Paying for Clean Air: New Funding Options

Among other budget concerns the 78th Legislature will face, lawmakers must design a new method to pay for implementing Texas’ plan to comply with national air-quality standards. Otherwise, Texas could face federal sanctions — including restrictions on new industrial facilities and a suspension of federal highway funds for the state’s largest metropolitan areas — for violating the federal Clean Air Act.

The Dallas/Fort Worth (DFW) and Houston/Galveston (HGA) areas violate U.S. Environmental Protection Agency (EPA) standards for ground-level ozone and have submitted plans to achieve compliance by 2007. The 77th Legislature enacted SB 5 by Brown, creating the Texas Emissions Reduction Plan (TERP) — a set of incentive-based programs intended to reduce ozone-producing emissions enough to satisfy EPA requirements without implementing more stringent regulatory measures.

Most funding for TERP programs was to come from a new $225 inspection fee for registering an out-of-state vehicle. In April 2002, however, a state district court ruled the fee unconstitutional, gutting the plan’s funding and forcing state agencies to scale back implementation of TERP programs. As a result, Texas is not on track to achieve the federally required reductions in emissions.

If EPA finalizes in September 2003 its proposed findings that DFW and HGA are deficient under the state’s compliance plan, Texas would have 18 months to restore the plan before federal sanctions were imposed. To avoid the sanctions, the Legislature must find at least $106 million per year in new funding to restore the key TERP components or else come up with another way to achieve the required reductions in emissions.
This report summarizes SB 5 and TERP, examines the funding shortfall and the threat of federal sanctions, and discusses options to restore TERP funding.

**Federal air-quality requirements**

Title I of the Clean Air Act authorizes EPA to establish National Ambient Air Quality Standards (NAAQS) for six pollutants: ground-level ozone, carbon monoxide, lead, nitrogen dioxide, particulate matter, and sulfur dioxide. Areas where pollution levels persistently exceed these standards may be designated as “nonattainment” areas and become subject to regulations that may include controls on automobiles, industrial facilities, and construction equipment.

EPA classifies four counties of the DFW Metroplex (Collin, Dallas, Denton, and Tarrant) as a “serious” nonattainment area for violating the NAAQS for ground-level ozone. The HGA area (Brazoria, Chambers, Fort Bend, Galveston, Harris, Liberty, Montgomery, and Waller counties) holds “severe” nonattainment status for ozone, while Beaumont/Port Arthur and El Paso are “moderate” and “serious” areas, respectively. Near-nonattainment areas for ozone include Austin, Corpus Christi, Northeast Texas, San Antonio, Victoria, and eight counties surrounding the DFW nonattainment area.

The State Implementation Plan (SIP), Texas’ plan for complying with EPA air-quality standards, includes emissions-control measures and other strategies to bring nonattainment areas into compliance. Under the current plan, the DFW and HGA areas must comply with the one-hour ozone standard by November 15, 2007 (see box, page 4). The SIP is a “living document” that has been revised continuously since EPA designated DFW and HGA as ozone nonattainment areas, pursuant to the 1990 Clean Air Act. Revisions to the plan are subject to EPA approval.

For more background on Clean Air Act and SIP requirements, see *Clean Air: Texas’ Response to Federal Mandates*, HRO Focus Report Number 76-24, (October 5, 2000).

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**SB 5 provisions**

The stated goals of SB 5 are to ensure that Texas air is safe to breathe, to develop multipollutant approaches to solving environmental problems, and to provide funding to develop new environmental technologies. Most significantly, however, SB 5 replaces two mandatory emissions-control measures contained in the SIP for the DFW and HGA nonattainment areas with the TERP’s voluntary and incentive-based programs, which are expected to achieve equivalent reductions in emissions. SB 5 also lists “affected counties,” corresponding closely to the counties in near-nonattainment areas, that are eligible for specific TERP programs.

