the planet, while nitrogen oxide emissions impact ground-level ozone formation in airsheds like Houston and Dallas. While these are of course problems of great concern, another more localized problem is the millions of pounds of toxic chemicals spewed into the atmosphere by Texas industry, power plants and other facilities. Fortunately, there is already a system in place to record the number of pounds of toxics released into the atmosphere. Called the Toxics Release Inventory, all power plants, manufacturing plants and some other facilities are required to report their toxic releases to the Texas Commission on Environmental Quality and U.S. Environmental Protection Agency under SARA – the Superfund Reauthorization Act.

Other than a small regulatory fee, Texas does not tax these toxics emissions, but it could. The number is mind-boggling. In reporting year 2003, Texas industries reported releasing over 235,418,808 pounds of toxic chemicals and compounds to the environment, including 91,665,780 to the air, either through direct stack emissions or fugitive releases. It is important to recognize that since the TRI reporting began in the 1980s, most industries have made tremendous reductions in their releases of toxic chemicals.

These toxics run the gamut from tiny dioxin and furan emissions which are carcinogenic and known to disrupt endocrine development necessary to normal human growth and reproduction to lead emissions which can hurt developing children's minds, or mercury, which can impact fetuses. Other toxics may have relatively minor impact on human health, but cause plants to wither or drift long distances, settle in the earth and become part of the food chain.

Mercury emissions are of a particular concern. Texas' coal-burning power plants are the worst in the nation for toxic mercury emissions, releasing some 9,800 pounds in 2002, while power plants and other industries released some 13,500 pounds in 2003.^{xxiii} Mercury exposure can cause permanent brain damage and developmental disabilities in babies born to women who have eaten even a small quantity of mercury-laden fish. A recent study found an association in Texas between rates of autism, special education services and levels of mercury released into the environment.^{xxiv}

The study, accepted for publication in the peer-reviewed journal *Health and Place*, found a significant increase – of 43 percent – in the rate of special education services and a 61 percent increase in the rate of autism for each 1,000 pounds of environmentally released mercury. Thus, the study supports the hypothesis that mercury releases are associated with increases in autism, though of course it does not confirm this link, which would require further study.

Twelve water bodies in Texas, including major fishing lakes and the Gulf of Mexico, are heavily contaminated with mercury and the Texas Department of Health advisories warn against consumption of certain species of fish.

In addition, the six new proposed power plants would emit over 3,000 lbs of additional mercury. But mercury is just one of hundreds toxic chemicals released to the environment.

Toxics have been taxed before. In 1989 the U.S. Congress enacted a tax on eight ozone-depleting chemicals as part of its Omnibus Budget Reconciliation Act. It extended this tax to 12 additional chemicals and raised the tax on the original 8 chemicals in the National Energy Policy Act of 1992. The Clean Air Act established caps on most chlorofluorocarbons (CFCs), with a phase out occurring around the year 2000. The tax

on CFCs was \$1.37 a pound in 1990 and 1991, about twice the then current product price. Recycled CFCs were exempted from the tax. The tax was raised in 1990 and again in 1992. The tax rises to \$3.10 per pound in 1995 and then rises by 45 cents per pound per year thereafter. The tax is proportional to the chemical's potential for depleting the ozone layer.

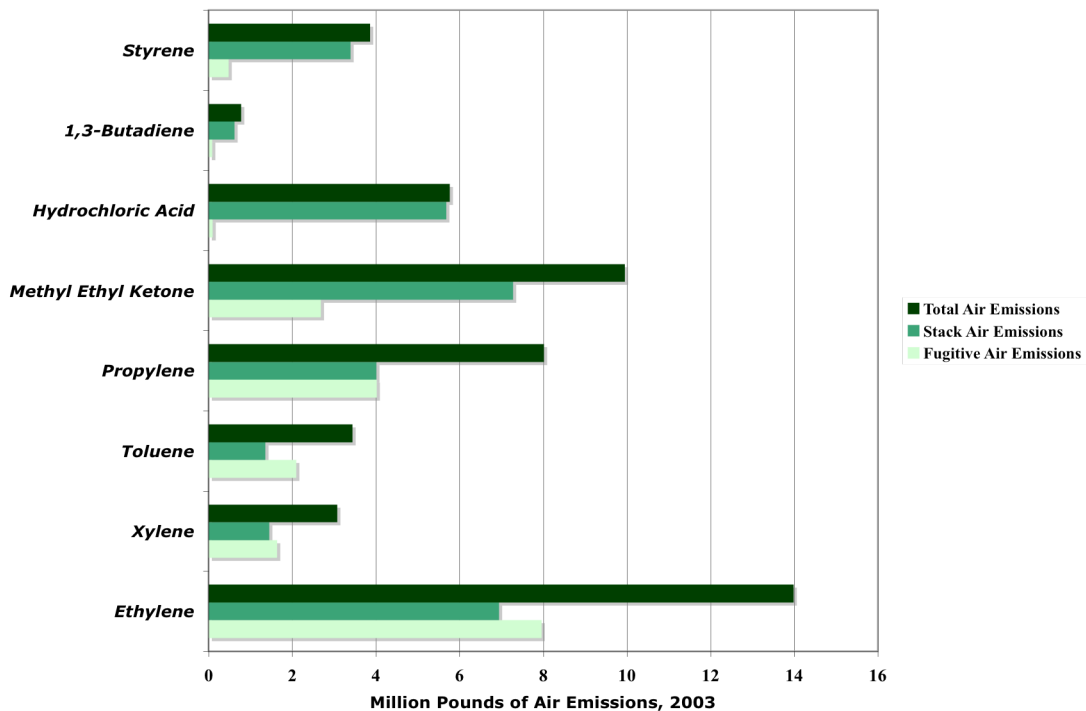
Although the concept behind the tax was to encourage the rapid phase out of CFCs, the tax also has generated large amounts of revenue: \$360 million in 1990 and over \$1 billion in 1994.

Other states have also done the same. Minnesota, as part of its efforts, to increase reporting on chemical use and releases, has implemented a 2c per pound of toxic chemicals used by industries.

