

## Testimony to Senate Natural Resources Committee

*Regarding Senate Bill 16 Relating to the Enhancement of Air Quality*

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### Regarding Provisions Expanding Grant Eligibility under the Texas Emission Reduction Program

The Texas Emission Reduction Program (TERP) has provided substantial sums—unimaginable in other states or federal programs—for replacement or retrofit of off-road and on-road diesel engines. As originally created by the legislature, TERP grants provided oxides of nitrogen (NO<sub>x</sub>) emission reductions approved by EPA as “SIP credits” from mobile sources. Emissions from mobile sources dominate NO<sub>x</sub> emissions, not only in the DFW ozone non-attainment area but also in Houston/Galveston area, even with its massive petro-chemical industrial sources. Because regulating the mobile sources is the pre-empted authority of the federal government, Texas has long struggled with viable means of reducing mobile source emissions in a quantifiable manner accepted by EPA. The TERP program has secured NO<sub>x</sub> reductions critical to ozone State Implementation Plans (SIPs) and will be increasingly needed for mobile sources as the number of ozone non-attainment areas in Texas increased under the new, stricter 75 ppb eight-hour ozone standard. TCEQ now must develop new SIPs for seven Texas ozone non-attainment areas. Major improvement in ozone levels have been made in all areas in or near non-attainment area in the state. EPA, however, decided to raise the bar.

SB 16 would expand the type of projects eligible for TERP money through creation of a New Technology Implementation Program (NTIP) and a Plug-In Hybrid Motor Vehicle Rebate Program. The precise percentage of TERP funds allocated among the mobile source diesel emission program, NTIP, and Plug-In hy-

brids remains unclear to me until further clarified. Given the scope and likely cost of many projects under the NTIP such as “electricity storage related to renewable energy,” I am concerned that there may not be enough TERP funds available to secure the mobile source NO<sub>x</sub> reductions needed in the pending seven SIPs. A major question remains whether EPA would approve SIP credits for projects potentially eligible under the NTIP. Perhaps now is the time to expand TERP grants beyond that original purpose. For areas dominated by mobile sources, however, the new ozone SIPs are an important consideration.

### Article 12: Permitting Cumulative Effects

The provisions on “cumulative effects” raise many complex issues about the nature of ozone formation and economic growth in Texas. These provisions would exceed the already strict federal requirements for permitting new major industrial sources located in an attainment area. Through these Prevention of Significant Deterioration (PSD) permits, the Federal Clean Air Act and EPA rule impose different requirements on major sources inside and outside a non-attainment area. Federal requirements impose stricter requirements within a non-attainment area that act as a cap on new emissions and effectively limit growth or heighten cost. PSD permitting requirements, however, do include assessment of new emissions impact on perhaps distant non-attainment areas through air dispersion modeling and several formulas.

Although the “cumulative effect provisions” in SB 16 refer to “emissions” and not to specific criteria pollutants, ozone is the criteria pollutant most frequently raising concern about cu-

mulative effects. Ozone is unlike the other criteria pollutants for which EPA established numeric National Ambient Air Quality Standards (NAAQS). Ozone is not a directly emitted pollutant like lead or sulfur dioxide. Ozone is formed by a photo-chemical reaction (light and heat) of volatile organic compounds (VOCs) and oxides of nitrogen (NOx). For this reason, ozone impact formation from distant sources is the most difficult to measure. In addition, ozone does not form arithmetically. As a photo-chemical reaction, multiple variables, in addition to volume of precursors, cause ozone increases.

In short, accurate modeling of the impact of a single new source of NOx on ozone levels in a relatively distant area is not possible. Although anything can be modeled, the predictive accuracy of single source ozone impacts is minimal to none. Source apportionment modeling which measures a percentage of ozone formation from an aggregate of similar sources offers a more reliable estimate but is not useful in permitting of single sources. Reducing emissions from aggregate or cumulative sources is most appropriately undertaken through control measures in the ozone SIP process and not in individual permitting requirements.

The SB 16 “cumulative” provisions would condition permit issuance for a new EGU on whether the emissions would “cause an area to become non-attainment” or “negatively

effect compliance with a state implementation plan.” Single source modeling cannot provide the accuracy to answer these questions, and the generality of these conditions could easily be interpreted to preclude any new sources within 100 miles from a non-attainment area. This new permitting rubric penalizes new sources with the cleanest of emission control technology by conditioning a permit for a new facility on the aggregate or cumulative emissions from existing, i.e., older and less “clean” facilities. New EGUs can meet much lower emission rates than older EGUs and new EGUs usually lead to the mothballing of less efficient power plants.

Such difficult-to-measure strictures on growth raise larger questions about the affordability and reliability of needed new EGU capacity. State permitting requirements exceeding very strict federal requirements also weaken Texas’ competitiveness. California adopted this path years ago, leading to electric reliability problems, higher electric rates and anemic economic growth, but *not* to substantial improvement in air quality. Texas EGU’s have emission rates much lower than the rest of the country and ozone levels have been rapidly improving in our ozone non-attainment areas. Although the far stricter new federal ozone standard heightens the challenge, the SIP process remains the appropriate vehicle, not permits for individual new sources outside the non-attainment area. ★