SB 5 directs the Texas Commission on Environmental Quality (TCEQ) to submit a SIP revision to EPA removing two mandatory measures that were intended to reduce ozone-producing emissions of nitrogen oxides (NOx) in the DFW and HGA areas. One measure would have prohibited the use of construction or industrial diesel equipment from 6 to 10 a.m. in DFW and from 6 a.m. to noon in HGA. Banning the use of such equipment during morning hours would delay NOx emissions until later in the day, thereby reducing chemical reactions with other air-borne contaminants that can lead to ozone formation on hot afternoons. The other measure would have set a date by which owners or operators of diesel-powered construction, industrial, commercial, or lawn and garden equipment rated at 50 horsepower (hp) or greater would have to upgrade to new lower-emission equipment. By the end of 2007, all affected diesel equipment would have had to meet EPA’s Tier 2 emissions standard and at least one-half of the equipment in the 100-to-750-hp range would have had to meet the stricter Tier 3 standard.

According to TCEQ, the two measures were expected to result in a total reduction of about 35 tons per day (tpd) of NOx emissions by 2007 (16.3 tpd in DFW and 18.9 tpd in HGA). Emissions reductions due to TERP incentive programs are intended to replace the reductions that would have been achieved by the mandatory measures. The TERP also is intended to reduce an additional 20 tpd of NOx emissions in the HGA area, out of 56 tpd of unidentified reductions that would have been achieved by the mandatory measures. The TERP also is intended to reduce an additional 20 tpd of NOx emissions in the HGA area, out of 56 tpd of unidentified reductions.
needed keep the area from exceeding the NAAQS for ozone by 2007.

In August and September 2001, TCEQ submitted revisions removing the mandatory measures from the SIP for the DFW and HGA nonattainment areas and establishing the framework for implementing the TERP. The HGA revision has been incorporated into the SIP, but EPA has not yet approved the DFW revision.

**TERP components.** The primary TERP program that would count toward the SIP is the incentive grants program for reducing diesel emissions. This program aims to reduce NOx emissions in nonattainment areas and affected counties from high-emissions sources such as heavy-duty vehicles, construction equipment, marine engines, or refueling stations. For non-road vehicles such as bulldozers or backhoes, TCEQ offers grants to offset the cost of buying or leasing cleaner equipment that emits at least 30 percent less NOx than minimum federal standards. TCEQ also provides funds to cover the cost to repower, retrofit, or install emissions-control devices on heavy-duty diesel vehicles or non-road diesel equipment. For example, a repower grant would provide funds to reimburse the cost of replacing a diesel-powered bulldozer engine with a new low-emission model, instead of rebuilding the engine to its original standards. Infrastructure projects, such as converting refueling stations to alternative fuels, also are eligible for grants.

TCEQ also administers the TERP’s heavy-duty vehicle purchase or lease incentive program. This statewide program provides reimbursement funds for buying or leasing a diesel vehicle that weighs at least 10,000 pounds and is certified by EPA to meet specific NOx emissions standards. SB 5 also creates a similar program, administered by the comptroller, for light-duty vehicles that weigh less than 10,000 pounds. Examples of incentive amounts for eligible light-duty vehicles include $2,225 for a Ford Crown Victoria that runs on compressed natural gas, $3,750 for a Honda Civic natural-gas vehicle, and $5,000 for a Ford Think electric vehicle. The comptroller may suspend the program if available funds fall below 15 percent of the amount allocated for the program.

Among other TERP initiatives, the Public Utility Commission (PUC) is to award grants to electric utilities for projects that reduce the higher emissions associated with periods of peak energy demand. The newly created

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**Key Terms**

**Affected counties:** Bastrop, Bexar, Caldwell, Comal, Ellis, Gregg, Guadalupe, Harrison, Hays, Johnson, Kaufman, Nueces, Parker, Rockwall, Rusk, San Patricio, Smith, Travis, Upshur, Victoria, Williamson, and Wilson counties.

**Clean Air Act:** Federal law establishing a regulatory framework for controlling air pollutants and improving air quality.

**National Ambient Air Quality Standards (NAAQS):** Federal standards for pollutants considered harmful to public health and the environment, including ozone, carbon monoxide, nitrogen dioxide, lead, particulate matter, and sulfur dioxide.