Texas could consider implementing a \$1 per pound of toxic tax on all toxics emitted into the air, or even all toxics released to the environment. Alternatively, toxics could be taxed at different rates, with highly toxic compounds like mercury –13,500 pounds -- lead – at 66,000 pounds -- and benzene – at almost 2 million pounds -- taxed at a higher rate than more “benign” toxics like sodium dicamba or ethanol. The revenue could flow into the General Revenue Fund, or be used for specialty education programs like special education.

Recommendation: Texas leaders should consider the implementation of a \$1 dollar per pound toxic tax, either on all emissions, or on air emissions only. Alternatively emissions could be “weighted” depending upon toxicity. The money could be earmarked for specialty programs.

Figure 4. Selected Toxic Texas Air Emissions from Industry, 2003



Source: U.S. EPA, Toxics Release Inventory Database, Query run March 2006.

SALES TAX SURCHARGE ON HIGH-POLLUTING VEHICLES

All of the tax plans introduced in previous legislative sessions contemplate a significant increase on motor vehicles use tax, the sales tax the state collects on purchases of new and used cars. Currently at 6.25 percent, the legislation introduced in the second special session in 2005 contemplated an increase to 7.35 percent on both motor vehicles and boats. A different plan introduced by Governor Rick Perry would raise the motor vehicle and boat tax to 6.95 percent. Neither of these plans gives any consideration to the differential impacts that cars have on air quality and the public's health because of the emissions they produce.

A differential sales tax based upon emissions, or a fee-bate system offers a promising option for cleaning up Texas skies while raising revenues for schools and property tax relief. Under a fee-bate program, buyers of new cars would be required during each annual state registration to pay a fee based on how much their vehicle contributes to air pollution. Such a program would quantify the damage done by a vehicle's pollution each year, rewarding cleaner cars while penalizing dirtier ones. Alternatively, a slightly higher state vehicle sales tax could be charged to consumers who buy new cars with higher pollution potential. (Both a fee-bate or an additional sales tax would apply only to new car purchases and would not be retroactive.)

As it stands, everyone pays the price for auto emissions pollution. A 2002 study that appeared in the *Journal of the American Medical Association* examined the effects of just one pollutant, particulate matter, and found that the chances of death due to heart and lung disease increased dramatically with exposure to air pollution. Fee-bates would help make the economics of buying a new car incorporate the vehicle's environmental and health effects. Incentives in Texas to get cleaner vehicles on the streets must be

consumer driven, unless the state adopted a regulatory mandate such as California's "Zero Emissions Vehicles" standard to motivate manufacturers. An additional "pollution" fee each year at registration – or upon the purchase of their car -- would not only remind consumers of the costs of pollution, it would also encourage the purchase of cleaner cars. The purpose of these fees is to motivate, not to punish those who already drive dirty cars and can perhaps not afford to replace them: the system would only apply to new vehicles. Methods for assessing fee-bates vary. An annual additional vehicle registration fee could reflect the fuel efficiency and lower emissions of certain cars. Alternatively, the motor vehicle sales tax could be adjusted upward or downward depending upon the amount of emissions generated by a particular vehicle. Either method could be revenue-neutral or revenue-generating; in the latter case, those monies could help fund Texas schools.

Either a registration fee-bate or sales tax surcharge could utilize the 11 standard Bin rankings already used by the EPA and the Texas Commission on Environmental Quality. It could assess fees and rebates based on how much each vehicle pollutes, with exemptions allowed for registered farm vehicles. Bigger polluters would pay more.

Several options exist for assessing annual registration pollution fees. Annual fees on vehicles might be assessed based on the health impacts of the pollution they emit. Estimates of the per mile health costs of driving range from 84 cents to 3.95 cents.^{xxv} Assuming vehicles are driven an average of 10,000 miles annually, fees would be levied at \$84 for the cleanest cars, such as a Honda Insight, and up to \$395 for the dirtiest, such as the Cadillac Escalade.

A potentially easier option could be to place a sales tax surcharge on high-polluting vehicles. Those vehicles – including cars, SUVs and light-duty trucks – with a "Bin"

number of 8,9,10 or 11 – as determined by the EPA -- would pay an additional one or two percent surcharge on the purchase prices depending upon their BIN number. Thus, a passenger car in Bin No. 11 emits 12 times the amount of particulates and 45 times more the amount of nitrogen oxides as a passenger car with a Bin No. 2 rating. Yet the sales tax rate is the same.

Texas already has the beginnings of such a system. Currently, diesel trucks of a certain size pay an 11 percent surcharge on their annual registrations. Under the TERP legislation passed in 2001, truck buyers also pay a 2.5 percent surcharge on the purchase of diesel-powered on-road motor vehicles with a gross vehicle registered weight exceeding 14,000 pounds and with a model year of 1996 and earlier, since those vehicles emit more pollution. This past legislative session, a bill was introduced that would exempt hybrid vehicles from sales tax, although it never received a hearing. The high-polluting motor vehicle sales tax surcharge embraces a similar concept: tax high-polluting vehicles at a higher rate than lower-polluting vehicles to encourage consumers to look at lower-polluting vehicles and raise revenues from pollution. We believe that such a measure could raise at least \$100 million a year if the surcharge were between one and two percent.

Taxing vehicle emissions is already legal in Texas. Although never enacted, metropolitan rapid transit authorities may impose a vehicle emissions tax to fund transit infrastructure and services – with voter approval -- but this tax has not been implemented anywhere in the state. Under Texas Transportation Code, § 451.414, such authorities could impose up to a certain percentage of tax on vehicles, ranging from 6 to 15 percent depending upon the size of the engines – the cubic inches of cylinder displacement.

The economic incentives and disincentives offered by fee-bates or a sales tax surcharge

will not by themselves solve Texas' air quality problems, but they would help send strong signals that remind consumers and manufacturers that the choices they make affect everyone's health. It could also be a way to “bridge the gap” between different tax plans.