**Nonattainment area:** Geographic area that fails to meet the NAAQS for one or more pollutants; ozone nonattainment areas may be classified as “marginal,” “moderate,” “serious,” “severe,” or “extreme.”

**Nitrogen oxides (NOx):** Precursor to ozone formation.

**State Implementation Plan (SIP):** Continuously revised plan required by the Clean Air Act, detailing how the state plans to bring nonattainment areas into compliance.

**Texas Emissions Reduction Plan (TERP):** Set of incentive-based programs intended to improve air quality and replace mandatory control measures removed from the SIP.

**Texas Commission on Environmental Quality (TCEQ):** State agency responsible for administering most TERP programs and developing the SIP.

Texas Council on Environmental Technology (TCET) is to award grants for development of new emissions-reducing technologies, such as alternative-fuel engines or emissions-control systems. SB 5 also adopts energy efficiency building codes for single-family residential and other categories of construction and requires political subdivisions in nonattainment areas or affected counties to set a goal of reducing electricity consumption by 5 percent per year through 2007.
Meeting Federal Ozone Standards

Ground-level ozone is formed when natural and manmade emissions of volatile organic compounds and nitrogen oxides react in the presence of sunlight. Ozone formed and trapped near the ground presents significant threats to health and the environment. When inhaled at harmful levels, ozone can cause respiratory problems for children, asthmatics, the elderly, and even healthy adults who spend much time outdoors.

The current federal air-quality standard for ozone is based on the average of readings taken over one-hour periods by air-quality monitors that measure ozone levels in parts per billion (ppb). Under the Clean Air Act, the primary and secondary standard is 0.12 parts per million (120 ppb). An area violates the ozone standard when the highest one-hour reading of the day at any monitor in the area equals or exceeds 125 ppb more than three times in any consecutive three-year period.

For the Dallas/Fort Worth and Houston/Galveston nonattainment areas, attaining the one-hour standard under the current State Implementation Plan (SIP) would mean not exceeding 125 ppb more than three times between 2005 and 2007. According to the U.S. Environmental Protection Agency (EPA), however, the Clean Air Act allows the agency to extend the deadline by one year if the state had complied fully with the SIP and no monitor in the area recorded ozone readings above the standard more than once in 2007.

To pay for the plan, SB 5 establishes the TERP fund and an allocation formula for distributing money to TERP programs. TCEQ receives 72 percent of the money in the fund to cover the diesel emissions-reduction incentive grants program and the heavy-duty motor vehicle incentive program. Ten percent goes to the comptroller for the light-duty vehicle incentive program. The PUC receives 7.5 percent for energy efficiency grants, and TCET receives 7.5 percent for new technology research and development. The remaining 3 percent of the fund is allocated among all of the TERP agencies, except TCET, to cover administrative costs. TCET pays for its administrative costs from its TERP fund allocation.

EPA has begun work on implementing a new ozone standard based on the average value of readings taken over eight-hour rather than one-hour periods. The agency originally issued the standard in 1997, but legal objections from the trucking industry, business groups, and other states delayed implementation. In most cases, the eight-hour standard is more stringent than the one-hour standard — that is, an area that does not violate the one-hour standard still could be considered a nonattainment area under the eight-hour standard. Under the Clean Air Act, the one-hour standard remains applicable to current nonattainment areas until they achieve compliance.

EPA has asked Texas to submit designations for new nonattainment areas under the eight-hour standard by April 2003. Because nonattainment designation may require painful control measures and federally mandated deadlines for attainment, determining which counties should be included in a new nonattainment area is politically sensitive. The Texas Commission on Environmental Quality is negotiating with EPA to extend the submission deadline until this fall to give the agency enough time to use soon-to-be-released EPA guidance and to ensure conformity of state and federal air-quality data. New nonattainment areas could include Austin, San Antonio, and surrounding counties. In addition, some cities in the Tyler-Longview region exceed the eight-hour standard.

Revenue sources were a significant issue in the debate over SB 5. The Senate version would have created nine new fees or surcharges, including a $1 hotel occupancy fee, a $1 surcharge on airport taxi fares, a $5 fee for motor-vehicle inspection, and a $3 fee for motorboat registration renewal in nonattainment or near-nonattainment areas, and a $1 vehicle-inspection fee elsewhere. The House Environmental Regulation Committee’s substitute bill trimmed the funding sources to seven, including increasing the fee for registering an out-of-state vehicle from $1 to $60. After being amended on the House floor, SB 5 as enacted included five revenue sources:
• a $225 inspection fee for registering out-of-state vehicles, except for those owned by active-duty military personnel and their dependents;
• a 1 percent surcharge on the sale, lease, or rental of new or used construction equipment;
• a 2.5 percent surcharge on the retail sale or lease of pre-1997 heavy-duty on-road diesel vehicles;
• a 10 percent surcharge on total registration fees for a truck-tractor or commercial motor vehicle; and
• a $10 fee for inspection of a commercial vehicle.

TERP revenue shortfall

TERP fund revenue has come in far below initial estimates. According to the comptroller, the fund received $20.6 million in fiscal 2002, 85 percent below the original estimate of $133 million. The shortfall results primarily from a court decision invalidating the out-of-state vehicle inspection fee.

Last year, Judge Lora Livingston of the 200th District Court in Travis County ruled that the out-of-state vehicle inspection fee violated the commerce clause of the U.S. Constitution and equal-protection guarantees under the Fourteenth Amendment to the U.S. Constitution and Art. 1, sec. 3 of the Texas Constitution (H.M. Dodd Motor Co. Inc. v. Texas Department of Public Safety, et al., No. GN102585 (200th Dist. Ct., Travis County, June 6, 2002)). Used-car dealers had filed suit against the fee before its effective date of September 1, 2001, arguing that it unduly burdened interstate commerce because it amounted to a tariff on the sale in Texas of vehicles purchased in other states. An injunction prevented collection of the fee while the court considered the suit. The fee had been projected to generate $92 million in fiscal 2002.

Revenues from other TERP surcharges and fees also have failed to measure up to initial estimates. The surcharge on construction equipment generated $7.5 million, about $17 million less than projected. According to the comptroller, the discrepancy is due primarily to the initial estimate’s inclusion of surcharge revenue from both sales-tax and use-tax transactions. The sales tax applies to taxable items sold in Texas, while the use tax applies to taxable items stored, used, or consumed in Texas but purchased outside the state. The two taxing mechanisms are codified in different sections of the Tax Code, but SB 5 amended only the sales-tax statute (Tax Code, sec. 151.0515). As a result, the surcharge has not been collected on construction equipment bought or leased outside the state for use within Texas.

With less revenue than expected, TCEQ has scaled back implementation of TERP programs. TCEQ has funded no rebates under the heavy-duty motor vehicle purchase or lease program but has funded 39 projects under the diesel emissions-reduction incentive grants program, with a total price tag of about $13.3 million. TCEQ estimates that these projects, including projects for which approval is pending, will reduce total NOx emissions in DFW and HGA by 1.9 tpd in 2007 — a small fraction of the 35 tpd needed to replace the SIP provisions removed by SB 5.

The light-duty vehicle purchase or lease incentive program is on hold, and no incentives have been paid. The comptroller has suspended payments until the available balance reaches at least the 15 percent threshold established by SB 5 (Health and Safety Code, sec. 386.161). On the basis of projected revenues, April 2003 is likely to be the earliest that available funds would be sufficient to begin paying incentives.

Other agencies have implemented programs on a reduced scale. The PUC and the new TCET each received about $1.5 million from the TERP fund in fiscal 2002. On the basis of the initial revenue estimate, these agencies’ allotments should have been about $10 million each, with the PUC also receiving funding from the 3 percent allocation for administrative costs.