Other states have explored the option of a feebate system. In 1993, the Maryland Legislature passed such a measure. Nonetheless, the law was never implemented when federal regulators and industry representatives argued in court that the measure was not legal because it created incentives and disincentives based on federal fuel standards and was therefore an attempt to regulate fuel economy. Nonetheless, the crux of the argument against the Maryland fee-bate system was based upon a requirement to publish information about the feebate system along with information about fuel economy, creating the supposed link. Legal scholars and the Maryland Attorney General have argued that states do have the right to regulate car emissions – not fuel economy -- through tax and other measures. Thus, a feebate system based on pollution is legal as long as it does not directly target fuel economy.^{xxvi} Still, Maryland chose not to revisit their groundbreaking law after the court challenge.

More recently, California implemented the nation's first state attempt to limit greenhouse gas emissions from cars. While this is a regulatory approach rather than a financial one, it shows that states do have the ability to attempt to target – and influence consumer choices about -- emissions from car vehicles.^{xxvii}

Recommendation: Rather than raising motor vehicle use tax for all vehicles, political leaders could explore raising revenues with a motor vehicles use tax surcharge on high-polluting vehicles, such as one or two percent for those in EPA bins 8,9,10 and/or 11.

RAISING GAS AND DIESEL TAXES BY INFLATION AND IMPLEMENTING HIGH-SULFUR DIESEL SURCHARGE

Sometimes called the “smoking gun”, motor vehicles are the major source of air pollution in Texas and a significant cause of non-compliance with clean air standards in Dallas-Ft. Worth, Houston-Galveston-Beaumont and other areas. Motor vehicles are taxed through registration and emissions testing fees, motor vehicle use (sales) tax and gas and diesel taxes -- what customers pay at the pump. Yet these “pumping” taxes have not been adjusted for many years, and no consideration of the “cleanliness” of the fuel is considered.

Currently, the state of Texas taxes both diesel fuels and gasoline at \$.20 per gallon. The last time the tax was raised was in 1991--from \$.15 to the current rate. Inflation has affected the value of the gas revenue so much so that the inflation-adjusted amount is worth approximately \$.14 per gallon--lower than the amount the legislature adjusted in 1991. Currently, approximately three-quarters of taxes from gasoline and diesel fuels go to the state highway fund, while ¼ is dedicated to the Available School Fund. (A small amount is used for administrative purposes).

One simple way to raise revenues for schools would be to begin to adjust the gasoline and diesel tax to inflation, by pegging it to the Consumers Price Index. In this way, revenue from the gas tax would grow with inflation by indexing the gas tax to the Consumer Price Index (CPI). While most of the increase would go to transportation, a significant amount would flow to schools. Because those with fuel-inefficient vehicles would tend to have to buy more gasoline and diesel fuels, they would contribute more to raising these

revenues since in essence the gas taxes tax consumption, not production.

An analysis of a bill filed this past legislative session that would have increased the gas taxes by the CPI estimates that more than \$45 million would have been raised for the available school fund in FY 06-07, as well as \$134 million for Highway Fund 6.^{xxviii} Even more money could be raised in future years due to increasing inflation and gasoline use.

Table 5. Monies Generated for Highways and Schools if Gas and Diesel Taxes Were Adjusted by Inflation, FY 2006-2009

Fiscal Year	Available School Fund	State Highway Fund	Other
2006	\$14.5	\$43.5	\$0.5
2007	\$30.2	\$90.5	\$1.1
2008	\$48.1	\$144.1	\$1.7
2009	\$87.2	\$200.8	\$3.1

Source: Legislative Budget Board, Fiscal Note, HB 5, 79th Legislative Session.

It is important to note that because all residents -- whatever their income -- pay for gas, the gas tax increase tends to fall heavier on poorer residents than richer ones. However, because the very poorest do not tend to own cars, the tax incidence report produced for the proposal found that the tax falls heaviest on middle income Texans.^{xxix}

Gas and diesel taxes in other states vary widely. Texas is in the middle of the pack in terms of the taxes it collects from those paying at the pump. Figure 5 shows state diesel and gas taxes in 1991 and 2003 for some states. While Texas has not raised gas or diesel taxes since 1991, other major, large states like New York, Pennsylvania, California and Florida did. In addition, when considering ALL taxes paid by consumers at the pump – including state sales tax – Texas’ gas tax burden is ranked in the bottom third of all states (see Figure 6).^{xxx} These figures indicate it may be time for Texas to raise gas and diesel taxes – at least by inflation.