The PUC funded two energy-efficiency improvement projects in 2002 and has about $1.5 million available to award in the January 2003 application cycle. Energy efficiency improvements result in lower electricity consumption, thereby reducing emissions caused by electricity generation. However, emissions reductions attributed to such projects will not be credited toward SIP goals until EPA and TCEQ agree on a methodology for calculating reductions achieved through these projects. TCET awarded nearly $1 million in grants to five new technology development projects and two research projects during fiscal 2002.
According to TCEQ, restoring the portions of TERP necessary to achieve the 35 tpd of NOx reductions in the DFW and HGA areas, as well as the additional 20 tpd in HGA, would require about $106 million per year. That figure includes $64 million to replace the emissions reductions that would have been achieved by the morning construction ban and accelerated purchase of Tier 2 and 3 equipment, plus $42 million to reduce by 20 tpd the emissions-reduction gap in the SIP for HGA. Full restoration of TERP, including energy efficiency grants, new technology development grants, incentives for other affected counties, and administrative costs, would require $189 million per year.

Possible federal sanctions

Recognizing the impact of the TERP revenue shortfall, EPA in August 2002 issued two proposed findings that could require the agency to impose sanctions on the DFW and HGA nonattainment areas. For the DFW area, EPA proposed disapproving the revised SIP unless the state provides adequate funding for the TERP. For the HGA area, EPA proposed finding that the SIP is not being implemented according to its terms because of insufficient funding. If a finding becomes final, Texas will have 18 months to correct deficiencies in the SIP before federal sanctions are imposed. EPA has stated that it will not finalize the findings until September 2003 so that any laws enacted by the 78th Legislature may take effect.

The Clean Air Act specifies two types of sanctions: offset sanctions or highway sanctions (42 U.S.C., sec. 7509). Under EPA regulations, the agency first would impose a 2:1 offset ratio on the nonattainment area found to be deficient. This would require the owner or operator of a new or modified facility larger than a certain size to reduce emissions in the nonattainment area by two tons for every one ton of emissions the new or modified facility would produce. (The law includes an exception by which the state could allow the owner to obtain the offset reduction in another nonattainment area of equal or more severe status if the other area contributed to the violation of the NAAQS for the nonattainment area in which the new emissions source was located.) Because of the difficulty of finding offsetting reductions, the 2:1 offset sanction would hinder severely new construction or modification of major emissions sources.

If the state did not correct the deficiency within six months after the offset sanction was imposed, highway sanctions would begin to apply. The sanctions would prohibit the state from receiving federal highway funds, except for projects to improve safety or air quality. EPA could lift, stay, or defer the sanctions, depending on its determination of the state’s progress in correcting the deficiency. The Texas Department of Transportation expects the federal portion of transportation projects scheduled for the HGA and DFW areas for fiscal 2003 through 2005 to cost about $562 million per year.

EPA must impose a Federal Implementation Plan (FIP) if Texas has not corrected deficiencies in the SIP within two years of a final finding of deficiency (42 U.S.C., sec. 7410). Under a FIP, the EPA would impose emissions-control measures to bring the nonattainment area into compliance. According to EPA, the agency probably would rely on mandatory measures, such as a construction ban or other restrictions, because the agency lacks the resources to implement incentive programs like those contained in the TERP.

Funding proposals

Numerous proposals have arisen to find money to restore TERP programs, with others still being developed and additional ideas likely to be proposed.

In November 2002, the TERP Advisory Board, created by SB 5, considered 17 proposed revenue sources. Most of the proposed fees were set at $1 to simplify comparison of revenues. The board proposed rejecting six of the options, including hotel occupancy fees, motorboat registration renewal fees, a taxi fare surcharge, and airport takeoff and landing fees. The board’s remaining alternatives (with revenues projected for fiscal 2004-05) were:

- $1 annual air-permit fee for vehicles registered in nonattainment and near-nonattainment areas ($17.3 million);
- $1 annual air-permit fee for vehicles registered in other areas of the state ($7.8 million);
- $0.25 surcharge per gallon of bunker fuel sold by refineries for ocean-going vessels ($22.1 million);
- expanding the surcharge on construction equipment to include transactions subject to the use tax and clarifying the definition of “construction equipment” ($20.2 million);
• expanding the 2.5 percent surcharge on pre-1997 heavy-duty diesel vehicles to include all on-road diesel vehicles ($45.5 million);
• $1 application fee for vehicle title ($10 million);
• 1 percent surcharge on residential building or construction permits in affected counties ($1.3 million, if imposed statewide);
• mitigation fee on on-road diesel vehicles now exempt from emissions testing in nonattainment areas, equivalent to the fee imposed on gasoline-powered vehicles ($2.3 million);
• $1 health-related surcharge on any vehicle not meeting low-emissions standards ($32.1 million);
• $1 for one-year and $2 for two-year registration for interstate motor carriers ($88,000); and
• $1 port authority surcharge for every cargo vessel docking ($55,000).

Rep. Warren Chisum, chairman of the TERP Advisory Board, has suggested imposing an environmental impact fee on any internal combustion engine of more than 50 hp, including cars, off-road equipment, and many motorboats and motorcycles. Purchasers could pay the fee and obtain a permit sticker at vehicle inspection stations or places where lottery tickets are sold. The comptroller estimates that a $1 fee would generate $11.5 million in fiscal 2004 and $15.7 million in fiscal 2005. Rep. Chisum has suggested setting the fee in the range of $5 to $7. Designed to expire in 2007, the fee would apply statewide and would be the same for all purchasers. Rep. Chisum’s proposal still is under development, and final details are pending.

Proponents say this fee would spread the cost of cleaning the state’s air, thereby minimizing the amount of the fee and ensuring that no groups or individuals bear an undue burden. They say a statewide uniform fee is the best approach because it would comply with the Texas Constitution’s requirement that taxation be equal and uniform and with equal-protection guarantees under the U.S. and Texas Constitutions.

Critics note that a statewide fee would require people in areas of the state without air-quality problems to pay to clean up the air in the DFW and HGA areas. They say that farmers and ranchers in rural areas should not have to pay a fee for using equipment that has no effect on air quality in the state’s largest cities. Moreover, critics question whether such a fee could be enforced effectively.

Environmental advocates have advanced two additional proposals: a fee on the wholesale production of diesel fuel and a graduated fee for vehicle registration based on emissions.

According to proponents, a 5-cent-per-gallon fee on high-sulfur diesel fuel sold in Texas could generate about $150 million annually. A high level of sulfur in diesel fuel contributes to increased emissions and limits the effectiveness of pollution-control devices. The fee could expire when state and federal standards lowering the maximum sulfur content for diesel fuels take effect in 2006. Proponents say that imposing a fee on high-sulfur diesel fuel not only would generate revenue for the TERP diesel emissions-reduction incentive program but would encourage large diesel-fuel consumers to begin early the switch to low-sulfur fuel.

Opponents of this approach say that everyone who contributes to Texas’ air-quality problems should participate equally in the solution. They say a wholesale diesel-fuel fee simply would be passed along to diesel-fuel users, such as small trucking or construction companies. It would be unfair, they say, to single out these groups and other diesel users, when other drivers also contribute to air-quality problems.

The other proposal is to impose a graduated fee on annual vehicle registration based on how much a vehicle pollutes. A graduated fee scale would impose higher fees on dirtier vehicles, such as sport utility vehicles (SUVs), and lower fees on cleaner vehicles, such as hybrid-engine or alternative-fuel vehicles. Proponents say the graduated fee would ensure that consumers paid to clean up the air according to their vehicles’ contribution to Texas’ air-quality problem. The fee would apply only to vehicles purchased after enactment of the fee. Assessed at an average value of $11 per vehicle, the fee would generate about $20 million per year, proponents estimate. The revenue could be used to fund TERP’s light-duty vehicle purchase or lease incentive program.
Opponents say such a fee would penalize large vehicles like SUVs and vans that may be less fuel-efficient than small cars but are the most appropriate vehicles for large families. They say the higher fee also would penalize vans and other vehicles used for car pooling, an activity that reduces harmful emissions.

Although many believe that adequately funding the TERP is the state’s best strategy for bringing the DFW and HGA nonattainment areas into compliance, the Legislature could choose other approaches, such as “no drive days” or reduced speed limits. Another possibility would be to develop emissions-control strategies aimed at reducing emissions of volatile organic compounds rather than NOx, although more scientific investigation would be necessary before such an approach could be implemented, according to TCEQ.

— by Travis Phillips