Figure 5. Gas and Diesel Taxes for Selected “Large” States in 1991 and 2003

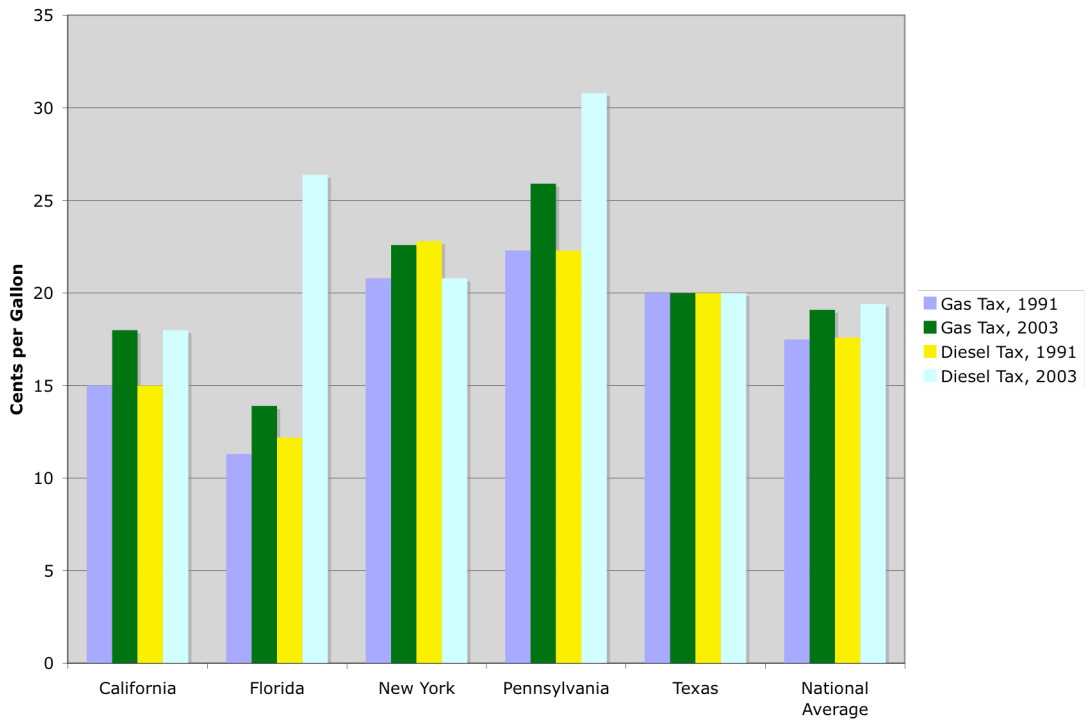
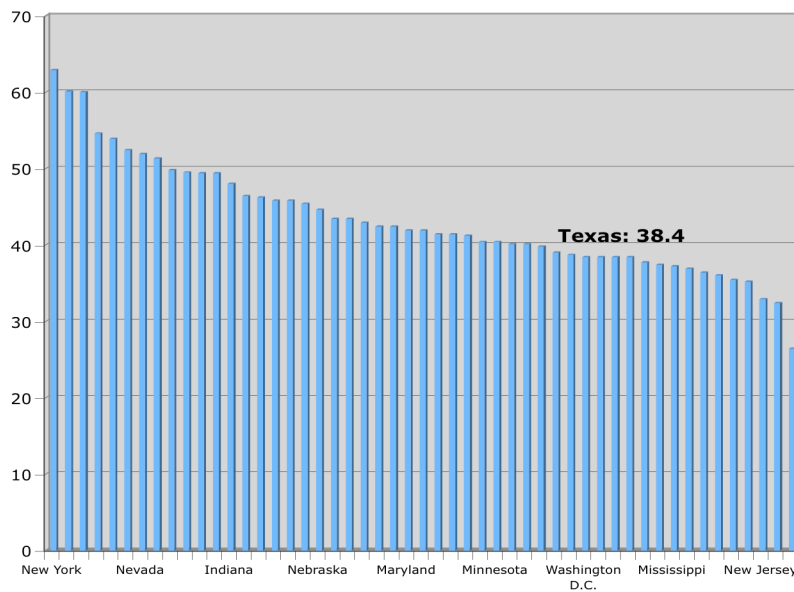


Figure 6. Total Tax-Burden of Federal and State Gas Taxes per Gallon, 2005



In addition to raising the gas and diesel tax overall, political leaders should also explore increasing the diesel tax on those fuels sold that are above the new federal standards for low-sulfur diesel fuels. Currently, in the U.S. and Texas, diesel fuels can have up to 500 ppm of sulfur. These diesel fuels are highly polluting. Higher sulfur levels not only result in more emissions, but also limit the kinds of pollution controls that can be installed on engines.

Even with new stringent diesel truck engine standards that began to take effect in 2004, diesel engines continue to emit large amounts NO_x and particulate matter (PM). Both of these components contribute to serious public health problems in the United States, especially in urban areas.^{xxxix} This year, Texas will be required to meet new state and national low emission standards for diesel fuels. For example, under federal standards, the maximum sulfur content of diesel fuels used in on-road vehicles must be reduced from 500 ppm to 15 ppm statewide, beginning June 1, 2006, while the maximum sulfur content for non-road equipment must be reduced to 15 ppm in 110 counties in Central and East Texas. Yet even after these standards go into effect next year, there is flexibility in meeting the standards, and some high-sulfur fuels will be exempted from the regulations. Thus, for highway diesel programs, up to 20 percent of diesel produced by a refinery may still be more than 15 ppm until 2010, while a separate economic hardship rule will allow some producers to continue to sell higher sulfur fuels.^{xxxix} A separate Texas Low Emissions Diesel Fuels program does not target sulfur content, but nitrogen oxide emissions. This program requires that all fuels sold in 110 counties in Eastern Texas meet these Texas LED Fuel standards. Yet the standards do not directly address sulfur content.

The petroleum industry estimates that producing low-sulfur fuels costs about five-cents per gallon more. Until the new

highway diesel standards take effect, the state might consider introducing a fee at the wholesale level of production for high-sulfur diesel fuel or at the pump. Low-sulfur fuel is already available, but in limited quantities. A high-sulfur diesel fee would encourage the more immediate use of low-sulfur fuel. Currently, some 250 million gallons of diesel are sold in Texas for off-highway use and about 2.8 billion gallons of diesel are sold for on-highway use. Assuming that 80 percent of fuel sold in FY 2006 and 20 percent of fuel sold in FY 2007 will be low-sulfur diesel fuel, a 5 cent per gallon fee could generate about \$120 million in FY 2006 and \$30 million for the state per year after, at least until FY 2010.

Health Effects of Diesel Emissions in Texas

Emissions from diesel engines contribute greatly to the ozone problem in major metropolitan areas of Texas. In the five-county Central Texas metropolitan area, on and off-road diesel engines contribute 40 percent of all NO_x emissions from mobile sources and 23 percent of all NO_x emissions.^{xxxix} In the Houston-Galveston and Dallas-Fort Worth non-attainment areas, diesel engines also are major contributors to NO_x emissions, contributing to 35 and 45 percent of all on-road and off-road NO_x emission. NO_x emissions contribute to the formation of ozone, which affects asthma and other respiratory ailments. In addition to ozone, in 1996 Texas emissions of diesel soot from mobile sources totaled 27,100 tons, 64 percent of particulate matter from all sources. Diesel exhausts from both on-road and off-road engines also are a significant source of some of the most deadly kinds of toxic air pollution in Texas. Diesel exhaust is a mixture of more than 450 different components, including toxic gases and fine particles. More than 40 chemicals in diesel exhaust are considered toxic and have been linked to cancer and the disruption of the reproductive system. Texas residents on average face a one-in-

2,747 risk of getting cancer from pollutants in the outdoor air, which is 364 times greater than the one-in-one-million health protective standard established in the Clean Air Act. Eighty-eight percent of this added cancer risk is from the filthy soot released by diesel-powered trucks, buses, construction and farm equipment.^{xxxiv} Both the formation of harmful ozone and cancer-related deaths can be reduced in Texas if the Legislature takes action to encourage faster development of low sulfur and low emission diesel fuels.

Recommendations: Texas should consider increasing gasoline and diesel fuels tax by adjusting them for inflation and also consider a nickel surcharge on high-sulfur diesel fuels.

INCREASE RENEWABLE ENERGY PORTFOLIO

Texas has the greatest potential of any state to produce power from renewable energy resources. As part of the electricity restructuring bill passed in 1999 (SB7), Texas implemented the first successful Renewable Portfolio Standard (RPS) in the U.S. This standard requires that 2,000 megawatts (MW) of renewable energy be developed by 2009, supplying about 2.7% of Texas' electricity needs. The state's RPS has proved a tremendous success, with many of the world's largest wind power projects now producing electricity in Texas.^{xxxv} In 2005, Governor Rick Perry signed into law SB 20, which again rose the RPS standard to 5,880 MW by 2015, or about five percent of total energy demand.

Despite these modest goals, Texas faces competition as many other states are aggressively attempting to attract the renewable energy industry, bringing jobs and economic development to other areas of the U.S. Seventeen other states now have Renewable Portfolio Standards. Many of these RPSs are more substantial than Texas' goal, with some standards set to supply as much as 30% of future electricity needs with renewable energy.^{xxxvi} The governors of Kansas and New Mexico have both pledged to make their states the most favorable for wind power development in the nation.

Expanding the RPS even more makes good economic sense. It is estimated that the renewable energy industry could create over three times more jobs in Texas than fossil fuel industries.^{xxxvii} For every 1,000 MW of wind power developed, an estimated \$1 billion in investment and 3,000 jobs are created. In fact, a 20% by 2020 standard in Texas could lead to over 30,000 new jobs in the state, provided this development potential isn't lost to other states. And, wind power is now cheaper to produce than power from natural gas-fired power plants. An expanded RPS will also create an incentive

to solve the transmission constraint issues that have hindered development in some of the windiest areas of the state. The renewal of the federal Production Tax Credit means the majority of non-constrained wind power likely will be developed 2007. Texas needs to ensure that adequate transmission infrastructure is in place to allow for the continued development of the wind industry in Texas.

While the role renewable energy is likely to play in our state's energy future alone justifies its consideration, there is a direct relevance to the school finance issue. Renewable energy can play a significant role in helping meet school finance needs in Texas. In fact, it already does. **In 2004, wind power projects in West Texas pumped almost \$15 million into new property tax revenues for school districts.** New taxes from wind power have transformed needy school districts in economically depressed regions of rural Texas into healthy districts. Thus, wind energy generates over \$10,000 per turbine in local property taxes. Increasing the amount of Texas's energy from wind to 10,000 MW would generate over \$100 million in school property taxes by 2017, mainly in West Texas.

Consider the impact of wind power on the Trent schools. If you drive Interstate 10 just west of Abilene, you'll drive past the first new school built there in a generation. And atop the mesas behind the school are the wind turbines that made that new facility possible.

Every 100 megawatts of wind power produces more than \$1,000,000 annually in school taxes.

Based upon current property tax rates, wind power will generate:

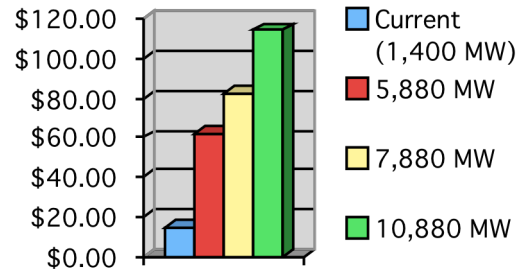
- ☞ Almost **\$60 million** in school taxes each year if the 5,880 megawatts by 2015 goal signed into law by Governor Perry is met.
- ☞ **\$100 million** in new school taxes each year if the RPS goal is raised to 10,880 by 2017, as was proposed by Rep. Swinford in HB 1798 in the Regular Legislative Session in 2005.

In addition, given the likelihood of a set-aside for biomass and solar, additional revenues could also be generated from these industries.

A new report by Ray Perryman found that a 10,880 megawatt by 2015 goal would result in more than \$7 billion in net economic benefits to the state by 2015 and \$2.6 billion in total power cost savings to consumers by 2015. **The report also found that the electricity cost savings would exceed the cost of building new transmission lines for wind power.**

Almost every major newspaper in the state, and many regional ones, have editorialized in favor of an aggressive increase in our renewable energy goal. There is broad public support for even more renewable energy in Texas.

Figure 7. Estimated amount of local property school taxes generated per year by wind power at current property tax rates at different Renewable Portfolio Standards.



Recommendation: Given broad public and political support for increasing the renewable energy goal, as well as its economic and public finance benefits, increase the RPS from 5,880 in 2015 to at least 10,880 by 2017, which would help alleviate the need for additional state financing of local schools in West Texas.

RECOVER ECONOMIC BENEFIT WHEN PENALIZING ENVIRONMENTAL LAW- BREAKERS

Most businesses play by the rules. However, those who do not jeopardize our health and safety, and they should be punished accordingly. Unfortunately, both independent studies and a recent study by the Office of the State Auditor found that the enforcement process by the Texas Commission on Environmental Quality (TCEQ) “does not consistently ensure that violators are held accountable”^{xxxviii}.

TCEQ has been assessing fines that are so low that the violator actually gained economically while not complying with the law. Under its current policy for example, if the agency calculates that the economic benefit received by a company is less than \$15,000 they **do not even consider** augmenting the fine or penalty. If the economic benefit gained is more than \$15,000, then they will **increase the base penalty** by 50% regardless of whether the economic benefit gained was \$20,000 or \$200,000. Thus, with few violations resulting in fines and with fines assessed considerably lower than the economic benefit derived by ignoring the law, polluters have incentives to break the law over and over again. A weak penalty policy encourages pollution, deprives the state of critical revenue and puts law-abiding businesses at a competitive disadvantage. In essence, a weak enforcement regime is a subsidy to polluting activities. **Dollars that could be going to Texas’ public schools are instead lining the pockets of law-breaking industries.**

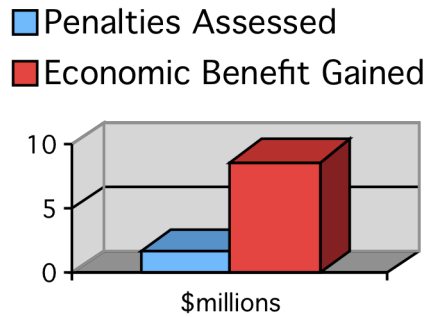
From FY 2001 to FY 2003, the State Auditor reviewed 80 cases where the TCEQ did assess penalties against environmental law-breakers, but found that polluters derived an economic benefit from noncompliance of \$8.6 million. These polluters were assessed penalties of only \$1.7 million (see Figure 8). Thus, polluters were on average allowed to keep 81% of the money they earn by breaking environmental laws.^{xxxix} As an example, in March 2002, Amoco Oil paid an \$11,893 fine for violating clean air standards. Yet, the company still came out ahead. According to TCEQ, the firm’s violations padded its profit by \$123,000.

In response to the State Auditor’s December 2003 report, TCEQ began an assessment of its permitting and enforcement functions. In 2005, they held a number of public meetings to get comments on penalty policy, but they have yet to publish any draft rules on penalty policy and do what most other major states do: recover economic benefit when assessing penalties.

TCEQ has insufficient resources for enforcement, so many major facilities go without inspections, citizen complaints are ignored and many violations go without response. The agency is famous for deferring penalty payments or even not collecting them, issues also highlighted in the recent SAO report.

Fortunately, there are solutions. Through the rule-making process, TCEQ could recover economic benefit when assessing penalties, which would lead to more general revenue for the state – and its schools. If TCEQ fails to act and is by default asking for direction from the Legislature, TCEQ could be directed to recover economic benefit.

Figure 8, Penalties Assessed and Economic Benefit Gained for 80 Law-Breaking Companies, FY 2001-03



Source: SAO, December 2003.

Recommendation: The TCEQ should “to the extent practicable, ensure that the amount of the penalty is at least equal to the value of any economic benefit gained by the alleged violator through the violation.”^{x1}

CONCLUSIONS

This paper lays out seven possible options to raise state revenues in an environmentally responsible way. Consideration of these tax approaches must take into account their impact on different sectors of the population and on different industries. We believe the seven ideas presented here are both viable and politically possible. In particular, the coal industry in Texas should pay its fair share of revenues to the state, just as oil and gas production does. A state coal use tax would raise revenues and ensure fairness among these different energy sources. A system to make sure the state motor vehicles tax is affected by the pollution impacts of particular vehicle models also seems reasonable. Imposing at least a temporary fee on users of high-sulfur diesel fuel would move Texas even faster to universal use of low-sulfur fuels, while adjusting the gas and diesel tax to inflation would raise revenue for schools and highways. An electricity efficiency fee based in part on the generation of emissions by electricity source could help make up some of the property tax deficit due to electric deregulation and property tax reductions while encouraging cleaner fuels. Tapping on a modest tax on toxic emissions would generate revenues for special education programs while promoting cleaner industries and power plants. Promoting an even bigger increase in the Renewable Portfolio Standard would help increase local funding of education in West Texas. Finally, ensuring that the Texas Commission on Environmental Quality recovers the economic benefit gained by environmental law-breakers when assessing penalties would increase revenues for the State of Texas while providing a disincentive to pollution.

This report present the following options:

1. Implement a 7.5 percent coal use tax on all coal and lignite used in Texas;
2. Levy a megawatt per hour electricity generator dispatch efficiency fee, based on 60 cents per

3. Tax all air emissions of toxics required to be reported to the Toxics Release Inventory by \$1 per pound of toxic and dedicate the funds to special education;
4. Require an added sales tax surcharge of one or two percent on motor vehicles depending upon the Bin rating – its pollution -- of the vehicle;
5. Impose a 5 cents per gallon (or \$2.25 per barrel) high-sulfur diesel fee for any diesel fuels sold above 15 ppm sulfur and adjust the diesel and gas taxes by inflation;
6. Increase the Renewable Portfolio Standard by at least 10,880, which would increase local property taxes generated by wind and solar companies; and
7. Require the TCEQ to recover economic benefit when assessing penalties on environmental lawbreakers.

Together these seven measures could raise over \$1.5 billion over the biennium for schools, help bridge the gap between different tax plans, reduce pollution and/or make proposed tax plan more equitable.

GREEN TAX OPTIONS

Implement a coal use tax on all coal, including lignite, burned in Texas.

- Reason: Coal – the dirtiest fuel -- in Texas should provide revenues to the state just as oil and natural gas do.
- Projected revenues during the biennium: **\$270 million.**
- Where the money would go: Available School Fund
- Equity Issues: Would likely raise utility bills, but since coal is only about 40 percent of energy used and just one factor, the total increase would be small. Also if PUC would approve electricity rates based on all fuels, not just natural gas, rates would come down anyway.

Charge a minimal electric generator inefficiency tax.

- Reason: Producers -- and consumers -- of electricity in Texas should have incentives to generate or buy power from sources that pollute less.
- Projected revenues during the biennium: **\$650 million.**
- Where the money would go: Available School Fund
- Equity Issues: Average bill would rise about \$1.60 per month, but consumers choosing “green” power could avoid emissions fee altogether. Recent Legislative Budget Board analysis found that tax was mildly progressive

Implement a \$1 per pound air toxics tax.

- Reason: Toxics released by industry, mining and power plants contribute to air pollution and are associated with development delays and disorders and other health impacts, affecting Texans’ quality of life and economy.
- Project revenues during the biennium: \$160 million
- Where the money would go: Special Education
- Equity Issue: At \$1 per pound, would not represent a burden to one industry; chemical plants would be hardest hit.

Charge owners of new high-polluting vehicles a motor vehicle surcharge of one to two percent

- Reason: Consumers should have incentives to buy vehicles that pollute less.

- Projected revenues during the biennium: **\$200 million.**
- Where the money would go: Available School Fund
- Equity Issues: Most high-polluting vehicles are large luxury cars: cars used for agricultural, construction or other business work would still be exempt.

Increase Gas and Diesel Taxes by Consumer Price Index and Institute a Surcharge on Diesel Fuels with High Sulfur Content.

- Reason: Gas Taxes have not been raised in decades and high-sulfur diesel fuels are a public bad.
- Projected Revenues for Diesel Surcharge During Biennium: \$60 million; Projected Revenues for CPI Adjustment: \$45 million for Schools.
- Where the money would go: Available School Fund or Split Between Highways and Schools.
- Equity Issue: Increase in gas and diesel tax is regressive: Surcharge would be paid mainly by trucking companies.

Increase Renewable Portfolio Standard to 10,880 by 2017.

- Reason: Cleans the air with clean energy source but also each already pumps \$15 million in local school taxes; each 100 megawatts produces \$1 million.
- Projected Revenues for RPS Increase: \$200 million by 2016-2017 at current property tax rates;
- Where the money would go: Local school districts.
- Equity Issue: helps decrease residential property taxes in some counties.

Require Texas Commission on Environmental Quality to recover economic benefit when assessing penalties.

- Reason; Under current policy, companies are given incentive to break the law since fines and penalties are so low, impacting communities.
- Projected revenues during the biennium: Unknown, but analysis of 80 companies showed such a policy would have added \$7 million to state coffers
- Where the money would go: General Revenue or could be earmarked for Available School Fund
- Equity Issue: Impacts environmental law-breakers, but is fairer to those companies not breaking the law.

ENDNOTES

ⁱ As an example, an analysis of the tax plan introduced in the House at the beginning of the special session in June of 2005 found that those earning the least -- under \$13,415 -- would pay 4.49 % in taxes, while those earning the most --- over \$140,853 -- would pay 2.42 %. Legislative Budget Board, Fiscal Analysis of HB 3, June 2005.

ⁱⁱ John Vidal, "New Zealand First to Levy Carbon Tax," *The Guardian*, May 5, 2005.

ⁱⁱⁱ Hiroki Kudo, *Strategies for Global Warming Countermeasures in Western Europe and Japan*, The Institute for Energy Economics, Japan, April 2004, presented at 386th Forum on Research Works.

^{iv} The California Climate Change Center at UC Berkeley Managing Greenhouse Gas Emissions in California, January 2006.

^v Fuchs, Victor and Sarah Rosen Frank. "Air Pollution and Medical Care Use by Older Americans: A Cross-Area Analysis," 2002. Available at (<http://airmap.unh.edu/assessment/Team/ArticlePDF/Fuchs,2002.pdf>).

^{vi} Lurman, Frederick et. al. "Assessment of the Health Benefits of Improving Air Quality in Houston, Texas," Sonoma Technology, Inc. November 1999, ES-4.

^{vii} For a good discussion of the "double dividend" -- also sometimes called "revenue recycling" -- see Ian Parry, *Fiscal Interactions and the Case for Carbon Taxes over Grandfathered Carbon Permits*, Resources for the Future, October 2003. Parry is careful to note that the revenue recycling effects must be balanced against the tax-interactions effects -- the probability that energy price increases will lessen some productivity, at least initially. Overall, however, Parry believes that if implemented along with some tax relief on labor costs, emission tax benefits in terms of both revenue and decreased emissions will outweigh these energy cost increases.

^{viii} John Vidal, "New Zealand First to Levy Carbon Tax," *The Guardian*, May 5, 2005.

^{ix} There are of course dozens of other possible "green" taxes that could be explored by Texas state leaders. Possibilities include an air emissions tax on all major sources -- utilities, refineries, cement plants and steel manufacturers -- a water pollution tax and eliminating some sales tax exemptions for products that impact the environment such as pesticides and timber felling. See Texas Center for Policy Studies, *Options for Green Taxes in Texas*, October 2002. Available at website (www.texascenter.org).

^x Energy Information Administration, *State Electricity Profiles 2002*, Table 5.

^{xi} Federal Energy Regulatory Commission, FERC Form 423, "Monthly Report of Cost and Quality of Fuels for Electric Plants."

^{xii} Texas Commission on Environmental Quality, FY 2005 Air Emissions Fee Database, provided to authors in October, 2004.

^{xiii} The top 16 include 14 power plants burning coal or lignite and two carbon black producers. TCEQ, FY 2004 Air Emissions Fee Database.

^{xiv} Pope III, C. Arden, et al. "Lung Cancer, Cardiopulmonary Mortality, and Long-term Exposure to Fine Particulate Air Pollution," *Journal of American Medical Association*, Vol. 287, No. 9 (March 6, 2002).

^{xv} SEED Coalition, "Children at Risk: How Air Pollution from Power Plants Threatens Health of America's Children," 2002.

^{xvi} Governor Rick Perry, Executive Order No Rp-49, October 27, 2005. Among other matters, the order states: the Texas Commission on Environmental Quality is required to expedite the processing of environmental permit applications which includes requiring notice within 48 hours of referral to the State Office of Administrative Hearings (SOAH). SOAH is required to hold a preliminary hearing no later than one week after the required 30 day public notice and to return a proposal for decision in no more than six consecutive months from the date of referral.

^{xvii} Information from Energy Information Administration, "Net Generation by State By Type and By Energy Source." Figures through November 2005 for 2005.

^{xviii} Water is specifically exempted under Sec. 151.315 of the Texas Tax Code, while most gas and electricity sales are exempt from state sales tax under Section 151.317. It is important to note that Cities and Counties, however, may choose to tax residential electricity and gas consumption.

^{xix} Texas Comptroller of Public Accounts, *Tax Exemptions and Tax Incidence*, January 2005, Table 2.

^{xx} North Dakota Century Code ch. 57-60 requires each electrical generating plant which processes or converts coal into electrical power and which has at least one single electrical energy generation unit with a capacity of 10,000 kilowatts or more to file a monthly report and remit a tax which is the sum of two separate calculations, one based on installed capacity and one on kilowatt hours of electricity produced for the purpose of sale.

^{xxi} Public Utility Commission of Texas, Staff White Paper on Stationary Fuel Cells for Power Generation, May 6, 2002. Under the PUC proposal for fuel cell development, the highest proposed dispatch fee assessment rate for fuel cell development would occur in the years of greatest total program cost. In these high cost years, power plants with a NOx emissions rate of zero would pay between zero and \$0.21 cents per megawatt hour, a power plant with a moderately low NOx emissions rate of 2 lb./MWh would pay between \$0.31 to \$0.37 cents per megawatt hour, and a power plant with a high emissions rate of 3.5 lb/MWh would pay between \$0.49 cents and \$0.55 cents per megawatt hour. Our proposal is to simplify these rates to \$0.30 per pound of NOx per Megawatt hour and apply it beginning in 2004 to generate monies for both the fuel cell development program and the Texas Emissions Reduction Program. See PUC, Table 5, page 13.

^{xxii} HB 3108 by Representative Lon Burnam was heard in the Ways and Means Committee in April, but left pending.

^{xxiii} U.S. Environmental Protection Agency, Public Data by State, Toxics Release Inventory, 2002 and 2003. Available at Envirofacts (www.epa.gov/enviro).

^{xxiv} Raymond F. Palmer Steven Blanchard, Zachary Stein, David Mandell, and Claudia Miller. Environmental mercury release, special education rates, and autism disorder: an ecological study of Texas, Health & Place, Accepted 1 November 2004.

^{xxv} Several groups have quantified health and environmental costs of driving, per mile. Our data is based on ACEEE (American Council for an Energy Efficient Economy)'s Green Book, the 2002 model year data, available online at www.greencars.com. ACEEE evaluates the costs, based on emissions, for every make and model of cars sold in America. Another report that gives more general numbers is: "The health and visibility cost of air pollution: a comparison of estimation methods;" Delucchi, Mark A., James J. Murphy and Donald R. McCubbin; *Journal of Environmental Management* (2002) 64, 139–152, available online at <http://www.idealibrary.com>. It evaluates the public health cost per mile of driving to be \$.03.

^{xxvi} Rachel Channin, California's Authority to Regulate Mobile Source Greenhouse Gas Emissions – NYU Annals of American Law, Volume 699, February 2005.

^{xxvii} Rachel Channin, California's Authority to Regulate Mobile Source Greenhouse Gas Emissions – NYU Annals of American Law, Volume 699, February 2005.

^{xxviii} Legislative Budget Board, Fiscal Note: HB 5, 79th Legislative Session, March 18, 2005.

^{xxix} For example, Texans in the bottom third of income would pay 0.21 percent of their income in the increased gas tax, while those in the middle third would pay about 0.23 percent of their income. The very richest would pay about 0.17 percent of their income. Legislative Budget Board, Tax Equity Note Committee Substitute HB 5, 79th Legislative Session, March 18, 2005.

^{xxx} Jessica Seid, CNN/Money staff writer, More states mull gas-tax breaks, September 7, 2005, CNN website.

^{xxxi} Pope, C. Arden III, Burnett, Richard T., Thun, Michael J., Calle, Eugenia E., Krewski, Daniel, Ito, Kazuhiko, Thurston, George D., *Lung Cancer, Cardiopulmonary Mortality, and Long-term Exposure to Fine Particulate Air Pollution*, JAMA, March 6, 2002. EPA sets average annual limits on fine particulate matter at 15 micrograms per cubic meter. The study found that, for every 10-microgram increase, the number of lung cancer deaths increased 8 percent, and all heart and lung-related deaths increased by 6 percent. 500,000 people in over 100 cities participated.

^{xxxii} U.S. Environmental Protection Agency, Highway Ultra-Low Sulfur Diesel Rule, November 16, 2004.

^{xxxiii} Information from 1999 Central Texas Emissions Inventory, available at <http://www.tcet.state.tx.us/PDF/062502ULSD/Wadepercent20Thomason.PDF>.

^{xxxiv} U.S. PIRG Education Fund, *Dangers of Diesel*, October 2002 report by U.S. PIRG Education Fund:

<http://www.uspirg.org/reports/dangersofdiesel2002/dangersofdieselreport2002.pdf>

^{xxxv} Only this month, a major wind investor from Ireland announced plans to invest \$270 million in wind turbines in West Texas. David Koenig, "Irish Firm Hears Profit Blowing in West Texas Wind," *Austin American Statesman*, June 24, 2005, page c2.

^{xxxvi} see http://www.ucsusa.org/clean_energy/renewable_energy/page.cfm?pageID=47

^{xxxvii} Union of Concerned Scientists, 2004.

^{xxxviii} Texas State Auditor's Office, *An Audit Report on Permitting and Enforcement Functions at the Commission on Environmental Quality*, (SAO: Austin (Report 04-016), December 15, 2003).

^{xxxix} *Ibid*, page 5. "For 80 fiscal year 2001, 2002, and 2003 cases we tested, the total economic benefit gained by violators during the period of noncompliance was \$8,647,005. However, these entities were fined only \$1,683,635, which is approximately 19 percent of the economic benefit gained from being out of compliance."

^{xl} Section 7.053 (3) (D) of the Water Code requires the TCEQ to consider the "economic benefit gained through the violation," but does not require that the penalty amount actually reflect that economic gain. The language referenced here was included in HB 910/SB 699 as filed this year in the 79th Legislative Session.